FiBL & IFOAM – ORGANICS INTERNATIONAL

THE WORLD OF ORGANIC AGRICULTURE

STATISTICS & EMERGING TRENDS 2018

OCEANIA 27.3 MILLION HA

EUROPE 13.5 MILLION HA

LATIN AMERICA 7.1 MILLION HA

ASIA 4.9 MILLION HA

NORTH AMERICA 3.1 MILLION HA

AFRICA 1.8 MILLION HA

Supported by

International Trade Centre

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

BIOFACH
into organic

GLOBAL POLICY TOOLKIT ON PUBLIC SUPPORT TO ORGANIC AGRICULTURE

AVAILABLE AT: WWW.IFOAM.BIO/POLICY-TOOLKITS

FiBL

shop.fibl.org

Looking for professional information?

FiBL's online shop has more than 400 publications!
It is an invaluable source of information on organic farming, sustainable agriculture, animal husbandry and nature conservation. Publications are available in English, German, French and several other languages.
Most publications are free to download!

Research Institute of Organic Agriculture FiBL

IFOAM – Organics International

The World of Organic Agriculture Statistics and Emerging Trends 2018

Edited by Helga Willer and Julia Lernoud

For PDF version, corrigenda and supplementary material see http://www.organic-world.net/yearbook/yearbook-2018.html

This document has been produced with the support of the International Trade Centre (ITC), the Swiss State Secretariat for Economic Affairs (SECO), and NürnbergMesse. The views expressed herein can in no way be taken to reflect the official opinions of ITC, SECO, or NürnbergMesse.

Should corrections and updates become necessary, they will be published at www.organic-world.net.
This book is available for download at http://www.organic-world.net/yearbook/yearbook-2018.html.
Any enquiries regarding this book and its contents should be sent to Julia Lernoud and Helga Willer, FiBL, Ackerstrasse 113, 5070 Frick, Switzerland, e-mail julia.lernoud@fibl.org and helga.willer@fibl.org.

Please quote articles from this book individually with name(s) of author(s) and title of article. The same applies to the tables: Please quote source, title of table and then the overall report. The whole report should be cited as:
Willer, Helga and Julia Lernoud (Eds.) (2018): The World of Organic Agriculture. Statistics and Emerging Trends 2018. Research Institute of Organic Agriculture (FiBL), Frick, and IFOAM – Organics International, Bonn.

Die Deutsche Bibliothek – CIP Cataloguing-in-Publication-Data
A catalogue record for this publication is available from Die Deutsche Bibliothek

Research Institute of Organic Agriculture (FiBL), Ackerstrasse113, 5070 Frick, Switzerland,
Tel. +41 62 865 72 72, Fax +41 62 865 72 73, e-mail info.suisse@fibl.org, Internet www.fibl.org
IFOAM – Organics International, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, Tel. +49 228 926 50-10, Fax +49 228 926 50-99, e-mail headoffice@ifoam.bio, Internet www.ifoam.bio, Trial Court Bonn, Association Register no. 8726

Language editing: Laura Kemper and Simon Moakes, FiBL, Frick, Switzerland
Cover: Kurt Riedi, FiBL, Frick, Switzerland
Layout: Julia Lernoud and Helga Willer, FiBL, Frick, Switzerland

Maps: Simone Bissig and Julia Lernoud, FiBL, Frick, Switzerland
Graphs (if not otherwise stated): Julia Lernoud and Helga Willer, FiBL, Frick, Switzerland
Infographic: Kurt Riedi, FiBL, Frick, Switzerland

Cover picture: Certified organic cattle property in Australia. © Arcadian Organic & Natural Meat Co.

Printed by Medienhaus Plump, Rolandsecker Weg 33, 53619 Rheinbreitbach, Germany
Price: 30 Euros, IFOAM – Organics International affiliates: 20 Euros

Printed copies of this volume may be ordered directly from IFOAM – Organics International and FiBL (see addresses above) or via the IFOAM – Organics International website at www.ifoam.bio or the FiBL shop at shop.fibl.org

Printed version ISBN 978-3-03736-067-5
PDF version ISBN 978-3-03736-068-2

Table of contents

Table of Contents

Table of Contents

Table of Contents

Tables

Figures

Table of Contents

Maps

Glossary

€/person: Per capita consumption in euros
AMI: Agrarmarkt-Informationsgesellschaft - Agricultural Market Information Company, Germany
CAP: Common Agricultural Policy of the European Union
CIHEAM: Centre international de hautes études agronomiques méditerranéennes
CNCA: China National Certification and Accreditation Administration
COROS: Common Objectives and Requirements of Organic Standards (COROS) are the Standards Requirements of
COTA: Canada Organic Trade Association, Canada
CPC: Candidates and Potential Candidates for the European Union
EFTA: European Free Trade Association
EOA: Ecological Organic Agriculture; Ecological Organic Agriculture Initiative for Africa
EU: European Union
EU-28: Member countries of the European Union
EU-Med: European Mediterranean Countries
Eurostat: Statistical office of the European Union, Luxembourg
FAO: Food and Agriculture Organisation of the United Nations
FAOSTAT: Statistics Division of FAO, the Food and Agriculture Organisation of the United Nations
FiBL: Forschungsinstitut für biologischen Landbau – Research Institute of Organic Agriculture, Switzerland
FYROM: The Former Yugoslav Republic of Macedonia
GMO: Genetically Modified Organisms
GOTS: Global Organic Textile Standard
Ha: Hectares
Hivos: Dutch Humanist Institute for Cooperation
Horizon 2020: Research and Innovation programme of the European Union, running from 2014 to 2020
HS codes: Harmonized System Codes
IAMB: L'Istituto Agronomico Mediterraneo di Bari – Mediterranean Agronomic Institute Bari, Italy
IFAD: International Fund for Agricultural Development
IFOAM EU Group: European Union Group of IFOAM – Organics International
IISD: International Institute of Sustainable Development, Canada
ISOFAR: International Society of Organic Agriculture Research, Germany
ITC: International Trade Centre, Switzerland
Mio.: Million
MOAN: Mediterranean Organic Agriculture Network, Italy
MT: Metric tons
NASAA: National Association for Sustainable Agriculture, Australia
NASS: USDA's National Agricultural Statistics Services, United States of America
OCS: Organic Content Standard
OrganicDataNetwork: Data network for better European organic market information
OTA: Organic Trade Association, United States of America
PGS: Participatory Guarantee Systems
POETcom: Pacific Organic and Ethical Trade Community
SECO: State Secretariat for Economic Affairs, Switzerland
SEM: Southern and Eastern Mediterranean countries
SÖL: Stiftung Ökologie & Landbau – Foundation Ecology & Agriculture, Germany
SSI: State of Sustainability Initiatives, Canada
SOAAN: Sustainable Organic Agriculture Action Network
TIPI: Technology Innovation Platform of IFOAM – Organics International
TP Organics: European Technology Platform for Organic Food and Farming
U.S.: United States
USDA: United States Department of Agriculture
VSS: Voluntary Sustainability Standards

Foreword from SECO and ITC

This book provides a clear statement on the resilience of the organic market trend. On the consumer side, organic products with a total value of almost 90 billion US dollars were sold globally in 2016. Double-digit rates were recorded in many advanced markets for organic products, and a growth rate of even 20 percent and more of the organic retail sales value was noticed for Ireland and France in 2016. In Switzerland, where the market has been evolving over several years with high growth rates, it grew by 8.4 percent. The production side is also keeping pace: The latest data shows that organic farmland has grown in many countries, and the total organic area increased to almost 58 million hectares, managed by over 2.7 million producers. In particular, for some crops such as citrus fruit, dry pulses, grapes, area growth rates of 15 percent and more were reached in 2016.

On the other hand, the importance of other sustainability standards is increasing. Data on the performance of these Voluntary Sustainability Standards (VSS) are still scarce; therefore, collecting timely and accurate market data to facilitate policy and investment decisions is important for policymakers, market actors, and donors. The Research Institute of Organic Agriculture (FiBL), the State of Sustainability Initiatives (SSI) of the International Institute of Sustainable Development (IISD), and the International Trade Centre (ITC) have partnered with the support of SECO in a joint data publication effort to ensure continuous, accurate, and relevant reporting. Since 2014, this partnership has been collecting data from 14 VSS with a special focus on nine selected commodities. The new data will be published in May 2018, in the new edition of The State of Sustainable Markets.

It is essential for the organic community to gather relevant information on organic market trends in order to continue attracting various stakeholders. Transparent information enables credibility and informed decisions on the costs and benefits of organic production for both the producer and the buyer. This book makes a major contribution to such transparency.

Considering the latest figures and the continuous and sustainable growth over many years, the organic movement can look confidently to the future.

Monica Rubiolo
Head of the Division for Trade Promotion
Swiss State Secretariat for Economic Affairs (SECO)
Bern, Switzerland

Joseph Wozniak
Manager of the Trade for Sustainable Development (T4SD) Programme
International Trade Centre (ITC)
Geneva, Switzerland

Foreword from FiBL and IFOAM – Organics International

Data collection is a major and constant concern of the Research Institute of Organic Agriculture (FiBL) and IFOAM – Organics International. The comprehensive data provided in this publication serve as an important tool for stakeholders, policymakers, authorities, and the industry, as well as for researchers and extension professionals. It has also proven useful in development programs and supporting strategies for organic agriculture and markets, and crucial for monitoring the impact of these activities. The data collection on organic farming worldwide has become one of the most frequently quoted pieces of literature in scientific, technical and descriptive papers and reports on organic agriculture.

With this edition, FiBL and IFOAM – Organics International are presenting "The World of Organic Agriculture" for the 19th time and the good news continues: more area, more producers, and a continuously growing global market.

Growing markets also mean higher added value on millions of farms. And it means 57.8 million hectares of increased soil fertility, farm and field diversity and billions of farm animals raised under animal welfare standards. This is an important contribution to the Sustainable Development Goals of the United Nations.

We would like to express our thanks to all authors and data providers for contributing in-depth information and figures on their region, their country or their field of expertise.

We are grateful to Swiss State Secretariat for Economic Affairs (SECO) and the International Trade Centre (ITC) for their support.

Frick and Bonn, February 2018

Prof. Dr. Urs Niggli
Director
Research Institute of Organic Agriculture
FiBL
Frick, Switzerland

Markus Arbenz
Executive Director
IFOAM – Organics International
Bonn, Germany

Foreword from the Editors

In the 19th edition of "The World of Organic Agriculture," we are presenting, like in the past, the latest available data on organic agriculture worldwide – data on area, operators, and retail sales. This data is provided by a large number of data suppliers from all over the world, to whom we are very grateful!

Knowledgeable authors have contributed articles on their regions, their countries, or their fields of expertise. As in the past, we have the global market report from Ecovia Intelligence, regional reports on Africa, Asia, Europe, the Mediterranean, Latin America and the Caribbean, and the Pacific Region, as well as country reports on Australia, Canada, Ukraine, and the United States.

Furthermore, we have included an article on organic cotton from the Textile Exchange and a chapter on Voluntary Sustainability Standards.

In our section "Standards and Regulations," in addition to the annual update on organic regulations and Participatory Guarantee Systems, we also present a comparison of different organic processing standards and regulations for major markets.

We maintain our Organic-World.net website, where information on organic agriculture worldwide is available as well as the statistical yearbook on "The World of Organic Agriculture." The news section of the website offers information about major developments in the field of organic agriculture, and via our Twitter account at www.twitter.com/FiBLStatistics, we keep our readers informed about the latest data on organic agriculture.

Furthermore, we have created the statistics website **statistics.fibl.org**, where the key data are available as interactive tables.

Julia Lernoud and Helga Willer

Research Institute of Organic Agriculture FiBL
Frick, Switzerland

Acknowledgements

The Research Institute of Organic Agriculture FiBL and IFOAM – Organics International are very grateful to their supporters for granting financial support for the global data collection and for the 2018 edition of "The World of Organic Agriculture": the International Trade Centre (ITC), Geneva, Switzerland, the Swiss State Secretariat for Economic Affairs (SECO), Economic Development and Cooperation (within the framework of its support activities for organic production in developing countries), Bern, Switzerland, and NürnbergMesse, the organizers of BIOFACH, Nürnberg, Germany.

Numerous individuals have contributed to the making of this work. The editors are very grateful to all those listed below, without whom it would not have been possible to produce this yearbook.

Ibrahim Abdalhamid, Ministry of Agriculture and Rural Development; **Mohamed Salih Abdalla**, Organic Farming Project, GIZ International Services, Riyadh, Saudi Arabia; **Hadjira Houria Abdellaoui**, Ministry of Agriculture and Rural Development, Algeria; **Gyorgyi Acs Feketene**, Control Union Certifications, Zwolle, The Netherlands; **Olugbenga O. AdeOluwa**, University of Ibadan, Ibadan, Nigeria; **Iskenderbek Aidaraliev**, BIO-KG Federation of Organic Development, Bishkek, Kyrgyzstan; **Florence Aillery**, Ministry of Agriculture, Food and Forestry, France; **Lina Al Bitar**, CIHEAM - IAM Bari, Valenzano, Italy; **Mazen Al Madani**, Ministry of Agriculture and Agrarian Reform, Damascus, Syria; **Khurshid Alam**, Bangladesh Agricultural Research Institute (BARI), Bangladesh; **Saif Moh Al-Shara**, Ministry of Environment and Water, Agricultural Affairs and Animal Sector, Dubai, United Arab Emirates; **Asan Alymkulov**, BIO-KG Federation of Organic Development, Kyrgyzstan; **Stoilko Apostolov**, Bioselena: Foundation for organic agriculture, Karlovo, Bulgaria; **Markus Arbenz**, IFOAM - Organics International, Bonn, Germany; **Mohammad Reza Ardakani**, IFOAM-IRAN, Karaj, Iran; **Lidya Ariesusanty**, Indonesia Organic Alliance IOA, Bogor, Indonesia; **Estevan Assi**, Toledo Cacao Growers Association, Belmopan, Belize; **Pranita Aswale**, Ecocert Romania, Bucuresti, Romania; **Angel Atallah**, CCPB/IMC, Beirut, Lebanon; **Mustafa Avci**, ECOCERT IMO Denetim ve Belgelendirme Ltd. Sti, Izmir, Turkey; **Elhag Meki Ali Awouda**, Federal Ministry of Agriculture & Irrigation, Sudan; **Roberto Azofeifa**, Ministerio de Agricultura y Ganadería, San José, Costa Rica; **Vugar Babayev**, Ganja Agribusiness Association (GABA), Ganja City, Azerbaijan; **Christian Báez**, Agrocalidad, Quito, Ecuador; **Ebba Barany**, Eurostat, Luxembourg; **Verena Batlogg**, Research Institute of Organic Agriculture FiBL, Frick, Switzerland; **Andrew Bayliss**, Soil Association, Bristol, United Kingdom; **Elif Bayraktar Öktem**, Ministry of Food, Agriculture and Livestock, Ankara, Turkey; **Milena Belli**, Istituto per la Certificazione Etica e Ambientale (ICEA), Bologna. Italy; **Olena Berezovska**, Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine; **Florian Bernardi**, Klaus Büchel Anstalt, Mauren, Liechtenstein; **Eva Berre**, Ecocert International, L'Isle Jourdain, France; **Paulina Betancourt**, Agrocalidad, Quito, Ecuador; **Dang Thi Bich Huong**, Vietnam Organic Agriculture Association, Vietnam; **Olivera Bicikliski**, Ministry of Agriculture, Forestry and Water Management, Skopje, Former Yugoslav Republic of Macedonia; **Simone Bissig**, Research Institute of Organic Agriculture FiBL, Frick, Switzerland; **Marian Blom**, Bionext, AR Zeist, The Netherlands; **Barbara Böck**, NürnbergMesse/BIOFACH, Nuremberg, Germany; **Nathalie Boes**, Certisys, Walhain; **Thavisith Bounyasouk**, Department of Agriculture (DOA), Vientiane, Lao PDR; **Lorcan Bourke**, Bord Bia - Irish Food Board, Dublin, Ireland; **Claudius Bredehoeft**, Organic Farming Project, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bonn, Germany; **Trevor Brown**, Jamaica Organic Agriculture Movement JOAM,

Kingston, Jamaica; **Marie Reine Bteich**, CIHEAM - IAM Bari, Bari, Italy; **Klaus Büchel**, Klaus Büchel Anstalt, Mauren, Liechtenstein; **Andreas Bürkert**, University of Kassel, Witzenhausen, Germany, **Emanuele Busacca**, IFOAM EU, Brussels, Belgium; **Roberta Cafiero**, Ministry of Agriculture and Forestry Policies, Rome, Italy; **Ana Paula Cardona**, LETIS S.A., Santa Fe, Argentina; **Jennifer Chang**, IFOAM Asia, Seoul, Republic of Korea; **Tich Charova**, Zimbabwe Organic Producers and Promoters Association ZOPPA, Zimbabwe; **Eugene Chebotariov**, Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine; **Allal Chibane**, Ministère de l'Agriculture et de la Pêche Maritime, Rabat, Morocco; **Stanley Chidaya**, Malawi Organic Growers Association (MOGA), Lilongwe, Malawi; **Thomas Cierpka**, IFOAM - Organics International, Bonn, Germany; **Genaro Coronel**, Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas SENAVE, Asunción, Paraguay; **Amy Cosby**, Australian Centre for Agriculture and Law, University of New England, Armidale, Australia; **Finn Cottle**, Soil Association, Bristol, United Kingdom; **Catarina Crisostomo**, Portugal; **Predrag Cvjetićanin**, Agriculture, Forestry and Fisheries Production Statistic Department - Agriculture, forestry, fishery and environment Directorate, Croatia; **Thomas Damm**, ABCert GmbH, Esslingen, Germany; **Joy Daniel**, Institut for Integrated Rural Development (IIRD), Aurangabad, Maharashtra, India; **Nune Darbinyan**, ECOGLOBE - Organic, Yerevan, Armenia; **Giorgia DeSantis**, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy; **Zoltán Dezsény**, Hungarian Research Institute of Organic Agriculture (ÖMKi), Budapest, Hungary; **Famara Diédhiou**, Fédération Nationale pour l'Agriculture Biologique, Thiès, Senegal; **Dóra Drexler**, Hungarian Research Institute of Organic Agriculture (ÖMKi), Budapest, Hungary; **Tomaž Džuban**, Ministry of Agriculture, Forestry and Food, Ljubljana, Slovenia; **Pilar M. Eguillor Recabarren**, Oficina de Estudios y Politicas Agrarias ODEPA, Santiago Centro, Chile; **Pauline Eid Saad**, Ministry of Agriculture, Lebanon; **Brun Elhousseine**, AMABIO, Casablanca, Morocco; **Zaoui Elhousseine**, AMABIO, Casablanca, Morocco; **Lucy Ellis**, Department of Agriculture, Stanley, Falkland Islands (Malvinas); **Sandra Elvir Sanchez**, Secretaria de Agricultura y Ganadería SENASA, Tegucigalpa, Honduras; **Lisa Emerson**, Textile Exchange, London, United Kingdom; **Encheng**, Certification and Accreditation Administration of the People's Republic of China CNCA, Haidian district, Beijing, China; **Richard Escobar**, Ecocert Colombia, Bogota, Colombia; **Carlos Andres Escobar Fernandez**, ECONEXOS, Cali, Colombia; **Addisu Alemayehu Ferede**, Ethiopian Institute of Agricultural Research EIAR, Akaki, Ethiopia; **Tobias Fischer**, BCS Öko-Garantie GmbH, Nürnberg, Germany; **Barbara Fitch Haumann**, Organic Trade Association (OTA), Brattleboro, United States of America; **Dorian Fléchet**, Agence Bio, Montreuil-sous-Bois, France; **Patricia Flores Escudero**, Latin American Office of IFOAM - Organics International, Lima, Peru; **Emmeline Foubert**, Certisys, Walhain, Belgium; **Sergiy Galashevskyy**, Organic Standard, Kyiv, Ukraine; **Carlos Galo**, SENASA Honduras, Tegucigalpa, Honduras; **Jordan Gama**, AfrONet, Dar es Salaam, Tanzania; **Salvador Garibay**, Research Institute of Organic Agriculture FiBL, Frick, Switzerland; **Claudine Gengler**, Ministère de l'Agriculture, de la Viticulture et de la Protection des consommateurs, Luxembourg; **Maheswar Ghimire**, Kathmandu, Nepal; **Laurent C. Glin**, FiBL Regional Office for West Africa, Benin; **Camille Godard**, Ecocert International, Office, L'Isle Jourdain, France; **Denise Godinho**, IFOAM - Organics International, Bonn, Germany; **Ana Goloborodco**, Ecocert, Bucuresti, Romania; **José Miguel González**, Ministry of Agriculture, Food and Environment, Spain; **Victor Gonzálvez Pérez**, Spanish Society for Organic Agriculture SEAE, Catarroja, Spain; **Amish Gosai**, Bangalore, India; **Katharina Gössinger**, BIO AUSTRIA, Wien, Austria; **Catherine Greene**, Economic Research Service USDA, Washington DC, United States of Americas; **Simone Groh**, CERES, Happurg, Germany; **Rannveig Guðleifsdóttir**, Vottunarstofan Tún ehf., Reykjavik, Iceland; **Jill Guerra**, Canada Organic Trade Association, Ottawa, Canada; **Sabahat Güllüoglu**, Ministry of Food Agriculture and Livestock, Ankara, Turkey; **Gunnar Gunnarsson**,

Acknowledgements

Vottunarstofan Tún ehf., Reykjavik, Iceland; **Arnaud Guyou**, Ecocert International, Office, L'Isle Jourdain, France; **Cristina Hagatong**, Ministry of Agriculture, Forestry and Rural Development, Portugal; **Abid Ali Hasan**, Zakho Small Villages Projects ZSVP, Dohuk, Iraq; **Stephen Hazelmann**, Pacific Community SPC, Pacific Islands; **Sampsa Heinonen**, Evira, Helsinki, Finland; **Shelly Hermon**, Ministry of Agriculture and Rural Development, Israel; **Željko Herner**, Ministry of Agriculture, Fisheries and Rural Development, Zagreb; **Brett Hickson**, Ministry of Agriculture and Rural Development, Israel; **Otto Hofer**, Bundesministerium für Land- und Forstwirtschaft, Wien, Austria; **Tanveer Hossain Shaikh**, Friends in Village Development Bangladesh (FIVDB)/Vice-President IFOAM Asia, Dhaka, Bangladesh; **Andrea Hrabalová**, CTPOA, Brno, Czech Republic; **Beate Huber**, Research Institute of Organic Agriculture FiBL, Frick, Switzerland; **Lee Hyejin**, Korea Rural Economic Institute KREI, Joellanam-do, Republic of Korea; **Basri Hyseni**, Initiative for agricultural development of Kosovo (IADK), Mitrovica, Republic of Kosovo**; Barbara Jäggin,** Swiss State Secretariat for Economic Affairs (SECO), Bern, Switzerland; **Edmundo Janco Mita**, Asociación de Organizaciones de Productores Ecológicos de Bolivia (AOPEB), La Paz, Bolivia; **Jorge Leonardo Jave Nakayo**, Ministerio de Agricultura - SENASA- Perú, Lima, Peru; **Ágnes Juhász**, National Food Chain Safety Office nébih, Budapest, Hungary; **Jack Juma**, Kenya Organic Agricultural Network (KOAN), Nairobi, Kenya; **ManChul Jung**, Korea Institute of Rural Social Affairs, Chungnam Province, Republic of Korea; **Edith Kalka**, Namibian Organic Association NOA, Okahandja, Namibia; **Joelle Kappeler**, Bioinspecta, Frick, Switzerland; **Thilak Kariyawasam**, Lanka Organic Agriculture Movement (LOAM), Nawinna, Maharagama, Sri Lanka; **Joelle Katto-Andrighetto**, IFOAM - Organics International, Bonn, Germany; **Laura Kemper**, FiBL, Frick, Switzerland; **Pravin Khare**, Ecocert International, Office, L'Isle Jourdain, France; **Tamam Khawalda**, Ministry of Agriculture, Jordan; **Cornelia Kirchner**, IFOAM - Organics International, Bonn, Germany; **Bernisa Klepo**, Organska Kontrola (OK), Sarajevo, Bosnia and Herzegovina; **Evgeniy Klimov**, Kazakhstan Federation of Organic Agriculture Movements - KAZFOAM, Kazakhstan; **Barbara Köcher-Schulz**, AMA-Marketing GesmbH AMA, Wien, Austria; **Marja-Riitta Kottila**, Pro Luomu, Kauniainen, Finland; **Olena Kovaliova**, Deputy Minister, Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine; **Heinz Kuhlmann**, ABC Enterprises, Tokyo, Japan; **Manoj Kumar Menon**, International Competence Centre for Organic Agriculture ICCOA, Bangalore, India; **Nicole Lambert**, Textile Exchange, Paris, France; **Andrew Lawson**, Australian Centre for Agriculture and Law, University of New England, Armidale, Australia; **Lauren le Roux**, Ecocert Southern Africa, Cape Town, South Africa; **Ming Chao Liu**, Organics Brazil, Brazil; **Tia Loftsgard**, Canada Organic Trade Association, Ottawa, Canada; **Pedro Lopez**, PROVOTEC, Madrid, Spain; **Martin Lundø**, Food Industries, Copenhagen, Denmark; **Samia Maamer Belkhiria**, Ministère de l'Agriculture, Tunis, Tunisia; **Marcela Machuca Henao**, Ecocert, Bogota D.C, Colombia; **Suzana Madžarić**, Centro Internazionale di Alti Studi Agronomici Mediterranei - Istituto Agronomico Mediterraneo di Bari - CIHEAM - IAM Bari, Bari, Italy; **Hossein Mahmoudi**, Environmental Sciences Research Institute, Evin Shahid Beheshti University SBU, Velenjak, Evin, Tehran, Iran; **Antanas Makarevičius**, Ekoagros, Lithuania; **Fernando Maldonado**, Dirección General de Sanidad Vegetal y Animal, El Salvador; **Karen Mapusua**, Coconut Industry Development for the Pacific (CIDP) Programme, Suva, Fiji; **Brigitta Maurer**, Research Institute of Organic Agriculture, Frick, Switzerland; **Cliflyn McKenzie**, Ecocert Southern Africa, Cape Town, South Africa; **Stephen Meredith**, IFOAM EU Group, Brussels, Belgium; **Dóra Mészáros**, FiBL Europe, Brussels; **Dorota Metera**, BIOEKSPERT Sp. z o.o., Warszawa, Poland; **Merit Mikk**, Centre of Ecological Engineering - Ökoloogiliste Tehnoloogiate Keskus, Tartu, Estonia; **Jelena Milic**, Ministry of Agriculture, Forestry and Water Economy, Belgrade, Republic of Serbia; **Mwanzo Millinga**, AfrONet, Dar es Salaam, Tanzania; **Eugene Milovanov**, Organic Federation of Ukraine, Kyiv, Ukraine; **Satoko Miyoshi**, Global

Organic Textile Standard (GOTS) Japan, Tokyo, Japan; **Julie Kilde Mjelva**, Landbruksdirektoratet / Norwegian Agriculture Agency, Oslo, Norway; **Simon Moakes**, FiBL, Frick, Switzerland; **Bram Moeskops**, IFOAM EU, Brussels, Belgium; **Abdalla Mohammed**, GIZ SA, Saudi Arabia; **Andrew Monk**, Australian Organic, Nundah, Australia; **Mykola Moroz**, Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine; **Flávia Moura e Castro**, IFOAM - Organics International, Bonn, Germany; **Darija Musulin**, Ministry of Agriculture, Zagreb, Croatia; **Mohammed Mutarad Aloun**, Ministry of Climate Change and Environment, United Arab Emirates; **Douglas A. Navarro**, Ministerio de Agricultura y Ganadería Dirección General de Sanidad Vegetal, El Salvador; **Richard Ngunjiri**, Kenya Organic Agricultural Network (KOAN), Nairobi, Kenya; **Từ Thị Tuyết Nhung**, Vietnam Organic Agriculture Association, Hanoi, Vietnam; **Urs Niggli**, Research Institute of Organic Agriculture FiBL, Frick; **Tomas Fibiger Nørfelt**, Knowledge Centre for Agriculture VLF, Århus, Denmark; **Minna Nurro**, Pro Luomu, Kauniainen, Finland; **Nick Nwolisa**, Regional Extension and Resource Center, Azerbaijan; **Fortunate Nyakanda**, Zimbabwe Organic Producers and Promoters Association ZOPPA, Zimbabwe; **Fatima Obaid Saeed**, Ministry of Environment and Water of the United Arab Emirated, United Arab Emirates; **Kung Wai Ong**, Humus Consultancy, Penang, Malaysia; **Maximiliano Ortega**, Belize Organic Producers Association, Belmopan, Belize; **Vitoon Panyakul**, Green Net, Bangkok, Thailand; **Ejvind Pedersen**, Landbrug & Fødevarer, Copenhagen, Denmark; **Eliza Petrosyan-Sudzilovskaya**, ECOGLOBE, Yerevan, Armenia; **Joan Picazos**, Biocop Productos Biológicos, S.A. (BIOCOP), Barcelona, Spain; **Diego Pinasco**, Servicio Nacional de Sanidad y Calidad Agroalimentaria SENASA, Buenos Aires, Argentina; **Roberto Pinton**, Pinton Organic Consulting, Padova, Italy; **Jonathan Platteau**, Landbouw en Visserij, Brussels, Belgium; **Natalie Prokopchuk**, Swiss-Ukrainian project "Organic Certification and Market Development in Ukraine", Kyiv, Ukraine; **Patrizia Pugliese**, CIHEAM - IAM Bari, Valenzano, Italy; **Atef Abdel-Azziz Ragab**, Central Laboratory for Organic Agriculture, Egypt; **Andrijana Rakočević**, Ministry of Agriculture and Rural Development, Podgorica, Montenegro; **Dimbihary Alex Denis Ralaivao**, Ecocert International, Office, L'Isle Jourdain, France; **Tovohery Ramahaimandimbisoa**, Ecocert, L'Isle Jourdain, France; **Vonifanja Ramanoelina**, Ecocert East Africa, Antananarivo, Madagascar; **Juan Carlos Ramirez**, Servicio Nacional de Sanidad y Calidad Agroalimentaria SENASA, Buenos Aires, Argentina; **Wenndy Ramirez**, Ecocert Colombia, Bogota D.C., Colombia; **Zo Ranaivomanana**, Ecocert East Africa, Antananarivo, Madagascar; **Sandra Randrianarisoa**, Ecocert East Africa, Antananarivo, Madagascar; **Mihaja Rasolondraibe**, Ecocert, L'Isle Jourdain, France; **Pia Reindl**, AMA-Marketing GesmbH AMA, Wien, Austria; **Michel Reynaud**, Ecocert International, Office, L'Isle Jourdain, France; **Kurt Riedi**, Research Institute of Organic Agriculture FiBL, Frick, Switzerland; **Nathalie Rison Alabert**, Agence Bio, Montreuil-sous-Bois, France; **Christian Robin,** Swiss State Secretariat for Economic Affairs (SECO), Bern, Switzerland; **Fermín Romero**, Ministerio de Desarrollo Agropecuario, Panama; **Monica Rubiolo,** Swiss State Secretariat for Economic Affairs (SECO), Bern, Switzerland; **Cecilia Ryegård**, Ekoweb, Sweden; **Michal Rzytki**, Ministry of Agriculture and Rural Development-Organic Farming Division, Warsaw, Poland; **Ayman Saad Al-Ghamdi**, Organic Agriculture Department, Saudi Arabia; **Amarjit Sahota**, Ecovia Intelligence, London, United Kingdom; **Vincent Samborski**, Landbouw en Visserij, Brussels, Belgium; **Channa Samorn**, GIZ International Services, Bonn, Germany; **Gregory Sampson**, International Trade Centre (ITC), Geneva, Switzerland; **Sevinç Saygili**, Ministry of Food Agriculture and Livestock, Ankara, Turkey; **Diana Schaack**, Agrarmarkt Informations-Gesellschaft mbH, Bonn, Germany; **Aender Schanck**, OIKOPOLIS Groupe, Munsbach, Luxembourg; **Winfried Scheewe**, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Phnom Penh, Cambodia; **Bernhard Schlatter**, Research Institute of Organic Agriculture FiBL, Frick, Switzerland; **Otto Schmid**, Research Institute of Organic

Acknowledgements

Agriculture FiBL, Frick, Switzerland; **Robin Schrieber**, Quality Certification Services, Gainesville, United States of America; **Rita Schwentesius**, Universidad Autónoma Chapingo, Chapingo, México; **Ibrahima Seck**, Fédération Nationale pour l'Agriculture Biologique, Thiès, Sénégal; **Hana Šejnohová**, Institute of agricultural economics and information, Brno, Czech Republic; **Filippos Sekkas**, Ministry of Rural Development and Food, Greece; **Andreas Selearis**, Department of Agriculture, Nicosia, Cyprus; **Elene Shatberashvili**, Elkana - Biological Farming Association, Akhaltsikhe, Georgia; **Ivana Simic**, National Association "Serbia Organica", Belgrade, Serbia; **Anamarija Slabe**, Institut za trajnostni razvoj, Lubljana, Slovenia; **Nicolette van der Smissen**, Consultant for Organic Production, Feres, Greece; **Manjo Smith**, Namibian Organic Association NOA, Okahandja, Namibia; **Marcela Stahil**, Ministry of Agriculture, Chişinău, Moldova; **Emily Stone**, Toledo Cacao Growers Association, Belmopan, Belize; **Sylë Sylanaj**, University of Prishtina, Prishtinë, Kosovo; **Daniel Szalai**, Control Union Certifications, Zwolle, The Netherlands; **Vic Tagupa**, League of Organic Agriculture Municipalities & Cities (LOAMC), Philippines; **Evonne Tan**, Textile Exchange, Kuala Lumpur, Malaysia; **Benjamin Tissot**, Ecocert, L'Isle Jourdain, France; **Olga Trofimtseva**, Deputy Minister, Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine; **Liesl Truscott**, Textile Exchange, Bath, United Kingdom; **Emma Tsessue**, ECOCERT SAS, L'Isle Jourdain, France; **Kesang Tshomo**, Ministry of Agriculture MOA, Thimphu, Bhutan; **Francesco Tubiello**, Food and Agriculture Organization of the United Nations FAO, Rome, Italy; **Hedwig Tushemerirwe**, National Organic Agricultural Movement of Uganda (NOGAMU), Kampala, Uganda; **Bavo van den Idsert**, Bionext, AR Zeist, The Netherlands; **Frederica Varini**, IFOAM - Organics International, Bonn, Germany; **Jelena Vasiljevic**, Ministry of Agriculture Serbia, Belgrade, Serbia; **Leo Vella**, Ministry for the Environment, Sustainable Development and Climate Change, MOAN Delelgate, Malta; **Triin Viilvere**, IFOAM EU Group, Brussels, Belgium; **Wendy W. C. KO**, Fisheries and Conservation Department, Hong Kong, China; **Maohua Wang**, Certification and Accreditation Administration of the People's Republic of China CNCA, Haidian district, Beijing, China; **Magdalena Wawrzonkowska**, IFOAM EU Group, Brussels, Belgium; **Jonathan Wong**, Hong Kong Organic Resource Centre, Hong Kong; **Joseph Wozniak**, International Trade Centre (ITC), Geneva, Switzerland; **Els Wynen**, Eco Landuse Systems, Flynn, ACT, 2615; **Abdoul Aziz Yanogo**, Ecocert SA West Africa Office, Ougadougou, Burkina Faso; **Weimin Yu**, Ecocert China, Beijing, China; **Qiao Yuhui**, China Agricultural University, Beijing, China; **Aisuluu Zamirbekova**, Organic Farming Kyrgyzstan, Kyrgyzstan; **Pema Zangmo**, National Organic Programme, Bhutan; **Raffaele Zanoli**, Università Politecnica delle Marche UNIVPM, Ancona, Italy; **José Zapata**, Oficina de Control Agricultura Organica, Republica Dominicana; **Ulrike Zdralek**, Bioinspecta, Frick, Switzerland; **Lisa Zhen**, Ecocert China, Beijing, China; **Zhejiang Zhou**, IFOAM Asia, China; **Darko Znaor**, Independent Consultant, Zagreb, Croatia

Organic Agriculture: Key Indicators and Top Countries

Indicator	World	Top countries
Countries with organic activities[1]	2016: 178 countries	
Organic agricultural land	2016: 57.8 million hectares (1999: 11 million hectares)	Australia (27.1 million hectares) Argentina (3.0 million hectares) China (2.3 million hectares)
Organic share of total agricultural land	2016: 1.2 %	Liechtenstein (37.7 %) French Polynesia (31.3 %) Samoa (22.4%)
Wild collection and further non-agricultural areas	2016: 39.9 million hectares (1999: 4.1 million hectares)	Finland (11.6 million hectares) Zambia (6.7 million hectares) India (4.2 million hectares)
Producers	2016: 2.7 million producers (1999: 200'000 producers)	India (835'000) Uganda (210'352) Mexico (210'000)
Organic market	2016: 89.7 billion US dollars*[2] (more than 80 billion euros) (2000: 17.9 billion US dollars)	US (43.1 billion US dollars; 38.9 billion euros) Germany (10.5 billion US dollars; 9.5 billion euros) France (7.5 billion US dollars; 6.7 billion euros)
Per capita consumption	2016: 12.1 US dollars (11.3 euros)	Switzerland (304 US dollars; 274 euros) Denmark (252 US dollars; 227 euros) Sweden (218 US dollars; 197 euros)
Number of countries with organic regulations	2017: 87 countries	
Number of affiliates of IFOAM – Organics International	2017: 1'003 affiliates from 127 countries	India - 111 affiliates Germany - 88 affiliates United States - 63 affiliates China - 56 affiliates

Source: FiBL survey 2018, based on national data sources and data from certifiers
**Global market: Ecovia Intelligence (formerly Organic Monitor) 2018*

[1] Where the designation "country" appears in this book, it covers countries and territories, see UNSTAT website http://unstats.un.org/unsd/methods/m49/m49regin.htm.
[2] According to the Central European Bank, I euro corresponded to 1.1069 US dollars in 2016.

The World of Organic Agriculture 2018: Summary

HELGA WILLER,[1] JULIA LERNOUD,[2] AND LAURA KEMPER[3]

According to the latest FiBL survey on certified organic agriculture worldwide, as of the end of 2016, data on organic agriculture was available from 178 countries.

Almost 58 million hectares of organic farmland – Australia has the largest area

There were 57.8 million hectares of organic agricultural land in 2016, including in-conversion areas. The regions with the largest areas of organic agricultural land are Oceania (27.3 million hectares, which is almost half the world's organic agricultural land) and Europe (13.5 million hectares, 23 percent). Latin America has 7.1 million hectares (12 percent) followed by Asia (4.9 million hectares, 9 percent), North America (3.1 million hectares, 6 percent), and Africa (1.8 million hectares, 3 percent). The countries with the most organic agricultural land are Australia (27.4 million hectares), Argentina (3 million hectares), and China (2.3 million hectares). See page 34 for the detailed results of the FiBL survey.

Globally, 1.2 percent of the farmland is organic – Liechtenstein has the highest organic share with 37.7 percent

Currently, 1.2 percent of the world's agricultural land is organic. The highest organic shares of the total agricultural land, by region, are in Oceania (6.5 percent) and in Europe (2.7 percent; European Union 6.7 percent). However, some countries reach far higher shares: Liechtenstein (37.7 percent) and French Polynesia (31.3 percent) have the highest organic shares. In fifteen countries, 10 percent or more of the agricultural land is organic.

Organic farmland has increased by 7.5 million hectares or 15 percent

Organic farmland increased by 7.5 million hectares or 15 percent in 2016. This is mainly because 5 million additional hectares were reported from Australia. However, many other countries reported an important increase and thus contributed to the global growth, such as China (42 percent increase; over 0.67 million hectares more) Uruguay (27 percent increase; more than 0.3 million hectares more), and India and Italy, both with an additional 0.3 million hectares. There has been an increase in organic agricultural land in all regions. In Europe, the area grew by almost 1 million hectares (6.7 percent increase). In Asia, the area grew by almost 34 percent or an

[1] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[3] Laura Kemper, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

additional 0.9 million hectares; in Africa, the area grew by 7 percent or over 0.1 million hectares, in Latin America the area grew by almost 6 percent or 0.4 million hectares after several years of drops, and in North America by more than 5 percent or 0.2 million additional hectares. A major relative increase of organic agricultural land was noted in many Asian and African countries, such as Lao People's Democratic Republic, Sierra Leone, and Zimbabwe.

Apart from the organic agriculture land, there is organic land dedicated to other activities, most of which area for wild collection and beekeeping. Other areas include aquaculture, forests, and grazing areas on non-agricultural land. The areas of non-agricultural land constitute more than 39.7 million hectares (see 53).

Organic producers on the rise – 2.7 million producers in 2016

There were at least 2.7 million organic producers in 2016.[1] Forty percent of the world's organic producers are in Asia, followed by Africa (27 percent) and Latin America (17 percent). The countries with the most producers are India (835'000), Uganda (210'352), and Mexico (210'000) (see page 60). There has been an increase in the number of producers of over 300'000, or over 13 percent, compared to 2015. A quarter of the world's organic agricultural land (14.3 million hectares) and more than 87 percent (2.4 million) of the producers were in **developing countries and emerging markets** in 2016 (see page 72).

Growth for all major crop groups

Land use and crop details were available for over 90 percent of the organic agricultural land. Unfortunately, some countries with very large organic areas, such as Australia, Brazil, and India, had little or no information on their land use (see page 78). **Over two-thirds of the agricultural land was grassland/grazing areas** (almost 38 million hectares, an increase of 16.5 percent compared to 2015). With a total of almost 10.6 million hectares, **arable land constitutes 18 percent of the organic agricultural land**. An increase of almost 6.3 percent since 2015 was reported. Most of this category of land was used for cereals including rice (4.1 million hectares), followed by green fodder from arable land (2.8 million hectares), oilseeds (1.3 million hectares), dry pulses and textile crops (0.5 million hectares each). **Permanent crops account for eight percent of the organic agricultural land**, amounting to 4.5 million hectares. Compared with the previous survey, an increase of more than 126'000 hectares, or 9 percent, was reported. The most important permanent crop is coffee (with more than 0.9 million hectares, constituting over 20 percent of the organic permanent

[1] Please note that some countries report only the numbers of companies, projects, or grower groups, which may each comprise a number of individual producers. The number of producers should, therefore, be treated with caution, and it may be assumed that the total number of organic producers is higher than that reported here.

cropland), followed by olives (almost 0.7 million hectares), nuts (almost 0.6 million hectares), grapes (almost 0.4 million hectares), and tropical and subtropical fruits (over 0.3 million hectares) (see page 74).

Detailed information on **organic cotton** was provided by Textile Exchange, showing that during the 2015/16 growing season, 107'980 metric tons of organic cotton fibre was produced globally by 219'947 farmers on 302'562 hectares of land. There are currently 18 countries producing certified organic cotton, but 97 percent of the global supply comes from just seven countries. India remains by far the largest producer, accounting for almost two-thirds of total production, followed by China, Kyrgyzstan, Turkey, and Tajikistan. For more information including the situation of cotton production in individual countries and regions, see the chapter by Truscott et al. on page 137.

Looking at other **voluntary sustainability standards** (VSS), a recent survey among 14 standards (including organic) shows that strong growth continues and that at least 14 million hectares are covered by selected crops and standards. All standards covered experienced growth in their areas since 2011. The most successful commodity is coffee; at least 25 percent of the global coffee area is certified and 8.5 percent of the global coffee area is organic. (See the chapter by Lernoud et al., page 128).

Global market has increased to almost 90 billion US dollars

Organic food & drink sales have increased from less than 15 billion US dollars to almost 90 billion US dollars over two decades according to Ecovia Intelligence. Although the positive trend is likely to continue, there remain challenges. These include demand concentration (about 90 percent of sales are in North America and Europe), proliferating standards, and the fact that the farmland growth is slowing in parts of Europe and North America, which means there are concerns about supply shortfalls. (See the chapter by Amarjit Sahota on page 146).

In 2016, the countries with the largest organic markets were the United States (38.9 billion euros), Germany (9.7 billion euros), and France (6.7 billion euros). **The largest single market was the United States** (47 percent of the global market), followed by the European Union (30.7 billion euros, 37 percent), and China (5.9 billion euros, 6 percent). The highest per-capita consumption with more than 200 euros was found in Switzerland and Denmark. The highest organic market shares were reached in Denmark (9.7 percent), Luxembourg (8.6 percent), and Switzerland (8.4 percent) (See the chapter on the FiBL survey on the global market, page 174).

Africa

There were over **1.8 million hectares of certified organic agricultural land in Africa** in 2016. Compared to 2015, Africa reported an increase of almost 119'000 hectares, a 7 percent increase. There were more than 741'000 producers. The United Republic of Tanzania was the country with the largest organic area (with almost 270'000 hectares), and Uganda was the country with the largest number of organic producers (more than 210'000). The country with the highest share of organic agricultural land was the island state Sao Tome and Principe, with 13.8 percent of its agricultural area being organic. The majority of certified organic produce in Africa is destined for export markets. Key crops are coffee, olives, nuts, cocoa, oilseeds, and cotton (see page 177). In Africa, only Morocco and Tunisia have an organic regulation; however seven countries are drafting one and eleven countries have a national standard but not a national legislation (see page 152).

The year 2017 continued to see growing recognition among policymakers that organic agriculture has a significant role to play in addressing food insecurity, land degradation, poverty, and climate change in Africa. Organic conferences have become a success, and the next East African Organic Conference is scheduled for May 2018. The Fourth African Organic Conference will take place in November 2018 in Yaoundé, Cameroon. These conferences mark significant milestones for mainstreaming organic agriculture on the continent. For more information, see the chapter by Jordan Gama (page 174).

Asia

The total area dedicated to **organic agriculture in Asia was almost 4.9 million hectares in 2016**. There were 1.1 million producers; most of these were in India. The leading countries by area were China (2.3 million hectares) and India (almost 1.5 million hectares); Timor-Leste had the highest proportion of organic agricultural land (7.4 percent) (page 200). Twenty countries have regulations on organic agriculture, and six countries are in the process of drafting one. Eleven countries have a national standards but no organic legislation.

In 2017, there was an overall increase in organic production in all countries that submitted contributions to the Asia sector report for this book. Exports of organic products are also increasing as seen in the example of Bangladesh. An interesting development was the significant increase of national and local organic groups in China, such as organic marketing clubs or organic marketing alliances as market platforms. Community Supported Agriculture (CSA) and Participatory Guarantee Systems (PGS) are also attracting much interest. A mutual recognition of certified organic products between China and New Zealand was signed at the end of 2016. The authorities in India introduced a common logo for organic foods – "Jaivik Bharat." The Philippines saw an increase in active involvement of more than 120 local municipal mayors in the development of organic agriculture. Some municipalities are

now recognized internationally for their exemplary development of organic agriculture, and in September 2018, the 3rd IFOAM Asia Organic Congress will take in the Philippines. For more information, including country reports, see the chapter from IFOAM Asia (page 188).

There has been increasing interest and participation in the Asian Local Governments of Organic Agriculture (ALGOA). Some local governments are expressing interest in the formation of local chapters of ALGOA in their respective countries (page 198).

Europe

As of the end of 2016, **13.5 million hectares of agricultural land in Europe** (European Union 12.1 million hectares) were managed organically by over 370'000 producers (European Union over 295'000). In Europe, 2.7 percent of the agricultural area was organic (European Union: 6.7 percent). Organic farmland has increased by 0.8 million hectares compared to 2015. The countries with the largest organic agricultural areas were Spain (2 million hectares), Italy (1.8 million hectares), and France (1.5 million hectares). In nine countries, at least 10 percent of the farmland is organic: Liechtenstein has the lead (37.7 percent), followed by Austria (21.9 percent) and Estonia (18.9 percent). Retail sales of organic products totalled 33.5 billion euros in 2016 (European Union: 30.7 billion euros), an increase of more than 11 percent since 2015. The largest market for organic products in 2016 was Germany, with retail sales of 9.5 billion euros, followed by France (6.7 billion euros), and Italy (2.6 billion euros) (see the article by Willer et al., page 218).

In Europe, all countries have an organic regulation or are drafting one. In 2017, negotiations by EU Institutions on the review of the **EU organic regulation** started to draw to a close, four years after the European Commission launched its legislative proposals. The basic text has been approved, and will contain some changes to the rules on production, controls, and imports. Discussions on the direction of the future of the Common Agricultural Policy (CAP) Post-2020 officially kicked-off in February 2017. The next years will be a critical period for the organic sector to work with policymakers and other agri-food stakeholders to use the debate on the future CAP as a means to support the development of organic food and farming in Europe. TP Organics launched its position paper **"Research and Innovation for Sustainable Food and Farming"** outlining what it would like to see in terms of the 9th EU Research & Innovation Framework Programme (FP9), which will start in 2021. TP Organics calls for the UN Sustainable Development Goals to be the basis for the next Framework Programme's architecture (page 210).

For this edition of the book, we received a country report on organic agriculture in Ukraine, which has become an important supplier of organic products for Western markets The main organic exports from Ukraine are cereals, oil crops, pulses, wild collected berries, mushrooms, nuts, and herbs. Recent developments on the policy level include the introduction of a governmental data collection system. The

Ukrainian state logo for labelling of organic products was officially registered as a trademark owned by the Ministry of Agrarian Policy and Food of Ukraine. For more information, see the article by Trofimtseva and Prokopchuk on page 256.

Mediterranean countries

For the Mediterranean countries, which include countries in Northern Africa, Western Asia and Southern Europe, the Mediterranean Organic Agriculture Network (MOAN) pursues its commitment to collect and disseminate data on the organic sector in the Mediterranean region. According to the latest data, the total certified organic area in the Mediterranean region covers over 7.9 million hectares, of which **6.9 million hectares are organic agricultural area**. The largest part of the Mediterranean organic area is in the Mediterranean countries of the European Union (EU Med) totalling 87 percent of the agricultural organic area. Candidate and Potential Candidate (CPC) countries of the European Union follow with 8 percent. Only 5 percent is located in the Southern and Eastern Mediterranean (SEM) countries. The legislative and regulatory framework in the Mediterranean area highly differs between the countries. This directly affects organic data collection and availability. In the EU countries, official mechanisms for organic statistics collection are well established and many CPC countries implemented their national organic legislation and are at a very advanced stage of harmonisation with the EU regulation on organic farming. However, in the SEM countries where a national law had not been fully implemented, data collection is essentially based on direct and informal communication, which sometimes provides only partial information. For more information, see the article by Bteich et al. on page 262.

Latin America and the Caribbean

In Latin America, **almost 460'000 producers managed 7.1 million hectares of agricultural land organically in 2016**. This constituted 12 percent of the world's organic land and almost one percent of the region's agricultural land. The leading countries were Argentina (3 million hectares), Uruguay (1.7 million hectares), and Brazil (0.75 million hectares, 2014). The highest shares of organic agricultural land were in the Falkland Islands/Malvinas (12.2 percent), Uruguay (11.5 percent), and French Guiana (10 percent). Many Latin American countries remain important exporters of organic products such as bananas, cocoa, and coffee. In Argentina and Uruguay, temperate fruit and meat are key export commodities. Twenty-three countries in this region have an organic regulation or are drafting one (see page 152). In October 2017, the Republic of Chile and the European Union (EU) announced the completion of the necessary internal procedures related to the agreement on trade in organic products and it entered into force on January 1, 2018.

Organic domestic markets have been growing steadily in the last decade. The biggest organic domestic market is in Brazil, where the National Program of School Meals,

which has been a major achievement since 2009, stipulates that 30 percent of the public procurement budget should be used to buy from family farms with preference given to organic farmers. In 2017, several important events took place such as the seventh Latin-American and Caribbean Meeting of Organic and Ecological Agriculture in Bolivia, the 6th Latin-American Congress of Agroecology, and IFOAM's Organic Leadership Course (OLC) in Brazil. For more information, see the chapter by Flores on page 268.

North America

In North America, **almost 3.1 million hectares of farmland were managed organically in 2016**. Of these, 2 million were in the United States and 1.1 million in Canada, representing 0.8 percent of the total agricultural area in the region (see page 296).

The U.S. organic sector continues its upward trajectory, gaining new market share and shattering records, as consumers used more organic products than ever before. **Organic sales in the U.S. totalled approximately 47 billion US dollars**[1] (43 billion US dollars in food sales) in 2016, reflecting new sales of almost 3.7 billion US dollars from the previous year. Organic food now accounts for 5.3 percent of total food sales in the U.S. Farm Bill advocacy has been a major thrust during the past year, and it will continue to take center stage during 2018. Organic leaders have worked with legislators to create three bipartisan bills for consideration. The first is the Organic Farmer and Consumer Protection Act to improve oversight over global organic trade. The second is the Organic Research Act of 2017 to increase annual funding for USDA's Organic Agriculture Research and Extension Initiative to 50 million US dollars a year. The third is the Organic Farmers Access Act, designed to expand organic agriculture's access to, and eligibility for, rural development programs. For more information see article by Haumann on page 284.

Canada's organic sector continues its steady spread across Canada's farmland and onto Canadians' plates. There are over 5'000 organic operations nationally offering more organic ingredients, products and services than ever before. Canada's organic sector was valued at an estimated 5.4 billion Canadian dollars in 2017, up from 4.7 billion Canadian dollars in 2015. The need for continuous dialogue with government and regulators is required to ensure that organic can stay competitive. Consistent and permanent funding for Canadian Organic Standards and the closing of regulatory gaps across provinces and territories is needed. (See the chapter by Loftsgard and Guerra, page 289).

[1] The European Central Bank reference exchange rate U.S. dollar/Euro was 1.1069 in 2016.

Oceania

This region includes Australia, New Zealand, and the Pacific Island states. Altogether, there were over 27'000 producers, managing 27.3 million hectares. This constituted 6.5 percent of the agricultural land in the region and almost half of the world's organic land. **More than 99 percent of the organic land in the region is in Australia** (27.1 million hectares, 97 percent of which is estimated to be extensive grazing land), followed by New Zealand (more than 74'000 hectares, 2014 data), and Samoa (over 63'000 hectares). The highest organic shares of all agricultural land were in French Polynesia (31.3 percent), followed by Samoa (22.4 percent), Australia (6.7 percent), Vanuatu (6.3 percent), and the Solomon Islands (5.3 percent). Growth in the organic industry in Australia, New Zealand, and the Pacific Islands has been strongly influenced by a rapidly growing overseas demand; domestic sales are also growing (page 314).

Australia has seen even more growth in 2016 in the area of pastoral land under certified organic management and the number of certified organic primary producers increased steadily in 2016. It is estimated that the overall volume (in metric tons) of Australian-grown organic products exported to other countries increased 17 percent between 2015 and 2016. The regulatory and governance arrangements in the certified organic sector in Australia have remained stable since, but change is in the air. The Australian Government, organic industry groups, and the participants in the organic supply chain generally are involved in a number of initiatives aimed at enhancing value for the organic sector in Australia. For more information about Australia, see the report by Lawson et al. on page 302.

Regional and national agencies and development partners increasingly recognize the value of organic agriculture as a development tool for the Pacific Islands context. Innovations such as the Pacific Organic Tourism and Hospitality Standard and the online **Pacific Organic Policy Toolkit** are attracting interest from organic farmers through to policymakers. The number of organic farmers in the region is continuing to grow with PGS growing at a faster rate than third-party certification. It is expected that the local market for organic products will start to expand as the tourism and hospitality industries start to look towards organic and sustainability as part of the Pacific Islands' brand (see the chapter by Karen Mapusua, page 309).

Standards, regulations, and policy support

According to the FiBL survey on **organic rules and regulations**, 87 countries had organic standards in 2017. Eighteen countries are in the process of drafting legislation, and at least 33 countries, mostly in Asia and Africa, have adopted national standards for organic agriculture. In the European Union (EU), after more than three years of intensive and controversial debates, the European Council and Parliament have agreed upon a basic text for a new organic regulation. The new regulation is expected to be adopted in April or May 2018. In the next two years, the implementation provisions will be discussed and agreed upon, and the new regulation shall enter into

force on 1 January 2021. In the United States, the United States Department of Agriculture (USDA) further strengthened its measures to maintain organic integrity and published, for example the "Interim Instruction on Maintaining the Integrity of Organic Imports." For more information, see the chapter by Huber et al. on page 152).

Organic standards represent important regulatory **frameworks for guiding and controlling food processing activities for organic food**. A comparison of eight organic standards shows that governmental standards are more general than private ones, with private ones offering more specific guidance as to what additives and processing aids as well as processing methods are allowed or not allowed. (See the article by Batlogg et al., page 165).

Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. PGS have proven to be an affordable alternative to third-party certification, an effective tool to develop local markets for organic produce and are particularly appropriate for small-scale farmers. Based on the data collected through the Global PGS Survey 2017 conducted by IFOAM – Organics International, PGS initiatives are established in 66 countries, with at least 311'449 farmers involved in PGS initiatives worldwide. This includes mostly small farmers and small processors. It is estimated that there are currently at least 241 PGS initiatives, of which 127 are fully operational. For more information, see the chapter by Moura di Castro and Varini, page 161.

Governments now provide public support for organic agriculture, and outcomes, lessons learned, and policy recommendations have now been published in a toolkit format. The new **IFOAM policy toolkit** aims to fill a knowledge gap in the area of organic advocacy and policy-making: policy-makers can learn more about not only why we should support organic agriculture, but also how it can be done. More about this toolkit is presented in the chapter by Katto on page 170.

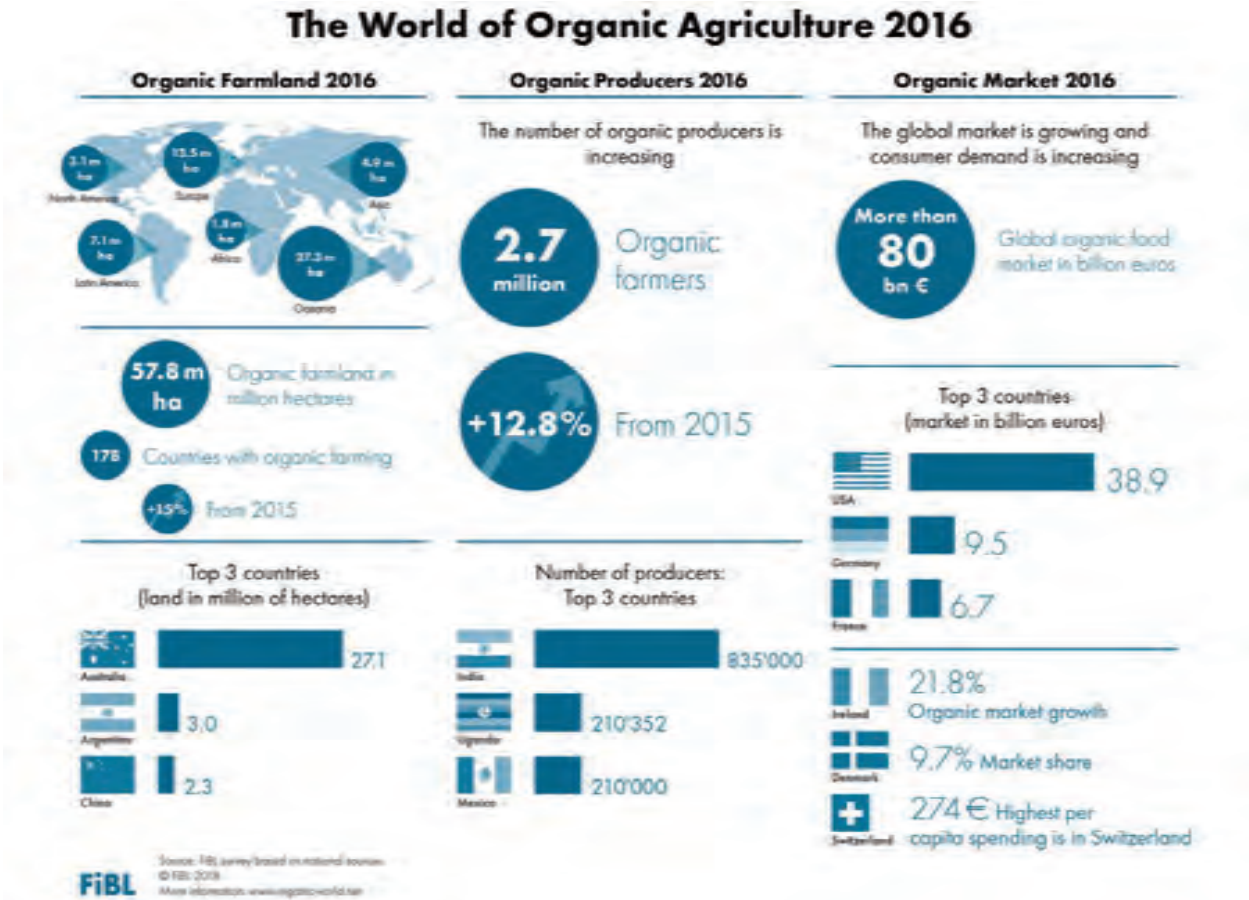
A new narrative

The global General Assembly of IFOAM – Organics International 2017 decided on a new strategy. The new **IFOAM strategic plan** will work on three key factors: Enhancing supply with capacity development of operators and other value chain actors; stimulating demand with communication support and awareness campaigns; and advocating for a policy and guarantee environment that is conducive to sustainable production and consumption. For more information, see the chapter by Arbenz on page 320.

Next FiBL survey on organic agriculture worldwide

The next global organic survey will start in mid-2018; data will be published in February 2019 and presented at the Biofach Organic Trade Fair in Nuremberg, Germany. We will contact all relevant experts and would be very grateful if data could be sent to us. Should you notice any errors regarding the statistical data in this volume, please let us know; we will then correct the information in our database and provide the corrected data in the 2019 edition of "The World of Organic Agriculture." Corrections will also be posted at www.organic-world.net.

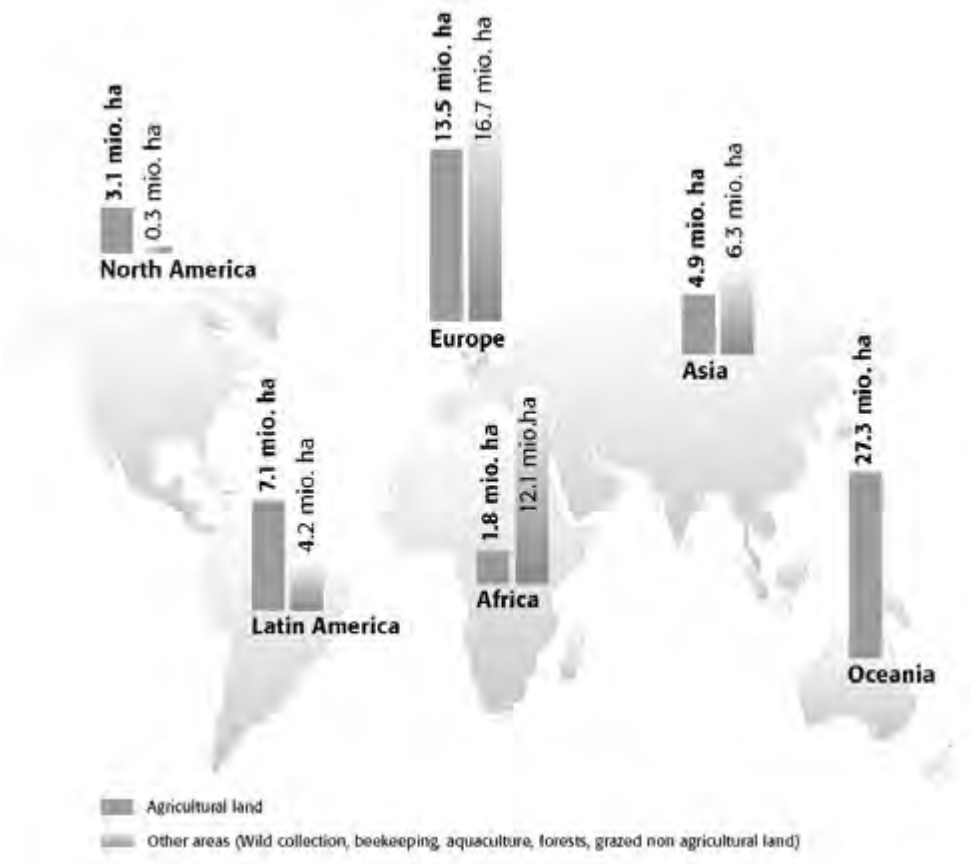
Contact: julia.lernoud@fibl.org and helga.willer@fibl.org



Infographic 1: Organic agriculture worldwide: Key indicators 2016

Source: FiBL survey 2018

Organic Agriculture Worldwide: Current Statistics



Map 1: Organic agricultural land and non-agricultural areas in 2016 (in hectares)

Source: FiBL survey 2018

Current Statistics on Organic Agriculture Worldwide: Area, Operators, and Market

JULIA LERNOUD[1] AND HELGA WILLER[2]

Introduction

The 19th survey of certified organic agriculture worldwide was carried out by the Research Institute of Organic Agriculture (FiBL) with many partners from around the world. The results are published jointly with IFOAM – Organics International. This survey, as were the past surveys, was supported by the Swiss State Secretariat for Economic Affairs (SECO), the International Trade Centre (ITC),[3] and NürnbergMesse.[4]

In total, data was provided by more than 200 experts. Governments, private sector organizations, certifiers, and market research companies have contributed to the data collection effort. Several international certifiers deserve special mention as they provided data on a number of countries: BCS, CERES, Certisys, Control Union, Ecocert, ICEA, Institute for Marketecology (IMO), LACON, Quality Certification Services (QCS), and the Soil Association. Data from the Mediterranean countries was supplied by the Mediterranean Organic Agriculture Network (MOAN, c/o Mediterranean Agronomic Institute of Bari), and data from the Pacific Islands was provided by the Pacific Organic and Ethical Trade Community (POET.com). A list of all data sources and contacts is provided in the annex.

In total, data from 178 countries/territories was available. For Mayotte, data had been available in the past, but for 2016, data has not been received. Updated data on the organic area was available for 150 countries; however, for some countries, updates were only available for the total organic area and not necessarily for the number of farms, land use, or other indicators. For those countries for which FiBL compiles the data among certifiers, not all certifiers provided updated data.

When no new data was available, data from the previous survey were used.

---

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[3] Since 2014, data collection on organic agriculture worldwide has been funded by the International Trade Centre (ITC) and the Swiss State Secretariat for Economic Affairs (SECO) under the project "T4SD Global Platform for Market Data on Organic Agriculture and Sustainability Standards". For more information on this project, see www.vss.fibl.org
[4] The organisers of BIOFACH, the World Organic Trade Fair in Nuremberg, Germany (today: NürnbergMesse), have supported data collection on organic agriculture worldwide and the production of the yearbook "The World of Organic Agriculture" since 2000.

Table 1: Countries and territories covered by the global survey on organic agriculture 2016

Region	Countries* with data on organic agriculture	Countries per region[1]	Share of countries that provided data (%)
Africa	40	56	71%
Asia	41	49	84%
Europe	48	49	98%
Latin America and Caribbean	33	46	72%
North America	3	5	60%
Oceania	13	25	52%
World	**178**	**230**	**77%**

Source: FiBL survey 2018
**Where the designation "country" appears in this book, it covers countries or territories.*[2]

Data on the following indicators was collected:

- Organic area in hectares, by country and country groups, including breakdown by crop;
- Livestock numbers;
- Production data (volumes and values);
- Producers and further operator types;
- Domestic market data (total retail sales value and volumes, per capita consumption, share of the total market, and breakdown by product);
- International trade data (total import and export values and volumes, and breakdown by product).

Not all data that was collected is published in this book (e.g., production, livestock numbers, breakdown by product for domestic market and international trade data) because it was not possible to draw a complete global picture for these indicators. More information about the data collection and analysis process is available in our metadata, which can be found on Organic Eprints at http://orgprints.org/31359.

More information on statistics.fibl.org

Tables with more details on crops, markets, and international trade, as well as explanations for certain data can be found on FiBL's new statistics website statistics.fibl.org.

Contact: Enquiries related to the data should be sent to Julia Lernoud and Helga Willer, Research Institute of Organic Agriculture FiBL, Frick, Switzerland, e-mail julia.lernoud@fibl.org and helga.willer@fibl.org.

[1] Number of countries and areas are mostly based on countries as listed in the FAO database at http://www.fao.org/faostat/en/#data/RL as well as some additional countries such as Kosovo.
[2] For more information on countries, territories and regions see the UNSTAT website at http://unstats.un.org/unsd/methods/m49/m49.htm.

General notes on the data

Organic areas: Data represents **certified organic land/areas that are already fully converted as well as land under conversion** because many data sources do not separate or include the latter (for instance, Austria, Germany, and Switzerland) and also because land under conversion is under organic management. For a definition of organic agriculture, see the IFOAM – Organics International website.[1]

Data on conversion status: For some countries, data is collated from several certifiers, some of which provided information on the conversion status while others did not. Therefore, the sum of land under conversion and the fully converted land is not necessarily the same as the total land under organic agricultural management.

Share of total agricultural land: In some cases, the calculation of the organic share of the total agricultural land or that of individual crops, based on FAOSTAT and in some cases the Eurostat data, might differ from the organic shares obtained from ministries or local experts.

PGS: Since 2011, for some countries, areas certified by Participatory Guarantee Systems (PGS) have been included. (For more information about PGS, see the article by Flávia Moura e Castro and Federica Varini on page 161).

Countries: For countries and territories, the FAO country list is used. Where the designation "country" appears in this report, it covers countries or territories. As to the countries' grouping by region, the Standard Country and Area Classifications as defined by the United Nations Statistics Division,[2] is used in most cases.

Data sources: Data was gathered from organizations of the private sector, governments, and certification bodies. For detailed information on the data sources, please check the annex at the end of this volume (page 330).

Direct year-to-year comparison: A direct year-to-year comparison is not possible for all data as the data sources may change, data may not be provided on an annual base, data access may improve, or exchange rates might change.

Completeness of data:

> Producers: Some countries report the number of smallholders while others report only the number of companies, projects, or grower groups, which may each comprise a number of producers. This applies in particular to many African countries. The number of producers is, therefore, probably higher than the number communicated in this report.

> Domestic market data: It should be noted that for market and trade data, comparing country statistics remains very problematic due to differing methods of data collection.

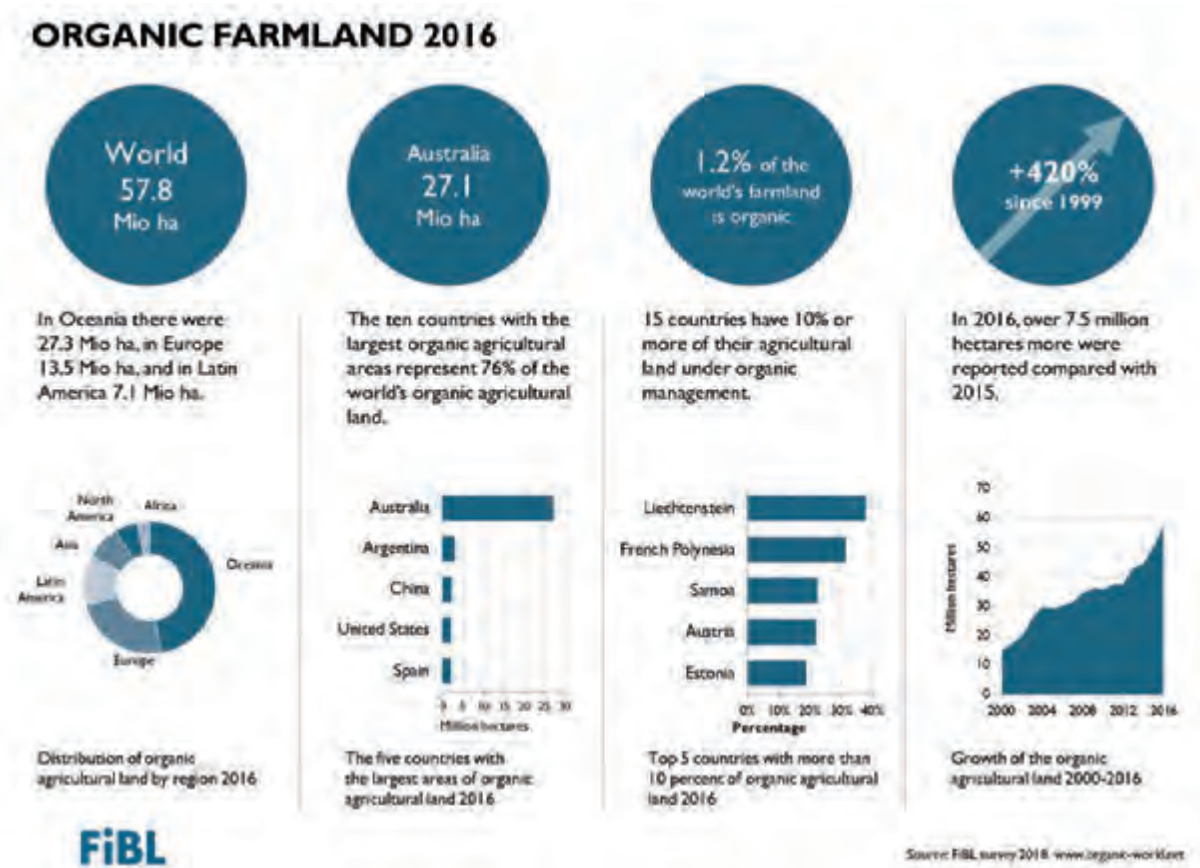
Data revisions: Data revisions and corrections are communicated at www.organic-world.net/statistics.

Metadata: Metadata for the FiBL survey on organic agriculture worldwide are available on Organic Eprints at http://orgprints.org/31359.

---

[1] The definition of organic agriculture is available at the website of IFOAM – Organics International www.ifoam.bio/en/organic-landmarks/definition-organic-agriculture

[2] For the composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings, see the UNSTAT website at http://unstats.un.org/unsd/methods/m49/m49regin.htm



Infographic 2: Organic farmland 2016

Source: FiBL survey 2018

Organic land

Organic agricultural land

In 2016, 57.8 million hectares were under organic agricultural management worldwide.[1]

The region with the most organic agricultural land is Oceania, with 27.3 million hectares, followed by Europe with 13.5 million hectares, Latin America (7.1 million hectares), Asia (almost 4.9 million hectares), North America (3.1 million hectares), and Africa (1.8 million hectares).

Oceania has 47 percent of the global organic agricultural land. Europe, a region that has had a very constant growth of organic land over the years, has almost a quarter of the world's organic agricultural land followed by Latin America with 12 percent (Table 2, Figure 1).

Australia, which experienced a major growth of organic land in 2016 (+5 million hectares), is the country with the most organic agricultural land; it is estimated that 97 percent of the farmland are extensive grazing areas. Argentina is second followed by the United States in third place (Table 2, Figure 2). The 10 countries with the largest organic agricultural areas have a combined total of 44.2 million hectares and constitute three-quarters of the world's organic agricultural land.

Apart from the organic agricultural land, there are further organic areas such as wild collection areas. These areas constitute more than 39.7 million hectares.

Table 2: World: Organic agricultural land (including in-conversion areas) and regions' shares of the global organic agricultural land 2016

Region	Organic agricultural land [hectares]	Regions' shares of the global organic agricultural land
Africa	1'801'699	3%
Asia	4'897'837	8%
Europe	13'509'146	23%
Latin America	7'135'155	12%
North America	3'130'332	5%
Oceania	27'346'986	47%
World	**57'816'759**	**100%**

Source: FiBL survey 2018. Note: Agricultural land includes in-conversion areas and excludes wild collection, aquaculture, forest, and non-agricultural grazing areas.
**Includes correction value for French overseas departments.*

[1] Data provided both for the fully converted and in conversion area are included in this work. However, some countries provided only data on the fully converted area, others only on the total organic agricultural land, and thus the conversion area is not known for many countries.

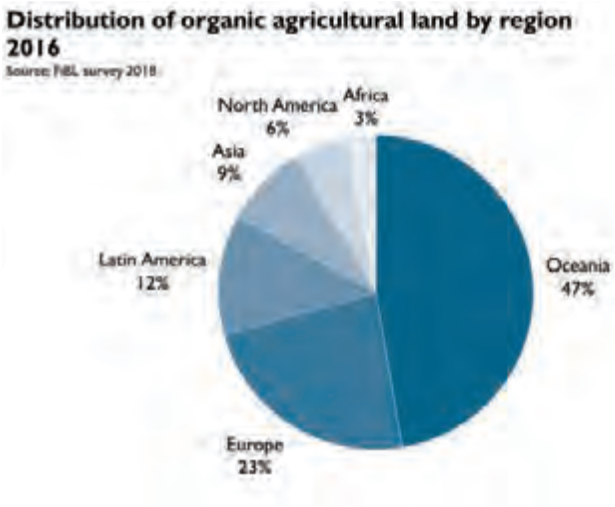


Figure 1: World: Distribution of organic agricultural land by region 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

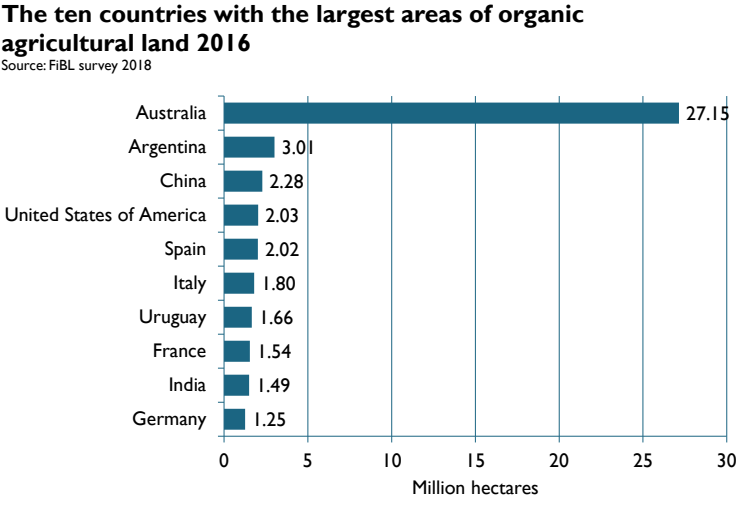


Figure 2: World: The ten countries with the largest areas of organic agricultural land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 3: World: Organic agricultural land (including in-conversion areas) by country 2016 (sorted)

For an alphabetical country list (including information on data year), see page 330.

Country	Hectares
Australia	27'145'021
Argentina	3'011'794
China	2'281'215
United States of America	2'031'318
Spain	2'018'802
Italy	1'796'363
Uruguay	1'656'952
France	1'538'047
India	1'490'000
Germany	1'251'320
Canada	1'099'014
Brazil	750'000
Mexico	673'968
Austria	571'585
Sweden	552'695
Poland	536'579
Turkey	523'777
United Kingdom	490'205
Czech Republic	488'591
Ukraine	381'173
Greece	342'584
Peru	323'578
Kazakhstan	303'381
Russian Federation	289'890
Tanzania, United Republic of	268'729
Uganda	262'282
Latvia	259'146
Portugal	245'052
Finland	238'240
Romania	226'309
Lithuania	221'665
Dominican Republic	205'258
Denmark	201'476
Philippines	198'309
Slovakia	187'024
Hungary	186'347
Ethiopia	186'155
Tunisia	181'076
Estonia	180'852
Bulgaria	160'620
Kenya	154'488
Switzerland	141'249
Falkland Islands (Malvinas)	135'596
Sudan	130'000
Indonesia	126'014
Bolivia	114'306
Egypt	105'908
Sri Lanka	96'318
Congo, D.R.	94'386
Croatia	93'593

Country	Hectares
Belgium	78'452
Ireland	76'701
New Zealand	74'134
Sierra Leone	69'686
Paraguay	64'097
Samoa	63'393
Madagascar	60'023
Thailand	57'189
Viet Nam	53'348
Nigeria	52'421
Netherlands	52'204
Norway	47'621
Pakistan	45'299
Slovenia	43'579
Côte d'Ivoire	42'004
Ecuador	39'824
Azerbaijan	37'630
Nicaragua	33'621
Colombia	31'621
Moldova	30'142
Namibia	30'127
Honduras	28'689
Timor-Leste	28'259
Burkina Faso	27'268
Iceland	22'710
Togo	21'572
Ghana	21'326
Republic of Korea	20'165
Syrian Arab Republic	19'987
Iran	18'871
Saudi Arabia	17'212
Chile	15'838
Papua New Guinea	15'632
Panama	15'183
Serbia	14'358
French Polynesia	14'229
South Africa	14'196
Guatemala	13'380
Fiji	13'347
Tajikistan	12'659
Malawi	12'239
Mali	11'919
Vanuatu	11'794
Morocco	10'000
Japan	9'956
Cambodia	9'717
Nepal	9'361
Kyrgyzstan	7'974
Costa Rica	7'908
Zambia	7'738

Country	Hectares
Lao P.D.R.	7'668
Mozambique	7'412
Senegal	7'172
Bangladesh	6'860
Sao Tome and Principe	6'706
Bhutan	6'632
Taiwan	6'490
Haiti	6'112
Palestine, State of	5'993
Israel	5'758
Solomon Islands	5'723
Benin	5'679
Cyprus	5'550
United Arab Emirates	4'590
Myanmar	4'568
Luxembourg	4'274
Montenegro	3'470
Macedonia, FYROM	3'245
Zimbabwe	3'179
French Guiana (France)	3'051
Comoros	2'577
Kiribati	1'600
Jordan	1'517
Tonga	1'502
Georgia	1'452
El Salvador	1'426
Liechtenstein	1'383
Rwanda	1'284
Cuba	1'282
Armenia	1'240
Lebanon	1'079
Bosnia and Herzegovina	992
Réunion (France)	881
Algeria	772
Guinea-Bissau	689
Albania	662
Malaysia	603
Lesotho	548
Cape Verde	495
New Caledonia	438
Afghanistan	408
Belize	380
Cameroon	380
Jamaica	374
Martinique (France)	297
Niger	262
Faroe Islands	253
Dominica	240
Channel Islands	180
Guadeloupe (France)	168
Niue	164
Kosovo	160
Burundi	103
Grenada	85
Iraq	60
Bahamas	49
Suriname	39
Oman	38
United States Virgin Islands	26
Malta	24
Kuwait	20
Puerto Rico	14
Mauritius	13
Cook Islands	10
Swaziland	5
Andorra	4
Belarus (Wild collection)	
Bermuda (Processing)	
Brunei Darussalam (Aquaculture)	
Chad (Wild collection)	
Guyana (Wild collection)	
Hong Kong (Processing)	
Monaco (Processing)	
San Marino (Processing)	
Singapore (Processing)	
Somalia (Wild collection)	
Uzbekistan (Wild collection)	
Venezuela (Processing)	
World*	**57'816'759**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
**Total includes correction value for French overseas departments*

Organic share of total agricultural land

The share of the world's agricultural land that is organic is 1.2 percent.

The highest organic share of total agricultural land, by region, is in Oceania (6.5 percent) followed by Europe with 2.7 percent. In the European Union, the organic share of the total agricultural land is 6.7 percent. In the other regions, the share is less than one percent (Table 4).

Many individual countries, however, have a much higher organic share (Figure 3), and, in 15 countries, 10 percent or more of the agricultural land is used for organic production (2011: 11 countries). Most of these countries are in Europe.

The country with the highest organic share of agricultural land is Liechtenstein, with almost 38 percent of its agricultural land under organic management. It is interesting to note that many island states have high shares of agricultural land under organic management, such as French Polynesia and Samoa.

However, 60 percent of the countries for which data is available have less than one percent of their agricultural land under organic management (Figure 4).

Table 4: World: Organic agricultural land (including in-conversion areas) and organic share of total agricultural land by region 2016

Region	Organic agr. land [ha]	Share of total agri. land
Africa	1'801'699	0.2%
Asia	4'897'837	0.3%
Europe	13'509'146	2.7%
Latin America	7'135'155	0.9%
North America	3'130'332	0.8%
Oceania	27'346'986	6.5%
World*	57'816'759	1.2%

Source: FiBL survey 2018.
** Total includes correction value for French overseas departments.*

To calculate the percentages, the data on the total agricultural land for most countries was taken from the FAO's Statistical database on the FAOSTAT website.[1] For the European Union, most data was obtained from Eurostat. Where available, data from national sources was used for the total agricultural land (for instance, Austria, Switzerland, and the United States), which sometimes differs from that published by Eurostat or FAOSTAT.

Please note that the calculation of the organic shares based on Eurostat and FAOSTAT data may differ in some cases from the data published by ministries and experts.

[1] FAOSTAT, the FAO Homepage, FAO, Rome at faostat3.fao.org > Agri-Environmental Indicators > Download http://www.fao.org/faostat/en/#data/RL

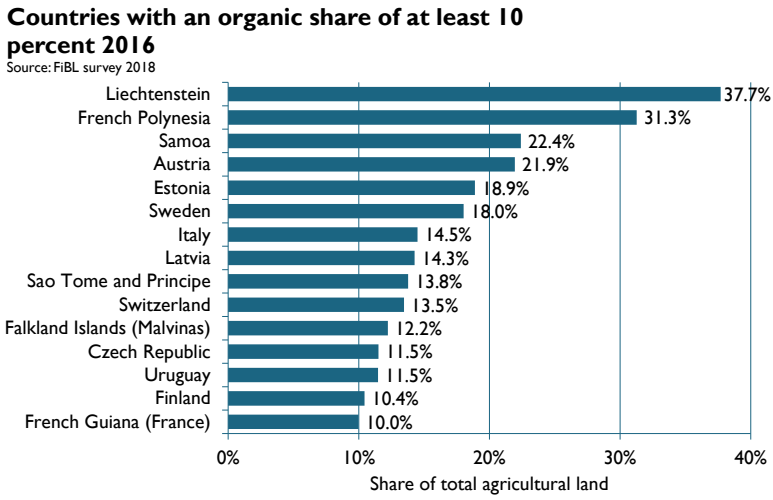


Figure 3: World: Countries with an organic share of the total agricultural land of at least 10 percent 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. Calculation of organic shares based on FAOSTAT, Eurostat, and national sources. For detailed data sources see annex, page 330

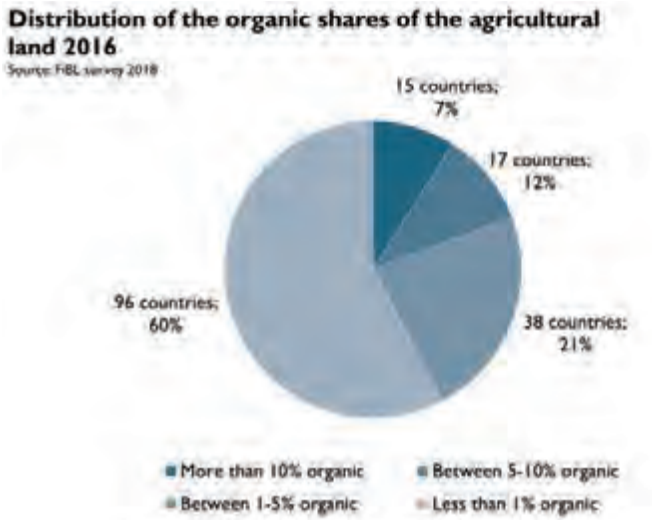


Figure 4: World: Distribution of the organic shares of the agricultural land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. Calculation of organic shares based on FAOSTAT, Eurostat, and national sources. For detailed data sources see annex, page 330

Table 5: World: Organic shares of total agricultural land by country 2016 (sorted)

For an alphabetical country list (including information on data year), see page 326.

Country	Organic share
Liechtenstein	37.7%
French Polynesia	31.3%
Samoa	22.4%
Austria	21.9%
Estonia	18.9%
Sweden	18.0%
Italy	14.5%
Latvia	14.3%
Sao Tome and Principe	13.8%
Switzerland	13.5%
Falkland Islands (Malvinas)	12.2%
Czech Republic	11.5%
Uruguay	11.5%
Finland	10.4%
French Guiana (France)	10.0%
Slovakia	9.9%
Slovenia	9.0%
Dominican Republic	8.7%
Spain	8.7%
Faroe Islands	8.4%
Denmark	7.7%
Lithuania	7.6%
Germany	7.5%
Timor-Leste	7.4%
Portugal	6.7%
Australia	6.7%
Vanuatu	6.3%
Belgium	6.0%
Croatia	6.0%
France	5.5%
Solomon Islands	5.3%
Cyprus	5.1%
Norway	4.8%
Kiribati	4.7%
Tonga	4.6%
Greece	4.2%
Hungary	4.0%
Poland	3.7%
Sri Lanka	3.5%
Bulgaria	3.5%
Niue	3.3%
Luxembourg	3.3%
Fiji	3.1%
United Kingdom	2.9%
Egypt	2.8%
Netherlands	2.8%
Argentina	2.0%
Palestine, State of	2.0%
Comoros	1.9%
Channel Islands	1.9%
Uganda	1.8%
Tunisia	1.8%

Country	Organic share
Réunion (France)	1.8%
Sierra Leone	1.8%
Romania	1.7%
Canada	1.7%
Philippines	1.6%
Ireland	1.5%
Montenegro	1.5%
Turkey	1.4%
Peru	1.3%
Papua New Guinea	1.3%
Bhutan	1.3%
Moldova	1.2%
Iceland	1.2%
United Arab Emirates	1.2%
Republic of Korea	1.2%
Israel	1.1%
Grenada	1.1%
Dominica	1.0%
Martinique (France)	0.9%
Ukraine	0.9%
Honduras	0.9%
India	0.8%
Taiwan	0.8%
Azerbaijan	0.8%
Ecuador	0.7%
Tanzania, United Republic of	0.7%
Panama	0.7%
New Zealand	0.7%
Cook Islands	0.7%
Nicaragua	0.7%
United States Virgin Islands	0.7%
Mexico	0.6%
United States of America	0.6%
Cape Verde	0.6%
Togo	0.6%
Kenya	0.6%
Ethiopia	0.5%
Viet Nam	0.5%
China	0.4%
Costa Rica	0.4%
Serbia	0.4%
Congo, D.R.	0.4%
Guatemala	0.4%
Bahamas	0.3%
Haiti	0.3%
Lao, P.D.R.	0.3%
Guadeloupe (France)	0.3%
Bolivia	0.3%
Paraguay	0.3%
Tajikistan	0.3%
Brazil	0.3%
Thailand	0.3%

Country	Organic share
Macedonia, FYROM	0.3%
New Caledonia	0.2%
Belize	0.2%
Malta	0.2%
Nepal	0.2%
Burkina Faso	0.2%
Indonesia	0.2%
Japan	0.2%
Malawi	0.2%
Côte d'Ivoire	0.2%
Sudan	0.2%
Cambodia	0.2%
Lebanon	0.2%
Benin	0.2%
Madagascar	0.1%
Syrian Arab Republic	0.1%
Jordan	0.1%
Kazakhstan	0.1%
Ghana	0.1%
Russian Federation	0.1%
Pakistan	0.1%
Chile	0.1%
El Salvador	0.1%
Jamaica	0.1%
Senegal	0.1%
Namibia	0.1%
Kyrgyzstan	0.1%
Bangladesh	0.1%
Nigeria	0.1%
Armenia	0.1%
Rwanda	0.1%
Colombia	0.1%
Georgia	0.1%
Albania	0.1%
Bosnia and Herzegovina	0.05%
Kosovo	0.04%
Suriname	0.04%
Guinea-Bissau	0.04%
Iran	0.04%
Myanmar	0.04%
Morocco	0.03%
Zambia	0.03%
Mali	0.03%
Lesotho	0.02%
Cuba	0.02%
Zimbabwe	0.02%
Andorra	0.02%
Mozambique	0.02%
Mauritius	0.01%
South Africa	0.01%
Kuwait	0.01%
Saudi Arabia	0.01%
Malaysia	0.01%
Puerto Rico	0.01%
Burundi	0.01%
Cameroon	0.004%

Country	Organic share
Oman	0.003%
Algeria	0.002%
Afghanistan	0.001%
Iraq	0.001%
Niger	0.001%
Swaziland	0.0004%
Belarus (Wild collection)	
Bermuda (Processing)	
Brunei Darussalam (Aquaculture)	
Chad (Wild collection)	
Guyana (Wild collection)	
Hong Kong (Processing)	
Monaco (Processing)	
San Marino (Processing)	
Singapore (Processing)	
Somalia (Wild collection)	
Uzbekistan (Wild collection)	
Venezuela (Processing)	
World	**1.2%**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. Calculation of organic shares based on FAOSTAT, Eurostat, and national sources. For detailed data sources see annex, page 330

Growth of the organic agricultural land

Compared with 1999, when 11 million hectares were organic, organic agricultural land has increased five-fold. In 2016, 7.5 million hectares, or almost 15 percent, more were reported compared with 2015. This is mainly due to the fact that 5 million additional hectares were reported from Australia. However, many other countries reported an important increase, thus contributing to the global increase of the organic land, like China (42 percent increase; over 0.67 million hectares more) and Uruguay (27 percent increase; almost 0.35 million hectares more), and India and Italy, both with an additional 0.3 million hectares.

In 2016, the area of organic agricultural land increased in all regions (Table 6). The highest absolute growth was in Oceania (+22.9 percent, +5.1 million hectares), followed by Asia (+23.5 percent, over +0.9 million hectares) and Europe (+6.7 percent, +0.8 million hectares). In 2016, Latin America reported the first regional growth after several years of drops (+6 percent, almost 0.4 million hectares).

Eighty-three countries experienced an increase in the area of their organic agricultural land, while a decrease was reported in 39 countries. In 51 countries, the organic agricultural area either did not change or no new data was received.

The figures shown in the following tables and graphs with historical figures may differ from what was previously communicated, as data revisions were received and included in the FiBL database.

Table 6: World: Organic agricultural land (including in-conversion areas) by region: growth 2015-2016

Region	Organic agr. land 2015 [ha]	Organic agr. land 2016 [ha]	1 year growth [ha]	1 year growth [%]	10 years growth [ha]	10 years growth [%]
Africa	1'682'788	1'801'699	+118'911	+7.1%	+939'348	+108.9%
Asia	3'965'289	4'897'837	+932'549	+23.5%	+1'995'140	+68.7%
Europe	12'663'914	13'509'146	+845'232	+6.7%	+5'717'098	+73.4%
Latin America	6'737'231	7'135'155	+397'924	+5.9%	+1'549'488	+27.7%
North America	2'973'885	3'130'332	+156'446	+5.3%	+837'975	+36.6%
Oceania	22'257'008	27'346'986	+5'089'977	+22.9%	+15'272'436	+126.5%
World*	**50'276'260**	**57'816'759**	**+7'540'499**	**+15.0%**	**+26'307'088**	**+83.5%**

Source: FiBL survey 2018, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 330

** Total includes correction value for French Overseas Departments.*

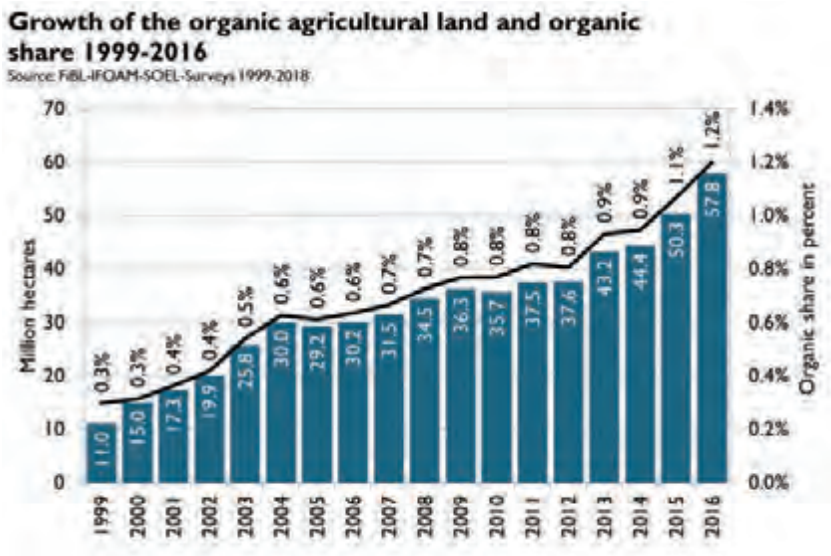


Figure 5: World: Growth of the organic agricultural land and organic share 1999-2016

Source: FiBL-IFOAM-SOEL surveys 2000-2018

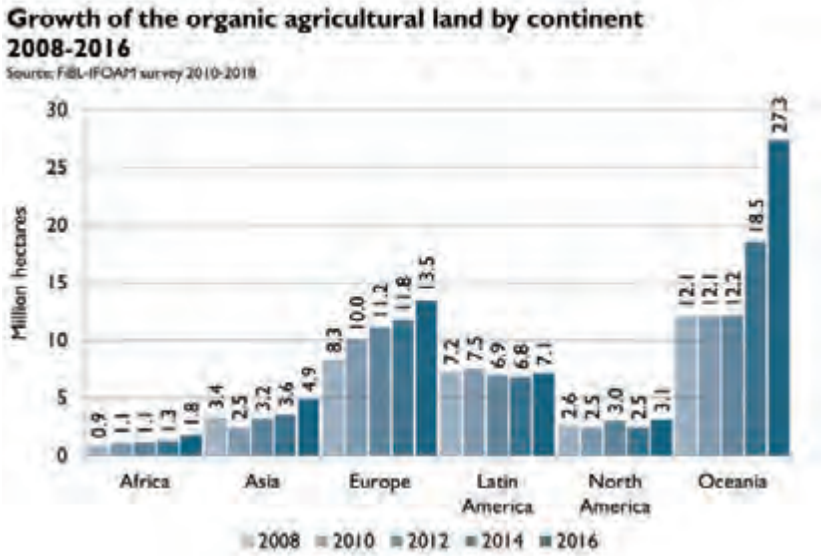


Figure 6: World: Growth of the organic agricultural land by continent 2008 to 2016

Source: FiBL-IFOAM-SOEL surveys 2010-2018

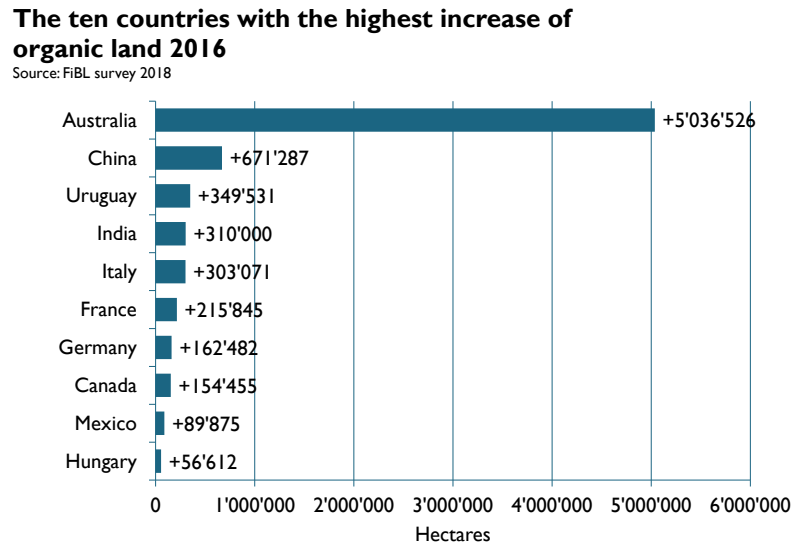


Figure 7: World: The ten countries with the highest increase of organic agricultural land 2016

Source: FiBL survey 2018, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 330

Table 7: World: Development of organic agricultural land by country 2013-2016

Important note: A direct year-to-year comparison is not always possible for many countries, because the data sources may have changed over the years, or data access may have improved. The figures published here may differ from previously published data due to data revisions. Data are not available for all countries for every year and; in these cases, the figure for the previous year is used (see also page 330). At statistics.fibl.org data back to 2000 is available.[1]

Country	2013 [ha]	2014 [ha]	2015 [ha]	2016 [ha]	1 year growth [ha]	10 years growth [ha]
Afghanistan	61		81	408	+327	+386
Albania	515	662	662	662	-	+479
Algeria	700	700	706	772	+66	-778
Andorra	1	4	2	4	+2	+4
Angola	2'486				-	-
Argentina	3'281'193	3'061'965	3'073'412	3'011'794	-61'618	+233'835
Armenia	1'000	1'000	1'832	1'240	-592	+904
Australia	17'150'000	18'340'000	22'108'495	27'145'021	+5'036'526	+15'156'977
Austria	558'623	551'062	553'570	571'585	+18'015	+51'515
Azerbaijan	23'331	23'331	37'630	37'630	-	+16'390
Bahamas	49	49	49	49	-	+49
Bangladesh	6'860	6'860	6'860	6'860	-	+6'860
Belarus			Wild collection only			
Belgium	62'529	66'704	68'818	78'452	+9'634	+45'824

[1] The data is available at http://www.organic-world.net/statistics/statistics-data-tables.html.

Country	2013 [ha]	2014 [ha]	2015 [ha]	2016 [ha]	1 year growth [ha]	10 years growth [ha]
Belize	802	892	840	380	-460	-352
Benin	1'987	2'344	2'364	5'679	+3'315	+4'191
Bermuda			Processing only			
Bhutan	6'726	6'829	6'950	6'632	-318	+6'573
Bolivia	145'894	114'306	114'306	114'306	-	+73'302
Bosnia and Herzegovina	292	353	576	992	+416	+301
Brazil	705'233	750'000	750'000	750'000	-	-182'120
Brunei Darussalam			Wild collection only			
Bulgaria	56'287	74'351	118'552	160'620	+42'068	+146'974
Burkina Faso	16'689	20'110	23'923	27'268	+3'345	+20'001
Burundi	550	148	184	103	-80	+103
Cambodia	9'889	9'889	12'058	9'717	-2'342	+5'397
Cameroon	663	380	380	380	-	+44
Canada	869'239	903'948	944'558	1'099'014	+154'455	+542'741
Cape Verde			495	495	-	+495
Chad			Wild collection only			
Channel Islands	240	180	180	180	-	+180
Chile	23'469	19'932	19'932	15'838	-4'094	+3'270
China	2'094'000	1'925'000	1'609'928	2'281'215	+671'287	+728'215
Colombia	31'621	31'621	31'621	31'621	-	-12'675
Comoros	2'642	1'723	1'534	2'577	+1'043	+2'577
Congo, D.R.	51'838	89'058	94'386	94'386	-	+88'318
Cook Islands	20	10	10	10	-	+10
Costa Rica	7'449	7'832	7'819	7'908	+89	+34
Côte d'Ivoire	19'263	19'548	40'078	42'004	+1'926	+41'062
Croatia	40'641	50'054	75'883	93'593	+17'710	+86'032
Cuba	7'389	2'979	4'338	1'282	-3'056	-13'032
Cyprus	4'303	3'887	4'699	5'550	+851	+3'228
Czech Republic	474'231	472'663	478'033	488'591	+10'558	+175'701
Denmark	169'298	165'773	166'788	201'476	+34'688	+56'083
Dominica	240	240	240	240	-	+240
Dominican Republic	180'609	166'220	163'936	205'258	+41'323	+82'169
Ecuador	42'781	45'818	45'818	39'824	-5'994	-9'372
Egypt	85'801	85'801	85'000	105'908	+20'908	+86'702
El Salvador	6'736	6'736	13'728	1'426	-12'302	-6'052
Estonia	151'256	155'560	155'806	180'852	+25'046	+101'322
Ethiopia	160'987	160'987	186'155	186'155	-	+45'850
Falkland Islands (Malvinas)	403'212	403'212	135'596	135'596	-	+135'596
Faroe Islands	253	253	253	253	-	+241
Fiji	2'164	9'218	10'939	13'347	+2'408	+13'247
Finland	206'170	212'653	225'235	238'240	+13'005	+89'480
France	1'060'756	1'118'845	1'322'202	1'538'047	+215'845	+980'914
French Guiana (France)	2'702	2'014	2'746	3'051	+305	+3'051
French Polynesia	2'469	93	167	14'229	+14'062	+14'229
Gambia					-	-86
Georgia	1'999	1'292	1'452	1'452	-	+1'201
Germany	1'044'955	1'047'633	1'088'838	1'251'320	+162'482	+385'984
Ghana	28'201	15'563	23'380	21'326	-2'053	-3'123
Greece	383'606	362'826	407'069	342'584	-64'485	+62'689

Country	2013 [ha]	2014 [ha]	2015 [ha]	2016 [ha]	1 year growth [ha]	10 years growth [ha]
Grenada	85	85	85	85	-	+85
Guadeloupe (France)	193	69	104	168	+64	+168
Guatemala	13'380	13'380	13'380	13'380	-	+6'095
Guinea-Bissau	1'843	1'843	3'403	689	-2'714	-4'911
Guyana			Wild collection only			
Haiti	2'878	2'878	4'250	6'112	+1'862	+6'112
Honduras	24'950	24'950	22'846	28'689	+5'843	+20'511
Hong Kong			Processing only			
Hungary	131'018	124'841	129'735	186'347	+56'612	+64'077
Iceland	9'710	11'174	9'797	22'710	+12'913	+16'481
India	510'000	720'000	1'180'000	1'490'000	+310'000	+459'689
Indonesia	65'688	113'638	130'384	126'014	-4'370	+56'408
Iran	12'156	11'601	14'574	18'871	+4'297	+17'958
Iraq	40	51	58	60	+3	+60
Ireland	53'565	51'871	73'037	76'701	+3'664	+35'579
Israel	6'289	6'640	5'758	5'758	-	+65
Italy	1'317'177	1'387'913	1'492'579	1'796'363	+303'784	+646'110
Jamaica	542	27	167	374	+207	-63
Japan	9'889	9'937	10'043	9'956	-87	+3'330
Jordan	2'898	2'371	1'706	1'517	-190	+470
Kazakhstan	291'203	291'203	303'381	303'381	-	+300'988
Kenya	4'894	4'894	150'479	154'488	4'009	+149'852
Kiribati		1'600	1'600	1'600	-	+1'600
Kosovo	114	114	160	160	-	+160
Kuwait			20	20	-	+20
Kyrgyzstan	2'856	6'929	7'565	7'974	+408	-7'174
Lao, P.D.R.	6'442	6'275	1'445	7'668	+6'223	+7'668
Latvia	200'433	203'443	231'608	259'146	+27'538	+108'641
Lebanon	2'571	1'079	1'222	1'079	-143	-867
Lesotho	560	560	548	548	-	+548
Liechtenstein	1'137	1'135	1'107	1'383	+276	+335
Lithuania	166'330	164'390	213'579	221'665	+8'086	+101'247
Luxembourg	4'447	4'490	4'216	4'274	+58	+894
Macedonia, FYROM	3'146	3'146	2'174	3'245	+1'071	+1'912
Madagascar	30'265	30'265	121'011	60'023	-60'988	+50'567
Malawi	265	102	207	12'239	+12'032	+11'914
Malaysia	603	603	603	603	-	-937
Mali	3'727	11'919	11'919	11'919	-	+8'517
Malta	7	34	30	24	-6	+12
Martinique (France)	269	248	279	297	+18	+297
Mauritius	16	6	1	13	+11	+13
Mayotte	5	5	9		-9	-
Mexico	501'364	501'364	584'093	673'968	+89'875	+280'507
Moldova	22'102	22'102	28'729	30'142	+1'413	+18'447
Monaco			Processing only			
Mongolia	12'922	-	-	-	-	-
Montenegro	3'068	3'289	3'213	3'470	+257	-21'581
Morocco	8'660	8'660	9'330	10'000	+670	+6'410
Mozambique	13'998	15'421	16'176	7'412	-8'764	+6'684
Myanmar	897	5'320	5'626	4'568	-1'059	+4'568
Namibia	23'086	30'082	30'127	30'127	-	+30'047

Country	2013 [ha]	2014 [ha]	2015 [ha]	2016 [ha]	1 year growth [ha]	10 years growth [ha]
Nepal	9'361	9'361	9'361	9'361	-	+1'167
Netherlands	49'394	49'159	49'273	52'204	+2'931	+5'185
New Caledonia		411	411	438	+27	+438
New Zealand	106'753	106'753	74'134	74'134	-	+10'251
Nicaragua	33'621	33'621	33'621	33'621	-	-37'351
Niger	106	262	262	262	-	+131
Nigeria	250	5'021	5'021	52'421	+47'400	+49'267
Niue	61	164	52	164	+112	+5
Norway	51'662	49'827	47'640	47'621	-19	-1'242
Oman	38	38	38	38	-	+38
Pakistan	22'397	23'828	34'209	45'299	+11'089	+20'298
Palestine, State of	6'354	6'896	6'014	5'993	-21	+2'627
Panama	15'183	15'183	15'183	15'183	-	+9'939
Papua New Guinea	20'939	19'796	15'829	15'632	-197	+13'135
Paraguay	62'274	54'444	64'097	64'097	-	+12'907
Peru	388'448	263'012	327'245	323'578	-3'667	+218'864
Philippines	86'155	110'084	234'642	198'309	-36'333	+182'965
Poland	669'863	657'902	580'731	536'579	-44'152	+250'701
Portugal	197'295	212'346	241'375	245'052	+3'677	+11'577
Puerto Rico		14	14	14	-	+14
Republic of Korea	21'210	18'306	18'136	20'165	+2'029	+10'436
Réunion (France)	595	659	718	881	+163	+881
Romania	301'148	289'252	245'924	226'309	-19'615	+94'853
Russian Federation	144'254	245'846	385'140	289'890	-95'250	+256'089
Rwanda	3'705	2'248	1'169	1'284	+115	+772
Samoa	33'515	40'477	27'656	63'393	+35'737	+56'150
San Marino			Processing only			
Sao Tome and Principe	4'051	6'706	6'706	6'706	-	+3'845
Saudi Arabia	36'595	37'563	36'487	17'212	-19'275	-5'003
Senegal	6'929	6'929	7'047	7'172	+125	+5'583
Serbia	8'228	9'548	15'298	14'358	-940	+13'528
Sierra Leone			15'347	69'686	+54'339	+69'686
Singapore			Processing only			
Slovakia	157'848	180'307	181'882	187'024	+5'142	+69'118
Slovenia	38'665	41'237	42'188	43'579	+1'391	+14'257
Solomon Islands	1'307	5'302	5'612	5'723	+111	+2'095
Somalia			Wild collection only			
South Africa	37'466	19'501	34'203	14'196	-20'007	-35'816
Spain	1'610'129	1'710'475	1'968'570	2'018'802	+50'232	+1'213'918
Sri Lanka	19'517	62'560	96'318	96'318	-	+79'318
Sudan	130'000	130'000	130'000	130'000	-	+73'676
Suriname		39	39	39	-	-1
Swaziland	3	8	571	5	-566	2
Sweden	500'996	501'831	518'983	552'695	+33'712	+244'422
Switzerland	128'140	133'973	137'234	141'249	+4'015	+24'608
Syrian Arab Republic	19'987	19'987	19'987	19'987	-	-8'474
Taiwan	5'937	5'993	6'490	6'490	-	+4'477

Country	2013 [ha]	2014 [ha]	2015 [ha]	2016 [ha]	1 year growth [ha]	10 years growth [ha]
Tajikistan	12'659	12'659	12'659	12'659	-	+12'659
Tanzania	186'537	186'537	268'729	268'729	-	+206'548
Thailand	33'840	37'684	45'587	57'189	+11'602	+38'033
Timor-Leste	24'690	25'479	25'232	28'259	+3'027	+4'469
Togo	4'638	15'321	15'324	21'572	+6'248	+19'027
Tonga	398	1'997	2'629	1'502	-1'128	+1'502
Tunisia	139'087	139'087	145'629	181'076	+35'447	+26'283
Turkey	461'396	491'977	486'069	523'777	+37'708	+399'514
Uganda	230'232	240'197	241'150	262'282	+21'132	-33'921
Ukraine	393'400	400'764	410'550	381'173	-29'377	+131'301
United Arab Emirates	4'150	4'286	4'286	4'590	+304	+4'585
United Kingdom	558'718	521'475	495'929	490'205	-5'724	-169'995
United States	2'178'471	1'554'517	2'029'327	2'031'318	+1'991	+295'234
US Virgin Islands		26	26	26	-	+26
Uruguay	930'965	1'307'421	1'307'421	1'656'952	+349'531	+725'987
Uzbekistan		213	Wild collection only		-	-1'854
Vanuatu	4'106	6'594	9'474	11'794	+2'320	+2'798
Venezuela		47	Processing only		-	-2'441
Viet Nam	37'490	43'007	76'666	53'348	-23'318	+41'228
Zambia	7'552	7'552	8'138	7'738	-400	+5'208
Zimbabwe	374	474	980	3'179	+2'199	+3'179
World	**43'196'160**	**44'403'982**	**50'276'260**	**57'816'759**	**+7'540'499**	**+26'307'088**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see previous editions of "The World of Organic Agriculture" and annex, page 330
**Total includes correction value for French overseas departments.*

Further organic areas

Apart from land dedicated to organic agriculture, there are further areas of organic land dedicated to other activities. The largest part of these are wild collection areas and areas for beekeeping. Further non agricultural areas include aquaculture, forests, and grazing areas on non-agricultural land. These areas totalled 39.7 million hectares, and all the organic areas together summed up to 97.5 million hectares.

It should be noted that many countries do not report non-agricultural organic areas. We can, therefore, assume that the data on the other areas are incomplete, in particular, the data on aquaculture and forests.

For organic aquaculture and beekeeping, other indicators (production and number of beehives) are more relevant than the area, and the significance of organic aquaculture and beekeeping cannot be measured in hectares. In Table 8 and Table 9, some area data on aquaculture can be found, but it should be noted that it is not complete.

For more information on aquaculture and beekeeping, see pages 88 and 86. More information on the use of the wild collection areas is available in the corresponding chapter, page 82.

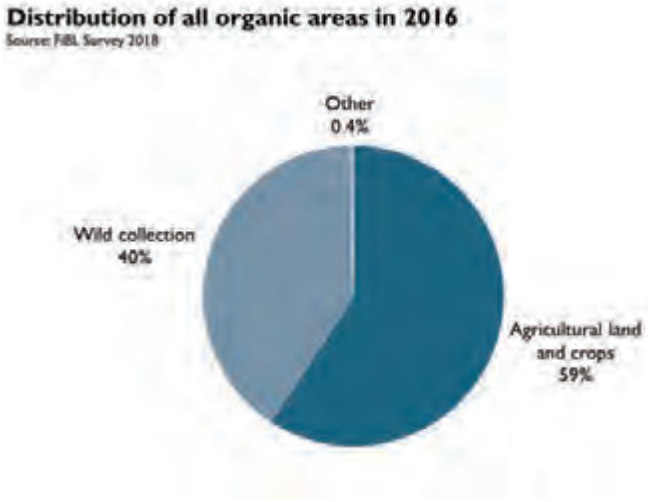


Figure 8: World: Distribution of all organic areas 2016. Total: 97.5 million hectares

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 8: World: Organic areas: Agricultural land (including conversion areas) and further organic areas by region in 2016

Region	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Africa	1'801'699		13'723	20'000	12'119'609		13'955'031
Asia	4'897'837	68'181	123		6'259'421	1'507	11'227'069
Europe	13'509'146		19'533		16'665'097		30'193'776
Latin America	7'135'155	3'791			4'194'720	11'930	11'345'597
North America	3'130'332		254'655		79'855		3'464'842
Oceania	27'346'986				765		27'347'751
World**	**57'816'759**	**71'972**	**288'034**	**20'000**	**39'319'467**	**13'437**	**97'529'669**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.
**Wild collection and beekeeping areas*
***Total includes correction value for French overseas departments.*

Table 9: World: Organic areas: Agricultural land (including conversion areas) and further organic areas by country 2016

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Afghanistan	408						408
Albania	662				467'783		468'445
Algeria	772				628		1'400
Andorra	4						4
Argentina	3'011'794				319'370	11'930	3'343'094
Armenia	1'240				6'000		7'240
Australia	27'145'021						27'145'021
Austria	571'585						571'585
Azerbaijan	37'630	123	123		1'063		38'939
Bahamas	49						49
Bangladesh	6'860	5'848					12'708
Belarus					2'742		2'742
Belgium	78'452				3		78'454
Belize	380						380
Benin	5'679				4'505		10'184
Bermuda				Processing only			
Bhutan	6'632				15'787		22'419
Bolivia	114'306				922'991		1'037'297
Bosnia and Herzegovina	992				69'310		70'302
Brazil	750'000				1'213'351		1'963'351
Brunei Darussalam		29					29
Bulgaria	160'620				307'020		467'640
Burkina Faso	27'268				80'068		107'336
Burundi	103						103

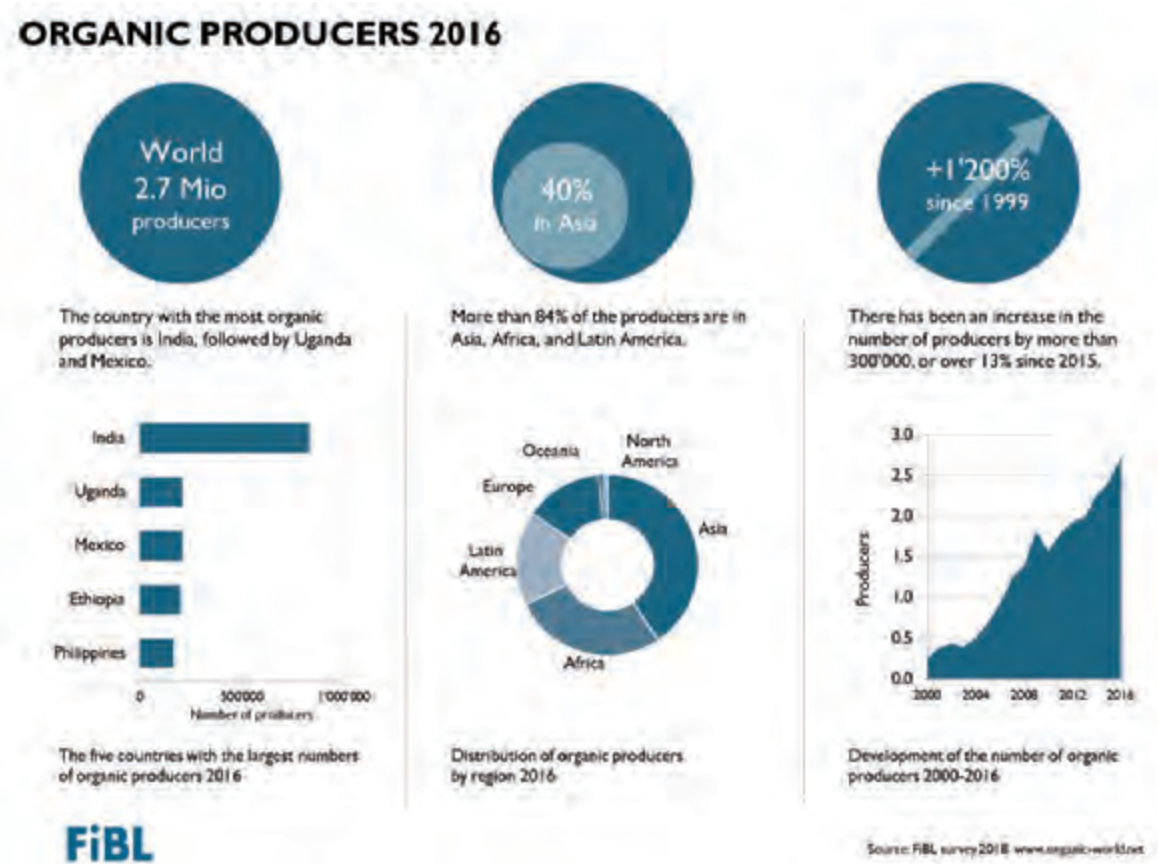
Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Cambodia	9'717						9'717
Cameroon	380						380
Canada	1'099'014		49'459		79'517		1'227'990
Cape Verde	495						495
Chad					124'130		124'130
Channel Islands	180						180
Chile	15'838				116'137		131'975
China	2'281'215				811'680		3'092'895
Colombia	31'621				7'320		38'941
Comoros	2'577				63		2'641
Congo, D.R.	94'386						94'386
Cook Islands	10						10
Costa Rica	7'908	664					8'571
Côte d'Ivoire	42'004				344		42'348
Croatia	93'593				8		93'601
Cuba	1'282						1'282
Cyprus	5'550						5'550
Czech Republic	488'591						488'591
Denmark	201'476				2'648		204'124
Dominica	240						240
Dominican Republic	205'258						205'258
Ecuador	39'824	3'123			1'260		44'207
Egypt	105'908				60'000		165'908
El Salvador	1'426						1'426
Estonia	180'852				40'579		221'431
Ethiopia	186'155				9'033		195'188
Falkland Islands (Malvinas)	135'596						135'596
Faroe Islands	253						253
Fiji	13'347				653		14'000
Finland	238'240				11'628'576		11'866'816
France	1'538'047						1'538'047
French Guiana (France)	3'051						3'051
French Polynesia	14'229						14'229
Georgia	1'452				215	1'507	3'174
Germany	1'251'320						1'251'320
Ghana	21'326				33'592		54'918
Greece	342'584				317'053		659'637
Grenada	85						85
Guadeloupe (France)	168						168
Guatemala	13'380				5		13'385
Guinea-Bissau	689						689
Guyana					58'000		58'000
Haiti	6'112						6'112
Honduras	28'689						28'689

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Hong Kong				Processing only			
Hungary	186'347						186'347
Iceland	22'710				212'468		235'178
India	1'490'000				4'220'000		5'710'000
Indonesia	126'014	3'320			10'700		140'034
Iran	18'871				30'502		49'373
Iraq	60						60
Ireland	76'701						76'701
Israel	5'758						5'758
Italy	1'796'363				176'628		1'972'991
Jamaica	374				36		410
Japan	9'956						9'956
Jordan	1'517						1'517
Kazakhstan	303'381				863		304'244
Kenya	154'488				121'625		276'113
Kiribati	1'600						1'600
Kosovo	160				179'580		179'740
Kuwait	20						20
Kyrgyzstan	7'974				10		7'983
Lao, P.D.R.	7'668				17'068		24'736
Latvia	259'146						259'146
Lebanon	1'079				393		1'472
Lesotho	548				50'000		50'548
Liechtenstein	1'383						1'383
Lithuania	221'665						221'665
Luxembourg	4'274						4'274
Macedonia, FYROM	3'245				556'600		559'845
Madagascar	60'023				10'897		70'920
Malawi	12'239				6'319		18'558
Malaysia	603						603
Mali	11'919				8'146		20'065
Malta	24						24
Martinique (France)	297						297
Mauritius	13						13
Mexico	673'968				1'292'306		1'966'274
Moldova	30'142						30'142
Monaco				Processing only			
Montenegro	3'470				143'410		146'880
Morocco	10'000		35		170'035		180'070
Mozambique	7'412				147'930		155'342
Myanmar	4'568						4'568
Namibia	30'127				2'041'901		2'072'028
Nepal	9'361				24'422		33'783
Netherlands	52'204						52'204
New Caledonia	438						438
New Zealand	74'134						74'134
Nicaragua	33'621				11'463		45'084
Niger	262						262
Nigeria	52'421		150		1'000		53'571
Niue	164				112		276

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Norway	47'621						47'621
Oman	38						38
Pakistan	45'299				44'620		89'919
Palestine, State of	5'993						5'993
Panama	15'183						15'183
Papua New Guinea	15'632						15'632
Paraguay	64'097				3'067		67'164
Peru	323'578	4			249'413		572'995
Philippines	198'309						198'309
Poland	536'579						536'579
Portugal	245'052		19'533		40'000		304'585
Puerto Rico	14						14
Republic of Korea	20'165						20'165
Réunion (France)	881						881
Romania	226'309				1'787'548		2'013'857
Russian Federation	289'890				30'921		320'811
Rwanda	1'284				12		1'296
Samoa	63'393						63'393
San Marino				Processing only			
Sao Tome and Principe	6'706						6'706
Saudi Arabia	17'212						17'212
Senegal	7'172				22'000		29'172
Serbia	14'358				1'550		15'908
Sierra Leone	69'686						69'686
Singapore				Processing only			
Slovakia	187'024						187'024
Slovenia	43'579				13'238		56'817
Solomon Islands	5'723						5'723
Somalia					849'482		849'482
South Africa	14'196				1'092'563		1'106'758
Spain	2'018'802						2'018'802
Sri Lanka	96'318						96'318
Sudan	130'000				84'960		214'960
Suriname	39						39
Swaziland	5						5
Sweden	552'695						552'695
Switzerland	141'249						141'249
Syrian Arab Republic	19'987				8'000		27'987
Taiwan	6'490						6'490
Tajikistan	12'659				1'055'890		1'068'549
Tanzania	268'729				15'040		283'769
Thailand	57'189	662					57'851
Timor-Leste	28'259						28'259
Togo	21'572				242		21'814
Tonga	1'502						1'502

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Tunisia	181'076		13'538	20'000	25'486		240'100
Turkey	523'777				137'433		661'210
Uganda	262'282				158'328		420'610
Ukraine	381'173				550'000		931'173
United Arab Emirates	4'590						4'590
United Kingdom	490'205						490'205
United States	2'031'318		205'196		338		2'236'852
Uruguay	1'656'952						1'656'952
US Virgin Islands	26						26
Uzbekistan					5'000		5'000
Vanuatu	11'794						11'794
Venezuela				Processing only			
Viet Nam	53'348	58'199			7'208		118'755
Zambia	7'738				6'700'680		6'708'418
Zimbabwe	3'179				300'600		303'779
World**	**57'816'759**	**71'972**	**288'034**	**20'000**	**39'319'467**	**13'437**	**97'529'669**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.
**Wild collection and beekeeping areas*
***Total includes correction value for French overseas departments.*



Infographic 3: Organic producers 2016

Source: FiBL survey 2018

Organic producers and other operator types

Producers

There were over 2.7 million organic producers worldwide. According to the data obtained, over 80 percent of the producers are in Asia, Africa, and Latin America (Figure 9). The country with the most organic producers is India, followed by Uganda and Mexico (Figure 10).

There has been an increase in the number of producers of over 300'000, or over 13 percent, compared with 2015. In 2016, India, Uganda, Italy, Mexico, and Viet Nam reported significant increases. These five countries represent most of the total global increase.

Reporting precise figures on the number of organic farms remains difficult as some countries:

- report only the numbers of companies, projects, or grower groups, which may each comprise a number of individual producers;
- do not provide data on the number of producers at all;
- include collectors in case there are wild collection areas, and
- provide the number of producers per crop, and there may be overlaps for those growers who grow several crops.

The number of producers should, therefore, be treated with caution, and it may be assumed that the total number of organic producers is higher than that reported here.

Table 10: World: Development of the numbers of producers by region 2015 to 2016

Region	2015 [no.]	2016 [no.]	1 year growth [no.]	1 year growth [%.]	10 years growth [no.]	10 years growth [%.]
Africa	719'710	741'367	+21'657	+3.0%	+213'930	+40.6%
Asia	851'016	1'108'040	+257'024	+30.2%	+872'599	+370.6%
Europe	348'986	373'240	+24'254	+6.9%	+161'031	+75.9%
Latin America	456'806	458'532	+1'726	+0.4%	+218'586	+91.1%
North America	19'356	18'422	-934	-4.8%	+3'126	+20.4%
Oceania	22'009	27'366	+5'357	+24.3%	+19'806	+262.0%
Total	**2'417'883**	**2'726'967**	**+309'084**	**+12.8%**	**+1'489'078**	**+120.3%**

Source: FiBL survey 2016, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

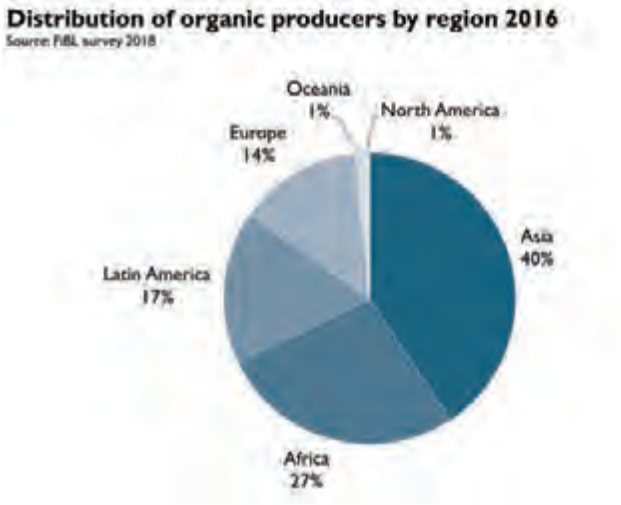


Figure 9: World: Distribution of organic producers by region 2016 (Total: 2.7 million producers)

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

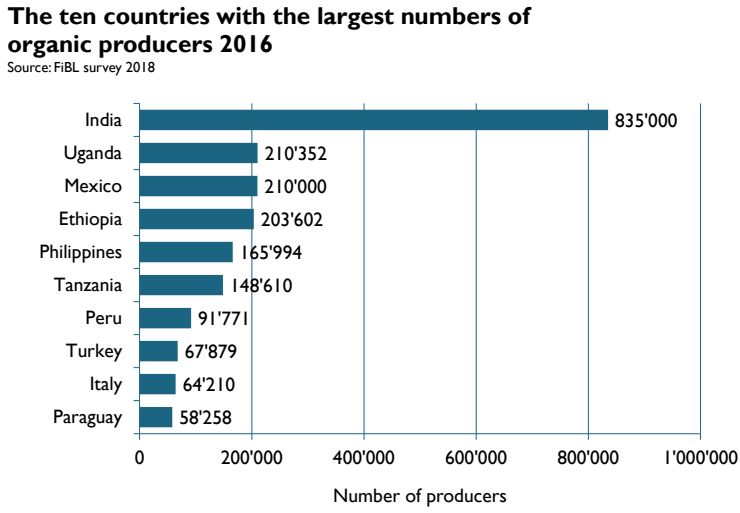


Figure 10: World: The ten countries with the largest numbers of organic producers 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Further operator types

Regarding data on further operator types, there are over 81'000 processors and at least 5'100 importers, most of them in Europe. However, not all countries reported the number of processors, exporters, importers, or other operator types. For instance, data for the United States is missing, and it can be assumed that the number of processors, importers, and exporters is far higher than what is indicated in the table below.

Further operator types reported were beekeepers, exporters, importers, smallholder groups, and aquaculture enterprises as well as the number of collectors (wild collection).

Table 11: World: Organic producers and other operator types by country 2016

For many countries (particularly those with no private or governmental data collection system), data on the various operator types is missing or incomplete, and only the number of producers or the total number of all operators is available.

Country	Producers[1]	Processors	Importers	Exporters
Albania (2014)	51	22	4	25
Algeria	64	3		
Andorra		3		
Argentina	1'148	340		99
Armenia	16	14		
Australia	2'075	1'163	92	169
Austria	24'213	1'683	57	10
Azerbaijan (2015)	305	50	50	
Bangladesh (2011)	9'335			
Belgium	1'946	1'116	183	84
Belize	820	820		3
Benin	3'153	9		8
Bhutan	4'293			
Bolivia (2014)	12'114	273		
Bosnia and Herzegovina	45	17		13
Brazil (2015)	10'336	23		24
Brunei Darussalam		Aquaculture only		
Bulgaria	6'964	175	13	9
Burkina Faso	9'036	36		35
Burundi (2015)	35			
Cambodia (2013)	6'753			
Cameroon (2014)	193	6		17
Canada	4'205	1'739		
Chile (2013)	446	197		88
China	6'308	3'865	66	1'198
Colombia (2011)	4'775	47		45
Comoros (2015)	1'540	5		5
Congo, D.R.	36'571	6		7
Cook Islands	50			
Costa Rica (2009)	3'000	61		12
Côte d'Ivoire	494	10		10
Croatia	3'546	312	8	

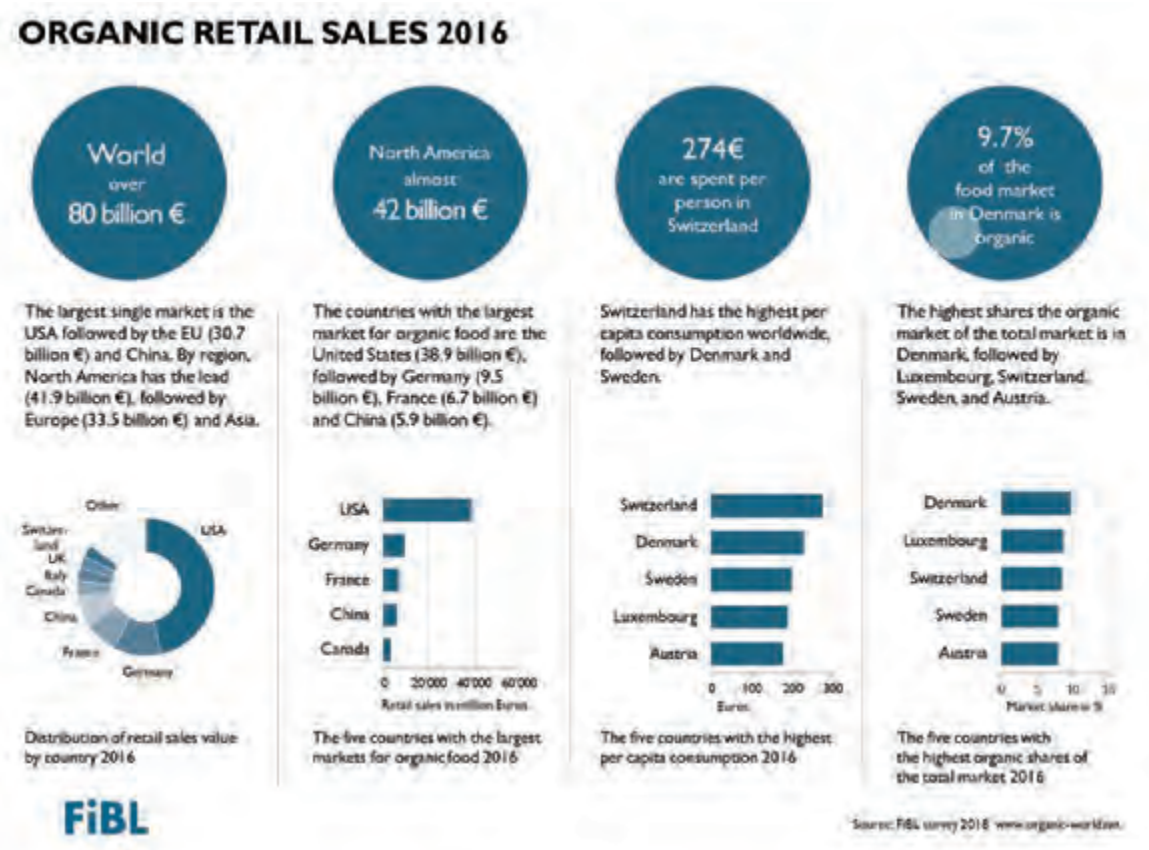
[1] Some countries report only the numbers of companies, projects or growers groups, which my each compromise a number of producers. See also explanation on page 60.

Country	Producers[1]	Processors	Importers	Exporters
Cuba	508	6		3
Cyprus	1'174	57	4	4
Czech Republic	4'271	616	190	96
Denmark	3'306	972	78	80
Dominican Republic	29'311	152		14
Ecuador	12'483	22		
Egypt	970	242		242
El Salvador (2007)	2'000	9		
Estonia	1'753	135	26	
Ethiopia (2015)	203'602	23		40
Falkland Islands (Malvinas)	5			5
Fiji	1'547	12		
Finland	4'493	535	80	11
France	32'264	12'826	223	
French Guiana (France)	62	6		
French Polynesia	140	6		
Georgia (2015)	1'075			
Germany	27'132	14'501	1'598	787
Ghana	2'673	26		16
Greece	20'197	1'495	20	69
Grenada (2010)	3			
Guadeloupe (France)	37	7		
Guatemala (2010)	3'008	23		92
Haiti (2013)	1'210			
Honduras	5'686			25
Hungary	3'414	442	34	
Iceland	28	30		
India	835'000	699		669
Indonesia	5'810	283		
Iran	3'879	25		33
Ireland	1'767	277	24	
Israel (2015)	303	303	41	40
Italy	64'210	16'578	363	518
Jamaica	127			
Japan (2012)	2'130	1'805	193	
Jordan	19	4		4
Kazakhstan (2015)	29	29	7	7
Kenya	37'295	22	15	32
Kiribati	900			
Kosovo (2015)	100	5		
Kyrgyzstan	1'427	4		
Lao, P.D.R. (2011)	1'342			
Latvia	4'145	48	9	
Lebanon	101	51	5	3
Lesotho (2015)	4	4		3
Liechtenstein	43			
Lithuania	2'539	65	11	
Luxembourg	93	82	4	
Macedonia, FYROM	509	17		6
Madagascar	20'210	115		111
Malawi	7	7		5
Malaysia (2013)	119			
Mali (2014)	12'619	6		8
Malta	14	7	13	
Martinique (France)	50	8		
Mauritius	22			

Country	Producers[1]	Processors	Importers	Exporters
Mexico	210'000	154		44
Moldova	114			72
Montenegro	280	12		
Morocco	80	75		
Mozambique	3	7		7
Myanmar	12	12		
Namibia (2015)	25	10		
Nepal (2013)	687			
Netherlands	1'557	990	364	81
New Caledonia	94			
New Zealand (2015)	842	285	17	88
Nicaragua (2009)	10'060	30		4
Nigeria	102	81		80
Niue	51			
Norway	2'083	399	79	
Oman (2013)	4			
Pakistan (2015)	111	26		
Palestine, State of	1'553	46		4
Panama (2013)	1'300			
Papua New Guinea	14'914	13		
Paraguay (2014)	58'258	22		23
Peru	91'771			153
Philippines (2015)	165'994	66		31
Poland	22'435	705	120	180
Portugal	4'313	616	9	7
Puerto Rico	5			
Republic of Korea	12'896	729		
Réunion (France)	203	29		
Romania	10'083	150	5	5
Russian Federation	55	35		9
Rwanda	4'013	5		
Samoa	1'614	3		
Sao Tome and Principe (2014)	3'738	5		5
Saudi Arabia (2015)	151			
Senegal (2015)	18'398	12		
Serbia	286	44	39	8
Sierra Leone	1'400	8		
Singapore		5		
Slovakia	431	36	13	
Slovenia	3'513	310	14	
Solomon Islands	1'510			
South Africa	196	156		72
Spain	36'207	3'810	205	92
Sri Lanka	8'713	237		311
Sudan (2015)	354	3		3
Sweden	5'741	1'144	165	10
Switzerland	6'348	1'224	501	
Syrian Arab Republic (2010)	2'458	9		
Taiwan (2015)	2'598			
Tajikistan (2012)	10'486	15		
Tanzania (2013)	148'610			28
Thailand	15'670	291		51
Timor-Leste	4	4		3
Togo	9'934	15		20
Tonga	1'146			
Tunisia	3'400	191	20	79
Turkey	67'879	1'422	61	46

Country	Producers[1]	Processors	Importers	Exporters
Uganda	210'352			
Ukraine	294			
United Arab Emirates	92	6		7
United Kingdom	3'402	2'969	135	
United States of America	14'217			
Uruguay	6	13		3
Uzbekistan		1		
Vanuatu	2'483	10		
Viet Nam	8'365	50	3	29
Zambia	10'061	6		5
Zimbabwe	2'006	20		7
World*	**2'726'967**	**81'144**	**5'171**	**6'401**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.
**Total number includes data for countries with less than three operators.*



Infographic 4: Organic retail sales 2016

Source: FiBL survey 2018

Retail sales and international trade data[1]

Retail sales

Whereas Amarjit Sahota presents global trends for the organic market along with much background information (page 146), in this chapter, we show the country-related market data that was compiled under the framework of the FiBL survey on organic agriculture. Data on total retail sales value was available for more than 55 countries, which means that for many countries with organic farming activities such data is missing.[2]

The country with the largest market for organic food is the United States (38.9 billion euros), followed by Germany (9.5 billion euros), France (6.7 billion euros) and China (5.9 billion euros). The largest single market is the United States followed by the European Union (30.7 billion euros) and China (Figure 85). By region, North America has the lead (41.9 billion euros), followed by Europe (33.5 billion euros) and Asia (Table 12).

Market growth was noted in all countries for which 2016 data was available, and in many cases, it was in the double digits. In Ireland and France, were the countries that registered the biggest growth, their market increased by 22 percent each. In Denmark and Norway, the market increased by 20 percent each.

Whereas the highest per capita consumption by continent is in North America (117 euros), by country it is highest in European countries. In 2016, Switzerland had the highest per capita consumption (274 euros) worldwide, followed by Denmark (227 euros), and Sweden (197 euros) (Table 13).

Looking at the shares the organic market has of the total market, the leader is Denmark (9.7 percent), followed by Luxembourg (8.7 percent), Switzerland (8.4 percent), Austria (7.9 percent), and Sweden (7.9 percent) (Table 13).

Export data

International trade data is becoming available for more and more countries. These can be expressed as total export/import volumes in metric tons or as values. Some countries also provide breakdowns by crop and product. Table 13 shows the values of total exports where available. More than 53 countries provided data on export values.

---

[1] Please note that due to differences in the methodology, some of the figures presented in this chapter differ from those collected in by Ecovia Intelligence (see chapter by Amarjit Sahota on page 150).

[2] Some countries also provide a breakdown by product, be it in value (euros) or volume (tons), and the European OrganicDataNetwork project has made these data accessible (for Europe) on its website at www.organicdatanetwork.net.

Table 12: Global market data: Retail sales and per capita consumption by region 2016

Region	Retail sales [Million €]	Per capita consumption [€]
Africa*	16	-
Asia	7'343	1.7
Europe	33'526	40.8
Latin America**	810	1.3
North America	41'939	117.0
Oceania	1'065	26.5
World	**84'698**	**11.3**

Source: FiBL-AMI survey 2018, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 330.
** Data from Ethiopia and Kenya.*
*** Data from Belize, Brazil, Chile, Costa Rica, Jamaica, Mexico, and Peru.*

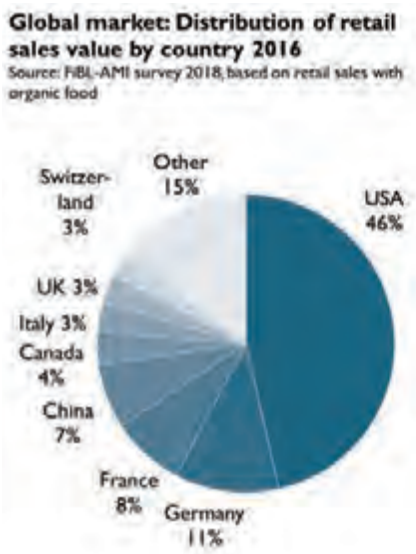


Figure 11: Global market for organic food: Distribution of retail sales by country 2016

Figure 12: Global market for organic food: Distribution of retail sales by region 2016

Source: FiBL-AMI survey 2018, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 330

The ten countries with the largest markets for organic food 2016
Source: FiBL-AMI survey 2018

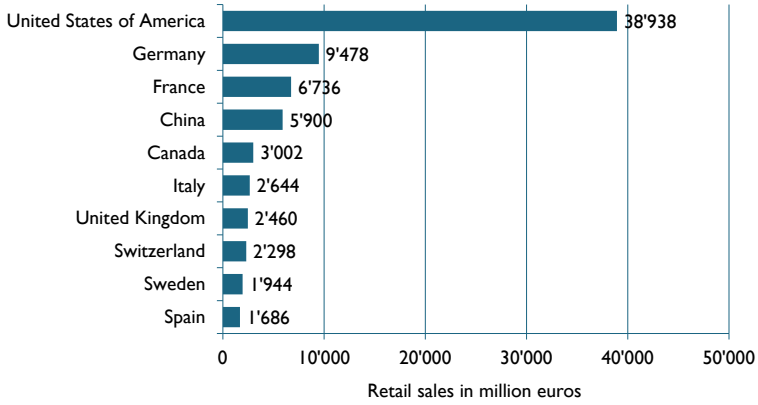


Figure 13: Global market: The countries with the largest markets for organic food 2016

Source: FiBL-AMI survey 2018, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 330

The ten countries with the highest per capita consumption 2016
Source: FiBL-AMI survey 2018

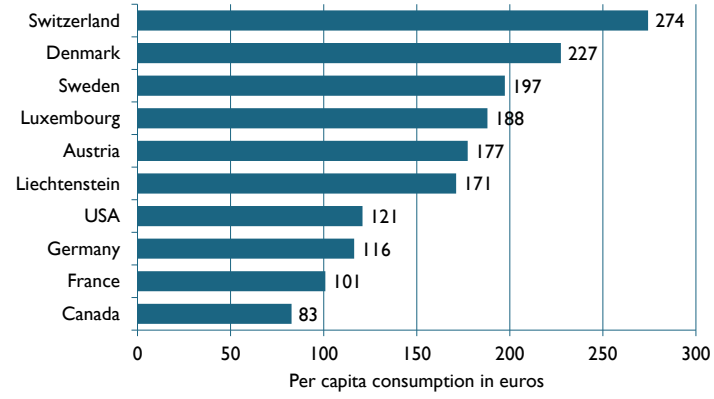


Figure 14: Global market: The ten countries with the highest per capita consumption 2016

Source: FiBL-AMI survey 2018, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 330

Table 13: Global market data: Retail sales, organic share of all retail sales, per capita consumption, and exports by country 2016

It should be noted that for market and trade data, comparing country statistics remains very problematic, due to differing methods of data collection. Comments on this table should be sent to helga.willer@fibl.org. Revisions will be posted at http://www.organic-world.net/statistics/statistics-data-revisions.html and included into the FiBL database.

Country	Data year	Retail sales [Million €]	Organic share [%]	€/person	Exports [Million €]
Argentina	2009				122
Australia	2013				248
	2015	941		40	
Austria	2011				80
	2016	1'542	7.9	177	
Azerbaijan	2011	3		0.3	
Belgium	2016	586	3.2	52	
Belize	2015	0.1		0.2	0.3
Bhutan	2011				0.02
Bolivia	2011				179
Bosnia and Herzegovina	2015				2
	2016	0.4		0.1	
Brazil	2016	778		4	126
Bulgaria	2010	7		1	
Cambodia	2009				1
Canada	2016	3'002	2.6	83	434
Chile	2009	2		0.1	
	2016				241
China	2016	5'900		4	1'049
Colombia	2007				13
Costa Rica	2008	1		0.3	
	2009				19
Croatia	2011				3
	2014	99	2.2	24	
Cyprus	2006	2		2	
Czech Republic	2015	79	0.8	7	53
Denmark	2016	1'298	9.7	227	329
Dominican Republic	2016				191
Ecuador	2014				43
Ethiopia	2015	13		0.1	181
Falkland Islands (Malvinas)	2013				2
Finland	2014				10
	2016	273	2.0	50	
France	2016	6'736	3.5	101	629
Germany	2016	9'478	5.1	116	
Greece	2010	60		5	
Hungary	2009				20
	2015	30		3	
India	2012	130		0.1	
	2015				269
Ireland	2011		0.7		
	2016	150		32	
Italy	2016	2'644	3.0	44	1'915
Jamaica	2016	1		0.3	
Japan	2009	1'000		8	
	2010		1.0		

Country	Data year	Retail sales [Million €]	Organic share [%]	€/person	Exports [Million €]
Kazakhstan	2015				9
Kenya	2016	3		0.1	24
Kosovo	2015				6
Kyrgyzstan	2016				370
Latvia	2011	4	0.2	2	
Liechtenstein	2016	6		171	
Lithuania	2011	6	0.2	2	
Luxembourg	2016	108	8.6	188	
Mexico	2013	14		0.1	373
Moldova	2011				15
Montenegro	2010	0.1		0.2	
Netherlands	2016	1'171	4.4	69	1'200
New Zealand	2015	124		27	151
Norway	2016	394	1.7	76	
Paraguay	2011				71
Peru	2010	14		0.5	
	2015				347
Poland	2015	167		4	
Portugal	2011	21	0.2	2	
Republic of Korea	2015	281		6	
Romania	2011	80	0.7	4	200
Russian Federation	2009				4
	2012	120		1	
Samoa	2010				0.1
Senegal	2012				1
Serbia	2016				19
Slovakia	2010	4	0.2	1	
Slovenia	2009				0.1
	2013	49	1.8	27	
Spain	2016	1'686	1.7	36	891
Sri Lanka	2015				259
Sweden	2016	1'944	7.9	197	84
Switzerland	2016	2'298	8.4	274	
Thailand	2014	12		0.2	28
Tunisia	2015				170
Turkey	2009	4		0.1	
	2016				78
Uganda	2015				50
Ukraine	2016	21		0.5	59
United Kingdom	2016	2'460	1.5	38	
United States	2016	38'938	5.3	121	2'981
Viet Nam	2016	18		0.2	77
Zimbabwe	2016	0.2		0.01	1

Source: FiBL-AMI survey 2018, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 330
Blank cells: No data available

Organic farming in developing countries and emerging markets

The Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) is a forum to discuss issues surrounding aid, development and poverty reduction in developing countries. The recipients of Official Development Assistance (ODA) according to DAC are studied in this section.

More than 2.4 million organic producers from the countries on the DAC list[1] were counted (87 percent of all organic producers). A quarter of the world's organic agricultural land, 14.3 million hectares, is located in countries listed on the DAC list.

If wild collection and beekeeping areas are included, the total area is 38.5 million hectares. Almost half of the agricultural land of the countries on the DAC list is located in Latin American countries (almost 7 million hectares), with Asia (4.8 million) and Africa (1.8 million) in second and third place. The countries with the largest areas of organic agricultural land are Argentina, China, Uruguay, India, and Brazil, in that order. Not surprisingly, most of them are large countries (Figure 15).

However, when it comes to organic agricultural land as a percentage of the total area under cultivation, the order is different. The countries on the DAC list with the highest percentages of organic agricultural land are Samoa (22.4 percent), Sao Tome and Principe (13.8 percent), and Uruguay (11.5 percent). Argentina, with by far the largest area under organic cultivation (with 3 million hectares), is ranked fourteen when the organic agricultural area is expressed as a share of the total agricultural area.

The organic share of the total agricultural land of the top 10 countries on the DAC list is comparable to that of many European countries, and they can be attributed in part to a high production potential for, and focus on, exports. Support activities may also play a role. However, out of all the countries on the DAC list, only 26 percent of them have an organic share higher than one percent of the total agricultural area (Figure 16).

Land use details were available for more than 80 percent of the agricultural land of the countries on the DAC list; crop data is missing for some of the world's largest producing countries (India and Brazil). Available statistics show that organic grassland/grazing areas constitutes over 30 percent of the organic agricultural land, organic arable land 26 percent, and organic permanent crops 22 percent. Exports play an important role, either for meat products (mainly from Argentina and Uruguay) or for unprocessed permanent and arable crops. The most important crops are export crops, such as cereals, coffee, oilseeds, textile crops (mainly cotton), cocoa, coconut,

[1] The country list of the Development Assistance Committee DAC is available on the OECD website at http://www.oecd.org/dac/stats/daclist.htm

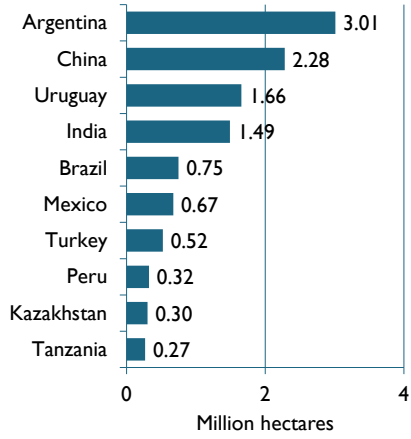
etc. For Africa, coffee and olives, for Asia, cereals and oilseeds, for Latin America, coffee and cocoa, are the most important crops.

Table 14: Countries on the DAC list: Development of organic agricultural land 2011-2016

Region	2011 [ha]	2012 [ha]	2013 [ha]	2014 [ha]	2015 [ha]	2016[ha]
Africa	1'072'877	1'148'896	1'208'254	1'259'984	1'682'061	1'800'818
Asia	3'629'475	3'150'217	3'321'988	3'482'482	3'882'363	4'832'130
Europe	479'120	546'781	476'759	509'089	508'151	546'663
Latin America	6'565'823	6'543'377	6'407'605	6'424'945	6'598'417	6'995'954
Oceania	50'691	53'370	62'511	85'159	73'802	113'164
Total DAC countries	**11'797'985**	**11'442'641**	**11'477'118**	**11'761'659**	**12'744'795**	**14'288'730**

Source: FiBL surveys 2012-2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

The ten countries on the DAC list with the largest areas of organic agricultural land 2016
Source: FiBL survey 2018



The ten countries on the DAC list with the highest organic shares of the total agricultural land 2016
Source: FiBL survey 2018

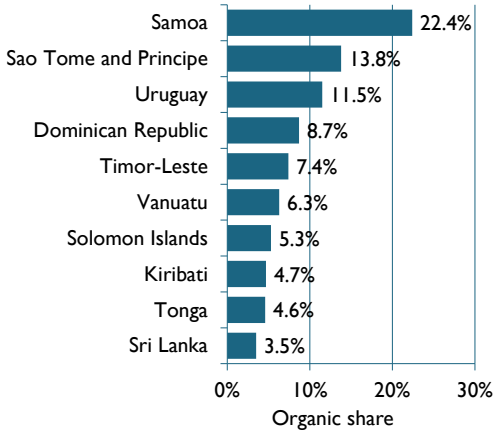


Figure 15 (left): Countries on the DAC list: The ten countries with the largest areas of organic agricultural land in 2016

Figure 16 (right): Countries on the DAC list: The ten countries with the highest organic shares of the total agricultural land in 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Land use and key commodities in organic agriculture

Land use

Over two-thirds of the 57.8 million hectares of organic agricultural land in 2016 were grassland/grazing areas (almost 38 million hectares). The cropland area (arable land with 10.6 million hectares and permanent crops with 4.5 million hectares) constituted 15 million hectares, and over a quarter of the organic agricultural land. The cropland area is probably much higher because details on land use are not available for some countries with large organic agricultural areas such as Brazil and India. General land use information was available for 92 percent of the organic agricultural land; however, this does not mean that detailed crop information is available for all areas as not all countries provided detailed crop data.[1]

The FAO classification[2] of land use was utilized for this survey with slight modifications. A system similar to that of Eurostat was used for the classification of crops. The following main levels were used to classify the land use data: arable land, permanent crops, cropland for which no further details were available (cropland = arable land + permanent cropland), permanent grassland/grazing areas, other agricultural areas (such as for instance hedges), and agricultural land for which no details were available at all. For crop groups by land use type, see Table 16. Aquaculture, forest, and grazed non-agricultural land were distinguished from "agricultural land" with a separate category, as were organic wild collection areas and beekeeping areas.

The land use information can be summarized by geographical region, as follows:

– Africa: Land use information was available for about 90 percent of the organic agricultural land in Africa. Almost two-thirds of the agricultural land is used for permanent crops. The main permanent crops are cash crops, such as coffee and olives; among the main arable crops are cotton and oilseeds (sesame and peanuts). For land use details in Africa, see page 177.
– Asia: Land use details are known for over two-thirds of the organic agricultural land in Asia. Arable land is mainly used for cereals, including rice. Furthermore, oilseeds are important. For land use details in Asia, see page 200.

[1] For some countries, only information on the main uses (arable crops, permanent crops, and permanent grassland) was available. For other countries, very detailed statistical land use information can be found.
[2] For more details, see the FAOSTAT homepage, faostat.fao.org: Home > Concepts and Definitions > Glossary, or http://faostat.fao.org/site/379/DesktopDefault.aspx?PageID=379

- Europe: In Europe, the agricultural land use is well known, and the main crop categories are well documented. Permanent pastures and arable land have approximately equal shares of the organic agricultural area. Arable land is mainly used for the cultivation of cereals, and by green fodder (almost 2.3 million hectares each). Permanent crops account for eleven percent of the organic agricultural land. More than one-third of this land was used for olives, followed by grapes, nuts, and temperate fruits. For land use details, see page 218.
- Latin America and the Caribbean: Nearly 60 percent of the organic agricultural land in Latin America is permanent pasture. Permanent crops account for 14 percent of the total organic agricultural area. More than 40 percent of the permanent cropland is used for coffee, followed by cocoa and tropical fruits. For details on land use in Latin America and the Caribbean, 275.
- North America: As in Europe, arable land and permanent grassland/grazing areas have almost equal shares. A major proportion of the arable land is used for cereal production and cultivation of green fodder. For details on land use in North America, see page 296.
- Oceania: Most of the land in Australia is used for extensive grassland/grazing, and a minimal amount of information is available on the remaining land. A wide range of permanent crops are grown in the Pacific region. For details, see page 314.

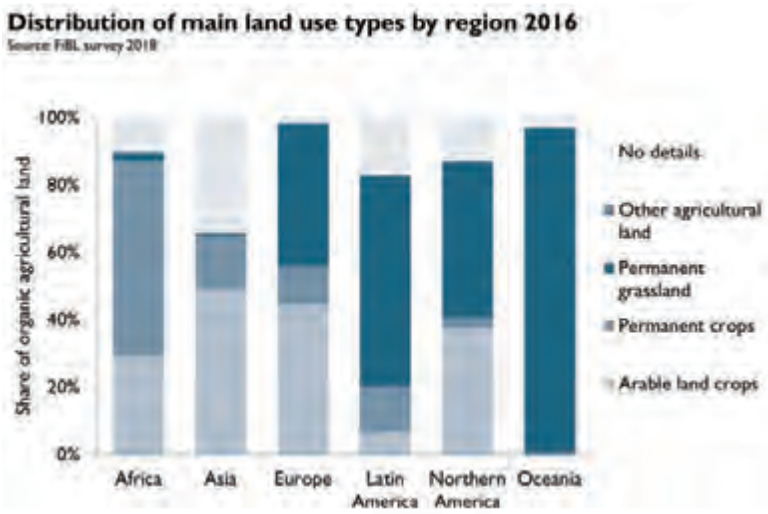


Figure 17: World: Distribution of main land use types by region 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

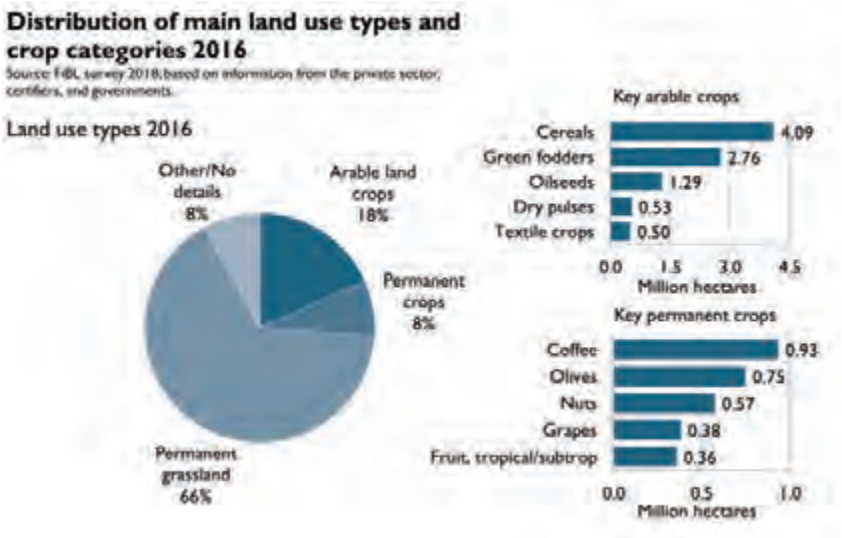


Figure 18: World: Distribution of main land use types and key crop categories 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

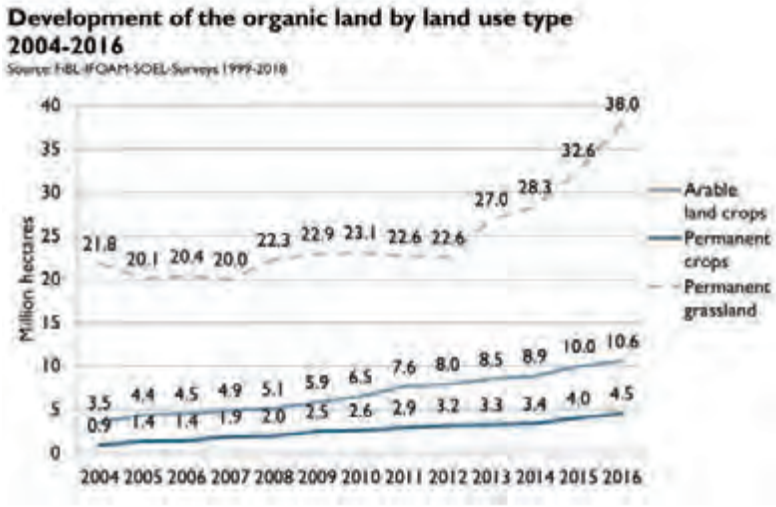


Figure 19: World: Development of organic arable land, permanent cropland and permanent grassland/grazing areas 2004-2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 15: World: Land use in organic agriculture by region (including in-conversion areas) 2016

Land use	Africa [ha]	Asia [ha]	Europe [ha]	Latin America [ha]	North America [ha]	Oceania [ha]	Total [ha]
Arable crops	525'649	2'398'867	6'036'893	474'776	1'174'489	1'676	10'612'350
Permanent crops	1'046'832	775'494	1'508'016	993'050	103'781	117'099	4'544'273
Permanent grassland	38'168	32'144	5'648'692	4'424'021	1'438'474	26'376'507	37'958'006
Total*	**1'801'699**	**4'897'837**	**13'509'146**	**7'135'155**	**3'130'332**	**27'346'986**	**57'816'759**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
**Totals include other agricultural areas, land for which no details were available, and correction values for some countries for land with double cropping during one year.*

Table 16: World: Land use and crop categories in organic agriculture worldwide 2016

Land use	Crop group	Area [ha]
Agricultural land and crops, no details		4'261'042
Arable land crops	Arable crops, no details	97'008
	Cereals	4'091'183
	Dry pulses	529'138
	Flowers and ornamental plants	13'967
	Green fodders from arable land	2'760'550
	Industrial crops	16'205
	Medicinal and aromatic plants	182'579
	Mushrooms and truffles	22'962
	Oilseeds	1'286'588
	Root crops	90'287
	Strawberries	9'196
	Sugarcane	82'983
	Textile crops	495'773
	Tobacco	5'975
	Vegetables	437'443
Arable land crops total		*10'612'350*
Permanent crops	Berries	56'443
	Citrus fruit	90'694
	Cocoa	344'666
	Coconut	349'355
	Coffee	933'950
	Flowers and ornamental plants	71
	Fruit, no details	344
	Fruit, temperate	254'600
	Fruit, tropical and subtropical	356'119
	Grapes	379'555
	Medicinal and aromatic plants, permanent	101'005
	Nurseries	26'694
	Nuts	574'069
	Olives	747'640
	Tea/mate, etc.	107'910
Permanent crops total		*4'544'273*
Permanent grassland		37'958'006
World		**57'816'759**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330. Total and subtotals include data for fallow land, some minor or not specified crop groups.

Arable land

With a total of almost 10.6 million hectares, organic arable land constitutes almost 20 percent of the world's organic agricultural land and 0.7 of the world's arable cropland.[1]

An increase of 6.3 percent over 2015 was reported, and there was an increase in almost all crop categories with the exception of sugarcane, which decreased by 10 percent (Table 17).

Almost 60 percent of the arable land is located in Europe, followed by Asia (23 percent), and North America (11 percent) (Figure 20). Most of the arable cropland is used for cereals including rice (4.1 million hectares), green fodder (2.8 million hectares), and oilseeds (1.3 million hectares) (Figure 21 and Table 17).

Table 17: Use of organic arable land (including in-conversion areas), 2015 and 2016 compared

Crop group	2015 [ha]	2016 [ha]	Change 2015-2016[ha]	Organic share [%]*
Cereals	3'889'488	4'091'183	+201'695	0.6%
Dry pulses	442'084	529'138	+87'054	0.6%
Flowers and ornamental plants	6'547	13'967	+7'420	-
Green fodders from arable land	2'506'919	2'760'550	+253'631	-
Hops	327	617	+290	0.7%
Industrial crops	9'877	16'205	+6'328	-
Medicinal and aromatic plants	110'436	182'579	+72'143	10.1%
Mushrooms and truffles	1'250	22'962	+21'712	-
Oilseeds	1'235'880	1'286'588	+50'708	0.6%
Root crops	49'079	90'287	+41'207	0.1%
Strawberries	5'985	9'196	+3'211	2.3%
Sugarcane	91'734	82'983	-8'751	0.3%
Textile crops	449'390	495'773	+46'383	1.5%
Tobacco	1'167	5'975	+4'808	0.2%
Vegetables	319'995	437'443	+117'447	0.7%
Total**	**9'985'785**	**10'612'350**	**+626'565**	**0.7%**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Not all countries included in the FiBL survey provided data on land use or crop areas.
**The organic crop group share is calculated with 2016 FAO data, while the organic share of total arable crops is calculated with 2015 FAO data.*
***Total includes arable crop groups for which no further details were available.*

[1] There were 1'425'918'770 hectares of arable cropland in 2015, according to FAOSTAT, FAO, Rome. See the FAO Homepage at www.fao.org/faostat/en/#data > Inputs > Land > www.fao.org/faostat/en/#data/RL

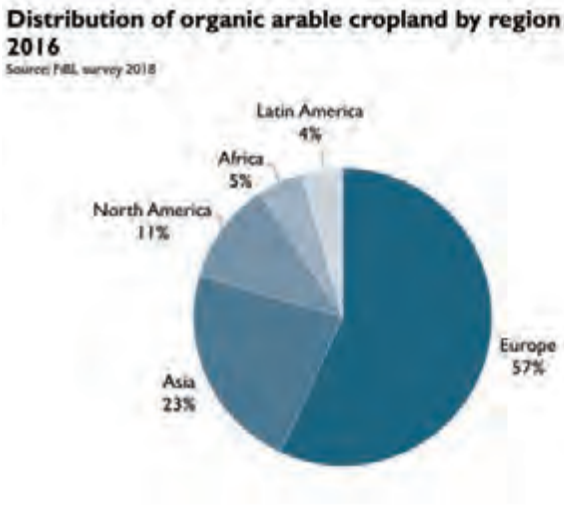


Figure 20: World: Distribution of organic arable cropland by region 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

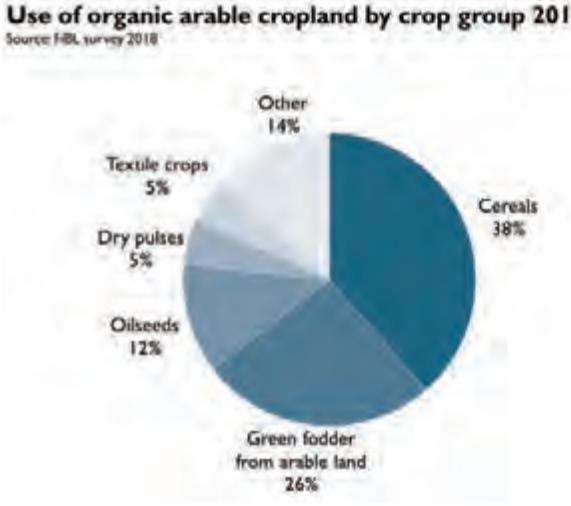


Figure 21: World: Use of arable cropland by crop group 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Permanent crops

Permanent crops account for more than 4.5 million hectares, which is 2.8 percent of the world's permanent cropland.[1] Compared with 2015, an increase of more than 126'000 hectares, or 9 percent, was reported. Eight percent of the organic agricultural land is permanent cropland. Thus, permanent cropland has a higher share in organic agriculture than in total agriculture, where permanent crops account for slightly more than 3 percent of the total.

Most of the permanent cropland is in Europe (1.5 million hectares), followed by Africa (1 million hectares), and Latin America (almost 1 million hectares) (Table 15 and Figure 22). The most important crop is coffee, with more than 0.9 million hectares constituting 20 percent of the organic permanent cropland, followed by olives (0.7 million hectares), nuts (almost 0.6 million hectares), grapes (almost 0.4 million hectares), and tropical and subtropical fruits (over 0.3 million hectares) (Figure 23 and Table 18).

Table 18: Use of organic permanent cropland (including in-conversion areas), 2015 and 2016 compared

Crop group	2015 [ha]	2016 [ha]	Change 2015-2016 [ha]	Organic share [%]*
Berries	49'922	56'443	+6'521	10.6%
Citrus fruit	70'792	90'694	+19'902	1.0%
Cocoa	317'706	344'666	+26'960	3.4%
Coconut	290'786	349'355	+58'570	2.9%
Coffee	903'878	933'950	+30'073	8.5%
Flowers and ornamental plants, permanent	291	71	-220	-
Fruit, no details	2'797	344	-2'453	0.0%
Fruit, temperate	263'013	254'600	-8'414	2.0%
Fruit, tropical and subtropical	381'603	356'119	-25'484	1.4%
Grapes	332'913	379'555	+46'642	5.3%
Medicinal and aromatic plants, permanent	70'962	101'005	+30'043	3.4%
Nurseries	2'566	26'694	+24'127	-
Nuts	414'501	574'069	+159'568	4.3%
Olives	672'036	747'640	+75'604	7.0%
Tea/mate, etc.	102'804	107'910	+5'105	2.5%
Total**	**4'037'163**	**4'544'273**	**+507'110**	**2.8%**

Source: FiBL survey 2018, based on data from governments, the private sector, and certifiers. For detailed data sources see annex, page 330
**The organic crop group share is calculated with 2016 FAO data, while the organic share of total permanent crops is calculated with 2015 FAO data.*
***Total includes permanent crop groups, for which no further details were available.*

[1] There were 164'831'110 hectares of permanent cropland in 2015 according to FAOSTAT, FAO, Rome. See the FAO Homepage at www.fao.org/faostat/en/#data > Inputs > Land > www.fao.org/faostat/en/#data/RL

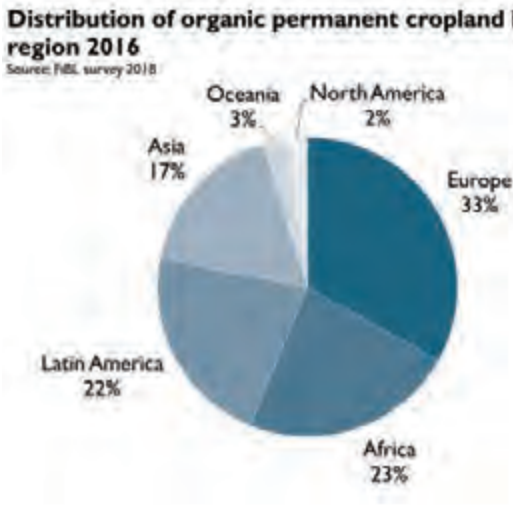


Figure 22: World: Distribution of permanent cropland by region 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

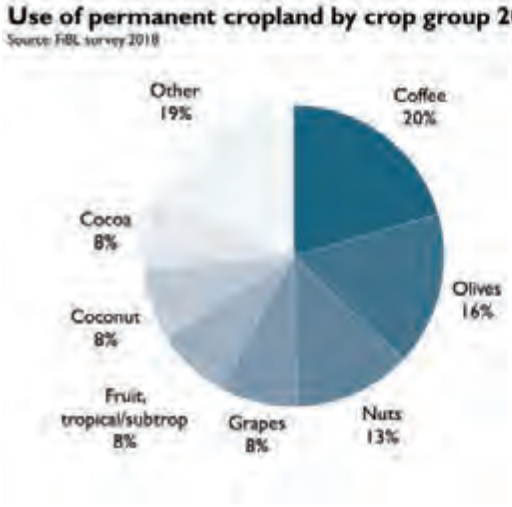


Figure 23: World: Use of permanent cropland by crop group 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Wild collection and beekeeping areas

The collection of wild harvested crops is defined in the IFOAM Norms (IFOAM 2014), and wild collection activities are regulated by organic laws. A collection area (including beekeeping) of 39.3 million hectares was reported in 2016. The organic wild collection areas are concentrated in Europe, Africa, Asia, and Latin America (Figure 24 and Table 19); the distribution is thus quite different from that of the organic agricultural land.

The countries with the largest areas are Finland (mainly berries), followed by Zambia (beekeeping), and India (Figure 25). Wild berries, apiculture, and medicinal and aromatic plants, as well as shea nuts in Africa and Brazil nuts in Latin America, play the most important roles (Table 20). Unfortunately, for most of the wild collection areas, no details are available.

Table 19: Wild collection and beekeeping areas by region 2015 and 2016 compared

Region	2015 [ha]	2016 [ha]	Change 2015-2016 [ha]	Change 2015-2016 [%]
Africa	11'905'711	12'119'609	+213'898	+1.8%
Asia	5'522'891	6'259'421	+736'530	+13.3%
Europe	17'624'174	16'665'097	-959'077	-5.4%
Latin America	4'221'072	4'194'720	-26'351	-0.6%
North America	54'551	79'855	+25'304	+46.4%
Oceania	765	765	-	-
Total	**39'329'163**	**39'319'467**	**-9'696**	**-0.02%**

Source: FiBL survey 2018, based on data from governments, the private sector, and certifiers.
For detailed data sources see annex, page 330

Table 20: Wild collection and beekeeping areas by crop group 2016

Land use	Area [ha]
Apiculture	6'488'207
Berries, wild	37'143
Fruit, wild	1'293'452
Medicinal and aromatic plants, wild	3'634'192
Mushrooms, wild	213'874
Nuts, wild	1'260'416
Oil plants, wild	885'598
Palm sugar	1'087
Palmito, wild	147'867
Rose hips, wild	179'509
Seaweed	200'852
World	**39'319'467**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. Total includes areas, for which no details were available. For detailed data sources see annex, page 330

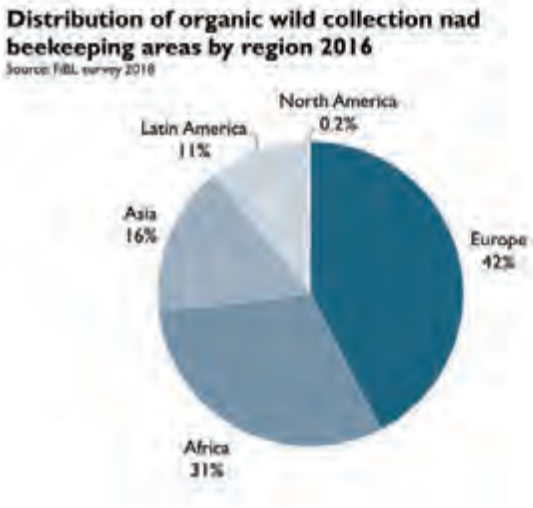


Figure 24: World: Distribution of organic wild collection and beekeeping areas by region in 2016

Source: FiBL survey 2018, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 330

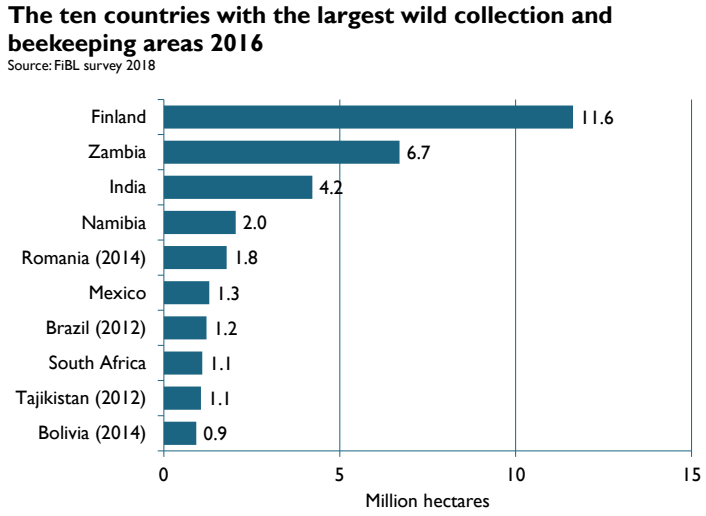


Figure 25: World: The ten countries with the largest organic wild collection and beekeeping areas in 2016

Source: FiBL survey 2018, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 330

Table 21: Wild collection and beekeeping areas by country 2016

Country	Land use	Area [ha]
Albania	Medicinal and aromatic plants, wild	467'783
Algeria	No details	628
Argentina	Apiculture	318'369
	No details	1'001
Armenia	No details	6'000
Azerbaijan	Berries, wild	161
	Fruit, wild	541
	Medicinal and aromatic plants, wild	56
	Nuts, wild	179
	No details	126
Belarus	Berries, wild	100
	Mushrooms, wild	2'642
Belgium	No details	3
Benin	Nuts, wild	500
	No details	4'005
Bhutan	Medicinal and aromatic plants, wild	15'787
Bolivia	Nuts, wild	922'991
Bosnia and Herzegovina	No details	69'310
Brazil	No details	1'213'351
Bulgaria	No details	307'020
Burkina Faso	Nuts, wild	65'581
	No details	14'487
Canada	Mushrooms, wild	11'266
	No details	68'250
Chad	No details	124'130
Chile	Berries, wild	36'243
	Rose hips, wild	70'799
	No details	9'095
China	Fruit, wild	48'446
	Medicinal and aromatic plants, wild	41'920
	Mushrooms, wild	197'104
	Nuts, wild	4'000
	Nuts, wild, other	21'239
	Oil plants, wild	118'798
	Seaweed	320
	No details	379'853
Colombia	Palmito, wild	6'800
	No details	520
Comoros	Oil plants, wild	63
Côte d'Ivoire	Nuts, wild	344
Croatia	No details	7
Denmark	No details	2'648
Ecuador	Mushrooms, wild	1'260
Egypt	No details	60'000
Estonia	No details	40'579
Ethiopia	Apiculture	116
	No details	8'917
Fiji	Fruit, wild	653
Finland	No details	11'628'576
Georgia	No details	215
Ghana	Nuts, wild	31'631
	No details	1'961
Greece	No details	317'053
Guatemala	Apiculture	5
Guyana	Palmito, wild	58'000
Iceland	Medicinal and aromatic plants, wild	12'216
	Seaweed	200'032
	No details	221
India	No details	4'220'000
Indonesia	Apiculture	9'007
	Oil plants, wild	137
	Palm sugar	1'087
	No details	469
Iran	Apiculture	5'482
	No details	25'020
Italy	No details	176'628
Jamaica	No details	36
Kazakhstan	Medicinal and aromatic plants, wild	863
Kenya	Apiculture	121'625
Kosovo	No details	179'580
Kyrgyzstan	Rose hips, wild	10
Lao, P.D.R.	No details	17'068
Lebanon	No details	393
Lesotho	No details	50'000
Macedonia, FYROM	No details	556'600
Madagascar	No details	10'897
Malawi	No details	6'319
Mali	Nuts, wild	1'446
	No details	6'700
Mexico	Apiculture	90'000
	Fruit, wild	1'200'000
	Mushrooms, wild	1'602
	Seaweed	500
	Wild collection, other	204
Montenegro	No details	143'410
Morocco	Fruit, wild	40'700
	Medicinal and aromatic plants, wild	56'670
	Oil plants, wild	66'600
	No details	6'065
Mozambique	Medicinal and aromatic plants, wild	10'000
	No details	137'930
Namibia	Medicinal and aromatic plants, wild	2'041'901
Nepal	No details	24'422
Nicaragua	Apiculture	11'463

Country	Land use	Area [ha]
Nigeria	Apiculture	1'000
Niue	Fruit, wild	112
Pakistan	Nuts, wild	44'620
Paraguay	Palmito, wild	3'067
Peru	Nuts, wild	167'843
	Palmito, wild	80'000
	No details	1'570
Portugal	No details	40'000
Romania	No details	1'787'548
Russian Federation	No details	30'921
Rwanda	No details	12
Senegal	No details	22'000
Serbia	No details	1'550
Slovenia	No details	13'238
Somalia	No details	849'482
South Africa	Apiculture	1'000
	Medicinal and aromatic plants, wild	966'971
	Rose hips, wild	108'700
	No details	15'891
Sudan	No details	84'960
Syrian Arab Republic	No details	8'000
Tajikistan	No details	1'055'890
Tanzania	No details	15'040
Togo	No details	242
Tunisia	No details	25'486
Turkey	Berries, wild	300
	Fruit, wild	2'550
	Medicinal and aromatic plants, wild	25
	Nuts, wild	41
	No details	134'517
Uganda	No details	158'328
Ukraine	No details	550'000
United States	Berries, wild	338
Uzbekistan	No details	5'000
Viet Nam	No details	7'208
Zambia	Apiculture	5'930'000
	Oil plants, wild	700'000
	No details	70'680
Zimbabwe	Apiculture	140
	Fruit, wild	450
	Medicinal and aromatic plants, wild	20'000
	No details	280'010
World		**39'319'467**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Beehives

There were over 2.1 million organic beehives in 2016, representing almost 2.4 percent of the world's beehives.[1] Organic beehives are concentrated in Latin America (46 percent) and Europe (42 percent) (Figure 26). The country with the largest number of organic beehives is Brazil (537'014), followed by Mexico (368'000), and Bulgaria (236'462). Their numbers have increased four-fold since 2007, when over 535'000 beehives were reported (Figure 27). However, it is important to note that some of the increases can be attributed to the continually improving data availability. The increase from 2014 to 2015 is due to the fact that data for some countries such as Brazil was available for the first time.

It is expected that organic beekeeping will continue to grow worldwide thanks to the increasing demand for organic honey and bee products. One of the main challenges for new organic beekeepers is the conversion process due to the lack of access to knowledge on organic beekeeping practices and the organic certification process. Furthermore, the production of good quality organic honey and the control of the Varroa parasite with organic methods are major obstacles for organic beekeepers.

In 2015, FiBL, Naturland, Demeter, and Apicon created a new beekeeping platform, the IFOAM Apiculture Forum (IAF). The IFOAM Apiculture Forum is a self-organised structure of IFOAM - Organics International with the aim to advance the development of organic beekeeping and to encourage the traditional practices employed by sustainable beekeeping.[2] IAF will organize the World Organic Beekeeping Conference in Germany.

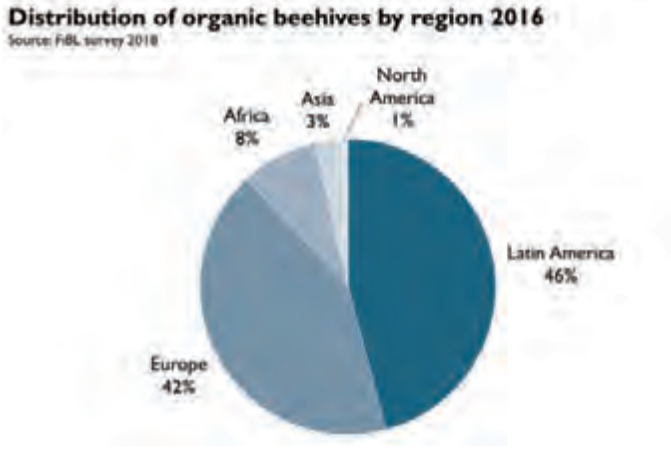


Figure 26: World: Distribution of organic beehives by region in 2016

Source: FiBL survey 2018, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 330

[1] According to FAO, there were 90'564'654 beehives in 2016. The FAOSTAT website > Production > Live animals at http://www.fao.org/faostat/en/#data/QA

[2] For more information about the IFOAM Apiculture Forum, please visit http://www.organicbeekeeping.info

Development of the organic beehives 2007-2016
Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

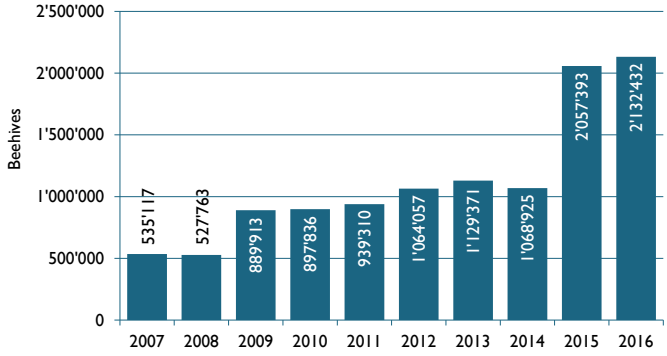


Figure 27: World: Development of the organic beehives 2007-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018. For detailed data sources see annex, page 330

Table 22: Number of organic beehives by country 2016

Country	Beehives [no.]
Argentina	13'362
Armenia	881
Australia	6'475
Austria	19'146
Azerbaijan	932
Belgium	21
Bhutan	177
Bosnia and Herzegovina	291
Brazil	537'014
Bulgaria	236'462
Burkina Faso	11
Canada	10'199
Chile	25'882
China	22'000
Croatia	2'065
Cuba	2'342
Czech Republic	80
Denmark	59
Dominican Republic	10'709
Estonia	2'189
Ethiopia	122'726
Finland	4'456
France	102'767
French Guiana (France)	21
Georgia	570
Germany	35'000
Guadeloupe (France)	36
Iran (Islamic Republic of)	4'120
Iraq	2'000
Italy	195'341
Kosovo	40
Latvia	27'482
Lebanon	446
Lithuania	790
Luxembourg	44
Macedonia, FYROM	6'104
Madagascar	942
Martinique (France)	120
Mexico	368'000
Montenegro	1'851
Morocco	1'242
Nicaragua	18'620
Norway	1'507
Poland	1'948
Portugal	55'167
Réunion (France)	550
Romania	86'195
Saudi Arabia	2'363
Senegal	32
Serbia	1'735
Slovakia	456
Slovenia	1'814
South Africa	257
Spain	69'126
Sweden	2'182
Switzerland	3'014
Thailand	25'955
Tunisia	1'216
Turkey	40'371
Ukraine	300
Uruguay	2'550
Zambia	51'978
Zimbabwe	700
World	**2'132'432**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Aquaculture

Naturland, a German organic certifier, first certified carp in Germany in 1995, and organic was the first Voluntary Sustainability Standard (VSS) to cover aquaculture production (Potts et al. 2016). In 2005, IFOAM – Organics International approved the final version of its aquaculture standard.

A production volume of over 400'000 metric tons of organic aquaculture was reported in 2016. According to the available data, aquaculture production is concentrated in Asia (77 percent, mainly China) and Europe (22 percent). The largest production volume was found in China (over 300'000 metric tons), followed by Ireland (almost 41'000 metric tons, mainly blue mussel, salmon and oysters), and Norway (17'200 metric tons, mainly salmon) (Table 24 and Figure 28). The aquaculture production volume has increased by 8 percent compared to 2015.

Unfortunately, some of the countries with a large aquaculture production, such as Brazil, Indonesia, Thailand, and Viet Nam, did not provide data on organic aquaculture; so, it can be assumed that the organic aquaculture production volume is higher.

A breakdown by species was only available for less than 20 percent of the total production. According to the available data, organic salmon is the most produced species (almost 40'000 metric tons), followed by mussels (19'000 metric tons), carp (almost 6'000 metric tons), and shrimps (over 3'000 metric tons).

Table 23: Organic aquaculture: Production volume by species 2016

Main species	Production [MT]
Aquaculture, no details	334'270
Aquatic plants	9'195
Carps	5'645
Mussels	19'232
Rainbow trout	1'357
Salmon	39'735
Sea bass	55
Sea trout	150
Seabream	317
Shrimps	3'463
Sturgeon	1'751
Trout	385
Total	**415'554**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

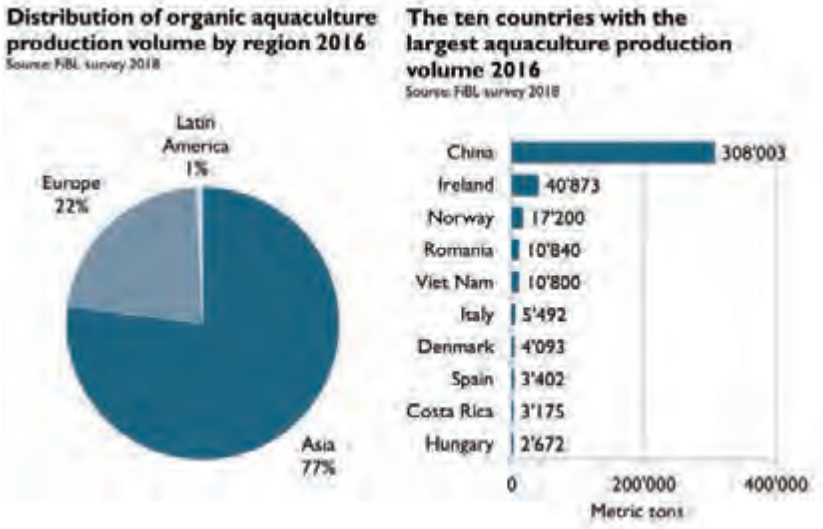


Figure 28: World: Organic aquaculture production volume: Distribution by continent and top 10 countries 2016

Source: FiBL-survey 2018; based on national data sources and certifier data. For detailed data sources see annex, page 330

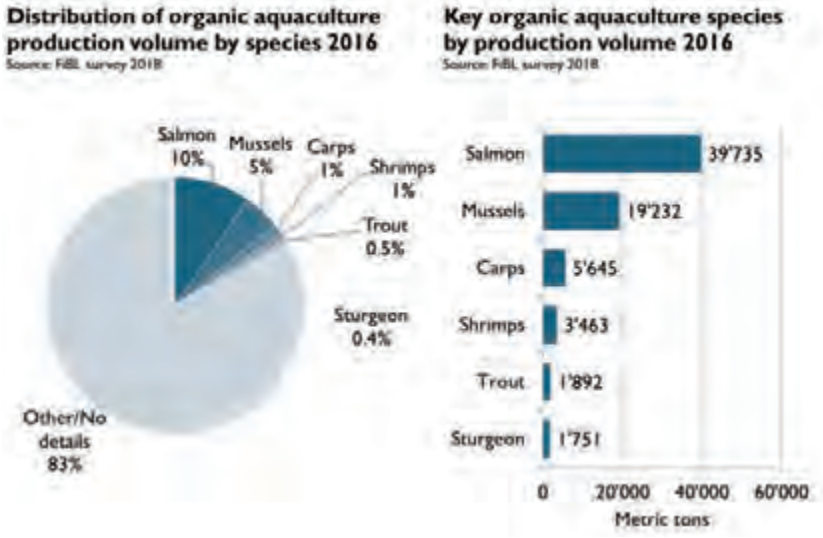


Figure 29: World: Organic aquaculture production volume: Distribution by species and key species 2016

Source: FiBL-survey 2018; based on national data sources and certifier data. For detailed data sources see annex, page 330

Table 24: Organic aquaculture: Production volume by country 2016

Country	Production [MT]
Austria	9
Brunei Darussalam	79
Bulgaria	1'400
China	308'003
Costa Rica	3'175
Croatia	100
Czech Republic	1
Denmark	4'093
Ecuador	3
Estonia	156
Germany	1'758
Greece	1'130
Hungary	2'672
Ireland	40'873
Italy	5'492
Latvia	9
Lithuania	734
Norway	17'200
Poland	19
Portugal	1'100
Romania	10'840
Slovenia	65
Spain	3'402
Switzerland	370
Thailand	1'512
Turkey	559
Viet Nam	10'800
Total	**415'554**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

References and further reading

Bergleiter, S., Berner, N., Censkowsky, U. & Julià-Camprodon, G. (2009): Organic aquaculture 2009 – production and markets. Munich, Organic Services GmbH and Gräfelfing, Naturland e.V. 120 pp.

Food and Agriculture Organization of the United Nations (FAO) (2010): Organic aquaculture: The future of expanding niche markets. Available at http://www.fao.org/docrep/015/i2734e/i2734e04c.pdf

Potts, Jason; Wilkings, Ann; Lynch, Matthew; and McFatridge, Scott (Eds.) (2016): State of Sustainability Initiatives Review: Standards and The Blue Economy. International Institute for Sustainable Development, Manitoba, Canada. Available at http://www.iisd.org/ssi/standards-and-the-blue-economy/

Statistics on selected crops

In this section, some of the data on key crops and crop groups is presented, including area under organic management compared with the total area of the crops. FiBL collected land use and crop data for the first time in 2004; hence, the development graphs show the growth since that year.

It should be noted that the organic areas are mainly compared with the area harvested in 2016 as provided by FAO. The data may not necessarily be directly comparable to the areas sown or planted as registered by the certification bodies.

In some cases, the area data may refer to mixed cropping areas or to agroforestry areas in the case of tropical fruit, where the provided crop surfaces are the total surface of the agroforestry system, including shade trees and other crops. This should be kept in mind when comparing the organic crop area to the overall area for a certain crop, particularly in the case of tropical crops.

Data on conversion status: For some countries, data were collated from several certifiers, some of which provided information on the conversion status while others did not. Therefore, the sum of land under conversion and the fully converted land is not necessarily the same as the total land under organic agricultural management.

The tables presented in this section are only part of the information available in the FiBL database, which is available at statistics.fibl.org.

Furthermore, at www.organic-world.net additional slides on key crops with more graphs than shown here are available.

Table 25: World: Selected key crop groups and crops in organic agriculture 2016 (overview): Land under organic management (including conversion areas)

Crop	Africa [ha]	Asia [ha]	Europe [ha]	Latin America [ha]	North America [ha]	Oceania [ha]	Total [ha]
Cereals	66'765	1'039'718	2'279'155	163'573	541'971		**4'091'183**
Citrus fruit	7'532	14'853	48'967	14'425	4'919		**90'694**
Cocoa	111'328	2'765		229'917		657	**344'666**
Coffee	381'090	113'901		423'604	87	15'268	**933'950**
Dry pulses	1'955	18'545	418'520	17'879	72'239		**529'138**
Fruit, temperate	5'270	99'776	127'749	8'227	12'578	1'000	**254'600**
Fruit, tropical and subtropical	58'448	70'308	30'433	189'527	3'520	3'883	**356'119**
Grapes	2'915	22'596	328'492	11'458	12'072	2'022	**379'555**
Oilseeds	195'532	582'069	339'630	67'282	102'075		**1'286'588**
Olives	140'022	7'233	574'826	24'839	719		**747'640**
Vegetables	37'622	71'442	148'088	102'599	77'691		**437'443**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

› Cereals

Table 26 shows that at least 4.1 million hectares of cereals were under organic management in 2016. Comparing the organic figure with FAO's figure for the world's harvested cereal area of 718 million hectares in 2016 (FAOSTAT),[1] 0.6 percent of the total cereal area is under organic management.

Cereals include wheat, spelt, barley, oats, grain maize, rice, rye, and triticale (Figure 31).

The key cereal producers worldwide, according to FAO, are India (98.5 million hectares), China (96.3 million hectares), the United States (58.5 million hectares), and the Russian Federation (44.4 million hectares).

Of these four countries, information on the organic cereal area was available for all except India, and for the Russian Federation data is not complete. China (over 811'000 hectares), Italy (almost 300'000 hectares), and the United States (over 281'000 hectares) are the largest organic cereal producers. In China, 0.8 percent of the total cereal area was organic, and in Italy, the organic cereal area represented 9.2 percent of the total cereal area, one of the highest organic shares.

Some countries reach organic shares that are far higher than the global organic cereal share of 0.6 percent. For example, Austria (13 percent), Sweden (10.5 percent), Estonia (9.8 percent), Italy (9.2 percent), and Lithuania (7.6 percent) greatly exceed the global share.

As some of the world's large cereal producers (such as India and the Russian Federation) provided little or no land use and crop details, it can be assumed that the cereal area is larger than what is shown here.

The organic cereal area has more than trebled since 2004 (1.3 million hectares), and in 2016, it increased by 200'000 hectares or 5 percent.

The available data on the conversion status indicates that 20 percent of the organic cereal area was in conversion in 2016 (over 800'000 hectares). Thus, there could be a considerable increase in the supply of organic cereals in the near future.

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Cereals: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

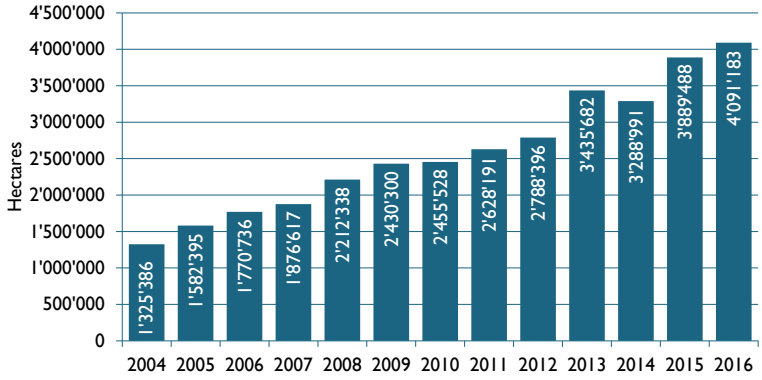


Figure 30: Cereals: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL 2006-2018

Cereals: Distribution of global organic area by cereal type 2016

Source: FiBL survey 2018

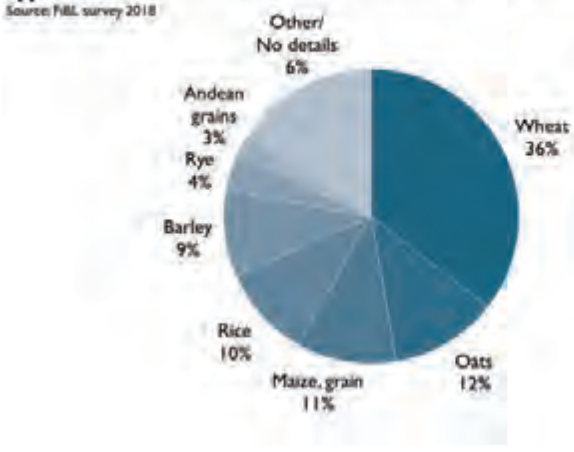


Figure 31: Cereals: Distribution of global organic area by cereal type 2016

Source: FiBL survey 2018

Table 26: Cereals: Organic area by country 2016

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	25'880	0.2%	25'880	
Austria	102'336	13.0%		
Azerbaijan	1'598	0.2%		1'598
Bangladesh	101	0.001%		
Belgium	10'314	3.1%	6'448	3'866
Bhutan	493	1.0%	493	
Bolivia	87'545	6.9%	72'981	14'564
Bosnia and Herzegovina	20	0.01%	20	
Bulgaria	31'235	1.7%	8'921	22'312
Burkina Faso	57	0.001%	57	
Cambodia	9'361	0.3%	5'175	4'187
Canada	260'756	1.8%	244'421	
Chile	180	0.03%	180	
China	811'839	0.8%	584'317	227'522
Colombia	100	0.01%	98	2
Costa Rica	55	0.1%		
Croatia	12'619	2.4%	5'529	7'088
Cyprus	957	3.9%	407	550
Czech Republic	27'633	2.0%	22'455	5'178
Denmark	58'318	4.0%	48'909	9'410
Ecuador	3'261	0.4%	2'899	362
Egypt	8'170	0.2%		
El Salvador	0	0.0001%		0
Estonia	34'318	9.8%	29'022	5'296
Finland	54'193	5.4%	46'438	7'755
France	217'375	2.3%	130'075	87'300
Germany	242'000	3.8%		
Greece	50'131	4.7%	44'343	5'788
Hungary	33'109	1.2%	20'154	12'954
Iceland	45	-	45	
Indonesia	1'401	0.01%	1'392	9
Iran	176	0.002%	165	11
Ireland	1'491	0.5%	1'256	235
Israel	556	0.9%	527	29
Italy	299'640	9.2%	195'463	104'177
Japan	2'825	0.2%	2'825	
Kazakhstan	130'882	0.9%	101'210	25'000
Kenya	486	0.02%		
Kyrgyzstan	904	0.2%	588	315
Lao, P.D.R.	4'598	0.4%		
Latvia	47'820	6.8%	31'353	16'466
Lebanon	5	0.01%	5	
Liechtenstein	81	-	62	19
Lithuania	99'807	7.6%	63'560	36'247
Luxembourg	929	3.3%	806	122
Macedonia, FYROM	1'014	0.6%	624	391
Madagascar	257	0.02%	257	
Malawi	20	0.001%	17	3
Mali	43	0.001%	43	
Malta	1	0.03%	1	
Mexico	40'105	0.4%	40'055	50
Moldova	20'097	2.2%	15'445	4'652
Montenegro	131	6.1%	71	60

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Namibia	177	0.1%	144	33
Netherlands	3'474	2.0%	3'054	419
Nigeria	1'012	0.01%		
Norway	6'732	2.4%	6'266	466
Pakistan	26'269	0.2%	24'796	1'473
Palestine, State of	65	0.3%	21	44
Paraguay	427	0.03%		
Peru	6'019	0.5%	8	
Philippines	554	0.01%	508	
Poland	101'148	1.4%	81'182	19'966
Portugal	5'285	2.1%	1'648	3'637
Republic of Korea	1'686	0.2%		
Romania	75'198	1.4%	49'542	25'656
Russian Federation	12'836	0.03%	2'342	329
Saudi Arabia	351	0.2%	335	16
Senegal	3'689	0.3%	113	3'576
Serbia	4'607	0.3%	2'190	2'416
Slovakia	18'106	2.4%	14'347	3'759
Slovenia	2'181	2.2%	1'679	501
South Africa	524	0.02%	318	206
Spain	216'481	3.5%	134'890	81'592
Sweden	104'976	10.5%	89'595	15'381
Switzerland	9'076	6.3%		
Taiwan	1'780	0.6%	1'780	
Tanzania	50'850	0.8%	50'850	
Thailand	32'774	0.3%		
Tunisia	568	0.1%		
Turkey	162'109	1.4%	129'962	32'148
Ukraine	173'000	1.2%		
United Kingdom	38'333	1.2%	36'748	1'583
United States	281'215	0.5%		
Viet Nam	11'499	0.1%	1'359	10'140
Zambia	223	0.02%	95	
Zimbabwe	689	0.04%	280	409
Total	**4'091'183**	**0.6%**	**2'389'043**	**807'268**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.

› Citrus fruit

Almost 91'000 hectares of citrus fruits were grown organically worldwide in 2016. This constitutes 1 percent of the world's total citrus area of 9.4 million hectares in 2016 (FAOSTAT).[1] As no crop details for the organic area were available for some of the world's leading citrus producers - India (0.9 million hectares) and Brazil (0.8 million hectares according to FAOSTAT), it can be assumed that the global figure for the organic citrus area is higher.

In organic agriculture, the largest producer is Italy with over 36'000 hectares, constituting 24.6 percent of Italy's harvested citrus fruit area, followed by China (14'400 hectares, 0.6 percent), Mexico (almost 13'000 hectares, 2.2 percent), and Spain (over 10'000 hectares, 2.8 percent). Since 2004, when 28'500 hectares of organic citrus were grown, the area more than trebled. In 2016, the organic citrus area increased by 28 percent after the drop registered between 2013 and 2015 (Figure 32). Burkina Faso has the highest organic share of citrus fruit with 33.5 percent of the harvested citrus fruit area being organic. It is followed by Italy and Ghana (16.4 percent).

The area of organic citrus fruits shown in

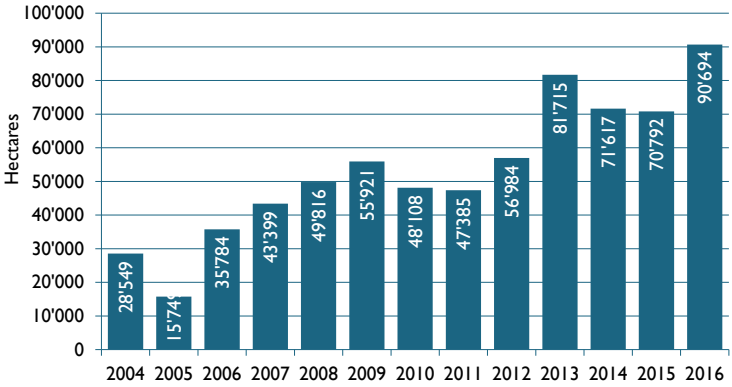
Table 27 includes oranges (almost 40 percent of the organic citrus fruit), lemons and limes (16 percent), grapefruit and pomelos (13 percent), and tangerines (4 percent); for 28 percent of the organic citrus area, no crop detail was available.

The available data on the conversion status indicates that at least 30 percent of the organic citrus area was in-conversion in 2016 (more than 28'000 hectares).

Between 2013 and 2015, a drop of 13 percent of organic citrus fruit area was registered (Figure 32). This drop can be attributed to the spread of the Citrus Greening Disease that is transmitted by the vector Asian Citrus Psyllid, *Diaphorina citri*, and the African Citrus Psyllid, *Trioza erytreae*. In Latin America and the United States, the Greening Disease has caused strong losses. In the case of Cuba, a high percentage of the citrus fruit is infected with the Greening Disease, and it has provoked a strong decrease in production. Some Caribbean countries have decided to abandon producing organic citrus fruit and revert to conventional farming, where chemical pesticides are used to control the disease. Currently the African Citrus Psyllid, *Trioza erytreae*, vector is spreading in Portugal (Lisboa Region) and Spain (Galicia). It will only be a matter of time until the Greening Disease will be found in the Iberian Peninsula. In Mexico, which is a key organic citrus producer, FiBL has been developing an integrated organic management strategy to control the vector and regulate the greening since 2011.

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Citrus fruit: Development of the global organic area 2004-2016
Source: FiBL-IFOAM-SOEL-Surveys 2006-2018



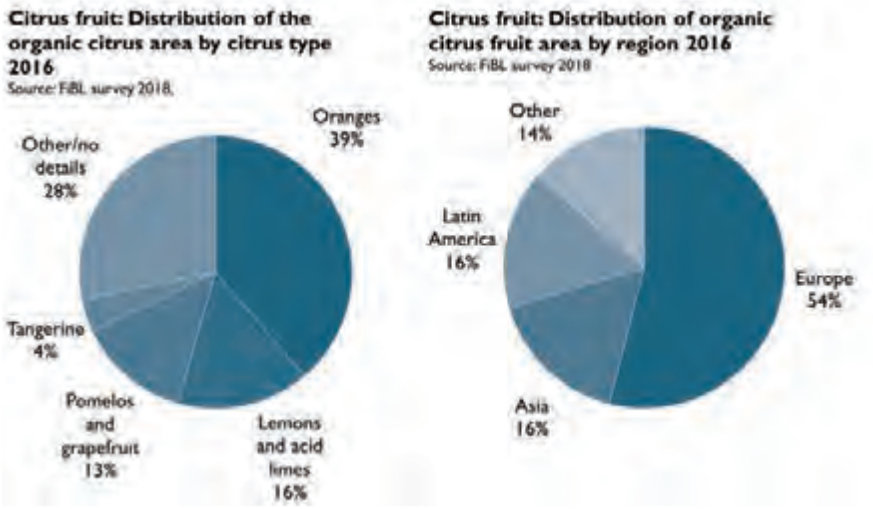


Figure 32: Citrus fruit: Development of the global organic area 2004-2016 and distribution of the organic citrus area by citrus type and by region 2016

Source: FiBL survey 2018

Table 27: Citrus fruit: Organic area by country 2016

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	1'011	0.7%	1'011	
Azerbaijan	21	0.7%	2	19
Burkina Faso	77	33.5%	49	28
Chile	92	0.5%	92	
China	14'403	0.6%	6'623	7'780
Colombia	3	0.004%	2	1
Comoros	55	-	55	
Costa Rica	24	0.1%		
Côte d'Ivoire	3	0.03%	3	
Croatia	15	0.7%	2	13
Cyprus	85	3.4%	38	47
Dominican Republic	262	1.6%	237	25
Egypt	1'190	0.6%		
France	320	6.8%	253	67
Ghana	4'105	16.4%	4'105	
Greece	1'476	2.7%	1'152	325
Indonesia	49	0.1%	49	
Iran	37	0.02%	2	35
Israel	220	1.1%	160	59
Italy	36'125	24.6%	25'642	10'483
Jordan	46	0.7%		
Lebanon	16	0.1%		
Madagascar	17	0.1%	17	
Mexico	12'570	2.2%	7'900	4'670
Morocco	1'526	1.2%	1'327	199
Nigeria	2	0.0002%		
Palestine, State of	1	0.1%	1	
Paraguay	386	3.5%		
Peru	75	0.1%	56	
Portugal	282	1.4%	74	208
Republic of Korea	60	0.3%		
Senegal	16	0.2%	3	13
South Africa	541	0.8%	531	5
Spain	10'183	2.8%	6'160	4'023
Turkey	481	0.4%	252	228
United States	4'919	1.6%		
Total	**90'694**	**1.0%**	**55'805**	**28'239**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330. Blank cells: No data available.

› Cocoa beans

Almost 345'000 hectares of cocoa were under organic management in 2016. This constitutes 3.4 percent of the world's harvested cocoa bean area of 10 million hectares 2016 (FAOSTAT).[1]

The world's leading producers are Côte d'Ivoire (2.8 million hectares), Indonesia (1.7 million hectares), Ghana (1.7 million hectares), and Nigeria (0.8 million hectares). The largest organic cocoa areas are found in the Dominican Republic (159'178 hectares), the Democratic Republic of Congo (37'039 hectares), and the United Republic of Tanzania (29'013 hectares). Almost 70 percent of the world's organic cocoa area is in Latin America, and over 30 percent is in Africa.

Some countries have when compared with the FAO data on harvested area, very high organic shares. This can probably be attributed to the fact that FAO data might be incomplete. The organic cocoa area has grown almost seven-fold since 2004 and thus faster than most other crops/crop groups. However, part of the increase can be attributed to the continually improving data availability. In 2016, almost 27'000 hectares more were reported, an increase of 8.5 percent compared to 2015. The available data on the conversion status indicates that almost eight percent of the organic cocoa area was in conversion in 2016 (over 26'000 hectares). Thus, a slight increase in the supply of organic cocoa may be expected in the near future.

Cocoa beans: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

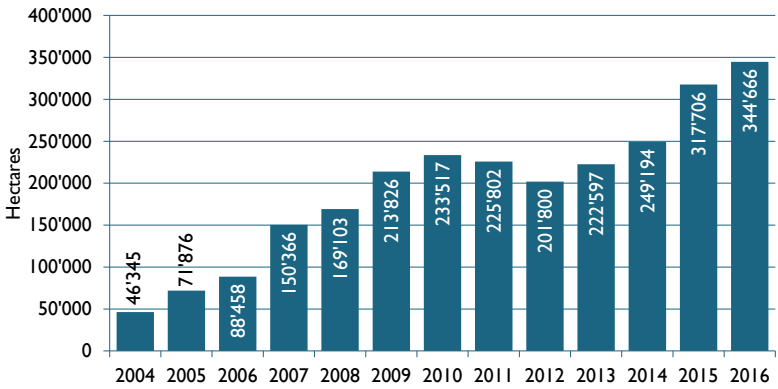


Figure 33: Cocoa beans: Development of the global organic area 2004-2016

Source: FiBL survey 2018

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Table 28: Cocoa beans: Organic area by country 2016

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Belize	380	40.1%	340	40
Bolivia	4'595	44.6%	3'976	619
Colombia	381	0.2%	370	11
Congo, D.R.	37'039	-	30'620	6'419
Costa Rica	1'682	42.0%		
Côte d'Ivoire	111	0.004%	107	4
Dominican Republic	159'178	-	153'178	6'000
Ecuador	13'643	3.0%	12'667	976
El Salvador	2	0.2%		2
Ghana	4'748	0.3%	4'695	53
Grenada	65	5.2%		
Haiti	5'186	19.2%	5'186	
Honduras	753	39.9%		
Indonesia	2'765	0.2%	2'695	70
Madagascar	3'089	23.4%	3'087	2
Mexico	779	1.3%	779	
Nicaragua	3'666	39.4%	1'521	2'146
Nigeria	500	0.1%		
Panama	14'021	-	4'224	436
Papua New Guinea	657	0.6%	647	10
Peru	25'587	20.4%		
Sao Tome and Principe	6'401	24.8%	6'383	18
Sierra Leone	20'305	50.0%	20'305	
Tanzania	29'013	-	19'748	9'266
Togo	2'249	4.2%	1'736	513
Uganda	7'872	13.5%		
Total	**344'666**	**3.4%**	**272'263**	**26'583**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.

For more information on cocoa production (organic and other Voluntary Sustainability Standards - VSS), please see the report "The State of Sustainable Markets – Statistics and Emerging Trends 2017."[1]

[1] Julia Lernoud, Jason Potts, Gregory Sampson, Salvador Garibay, Matthew Lynch, Vivek Voora, Helga Willer and Joseph Wozniak (2017), The State of Sustainable Markets – Statistics and Emerging Trends 2017. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

› Coffee

Almost 934'000 hectares of coffee were grown organically in 2016. This constituted 8.5 percent of the world's harvested coffee area of almost 11 million hectares in 2016, according to FAOSTAT.[1]

The world's leading producers are Brazil (2 million hectares), Indonesia (1.2 million hectares), Côte d'Ivoire (1 million hectares), Colombia (0.9 million hectares), and Ethiopia (0.7 million hectares). Data on organic production was available for all of these countries with the exception of Brazil. Slightly more than 45 percent of the world's organic coffee area is in Latin America, and 41 percent is in Africa.

In organic farming, the largest areas were in Mexico (231'000 hectares), Ethiopia (161'000 hectares), and Peru (110'000 hectares). Timor-Leste had the highest organic share, with almost 53 percent organic coffee, followed by Bolivia (48 percent), the United Republic of Tanzania (42 percent), and the Democratic Republic of Congo (almost 38 percent). The organic coffee area has increased more than five-fold since 2004. Compared with 2015, the organic coffee area grew by 3 percent or more than 30'000 hectares in 2016.

Coffee: Development of the global organic area 2004-2016
Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

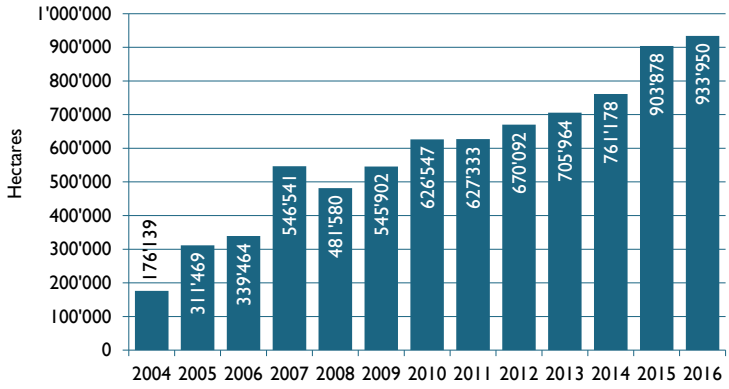


Figure 34: Coffee: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Table 29: Coffee: Organic area by country 2016

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Bolivia	11'185	48.0%	9'709	1'476
Brazil	271	0.01%		
Cameroon	70	0.1%	70	
Cape Verde	495	-	495	
Colombia	10'495	1.2%	7'973	2'523
Congo, D.R.	28'626	37.6%	22'620	6'006
Costa Rica	696	0.8%		
Dominican Republic	10'419	13.2%	9'400	1'019
Ecuador	3'092	10.3%	2'747	345
El Salvador	1'240	0.9%	1'187	53
Ethiopia	161'113	23.0%	159'866	1'247
Fiji	300	-	300	
Guatemala	8'425	3.1%	6'925	1'500
Honduras	23'500	6.1%		
Indonesia	82'069	6.7%	81'746	323
Jamaica	2	0.03%		2
Kenya	1'262	1.1%		
Lao, P.D.R.	1'363	1.7%		
Madagascar	629	0.8%	629	
Malawi	101	2.4%	72	28
Mexico	231'000	35.8%	231'000	
Myanmar	31	0.2%	31	
Nepal	804	30.7%	804	
Nicaragua	12'257	10.2%	10'433	1'824
Panama	953	5.7%	227	
Papua New Guinea	14'968	27.5%	14'097	871
Peru	110'070	28.7%		
Philippines	250	0.2%	250	
Rwanda	203	0.6%		
Sao Tome and Principe	245	24.5%	245	
Sierra Leone	29'236	-	29'236	
Tanzania	93'539	42.3%	79'270	14'270
Thailand	1'372	3.1%		
Timor-Leste	28'012	52.6%	28'012	
Uganda	65'570	17.1%		
United States	87	2.3%		
Total	**933'950**	**8.5%**	**697'343**	**31'487**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.

For more information on coffee production (organic and other Voluntary Sustainability Standards - VSS), please see the report "The State of Sustainable Markets – Statistics and Emerging Trends 2017."[1]

[1] Julia Lernoud, Jason Potts, Gregory Sampson, Salvador Garibay, Matthew Lynch, Vivek Voora, Helga Willer and Joseph Wozniak (2017), The State of Sustainable Markets – Statistics and Emerging Trends 2017. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

› Dry pulses[1]

The total area under organic dry pulses is almost 530'000 hectares, which is 0.6 percent of the total area of dry pulses grown in the world (almost 82.4 million hectares in 2016, according to FAOSTAT).[2]

No current data on the organic area was available from the three most important dry pulse-growing countries in the world: India, Niger, and Myanmar. India (26 million hectares) was by far the largest grower, representing over 32 percent of the global area used to grow dry pulses.

The countries with the largest organic dry pulses areas are France (almost 86'000 hectares), Canada (almost 57'000 hectares), Poland (almost (56'000 hectares), Italy (almost 44'000 hectares), Germany (39'000 hectares), and Spain (38'000 hectares). Overall, organic shares can be high as dry pulses play an important role in organic farming, particularly in Europe.

The dry pulses area has increased six-fold from 79'000 to 530'000 hectares since 2004. However, some of the increase can be attributed to the continually improving availability of crop data. In 2016, the dry pulses area grew - compared to 2015 - by more than 87'000 hectares, or by almost 20 percent. A breakdown by crop is not available for many countries; for instance, Eurostat - the statistical office of the European Union - publishes only one figure for "dry pulses," without breaking that figure down by crop.

The data available for a breakdown of the total fully converted and in-conversion area shows that at least 20 percent is in conversion, and will be fully converted in the next few years. This has implications for the availability of organic dry pulses in the near future.

[1] In past editions of "The World of Organic Agriculture", this category was called "Protein crops". In order to harmonize nomenclature with Eurostat, we changed this to "Dry pulses."
[2] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Dry pulses: Development 2004-2016
Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

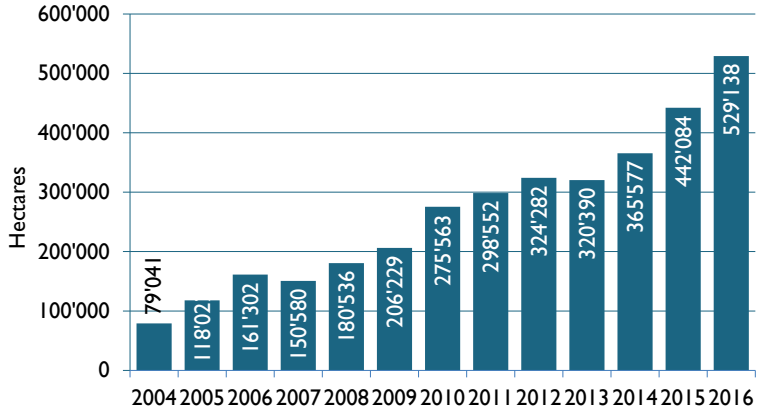


Figure 35: Dry pulses: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018

Table 30: Dry pulses: Organic area by country 2016

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	1'248	0.3%	1'248	
Austria	14'274	57.6%		
Azerbaijan	6	0.1%	2	4
Belgium	441	25.3%	308	133
Bosnia and Herzegovina	3	0.03%	3	
Bulgaria	523	1.7%	46	478
Canada	56'658	1.4%	38'343	
Colombia	1	0.001%	1	
Costa Rica	5	0.02%		
Croatia	95	2.9%	54	41
Czech Republic	2'633	7.0%	2'363	270
Denmark	6'274	40.0%	4'432	1'841
Estonia	7'206	13.0%	5'377	1'829
Finland	15'526	-	12'360	3'166
France	85'827	26.5%	58'239	27'588
Germany	39'000	24.6%		
Greece	8'502	30.6%	7'551	951
Hungary	3'047	9.9%	2'326	720
Ireland	156	1.2%	128	28
Israel	60	1.4%	60	
Italy	43'986	44.1%	32'161	11'825
Kazakhstan	18'399	5.4%	14'099	4'300
Kenya	215	0.01%		
Kyrgyzstan	15	0.03%	14	1
Latvia	7'159	17.5%	4'616	2'543
Lebanon	1	0.03%	1	

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Lithuania	30'131	12.8%	16'538	13'593
Luxembourg	50	7.3%	50	
Madagascar	5	0.004%	5	
Malawi	1	0.0001%	1	
Mexico	14'644	0.9%	14'644	
Moldova	515	2.2%	230	285
Montenegro	1	0.1%	1	
Mozambique	0.5	0.0001%	0.5	
Namibia	36	0.2%	33	3
Netherlands	96	5.6%	94	2
Norway	150	6.1%	143	7
Paraguay	1'977	1.9%		
Peru	3	0.002%	3	
Poland	55'968	18.7%	36'771	19'197
Portugal	1'198	23.4%	530	668
Republic of Korea	64	0.6%		
Romania	2'204	3.7%	1'580	624
Russian Federation	2'674	0.2%	834	
Senegal	228	0.1%		228
Slovakia	1'096	9.1%	969	128
Slovenia	137	10.9%	115	22
Spain	38'057	9.6%	25'556	12'502
Sweden	14'221	25.9%	11'409	2'812
Switzerland	1'110	20.9%		
Tunisia	27	0.03%		
Turkey	12'181	1.7%	9'467	2'784
Ukraine	20'000	6.2%		
United Kingdom	4'080	2.1%	3'874	206
United States	15'581	1.2%		
Zambia	112	0.2%	82	
Zimbabwe	1'331	3.3%	544	787
Total	**529'138**	**0.6%**	**307'206**	**109'565**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.

For some of the countries in this table, the organic dry pulses share was very high and not plausible; the corresponding figures were, therefore, eliminated.

› Fruit: Temperate fruit

The total area under organic temperate fruit production recorded here (almost 255'000 hectares), is 2 percent of the total area of temperate fruit grown in the world (12.6 million hectares in 2016, according to FAOSTAT).[1]

Of the seven most important temperate fruit growing countries in the world (China, Turkey, Iran, India, Russia, the United States, and Uzbekistan), five countries (China, Turkey, Iran, Russia,[2] and the United States) provided data on the area of organic temperate fruits in 2016. It can, therefore, be assumed that the organic temperate fruit area is higher.

The countries with the largest organic temperate fruit areas are China (almost 98'000 hectares), Italy (22'400 hectares), Poland (almost 19'000 hectares), Turkey (16'000 hectares), France (almost 14'000 hectares), and the United States (almost 12'000 hectares) (Table 32).

Since 2004, when data on land use and crops were collected for the first time, the temperate fruit area has almost trebled. However, some of the increase can be attributed to the continually improving crop data availability. In 2016, a drop of over 8'000 hectares occurred, this was mainly due to a decrease in China.

The key temperate fruits are apples, with one-third of the temperate fruit area, followed by apricots, cherries, plums, and pears (Table 31). Poland has one-third of the total organic apple area. The available data on the conversion status indicates that more than 30 percent of the total temperate fruit area is in conversion. Thus, a considerable increase in the supply of organic temperate fruit in the near future.

Table 31: Temperate fruit: Organic area by crop 2016

Main crop	2016 [ha]	Change 2015-2016 [ha]	Organic share [%]
Apples	82'983	2'038	1.6%
Apricots	22'940	4'723	4.0%
Cherries	15'924	3'671	2.4%
Peaches and nectarines, no details	10'877	1'023	0.7%
Pears	15'376	5'264	1.0%
Plums	15'871	2'679	0.6%
Pome fruit, no details	1190	-2751	-
Quinces	81	30	0.1%
Stone fruit, no details	5096	-5186.3	-
Total*	**254'600**	**-8'414**	**2.0%**

Source: FiBL survey 2018
**Total includes temperate fruit areas for which no details were available*

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC
[2] Please note that for Russia the data is incomplete as not all certifiers provided data on the crops.

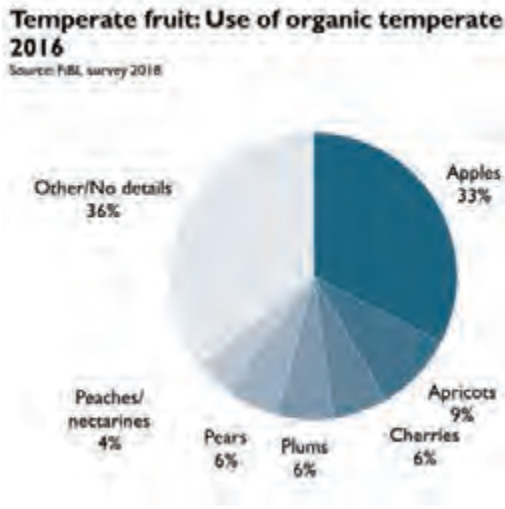


Figure 36: Temperate fruit: Use of organic temperate fruit area 2016

Source: FiBL survey 2018

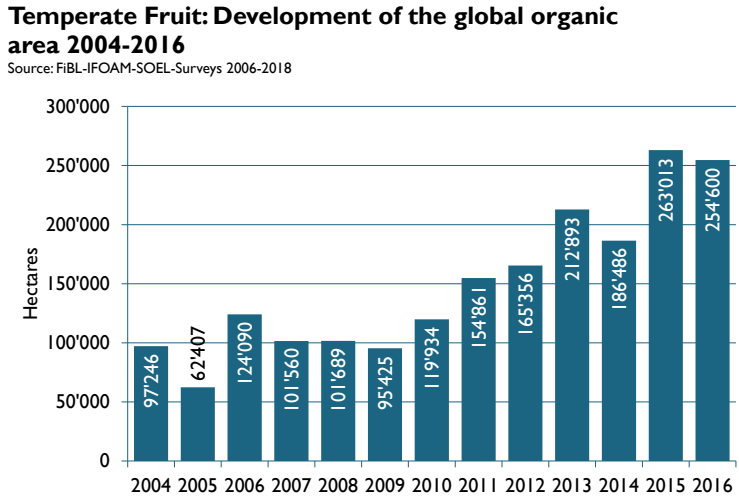


Figure 37: Temperate fruit: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018

Table 32: Temperate fruit: Organic area by country 2016

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	123	0.8%		
Argentina	4'818	4.7%	4'818	
Austria	4'938	53.2%		
Azerbaijan	754	1.4%	112	642
Belgium	384	2.1%	292	92
Bulgaria	7'657	28.0%	2'709	4'948
Burundi	83	-		
Canada	908	4.4%		
Chile	1'291	1.2%	1'291	
China	97'880	1.5%	62'294	35'586
Colombia	1	0.02%		1
Croatia	1'908	12.0%	814	1'093
Cyprus	149	8.5%	79	70
Czech Republic	4'106	29.7%	3'345	760
Denmark	412	14.8%	344	68
Estonia	512	17.0%	458	54
Finland	67	9.3%	64	3
France	13'544	13.4%	10'016	3'528
Georgia	855	2.6%	855	
Germany[1]	7'472	16.7%		
Greece	637	0.7%	476	161
Hungary	3'839	5.8%	1'102	2'737
Iran	2	0.0004%	0	2
Ireland	46	6.6%	41	4
Israel	65	0.6%	65	
Italy	22'378	10.1%	14'617	7'761
Jordan	0.3	0.004%		
Kyrgyzstan	19	0.04%	19	
Latvia	1'184	39.2%	534	650
Lebanon	67	0.2%	47	20
Lesotho	543	-	543	
Liechtenstein	2	-	2	
Lithuania	1'231	7.4%	814	418
Luxembourg	14	4.7%	13	2
Macedonia, FYROM	194	0.7%	104	90
Mexico	1'349	1.3%	1'348	
Moldova	279	0.3%	279	
Montenegro	354	30.6%	97	257
Morocco	455	0.5%	83	372
Netherlands	426	2.4%	403	24
New Zealand	1'000	9.2%		
Norway	201	9.8%	162	39
Oman	4	-		
Peru	768	4.1%	692	
Poland	18'616	7.6%	16'655	1'961
Portugal	1'441	3.6%	602	839
Republic of Korea	130	0.2%		
Romania	6'353	4.7%	4'205	2'147

[1] Please note that for Germany, extensive fruit areas were included.

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Russian Federation	31	0.01%		31
Serbia	1'945	1.4%	1'325	620
Slovakia	674	18.3%	480	194
Slovenia	178	5.5%	134	44
South Africa	296	0.5%	296	
Spain	5'648	2.8%	3'451	2'197
Sweden	235	13.5%	210	25
Switzerland	564	9.0%		
Tunisia	3'893	7.4%		
Turkey	16'260	3.2%	6'272	9'988
Ukraine	2'500	1.5%		
United Kingdom	1'248	6.4%	1'236	12
United States	11'670	4.1%		
Total	**254'600**	**2.0%**	**145'089**	**77'438**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.

Further reading

Granatstein, David, Elizabeth Kirby, Harold Ostenson, and Helga Willer (2015) Global situation for organic tree fruits. Scientia Horticulturae. Available online 18 December 2015 doi:10.1016/j.scienta.2015.12.008

› Fruit: Tropical and subtropical fruit

The total area under organic tropical and subtropical fruit production recorded here (over 356'000 hectares) is 1.4 percent of the total area of tropical and subtropical fruit grown in the world (24.8 million hectares in 2016, according to FAOSTAT data).[1]

Of the five most important tropical and subtropical fruit growing countries in the world (India, China, Philippines, Brazil, and Thailand, all with more than one million hectares), only China, the Philippines, and Thailand provided data on the area used for growing organic tropical and subtropical fruit in 2016.

The largest organic growers for which data on the organic area was available were Mexico (almost 131'000 hectares), China (over 28'000 hectares), the Dominican Republic (almost 26'000 hectares), and Madagascar (19'000 hectares). Some of these countries also report very high organic shares of tropical and subtropical fruit, more than the ten percent of their countries' total area for these crops: In the case of the Dominican Republic, bananas; and in the case of Mexico, mangos and avocados. The largest organic shares of tropical and subtropical fruit area are in Burkina Faso (46.8 percent), Niue (43.6 percent), Turkey (28.6 percent), and the Dominican Republic (24.6 percent). By area, the key tropical and subtropical fruits are avocados, bananas, and dates (Figure 38).

Since 2004, when data on land use and crops was collected for the first time, the tropical fruit area has increased eight-fold (Figure 39). Some of the increase can be attributed to the continually improving data availability. In 2016, a drop of the area was noticed compared to 2015; this can be attributed to a decrease of the organic area in Samoa, Kenya, and Madagascar.

The available data on the conversion status indicates that at least 13 percent of the total tropical and subtropical fruit area is in conversion. This suggests that a slight increase in supply in the near future may be expected.

For more information on banana production (organic and other Voluntary Sustainability Standards - VSS), please see the report "The State of Sustainable Markets – Statistics and Emerging Trends 2017."[2]

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

[2] Julia Lernoud, Jason Potts, Gregory Sampson, Salvador Garibay, Matthew Lynch, Vivek Voora, Helga Willer and Joseph Wozniak (2017), The State of Sustainable Markets – Statistics and Emerging Trends 2017. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

Table 33: Tropical and subtropical fruit: Organic area by crop 2016

Main crop	Area [ha]	Organic share [%]
Avocados	62'352	11.1%
Bananas	58'407	0.6%
Camu camu	140	-
Carobs	846	1.3%
Dates	38'744	2.9%
Figs	17'092	5.5%
Guava	11'102	-
Kiwis	5'735	2.1%
Litchi	986	-
Mangos	21'442	0.4%
Noni	427	-
Opuntia	2'416	-
Papayas	729	0.2%
Passion fruit	190	-
Persimmons	263	0.03%
Pineapples	7'167	0.7%
Pitaya	306	-
Pomegranate	3'145	-
Total*	**356'119**	**1.4%**

Source: FiBL survey 2018
** Total includes tropical and subtropical fruit areas for which no details were available*

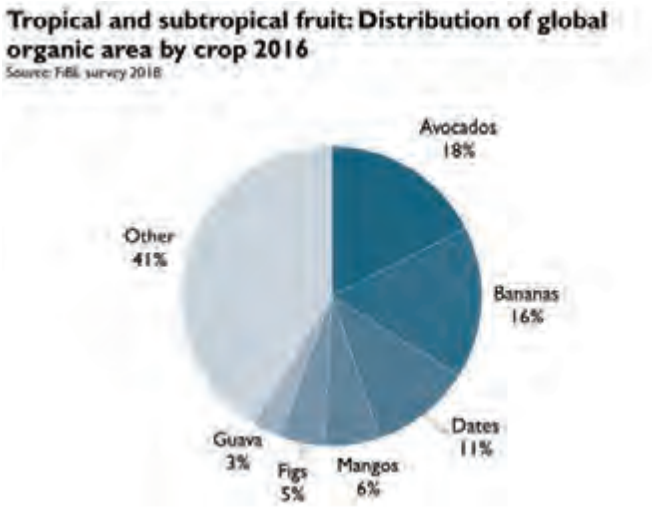


Figure 38: Tropical and subtropical fruit: Distribution of global organic area by crop 2016

Source: FiBL survey 2018

Tropical and subtropical fruit: Development 2004-2016

Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

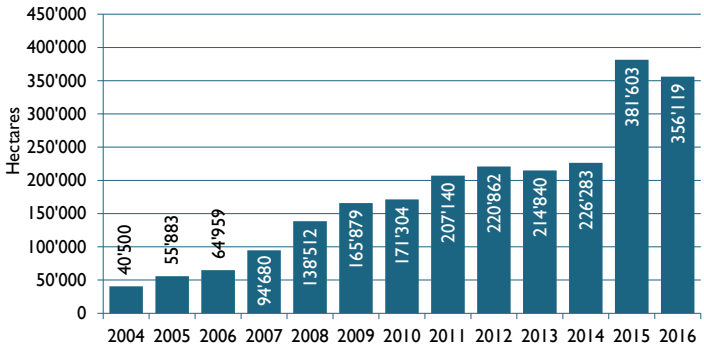


Figure 39: Tropical and subtropical fruit: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018

Table 34: Tropical and subtropical fruit: Organic area by country 2016

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Algeria	502	0.2%	502	
Argentina	81	0.8%	81	
Azerbaijan	495	4.4%	180	315
Bangladesh	10	0.003%		
Bolivia	40	0.1%	38	2
Bulgaria	65	-	8	57
Burkina Faso	7'165	46.8%	7'063	73
Cambodia	38	0.1%		
Cameroon	304	0.1%	304	
Chile	476	1.2%	476	
China	28'403	0.8%	19'094	9'309
Colombia	1'746	0.3%	1'723	22
Cook Islands	10	9.2%	10	
Costa Rica	4'445	4.2%		
Côte d'Ivoire	606	0.1%	606	
Croatia	99	9.9%	76	23
Cyprus	63	3.1%	38	25
Dominican Republic	25'835	24.6%	22'579	3'256
Ecuador	18'650	5.9%	14'512	4'139
Egypt	375	0.2%		
El Salvador	14	0.2%	14	
Fiji	3'086	-	3'086	
France	101	2.3%	58	43
French Guiana (France)	127	5.9%	53	74
French Polynesia	57	12.4%	57	
Ghana	188	0.05%	188	
Greece	790	6.1%	524	266
Grenada	19	1.4%		

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Guadeloupe (France)	20	0.6%	13	7
Guatemala	35	0.03%	35	
Guinea-Bissau	66	0.3%	66	
Indonesia	3'886	0.7%	3'886	
Iran (Islamic Republic of)	2'302	0.7%	2'235	67
Israel	745	3.3%	699	46
Italy	7'092	19.0%	4'856	2'236
Jordan	2	0.1%		
Kenya	18'637	12.0%		
Lebanon	4	0.1%	3	1
Macedonia, FYROM	2	2.8%	2	
Madagascar	19'012	8.7%	19'012	
Mali	553	1.2%	530	23
Martinique (France)	133	2.0%	109	24
Mexico	130'563	23.6%	117'374	6'400
Montenegro	3	0.2%	3	
Morocco	2'698	1.9%	2'698	
Mozambique	0.5	0.001%	0.5	
Myanmar	294	0.4%	294	
New Zealand	600	3.4%		
Niue	112	43.6%	112	
Pakistan	1'224	0.3%	1'224	
Palestine, State of	1	0.03%		1
Peru	7'297	2.6%	1'236	
Philippines	6'150	0.5%	6'149	
Portugal	829	4.0%	424	405
Puerto Rico	8	0.1%		
Réunion (France)	239	4.3%	163	76
Rwanda	439	0.1%	439	
Saudi Arabia	12'530	8.6%	8'029	4'501
Senegal	1'294	5.8%	1'084	210
Sierra Leone	803	5.3%		803
Slovenia	29	22.1%	17	12
South Africa	182	0.5%	5	
Spain	2'912	3.7%	1'882	1'030
Sri Lanka	3'011	3.2%	2'760	252
Suriname	39	1.3%	39	
Switzerland	33	-		
Taiwan	1'206	1.3%	1'206	
Tanzania	1'739	0.2%	1'739	
Thailand	3'437	0.3%		
Togo	369	15.2%	351	1
Tunisia	3'278	3.7%		
Turkey	18'415	28.6%	11'565	6'850
United Arab Emirates	400	0.4%	400	
United States	3'519	9.1%		
Vanuatu	18	1.0%	18	
Viet Nam	6'171	2.7%		6'171
Total	**356'119**	**1.4%**	**261'924**	**46'721**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330. Blank cells: No data available.

› Grapes

Almost 380'000 hectares of organic grapes are grown, constituting 5.3 percent of the world's grape-growing area (7.1 million hectares in 2016, according to FAOSTAT).[1] In Europe, over 328'000 hectares (8.4 percent of the harvested grape area) are organic. Not all of the grape area listed in the table is used for wine. The production of table grapes and raisins is important in many countries, such as Turkey. All of the five most important grape-growing countries in the world (Spain, China, France, Italy, and Turkey) provided data on the area under organic grape production in 2016.

The countries with the largest organic grape areas are Spain and Italy, each with more than 100'000 hectares of organic grapes, followed by France with over 70'000 hectares. Some of the highest organic shares of the total grape area are also found in these countries (Table 35). Almost 90 percent of the world's organic grape area is in Europe. The rest is distributed almost equally among Asia, North America, and Latin America.

Since 2004, when data on land use and crops were collected for the first time, the organic grape area has increased four-fold. However, some of the increase can be attributed to the continually improving availability of crop data.

The available data indicates that a large part of the organic grape area (at least 28 percent) is in conversion. Thus, a considerable increase in the supply of organic grapes may be expected, particularly from Spain, Italy, and France.

Grapes: Development 2004-2016
Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

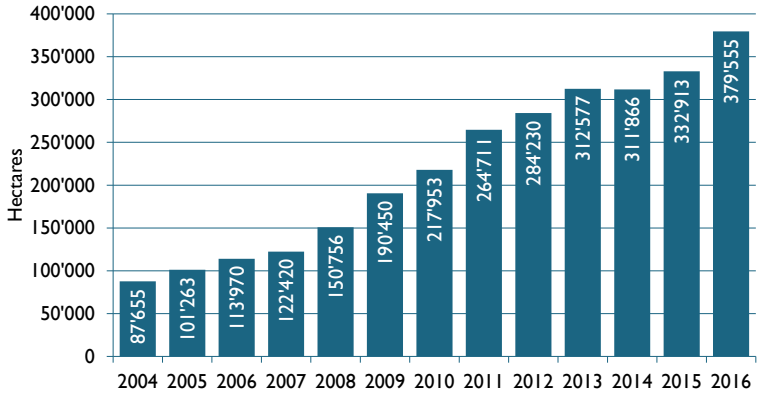


Figure 40: Grapes: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Table 35: Grapes: Organic area by country 2016

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	14	0.1%		
Algeria	208	0.3%	208	
Andorra	4	-	4	
Argentina	6'240	2.8%	6'240	
Austria	5'088	10.9%		
Azerbaijan	41	0.3%	1	40
Belgium	28	11.9%	16	12
Bulgaria	5'390	14.7%	1'622	3'768
Canada	1'000	8.4%	1'000	
Chile	3'063	1.5%	3'063	
China	20'025	2.4%	12'425	7'600
Croatia	1'119	4.8%	589	530
Cyprus	261	4.3%	182	78
Czech Republic	885	5.6%	738	147
Denmark	29	-	18	10
Egypt	1'890	2.5%		
Estonia	2	-		
Finland	4	-	4	
France	70'732	9.3%	58'637	12'095
Georgia	130	0.3%	55	75
Germany	8'000	8.0%		
Greece	4'033	3.6%	3'484	549
Hungary	1'637	2.4%	894	743
Iran	1'854	0.9%	1'854	
Israel	29	0.4%	27	2
Italy	103'545	15.5%	66'133	37'412
Jordan	10	0.2%		
Kazakhstan	20	0.1%	20	
Lebanon	417	5.3%	415	2
Liechtenstein	4	-	4	
Luxembourg	62	4.9%	32	30
Macedonia, FYROM	18	0.1%	6	11
Malta	8	0.5%	5	2
Mexico	2'155	7.3%	2'155	
Moldova	7	0.01%	7	
Montenegro	1	0.1%	1	
Morocco	34	0.1%	32	2
Netherlands	7	0.8%	7	
New Zealand	2'022	5.0%		
Poland	258	-	196	62
Portugal	3'074	1.8%	1'109	1'965
Republic of Korea	70	0.5%		
Romania	2'024	1.2%	1'684	340
Russian Federation	16	0.02%		16
Serbia	36	0.2%	6	30
Slovakia	110	1.3%	71	39
Slovenia	536	3.4%	342	194
South Africa	783	0.6%	738	45
Spain	106'720	11.6%	73'579	33'141
Switzerland	789	5.3%		
Turkey	13'961	3.2%	5'534	8'427
United Kingdom	90	23.6	80	10
United States	11'071	2.7		
Total	**379'555**	**5.3**	**243'221**	**107'378**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: Not data

› Oilseeds

Almost 1.3 million hectares were used for growing organic oilseeds in 2016. This is 0.6 percent of the world's total harvested oilseed area (almost 230 million hectares according to FAOSTAT).[1]

The main countries in which oilseeds are grown are the United States, Brazil, India, Argentina, and China (each with more than 20 million hectares). Data on organic production was available for all of these countries but Brazil. The countries with the largest organic oilseed area are China, India, Sudan, the United States, and Kazakhstan.

The highest organic shares are in Togo (27 percent, mainly soybeans), Peru (23 percent, mainly sesame), and Austria (almost 16 percent, mainly soybeans).

Since 2004, when data on land use and crops was collected for the first time, the oilseed area (2004: almost 144'000 hectares) has increased more than nine-fold. However, some of the increase can be attributed to the continually improving availability of crop data. In 2016, the organic oilseed area increased by 4 percent (almost 51'000 hectares). Over forty percent of the organic oilseed area is for soybeans, and another twenty percent is for sunflower seeds and sesame (Figure 42).

The data available for a breakdown of the total fully converted and in conversion area shows that at least 19 percent is in conversion and will be fully converted in the next few years. This has implications for the availability of organic oilseeds in the near future.

Table 36: Oilseeds: Organic area by crop 2016

Main crop	Area [ha]	Organic share [%]
Jojoba	294	-
Linseed (oil flax)	35'159	1.3%
Mustard	3'011	0.4%
Oil pumpkin	5'688	-
Peanuts	86'901	0.3%
Rape and turnip rape	85'960	0.3%
Sacha inchi	295	-
Safflower	12'269	1.1%
Sesame	116'861	1.1%
Soybeans	560'457	0.5%
Sunflower seed	104'032	0.4%
Total*	**1'286'588**	**0.6%**

Source: FiBL survey 2019.
**Total includes oilseed areas for which no details were available*

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Oilseeds: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

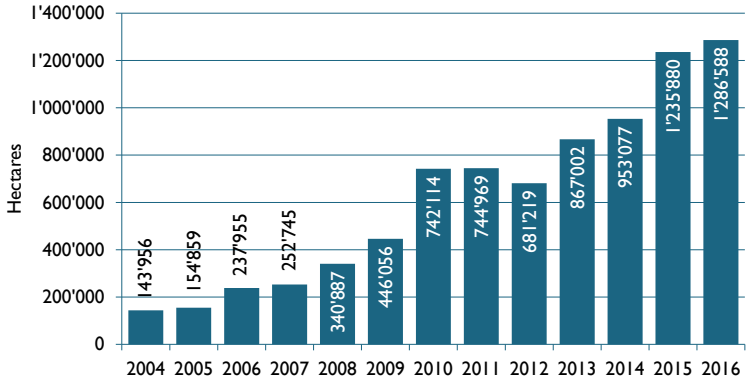


Figure 41: Oilseeds: Development of the global organic oilseed area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018

Oilseeds: Use of organic oilseed area by crop 2016

Source: FiBL survey 2018

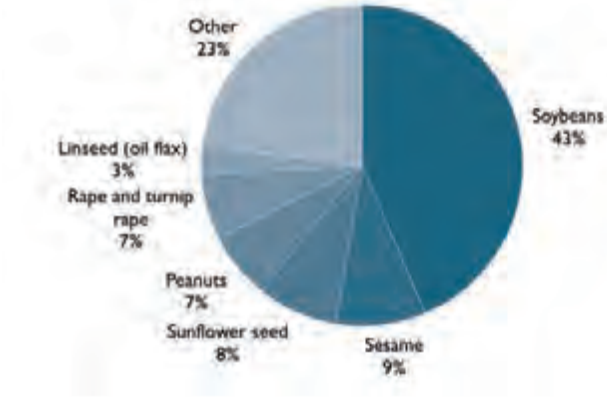


Figure 42: Oilseeds: Use of organic oilseed area by crop 2016

Source: FiBL survey 2018

Table 37: Oilseeds: Organic area by country 2016

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	23'646	0.1%	23'646	
Austria	24'072	15.7%		
Azerbaijan	126	0.6%	50	76
Belgium	157	0.6%	78	79
Benin	239	0.1%		
Bolivia	4'038	0.3%	4'038	
Bosnia and Herzegovina	82	0.9%	82	
Bulgaria	12'391	1.2%	1'430	10'961
Burkina Faso	7'281	0.9%	7'075	
Canada	40'911	0.4%		
Chile	11	0.02%	11	
China	393'500	1.9%	326'400	67'100
Colombia	0.2	0.001%	0.2	
Côte d'Ivoire	14	0.01%	14	
Croatia	7'800	4.7%	3'886	3'914
Czech Republic	2'000	0.4%	1'489	511
Denmark	1'385	0.8%	1'254	130
Egypt	1'589	1.4%		
Estonia	4'059	5.8%	2'749	1'310
Ethiopia	24'936	2.9%	24'936	
Finland	2'127	3.5%	1'738	389
France	53'709	2.4%	29'267	24'442
Germany	11'900	0.9%		
Greece	1'530	1.3%	1'327	203
Guatemala	342	0.6%		342
Guinea-Bissau	43	0.1%	43	
Hungary	7'649	0.8%	4'095	3'554
Iceland	6	-	6	
India	130'000	0.5%		
Iran	650	0.2%	650	
Ireland	88	0.9%	72	16
Israel	336	4.1%	336	
Italy	16'133	3.9%	11'234	4'899
Kazakhstan	57'320	2.9%	49'654	7'666
Kenya	715	0.5%		
Kyrgyzstan	14	0.04%		
Latvia	1'315	1.3%	606	709
Liechtenstein	7	-	7	
Lithuania	3'112	2.0%	1'743	1'369
Luxembourg	17	0.5%	8	9
Macedonia, FYROM	44	0.9%	34	10
Mali	9'945	1.8%	9'940	5
Mexico	23'543	4.5%	22'885	
Moldova	4'183	1.0%	2'243	1'940
Namibia	33	4.5%	33	
Nepal	122	0.03%		122
Netherlands	24	0.5%	24	
Nicaragua	2'500	5.0%	2'500	

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Norway	9	0.2%	9	
Paraguay	11'760	0.3%		
Peru	1'442	23.3%	1'419	
Poland	2'802	0.3%	1'956	845
Portugal	108	0.6%	63	45
Romania	51'571	3.2%	34'745	16'826
Russian Federation	31'680	0.3%	7'048	166
Senegal	1'312	0.1%	925	387
Serbia	2'857	0.7%	1'576	1'281
Slovakia	3'042	1.2%	2'548	493
Slovenia	395	6.7%	283	112
Spain	10'098	1.3%	5'710	4'389
Sudan	86'000	1.7%	3'000	83'000
Sweden	6'649	6.6%	6'284	365
Switzerland	948	3.4%		
Togo	18'754	27.0%	17'417	1'337
Turkey	5'622	0.6%	4'138	1'485
Uganda	44'587	4.2%		
Ukraine	70'000	0.8%		
United Kingdom	60	0.01%	39	21
United States	61'164	0.2%		
Zambia	76	0.02%	6	
Zimbabwe	8	0.003%	3	5
Total	**1'286'588**	**0.6%**	**667'070**	**240'519**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: no data.

For more information on soybean production (organic and other Voluntary Sustainability Standards (VSS)), please see the report "The State of Sustainable Markets – Statistics and Emerging Trends 2017."[1]

[1] Julia Lernoud, Jason Potts, Gregory Sampson, Salvador Garibay, Matthew Lynch, Vivek Voora, Helga Willer and Joseph Wozniak (2017), The State of Sustainable Markets – Statistics and Emerging Trends 2017. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

› Olives

Almost 748'000 hectares of olives were reported to be under organic production in 2016. This represents 7 percent of the world's total harvested olive area (10.7 million hectares according to FAOSTAT).

The main countries in which olives are grown are around the Mediterranean. Spain is by far the largest grower with 2.6 million hectares, followed by Tunisia (1.6 million hectares) and Italy (1.2 million hectares). Greece and Morocco are also important producers. For all these countries, data for the organic area was available.

Italy has the largest area of organic olives (more than 222'000 hectares), followed by Spain (almost 198'000 hectares), and Tunisia (almost 138'000 hectares). Almost 80 percent of the world's organic olive area is in Europe, followed by northern Africa with 20 percent of the world's organic olive area. In Italy, the percentage of area under organic production is relatively high (over 19 percent).

In Spain, almost 8 percent of the olive area is organic, and in Tunisia 8.4 percent. France has the highest organic share with 27.6 percent of the olive area being organic. Since 2004, when data on land use and crops were collected for the first time, the olive area more than doubled. The available data indicates that a large part of the total olive area, 24 percent, is in conversion. Thus, an increase in the supply of organic olives may be expected.

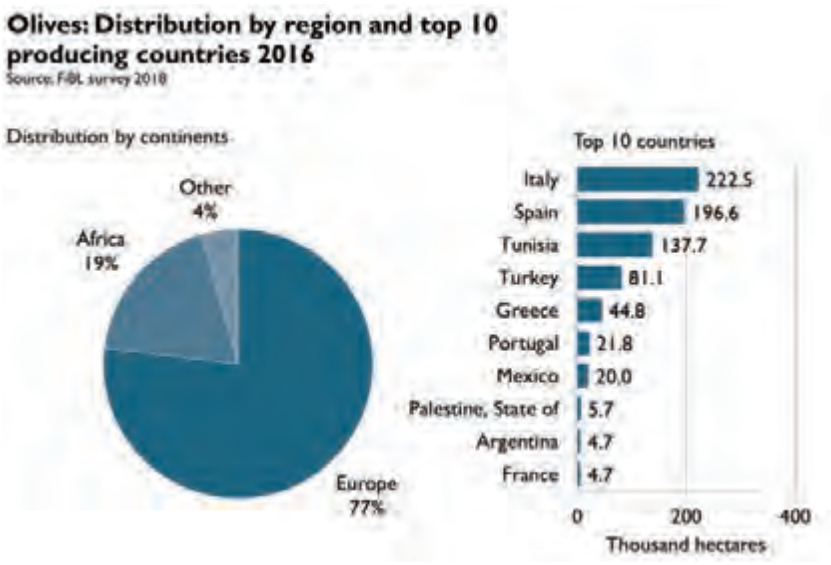


Figure 43: Organic olive area: Distribution by region and top 10 producing countries 2016

Source: FiBL-survey 2018; based on national data sources and certifier data. For detailed data sources see annex, page 330

Olives: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

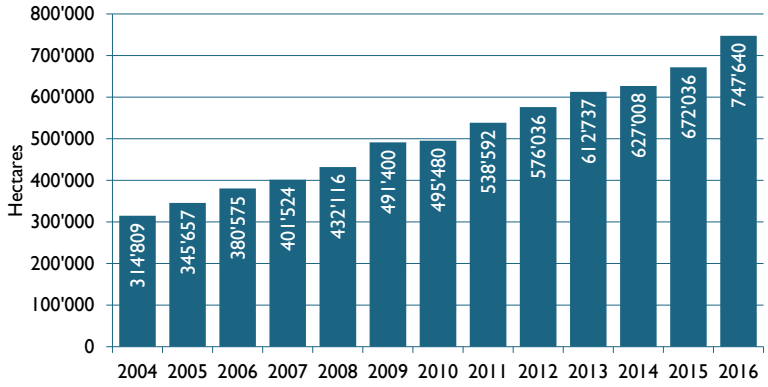


Figure 44: Olives: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018; based on national data sources and certifier data. For detailed data sources see annex, page 330

Table 38: Olives: Organic area by country 2016

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	198	0.5%		
Argentina	4'744	7.7%	4'744	
Azerbaijan	13	0.4%	5	8
Croatia	1'536	8.4%	978	558
Cyprus	1'527	14.4%	960	567
Egypt	1'008	1.5%		
France	4'689	27.0%	3'905	784
Georgia	70	-		70
Greece	44'752	5.0%	37'945	6'807
Iran	210	0.3%	120	90
Israel	557	1.7%	503	54
Italy	222'453	19.1%	150'400	72'053
Jordan	410	0.6%		
Lebanon	229	0.4%	192	37
Malta	7	25.0%	7	
Mexico	20'000	-	20'000	
Montenegro	5	5.9%	4	1
Morocco	1'279	0.1%	1'035	244
Palestine, State of	5'744	8.6%	5'008	736
Peru	95	0.6%	89	
Portugal	21'797	6.1%	6'321	15'476
Slovenia	240	20.5%	185	55
South Africa	23	-	23	
Spain	196'567	7.6%	146'762	49'805
Tunisia	137'713	8.4%		
Turkey	81'055	9.6%	50'247	30'808
United States	719	5.1%		
Total	**747'640**	**7.0%**	**429'434**	**178'152**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
Blank cells: No data available.

› Vegetables

The total area under organic vegetable production (more than 437'000 hectares) is 0.7 percent of the total area of vegetables grown in the world (62 million hectares in 2016, according to FAOSTAT).[1]

Of the four most important vegetable-growing countries in the world (China, India, Nigeria, and Viet Nam), data on the organic area was only available for China and Viet Nam.

The countries with the largest organic vegetable areas are Mexico, the United States, China, Poland, and Egypt (each with areas over 20'000 hectares).

The highest organic shares of the total vegetable areas are in Denmark, Austria, Canada, Switzerland, and Mexico. These are also the countries in Europe that, with the exception of Mexico and Canada, have the largest organic market shares for organic food. Furthermore, Sweden and Bulgaria reported high organic shares of the total vegetable area.

Since 2004, when data on organic land use and crops was collected for the first time, the vegetable area increased by four-fold, from 105'000 hectares to the current 437'000 hectares. The major increase in 2016 is mainly due to a substantial increase of the vegetable area in Mexico.

A large part (120'000 hectares) is for fruit vegetables, followed by leafy and stalked vegetables (salads). For most countries, however, no crop details for the vegetable area are available.

The available data on the breakdown of the fully converted and in conversion area at least 50'000 hectares of a large part of the organic vegetable area is under conversion. Thus, it can be concluded that not a big increase of the organic vegetable supply can be expected.

[1] FAOSTAT, the FAO Homepage, FAO, Rome at fao.org/faostat > Data > Crops > http://www.fao.org/faostat/en/#data/QC

Vegetables: Development 2004-2016
Source: FiBL-IFOAM-SOEL-Surveys 2006-2018

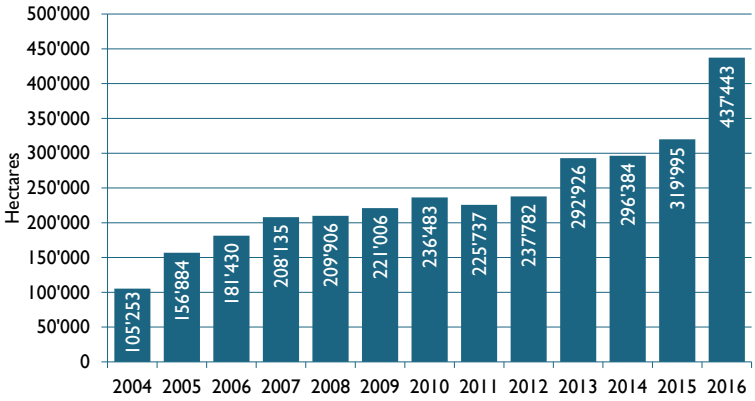


Figure 45: Vegetables: Development of the global organic area 2004-2016

Source: FiBL-IFOAM-SOEL surveys 2006-2018

Table 39: Vegetables: Organic area by country 2016

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	3	0.01%		
Argentina	1'748	0.9%	1'459	
Austria	3'409	20.6%		
Azerbaijan	213	0.2%	55	158
Bangladesh	157	0.02%		
Belgium	1'647	2.5%	1'180	466
Bhutan	82	0.9%	82	
Bosnia and Herzegovina	20	0.01%	15	5
Bulgaria	4'127	10.4%	1'157	2'971
Burkina Faso	4	0.01%		
Cambodia	30	0.03%		
Canada	13'230	17.2%		
Chile	499	0.8%	499	
China	63'334	0.2%	42'629	20'705
Colombia	22	0.02%		
Costa Rica	420	2.6%		
Croatia	317	3.4%	196	121
Cyprus	123	3.6%	25	97
Czech Republic	186	1.5%	170	16
Denmark	3'120	28.2%	3'046	74
Dominican Republic	120	0.3%	120	
Ecuador	759	0.9%	746	13
Egypt	25'379	3.2%		
El Salvador	3	0.05%	3	

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Estonia	94	2.8%	82	12
Finland	197	1.7%	153	44
France	18'064	8.1%	16'650	1'414
French Guiana (France)	21	1.4%	17	4
Georgia	8	0.04%	8	
Germany	12'399	8.4%		
Greece	1'251	1.3%	1'049	202
Guadeloupe (France)	8	0.2%	4	4
Guatemala	565	0.5%	485	80
Hungary	2'765	5.3%	1'722	1'043
Iceland	13	34.5%	13	
Indonesia	488	0.05%	488	
Iran	179	0.03%	89	90
Iraq	51	0.04%		
Ireland	283	4.2%	256	26
Israel	1'236	1.1%	1'204	32
Italy	43'648	8.6%	30'629	13'019
Jamaica	57	0.3%	56	
Japan	1'326	0.4%	1'326	
Jordan	11	0.03%		
Kenya	4'786	2.7%		
Kyrgyzstan	65	0.1%	40	24
Lao, P.D.R.	47	0.02%		
Latvia	329	4.3%	239	90
Lebanon	42	0.1%		
Liechtenstein	15	-	15	
Lithuania	135	1.3%	95	40
Luxembourg	43	57.3%	40	3
Macedonia, FYROM	81	0.2%	31	50
Madagascar	132	0.3%	132	
Malta	5	0.1%	4	1
Martinique (France)	17	0.8%	15	2
Mauritius	13	0.2%	4	8
Mexico	97'149	13.2%	97'149	
Moldova	109	0.3%	109	
Montenegro	3	0.2%	2	1
Morocco	490	0.3%	440	50
Mozambique	1	0.001%	1	
Myanmar	58	0.01%	58	
Namibia	114	1.6%	103	11
Netherlands	6'792	7.4%	6'746	46
Nicaragua	1	0.02%	1	
Norway	437	6.0%	376	61
Oman	16	0.1%		
Palestine, State of	2	0.01%	2	
Panama	209	1.9%	20	
Paraguay	0.2	0.0004%		
Peru	1'001	0.5%		
Philippines	6	0.001%	6	

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Poland	8'071	4.1%	6'153	1'918
Portugal	1'790	3.3%	327	1'463
Republic of Korea	310	0.1%		
Réunion (France)	131	2.2%	123	8
Romania	1'161	0.4%	803	358
Russian Federation	146	0.02%	137	5
Saudi Arabia	417	0.5%	354	63
Senegal	168	0.3%	43	125
Serbia	139	0.2%	100	39
Slovakia	278	3.7%	232	46
Slovenia	259	4.6%	225	34
South Africa	192	0.2%	148	37
Spain	17'013	4.9%	11'576	5'436
Sweden	1'860	10.6%	1'760	100
Switzerland	2'266	14.3%		
Taiwan	2'439	1.8%	2'439	
Thailand	735	0.2%		
Tunisia	90	0.1%		
Turkey	3'172	0.3%	1'907	1'265
Uganda	5'245	2.1%		
Ukraine	6'000	1.2%		
United Kingdom	6'318	5.8%	6'044	273
United States	64'461	7.5%		
Viet Nam	192	0.02%		
Zambia	525	1.0%	225	300
Zimbabwe	352	1.1%	280	72
Total	**437'443**	**0.7%**	**258'822**	**52'618**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Commodity Case Studies

The State of Sustainable Markets: Statistics and Emerging Trends – 2017

JULIA LERNOUD,[1] JASON POTTS,[2] GREGORY SAMPSON,[3] SALVADOR GARIBAY,[4] MATTHEW LYNCH,[5] VIVEK VOORA,[6] HELGA WILLER[7] AND JOSEPH WOZNIAK[8]

The "State of Sustainable Markets: Statistics and Emerging Trends – 2017" report (Lernoud et al. 2017) offers a snapshot of production-related data (area, production, and producers) for key global sustainability standards across eight commodity sectors (bananas, cocoa, coffee, cotton, palm oil, soybeans, sugarcane, and tea) and forestry. It also gives an overview of each of the 14 Voluntary Sustainability Standards (VSS) covered: 4C Association, Better Cotton Initiative (BCI), Bonsucro, Cotton Made in Africa (CmiA), GLOBALG.A.P., Fairtrade International, Forest Stewardship Council (FSC), IFOAM – Organics International, the Programme for the Endorsement of Forest Certification (PEFC), ProTerra Foundation, the Roundtable on Sustainable Palm Oil (RSPO), the Round Table on Responsible Soy (RTRS), Rainforest Alliance/Sustainable Agriculture Network (RA/SAN), and UTZ.

The report is the second product of a partnership between the Research Institute of Organic Agriculture (FiBL), the International Institute for Sustainable Development (IISD) and the International Trade Centre (ITC) funded by the Swiss State Secretariat for Economic Affairs (SECO). Currently, the data collection of the 2016 data is in progress.

Growth continues

All standards covered have experienced growth in their compliant areas since 2011, and currently at least 14 million hectares are certified according to these standards for eight selected crops (Figure 46).[9] Better Cotton Initiative (BCI) underwent the greatest jump, with the certified area expanding almost nine-fold between 2011 and 2015. The Round Table on Responsible Soy (RTRS) area increased nearly five times over the same period, while those of Cotton Made in Africa (CmiA) and the Roundtable on

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Jason Potts, International Institute for Sustainable Development, Manitoba, Canada, www.iisd.org
[3] Gregory Sampson, International Trade Centre, Geneva, Switzerland, www.intracen.org
[4] Salvador Garibay, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[5] Matthew Lynch, International Institute for Sustainable Development, Manitoba, Canada, www.iisd.org
[6] Vivek Voora, International Institute for Sustainable Development, Budapest, Hungary, www.iisd.org
[7] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[8] Joseph Wozniak, International Trade Centre, Geneva, Switzerland, www.intracen.org
[9] 2011 is the first year for which data is available for all voluntary sustainability standards covered in the report.

Sustainable Palm Oil (RSPO) trebled. Similarly, significant growth of their certified area was also reported by 4C and UTZ.

Figure 46: Development of the VSS compliant area worldwide, 2008-2015 (eight selected commodities, minimum possible)

Sources: FiBL-ITC-SSI survey 2017: 4C 2014, 2015 and 2016; Better Cotton Initiative 2014, 2015 and 2017; Bonsucro 2014, 2015 and 2016; Cotton Made in Africa 2014, 2015 and 2016; Fairtrade International 2017; GLOBALG.A.P. 2015 and 2016; FiBL survey 2017; ProTerra Foundation 2014, 2015 and 2016; Rainforest Alliance/SAN 2014, 2015 and 2016; Roundtable of Sustainable Palm Oil 2014, 2015 and 2016; Round Table for Responsible Soy 2014, 2015 and 2016; UTZ 2014, 2015 and 2016
For purposes of the figure, it is assumed that there is a maximum amount of multiple certification occurring within each commodity, corresponding to the minimum VSS-compliant area per commodity. Therefore, the VSS-compliant area shown in this figure corresponds to the VSS with the largest compliant area operating within a given sector.

Looking at individual agricultural sectors, the certified area for cotton experienced the highest growth rate, increasing at least threefold between 2011 and 2015.1 This was followed by bananas, which almost trebled in area, and tea, which more than doubled over the period. Between 2014 and 2015, soybeans grew the most (48 percent), followed by cotton (46 percent) and tea (25 percent).

Standards are expanding their agricultural land coverage

In 2015, more than 50.2 million hectares were organic certified, representing 1.1 percent of all agricultural land worldwide. Organic is the biggest sustainability standard in terms of area, and it is the one with the largest variety of agricultural products. RSPO certified almost 3.5 million hectares, of which 2.8 million hectares

[1] These growth rates are calculated by taking the minimum area possible as the reference. Therefore, the total VSS-compliant area corresponds to the VSS with the largest compliant area operating within a given sector.

were cultivated, making it the standard with the second-largest area, representing 0.07 percent of the global agricultural area.

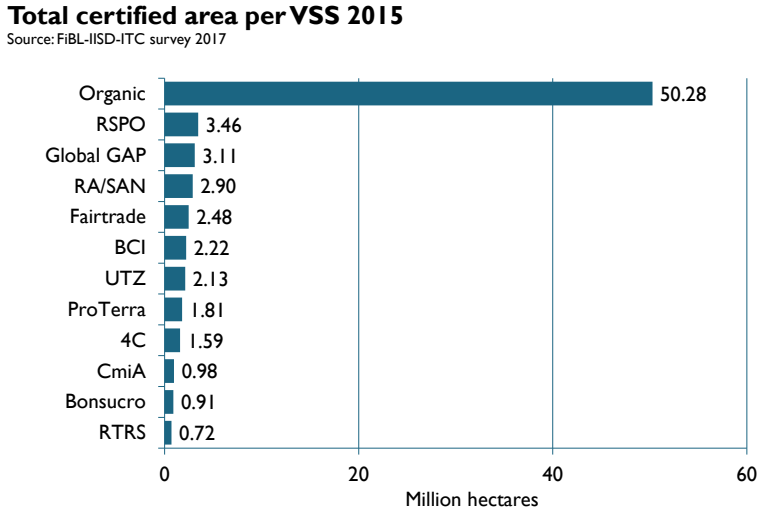


Figure 47: Total certified area per VSS, 2015 (only agriculture)

Sources: FiBL-ITC-SSI survey 2017: 4C 2016; Better Cotton Initiative (BCI) 2017; Bonsucro 2016; Cotton Made in Africa (CmiA) 2016; Fairtrade International 2017; GLOBALG.A.P. 2016; FiBL survey 2017; ProTerra Foundation 2016; Rainforest Alliance/SAN (RA/SAN) 2016; Roundtable of Sustainable Palm Oil (RSPO) 2016; Round Table for Responsible Soy (RTRS) 2016; UTZ 2016:

Sector-specific highlights[1]

In the following section we present an overview of the key statistics for each of the selected sectors (bananas, cocoa, coffee, cotton, palm oil, soy, sugarcane, tea, and forestry products). There is little information available from on multiple certification,[2] and it has thus been decided to provide the minimum possible area of production, assuming that everything is 100 percent multiple-certified, and the maximum possible (no multiple certification), along with the average between both.

[1] Please note that the organic area is the area harvested estimated by FiBL, assuming that 90 percent of the fully converted area is actually harvested. This was done in order to make the organic data comparable with the data of the other VSS, which reported data on the harvested area. For the Rainforest Alliance/SAN, the area cultivated is shown.

[2] Multiple certification: It should be noted that many of the areas certified by VSS are multiple-certified. In our survey, we asked for the extent of multiple certification by country and VSS. The maximum would be the sum of the total area/production provided by the individual VSSs, and the minimum would be the area of the VSS with the largest area. An average between the maximum and minimum area gives us an estimate of the possible certified area for a given commodity.

- **Bananas**: Four of the VSS – Fairtrade International, GLOBALG.A.P., Organic and Rainforest Alliance/SAN (RA/SAN) – certified banana production in 2015. Combined, they certified a minimum of 290'000 hectares and a maximum of 451'000 (for an average of 371'000 hectares). In terms of the proportion of the VSS-certified area of the global banana area, the minimum represents 5.4 percent, the maximum 8.4 percent, and the average, 6.9 percent. With more than 248'000 hectares, GLOBALG.A.P. had by far the largest VSS-certified banana area in 2015; the area with the highest growth (42 percent) in 2012–2015 was that of RA/SAN. (See also chapter on tropical and subtropical fruits, page 110).
- **Cocoa**: Four of the standards – Fairtrade International, Organic, RA/SAN and UTZ – certified cocoa production. Combined, they certified a minimum of 1.7 million hectares and a maximum of 3.1 million hectares in 2015 (an average of 2.4 million hectares). In terms of the proportion of the VSS-certified area of the global cocoa area, the minimum represents 16.2 percent, the maximum 29.8 percent, and the average, 23.0 percent. UTZ reported the largest VSS-certified cocoa area (1.5 million hectares), while the RA/SAN area grew the fastest (five-fold between 2011 and 2015). (See also chapter on organic cocoa, page 99).
- **Coffee**: Five of the standards combined – 4C, Fairtrade International, Organic, RA/SAN and UTZ - certified coffee production – certified a minimum of 2.6 million hectares and a maximum of 4.6 million hectares in 2015 (average: 3.6 million hectares). In terms of the proportion of the VSS-certified area of the global coffee area, the minimum represents 24.8 percent, the maximum 44.3 percent, and the average, 34.5 percent. 4C had the largest VSS-certified coffee area, 1.6 million hectares, and registered the largest growth in area (a three-fold increase between 2011 and 2015). (See also chapter on organic coffee, page 101).
- **Cotton**: Four of the standards – BCI, CmiA, Fairtrade International and Organic – certified cotton production. Combined, they certified a minimum of 3.2 million hectares and a maximum of 3.6 million hectares in 2015 (average: 3.4 million hectares). In terms of the proportion of the VSS-certified area of the global cotton area, the minimum represents 9.1 percent, the maximum 10.3 percent, and the average, 9.7 percent. BCI had the largest VSS-certified cotton area (2.2 million hectares) and showed the largest growth, a nine-fold increase (2011–2015). (See also chapter on organic cotton, page 137).
- **Oil palm**: Three of the standards – Organic, RA/SAN and RSPO – certified oil palm production. Combined, they certified a minimum of 2'784'000 hectares and a maximum of almost 2'828'000 hectares in 2015 (average: 2'806'000 hectares). In terms of the proportion of the VSS-certified area of the global oil palm area, the minimum represents 14.9 percent, the maximum 15.1 percent, and the average, 15 percent. RSPO had the largest VSS-certified oil palm area (3.5 million hectares), while RA/SAN showed the largest growth: 36 percent between 2013 and 2015.

- **Soy**: Three of the standards – Organic, ProTerra Foundation and RTRS – certified soybean production. Combined, they certified a minimum of 2.5 million hectares and a maximum of almost 3.1 million hectares in 2015 (average: 2.8 million hectares). In terms of the proportion of the VSS-certified area of the global soybean area, the minimum represents 2.2 percent, the maximum 2.6 percent, and the average, 2.4 percent. With 1.8 million hectares, ProTerra Foundation had the largest VSS-certified soybean area; the largest growth (a five-fold increase in 2011–2015) was noted for RTRS. (See also chapter on organic oilseeds, page 116).
- **Sugarcane**: Three of the standards – Bonsucro, Fairtrade International and Organic – certified sugarcane production. Combined, they certified a minimum of 1.1 million hectares and a maximum of 1.2 million hectares in 2015. In terms of the proportion of the VSS-certified area of the global sugarcane area, the average represents 4.3 percent. With 0.9 million hectares, Bonsucro had the largest VSS-certified sugarcane area; the largest growth was noted for Fairtrade International, whose area doubled between 2011 and 2015.
- **Tea**: Four of the standards – Fairtrade International, Organic, RA/SAN and UTZ – certified tea production. Combined, they certified a minimum of more than 538'000 hectares and a maximum of 717'000 hectares in 2015 (average: 628'000 hectares). In terms of the proportion of the VSS-certified area of the global tea area, the average represents 16.5 percent. RA/SAN had the largest VSS-certified tea area, almost 0.5 million hectares, and showed the largest growth in area, a four-fold increase between 2011 and 2015.
- **Forestry**: In 2015, an estimated 396 million hectares of certified forest were reported, representing almost 10 percent of the global forest area. There is an estimated certification overlap in the forestry sector of 15 percent between FSC and PEFC.

More information

› The State of Sustainability Initiatives website: www.iisd.org/ssi/
› FiBL's online database on organic agriculture worldwide: www.organic-world.net
› ITC online database on Voluntary Sustainability Standards: www.standardsmap.org
› FiBL's VSS website: www.vss.fibl.org/de/vss.html

References

Lernoud, Julia, Jason Potts, Gregory Sampson, Salvador Garibay, Matthew Lynch, Vivek Voora, Helga Willer and Joseph Wozniak (2017), The State of Sustainable Markets – Statistics and Emerging Trends 2017. ITC, Geneva.

Potts, Jason; Lynch, Matthew; Wilkings, Ann; Huppé, Gabriel; Cunningham, Maxine and Voora, Vivek (Eds.) (2014): *The State of Sustainability Initiatives Review 2014.* Standards and the Green Economy. 1st edition. International Institute for Sustainable Development (IISD) and International Institute for Environment and Development (IIED), Winnipeg and London.

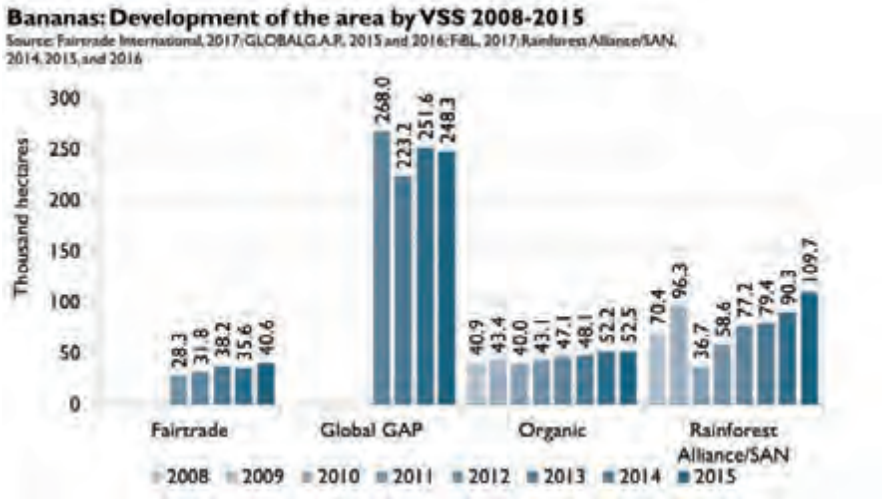


Figure 48: Bananas: Development of the area by VSS, 2008–2015

Source: Fairtrade International, 2017; GLOBALG.A.P., 2015 and 2016; FiBL, 2017; Rainforest Alliance/SAN, 2014, 2015, and 2016

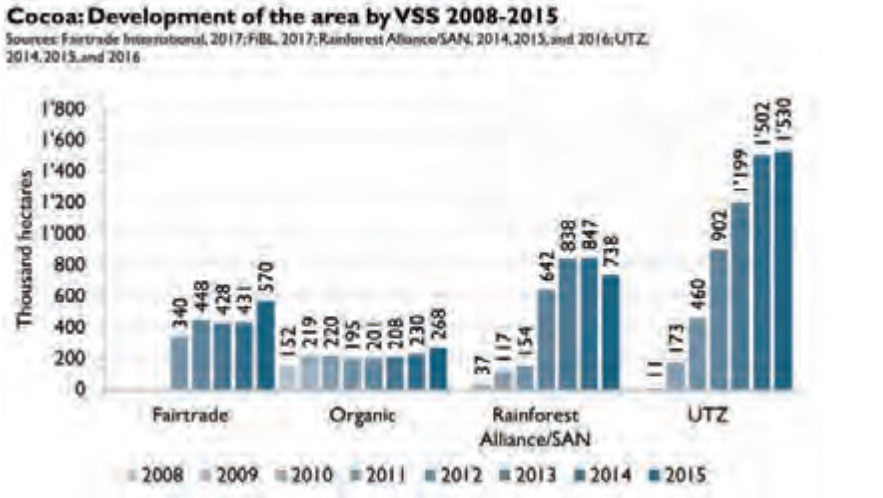


Figure 49: Cocoa: Development of the area by VSS 2008–2015

Sources: Fairtrade International, 2017; FiBL, 2017; Rainforest Alliance/SAN, 2014, 2015, and 2016; UTZ, 2014, 2015, and 2016

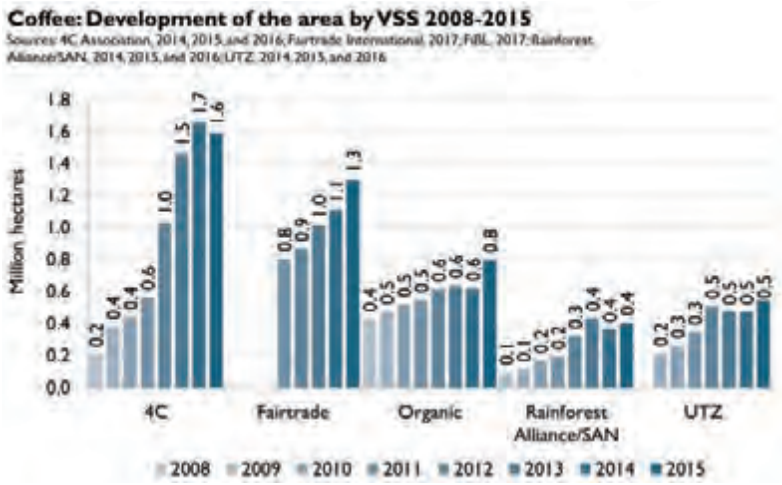


Figure 50: Coffee: Development of the area by VSS, 2008–2015

Sources: 4C Association, 2014, 2015, and 2016; Fairtrade International, 2017; FiBL, 2017; Rainforest Alliance/SAN, 2014, 2015, and 2016; UTZ, 2014, 2015, and 2016

Figure 51: Cotton: Development of the area by VSS, 2008–2015

Sources: Better Cotton Initiative, 2014, 2015, and 2016; Cotton Made in Africa, 2014, 2015, and 2016; Fairtrade International, 2017; Textile Exchange, 2014, 2015, and 2016

Figure 52: Oil palm: Development of the area by VSS, 2008–2015

Sources: FiBL, 2017; Rainforest Alliance/SAN, 2015 and 2016; Roundtable on Sustainable Palm Oil (RSPO), 2014, 2015, and 2016

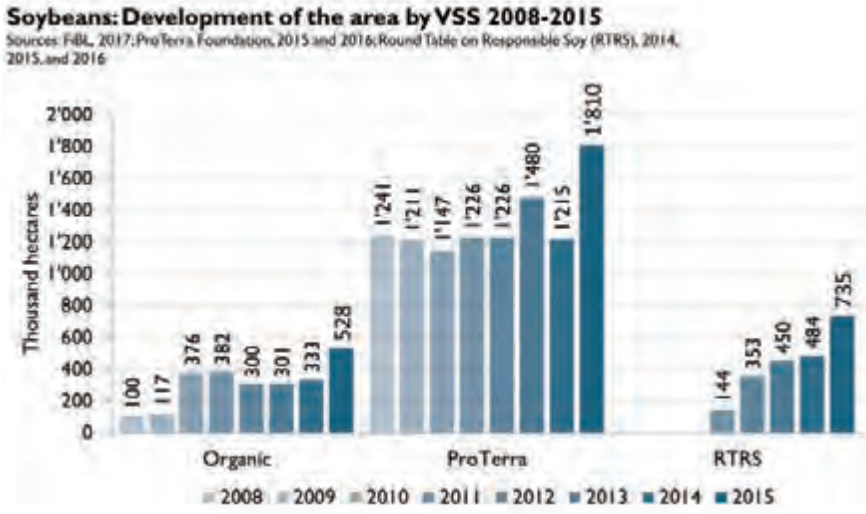


Figure 53: Soybeans: Development of the area by VSS, 2008–2015

Sources: FiBL, 2017; ProTerra Foundation, 2015 and 2016; Round Table on Responsible Soy (RTRS), 2014, 2015, and 2016

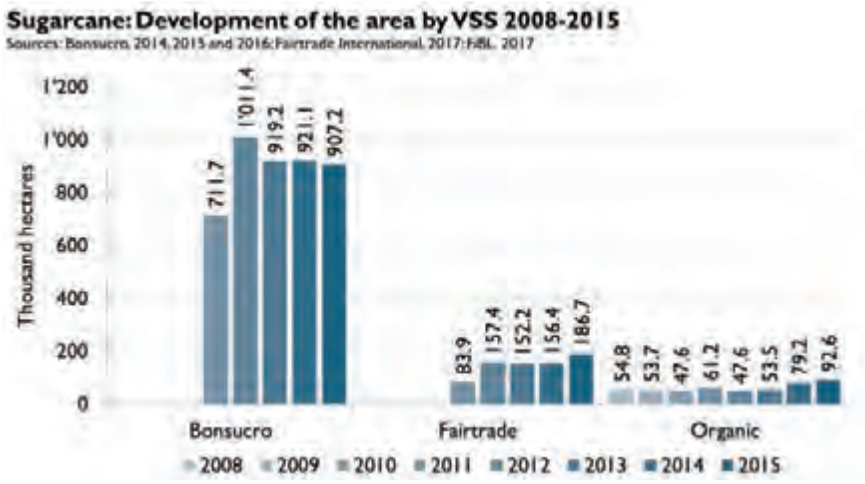


Figure 54: Sugarcane: Development of the area by VSS, 2008–2015

Sources: Bonsucro, 2014, 2015, and 2016; Fairtrade International, 2017; FiBL, 2017

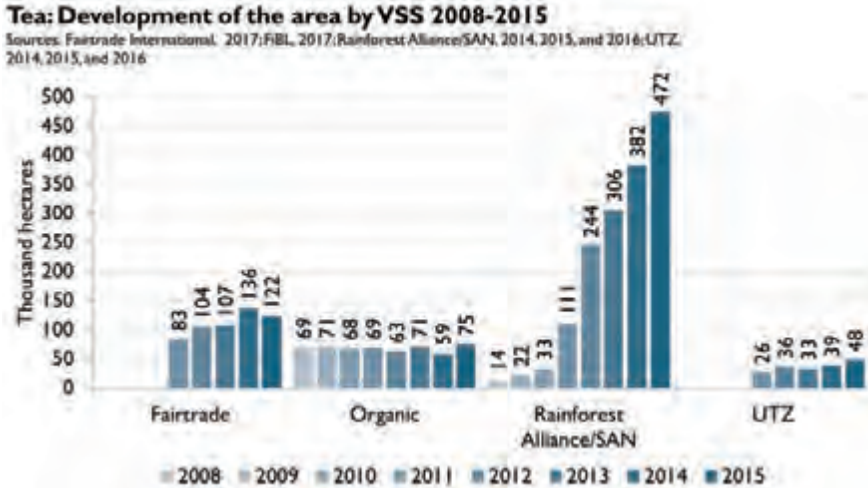


Figure 55: Tea: Development of the area by VSS, 2008–2015

Sources: Fairtrade International, 2017; FiBL, 2015; Rainforest Alliance/SAN, 2014, 2015, and 2016; UTZ, 2014, 2015, and 2016

Organic Cotton[1]

LIESL TRUSCOTT,[2] EVONNE TAN,[3] LISA EMBERSON[4], NICOLE LAMBERT,[5] AND AMISH GOSAI[6]

Global Trends

In the 2015/16 growing season[7], 107'980 metric tons of organic cotton fibre were produced globally by 219'947 farmers on 302'562 hectares of land. This represents a 4 percent decrease in global fibre production compared to the previous year. At the same time, a total of 262'975 hectares of cotton growing land were in conversion to organic, indicating new and continued interest in organic cotton.

Certified organic cotton was grown in 18 countries in 2015/16, though 97 percent of global supply came from just seven countries (India, China, Kyrgyzstan, Turkey, Tajikistan, the United States and Tanzania). India remained by far the largest producer, though its share of the global total dropped from 67 percent to 56 percent, as organic farmers continued to move away from cotton in favour of more lucrative crops. This global trend was partly offset by significant growth in Central Asia in response to demand from Turkish mills and the wider European market.

Figure 56 illustrates the global trend in organic cotton production over the past elven years. Between 2004/05 and 2009/10, growth in production was nine-fold, as interest in more sustainable textile production accelerated.

However, in 2010/11, in connection with the financial crisis, production fell significantly and is yet to make a full recovery. Many factors contribute to the no-growth/low-growth scenario that organic cotton is experiencing, but primary causes include: difficulty sourcing good quality, non-GMO seed; the continued complexities of supply chain management; volatile and uncertain cotton prices and trade

---

[1] This article is a condensed version of the Organic Cotton Market Report 2017 produced by Liesl Truscott, Evonne Tan, Lisa Emberson, Nicole Lambert and Amish Gosai, with production data collected by the following Textile Exchange Regional Ambassadors: Atila Ertem (Turkey and Central Asia), Amish Gosai (India), Silvio Moraes (Latin America), Leonard Mtama (East Africa), Silvère Tovignan (West Africa), Lazare Yombi (West Africa), and Allen You (China).
More information about Textile Exchange's 2017 Market Reports is available here: www.textileexchange.org/2017-market-reports
More information about Textile Exchange is available here: www.textileexchange.org
More information about organic cotton is available here: www.aboutorganiccotton.org

[2] Liesl Truscott, Materials Strategy Director, Textile Exchange, Bath, UK
[3] Evonne Tan, Data Management & China Strategy Director, Textile Exchange, Kuala Lumper, Malaysia
[4] Lisa Emberson, Materials Platform Coordinator, Textile Exchange, London, UK
[5] Nicole Lambert, Data Manager, Textile Exchange, Paris, France
[6] Amish Gosai, Country Program Manager for India, Textile Exchange, Bangalore, India

[7] The International Cotton Advisory Council (ICAC) set the cotton-growing year from August, 1 to July, 31.

restrictions; and the shift towards new sustainable cotton initiatives that offer a lower entry point. In recent years, drought (e.g., in Latin America and the USA) and political instability (e.g., in Turkey and Ethiopia) has also had a significant impact on global organic cotton production.

Organic cotton: Global fiber production trend 2004-2016

Source: Textile Exchange

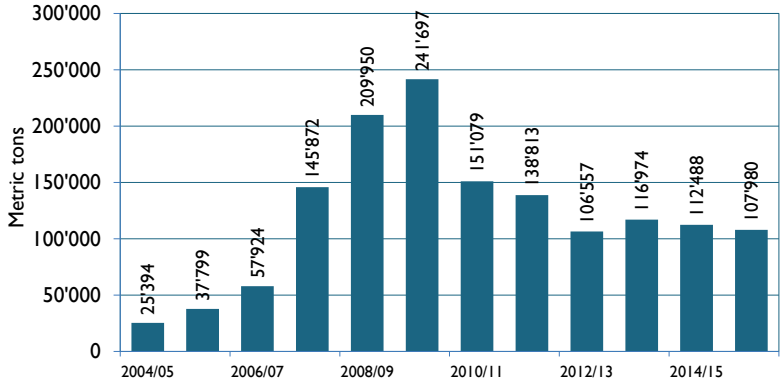


Figure 56: Organic cotton: Global trend in organic cotton production

Source: Textile Exchange Organic Cotton Market Report 2017

Outlook

Though challenges still exist in making organic cotton more than a niche market (less than one percent of overall cotton production), 2015/16 saw a number of important and promising changes. There was clear growth in countries and supply networks where market linkages are established and working well. Central Asian countries (Kyrgyzstan and Tajikistan) are experiencing growth due to the pull from Turkish mills that, in turn, are responding to the demand from brands and retailers, predominantly in Europe. In Africa and China, where the market linkages are still weak, the industry is seeing more mobilization to support the sector and build capacity. Market opportunities abound - but the sector will only be successful with a strong commitment from brands and retailers.

Geography of production

As mentioned previously and evidenced in Table 40, the top seven organic cotton-producing countries account for 97.2 percent of global production. These include India (55.7 percent), China (13.7 percent), Kyrgyzstan (7.4 percent), Turkey (7.0 percent), Tajikistan (6.1 percent), the United States (4.2 percent) and Tanzania (2.99 percent). The remaining 2.8 percent is produced by: Egypt (0.95 percent), Burkina Faso (0.4 percent), Benin (0.4 percent), Pakistan (0.3 percent), Peru (0.3 percent),

Uganda (0.3 percent), Mali (0.1 percent), Brazil (0.02 percent), Israel (0.01 percent), Thailand (0.003 percent), and Senegal (0.001 percent).

Table 40: Organic cotton farmers, area and production 2015/2016

Country/ Region	No of farmers	Certified organic land area [ha]*	Prod. of organic seed cotton [MT]	Prod. of organic cotton fibre [MT]	Share of global organic fibre prod. [%]	Total in-conversion land area [ha]
Benin	2'237	2'507	972	407	0.38%	48
Burkina Faso	8'382	4'928	1'170	469	0.43%	-
Mali	1'213	1'970	326	136	0.13%	-
Tanzania	4'244	64'084	8'233	3'229	2.99%	10'316
Uganda	6'000	2'428	750	300	0.28%	-
Senegal	169	66	2	1	0.00%	-
Africa total	*22'245*	*75'983*	*11'453*	*4'542*	*4.21%*	*10'364*
China total	*3'043*	*9'653*	*34'803*	*14'817*	*13.72%*	*27'477*
Brazil	232	680	48	17	0.02%	122
Peru	141	337	824	312	0.29%	85
Latin America total	*373*	*1'017*	*872*	*329*	*0.30%*	*207*
Egypt	584	581	2'622	1'023	0.95%	-
Israel	1	100	44	14	0.01%	-
Kyrgyzstan	119	5'616	20'508	7'981	7.39%	-
Tajikistan	1'121	7'013	18'049	6'620	6.13%	-
Turkey	185	3'733	18'942	7'577	7.02%	2'426
Turkey, Egypt & Central Asia total	*2'010*	*17'043*	*60'165*	*23'214*	*21.50%*	*2'426*
India	192'148	189'364	176'544	60'184	55.74%	221'548
Pakistan	2	1'056	1'110	366	0.34%	457
Thailand	66	76	8	3	0.00%	-
South Asia total	*192'216*	*190'496*	*177'662*	*60'553*	*56.08%*	*222'005*
United States total	*60*	*8'369*	*12'927*	*4'524*	*4.19%*	*496*
Total	**219'947**	**302'562**	**297'882**	**107'980**	**100%**	**262'975**

Source: Textile Exchange Organic Cotton Market Report 2017
**NOTE: The land area figures reported by Textile Exchange refer to land certified to an organic standard by a producer group growing organic cotton. However, the same piece of land can be, and increasingly is being used to grow other organic crops in addition to cotton. Crop rotation is fundamental to organic agriculture but, with the low and falling cotton price in recent years, more and more farmers are moving away from cotton to grow other crops, such as marigold in India, which can fetch a higher price on the market. This means that reported land area figures do not necessarily reflect the land area used to grow only organic cotton, and may, therefore, seem disproportionately high compared to the organic cotton volumes harvested.*

Africa

In West Africa, organic cotton land area and farmer numbers remained relatively unchanged from the previous year, but fibre production volumes decreased by 49 percent. This is due to a combination of factors, but primarily late rainfall in all four producing countries (Benin, Burkina Faso, Mali, and Senegal). It is expected that production will increase again in 2016/17.

In East Africa, fibre volumes increased, as Tanzania's production somewhat (but not fully) recovered from the impact of poor rains the previous year, while Uganda's producers experienced a yield increase and a 14 percent growth in production despite suffering from drought.

China

China's organic market has been growing dynamically[1] and, as a result, the country's production of organic cotton rose 14 percent in 2015/16. While production for the textile market has remained relatively stable over the past year, growth in the Chinese organic dairy market has boosted demand for organic cottonseed. A number of farms have been set up for this purpose (i.e., to supply the organic dairy market with organic feed/cottonseed cake), and, for this reason, while there is an increase of organic cotton in China, a proportion of it is not entering the textile market.

Latin America

The organic cotton harvest in Latin America remained heavily affected by unfavourable climatic conditions in 2015/16 and, combined with a poor economic situation, the region's overall organic cotton production declined. Paraguay, Nicaragua, and Colombia are yet to resume production after being severely impacted by these same trends the previous year. Peru, the region's most significant producer, saw a decrease of 44 percent in 2015/16, while Brazil saw a production fall of 24 percent.

However, the region's climate is forecast to normalize in the coming years, giving hope for a new cycle of regular rains. At the same time, 2015/16 saw the development of a number of new initiatives focused around organic cotton that signal growing interest from the sector in boosting the region's production.

South Asia

Organic cotton producing countries in Southern Asia currently include India, Pakistan, and Thailand. India remains by far the largest producer, not only in the region but also globally, although its share of the global total dropped from 67 to 56 percent between 2014/15 and 2015/16. This is largely a result of farmers acting in

[1] Heinze, Karin (2017): China – one of the top 4 organic markets worldwide. The Organic-market.info website, bio verlag, Aschaffenburg, Germany. Available at organic-market.info/news-in-brief-and-reports-article/china-one-of-the-top-4-organic-markets-worldwide.html

response to the market - staying in organic but growing a higher proportion of grains, vegetables, and flowers, which currently provide a better return than cotton.

At the same time, India's total in-conversion land area grew 192 percent. This is partly a result of stronger audit procedures from certification bodies resulting in some previously certified organic cotton land returning to in-conversion status while issues such as contamination from genetically modified (GMO) sources are managed. There is a big drive to tackle the root causes of these issues in India, and there are a number of initiatives joining Textile Exchange's Organic Cotton Round Table, such as the Rural Advancement Foundation (RAFI), the Organic Cotton Accelerator, Global Organic Textile Standard (GOTS) and others, galvanizing to help find solutions. For further reading on the complex situation of GMO contamination in organic cotton, please see the briefing[1] published by Textile Exchange and RAFI.

In Pakistan, there is currently one certified organic farm project producing organic cotton. However, there are a number of new activities in the pipeline. In Thailand, organic cotton is produced only by a small number of Laotian-ethnic farmers living along the western side of the Mekong River.

Turkey, Egypt and Central Asia

In the coming years, it is estimated that this region will become an increasingly important player in global organic cotton production. However, Turkey's share of the region's total production may decline due to the recent trend of organic production, not only cotton, shifting from Turkey to Central Asia (primarily Kyrgyzstan and Tajikistan). Cotton prices and agricultural policies adopted in Turkey will play a key role in determining the extent to which this trend continues.

Turkey's total production increased slightly in 2015/16, but there has been a lot of fluctuation over the last three years in terms of both the number and geography of producers, as well as production area and volumes. In Kyrgyzstan, production now matches that of Turkey, and it is expected to grow even further in the coming years. Tajikistan's total production also spiked in 2015/16, as a large new producer came on board. In Egypt, production decreased, as a number of producers ceased growing organic cotton. However, Egypt's organic cotton sector is well established, with the Government-supported "Cotton For Life" program joining the well-established biodynamic farmers who grow cotton for the Egyptian food, pharmaceuticals, and textiles company SEKEM.

[1] RAFI and Textile exchange (2017): A Call to Action: Addressing the "Bigger Picture" of GMO Contamination and Other Challenges in the Organic Cotton Supply Chain. The Textile Exchange Website, Textile Exchange, Washington D.C. Available at http://textileexchange.org/wp-content/uploads/2017/11/RAFI_Textile_Exchange_GMOs_and_Organic_Cotton.pdf

United States

In 2016, the United States (US) witnessed robust organic cotton production, with an increasing number of farmers growing an increasing amount of organic cotton acreage, while market demand also grew.

In total, 8'369 hectares were planted with organic cotton in 2016, 96 percent of which was upland cotton. This yielded 4'524 metric tons of fibre. Texas Organic Cotton Market Cooperative (TOCMC) continued to be by far the largest producer of organic cotton in the United State, with its farmers growing 83 percent of the country's total. It is estimated that, in 2016, the United States had 60 organic cotton farmers spread between North Carolina, New Mexico, and Texas, 35 of whom were members of TOCMC.

Organic Farm and Textile Standards

Organic cotton must be grown and certified to a standard approved in the IFOAM Family of Standards,[1] which allows multilateral equivalence between organic standards and technical regulations.

Textile Exchange's Organic Content Standard (OCS) is a chain of custody standard that verifies that the organic fibre in a product has been grown to an IFOAM-recognized organic farm standard. The Global Organic Textile Standard (GOTS) is the leading textile processing standard for organic fibres, including ecological and social criteria, backed up by independent certification of the entire textile supply chain.

Textile Exchange and Global Organic Textile Standard (GOTS) are working together to develop a Central Database that will further improve the effectiveness of supply chain certification. In addition, both standards now require risk-based testing for GMO contamination, which will add rigor to the overall certification process.

In 2016, there were 3'661 and 4'642 facilities certified to OCS and GOTS, respectively. After a nominal decrease of one percent in 2015, OCS rebounded with double-digit growth of 21 percent in 2016, whilst facilities certified by GOTS grew by 17 percent. Most of this increase is coming from India (OCS and GOTS), Bangladesh (OCS), China (OCS) and Turkey (GOTS).

[1] IFOAM – Organics International (2017): IFOAM Family of Standards. The website of IFOAM – Organics International, Bonn, Germany. Available at https://www.ifoam.bio/en/organic-landmarks/ifoam-family-standards

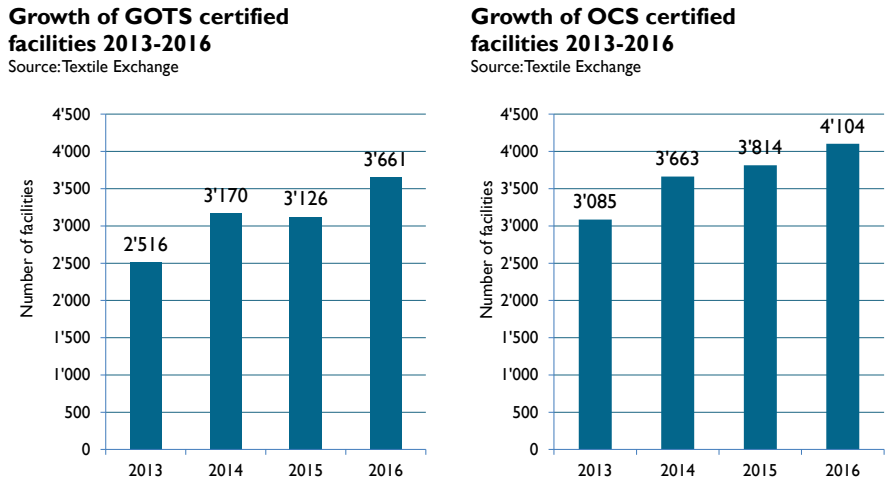


Figure 57: Growth of GOTS and OCS certified facilities 2013-2016

Source: Textile Exchange Organic Cotton Market Report 2017

Conclusion

2016/17 continued to present significant challenges for the organic cotton community. Despite production volumes declining slightly, Textile Exchange believes there is growth and development in how the textile industry is engaging with the opportunities represented by organic agriculture. A shift in the discussion to regenerative (organic) agriculture and "Organic 3.0", a deeper commitment to transparency, the rise of the Sustainable Development Goals, and the trialling of new and innovative business models designed to better reward and incentivize organic cotton farmers for their contribution to sustainability, are all evidence that times are changing.

Further reading

Textile Exchange (2017): Organic Cotton Market Report 2017. Textile Exchange, Lubbock. Available at http://textileexchange.org/downloads/2017-organic-cotton-market-report/

Textile Exchange and Kering (2017): A World Beyond Certification: A Best Practices Guide For Organic Cotton Trade Models. Available at http://textileexchange.org/kering-textile-exchange-release-organic-cotton-guides/

Textile Exchange and Kering (2017): Organic Cotton: A Fiber Classification Guide. Available at http://textileexchange.org/kering-textile-exchange-release-organic-cotton-guides/

Textile Exchange's Organic Cotton Round Table: http://textileexchange.org/organic-cotton-round-table/

Global Market

The Global Market for Organic Food & Drink[1]

AMARJIT SAHOTA[2]

Introduction

The global market for organic foods increased by roughly 10 percent to 89.7 billion US dollars[3] in 2016. All regions reported healthy growth in 2016, however North America and Europe continue as the twin engines of growth; the two regions generate about 90 percent of international sales. The market share of organic foods in the two leading country markets (United States, Germany) has reached 5 percent. It remains below 1 percent in almost all countries outside Europe and North America.[4]

North America

The North American market for organic foods was valued at 46.3 billion US dollars in 2016. Most sales are from the United States market, worth 43 billion US dollars.

The United States has the largest organic products market in the world. The market share of total food products is also high, at 5.3 percent. Fruit and vegetables have the highest market share, comprising almost 15 percent of fresh produce sales. Milk and dairy is the second largest category.

Demand for organic foods continues to outpace supply, with organic products imported into the United States from every continent. Imports of organic products are being facilitated by organic trade arrangements between the United States and various countries, such as Switzerland, Canada, Japan, South Korea, Taiwan, as well as the European Union.

Conventional grocery channels comprise most organic food sales in the region. All leading food retailers are marketing organic foods under their private labels. O

---

[1] This chapter has been prepared according to ongoing research by Ecovia Intelligence (formerly known as Organic Monitor) on the 'The Global Market for Organic Food & Drink'. No part of this chapter maybe reproduced or used in other commercial publications without written consent from Ecovia Intelligence. To request permission, write to:
Ecovia Intelligence
20B The Mall, London W5 2PJ
Tel. +44 20 8567 0788
Email: services@ecoviaint.com

[2] Amarjit Sahota, Ecovia Intelligence, London UK, http://www.ecoviaint.com/
Amarjit Sahota is the president of Ecovia Intelligence (formerly Organic Monitor), a specialist research, consulting & training firm that focuses on global sustainable product industries. More details are available at www.ecoviaint.com

[3] According to the Central European Bank, I euro corresponded to 1.1069 US dollars in 2016.

[4] Please note that due to differences in the methodology, some of the figures presented in this chapter differ from those collected in the framework of the FiBL survey.

Organics (Safeway) and PC Organics (Loblaws) are the leading private labels for organic foods in the United States and Canada respectively.

The organic food industry continues to attract investment. Whole Foods Market, the leading natural and organic food retailer, was acquired by Amazon for 13.7 billion US dollars in June 2017. Within a few months, prices of many organic items were slashed as the online retailer plans to online retailer plans to make organic foods more accessible to American consumers. The previous year, the French multinational Danone acquired Whitewave Foods, the largest organic food enterprise in North America, for 12.5 billion US dollars.

Europe

The European market for organic products was worth 35 billion US dollars in 2016. Some countries, such as France and Sweden, reported double-digit growth rates.

Organic food sales are concentrated in Western Europe. Germany has the largest market, valued at 10.4 billion US dollars, followed by the French market (7.8 billion US dollars).[1] The next largest markets are in the Italy, the United Kingdom, Switzerland and Sweden. Central and Eastern European (CEE) countries, such as Poland, Ukraine and Hungary, are becoming important producers of organic crops. However, they have relatively small markets for organic products.

The market share of organic foods of total food sales varies considerably between countries. As shown in this book, the highest market shares and biggest consumers of organic foods are in Scandinavian and Alpine countries (page 67 and page 242). In Denmark, organic products comprise almost 10 percent of total food sales. In many Central Eastern European countries, the market share is below 1 percent.

Mainstream retailers generate most organic food sales in Europe. All leading supermarkets are offering organic foods under their private labels. In Germany (the largest country market), supermarkets, drugstores, discounters, and organic food shops have developed private label ranges.

A large network of organic food shops characterises the European market. Most chained outlets are in Germany, France and Italy. The organic food company Dennree operates over 250 Denn's Bio organic supermarkets in Germany and Austria. The Biocoop chain has over 430 organic food shops in France, whilst there are over 200 CuoreBio stores in Italy.

Other regions

Organic food sales in Asia, Australasia, and other regions amounted to about 8.1 billion US dollars in 2016.

[1] Please note that due to differences in the methodology, some of the figures presented in this chapter differ from those collected in the framework of the FiBL survey.

Asia has a large and expanding market for organic products. Most developments are in China and India, whereas sales have traditionally mainly been from Japan and South Korea. Organic food sales are rising in China and India partly because of growing consumer affluence stimulating demand for organic products. The spate of food scares in Asia has had a major influence. The Chinese market has shown accelerated growth partly because the country has experienced a number of food scandals; these include selling rotten meat, sewage oil in food products, contaminated pork and beef, as well as numerous incidents of adulteration and counterfeiting. The biggest food scandal was in 2008 when the industrial chemical melamine was discovered in infant formula and dairy products.

Brazil has the largest market for organic products in Latin America. The Brazilian market has shown sluggish growth in recent years because of the political and economic crises. Other Latin American countries, such as Argentina, Peru, Chile, and Colombia, have largely export-oriented organic food markets.

Australia has a large and growing market for organic products. Distribution of organic foods is increasing in supermarkets and major food retailers. Producers in Australia and New Zealand have a high export focus, with many targeting Asian countries.

The organic consumer

A large number of studies have investigated consumer behaviour towards organic food purchases. The broad factors behind consumer purchases of organic foods are health, environment, and food safety & quality.

Health issues are the main motive in most countries. Excessive exposure to pesticides is linked to a number of diseases, influencing the reproductive and nervous systems, as well as cancer. The over-use of antibiotics and growth hormones in livestock products is also linked to various health conditions. A study by the Hartman Group showed that 68 percent of people in the United States associate organic foods with absence of pesticides, whilst 64 percent associate them with absence of herbicides, and 63 percent with absence of growth hormones.

Concerns about genetically modified organisms (GMOs) are a major influence on North American purchases of organic foods. The Non-GMO Project is the fastest growing eco-label in North America, present on about 43'000 products and with retail sales of 22.3 billion US dollars.

Environmental concerns are an important factor for many consumers. A study by Statista found that most German consumers buy organic foods because they believe organic farming is less polluting of the environment. Another study by AgenceBio showed that 58 percent of French consumers buy these products because of their perceived lower environmental impact.

Food safety and quality are an important motive in some countries, especially in China, which has experienced a number of food scandals. Health scares, such as SARS and avian flu, have also made consumers more aware of health issues and nutrition.

Although the actual motives for buying organic foods vary, a picture of the global organic consumer is emerging. The organic food consumer typically lives in a major city, has high disposable income and is discerning when buying food products. Most consumers are women and / or young parents.

Challenges & growth outlook

Organic food and drink sales have increased from less than 15 billion US dollars to almost 90 billion US dollars over two decades. Although the positive trajectory is likely to continue, there remain challenges on the horizon.

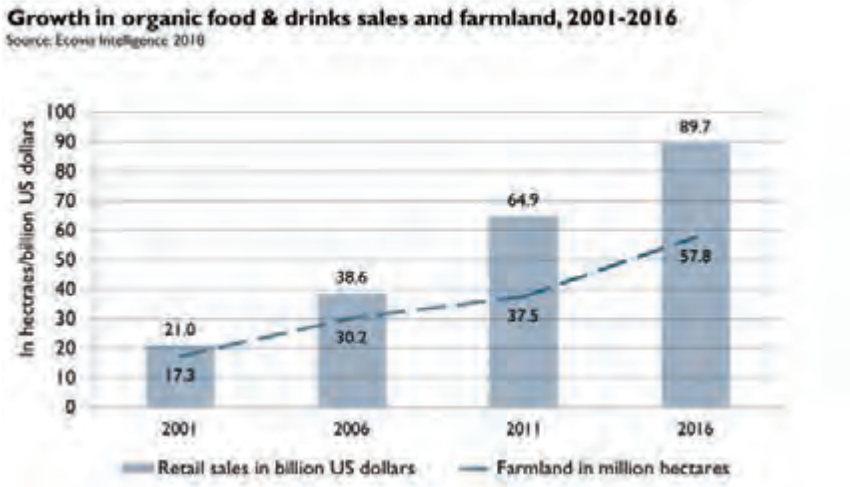


Figure 58: Growth in organic food & drinks sales and farmland, 2001-2016

Note: All figures are rounded
Source: The Global Market for Organic Food & Drink (Ecovia Intelligence)

Demand concentration is the first challenge. With almost 180 countries involved in producing organic crops, production has become global. However, about 90 percent of organic food and drink sales are from North America and Europe. In many parts of Africa, Asia and Latin America, organic foods are produced exclusively for export markets. Even in Australia and New Zealand, many organic food producers have a high export orientation. There needs to be more regional – if not local – markets for organic products for the industry to more sustainable.

Another challenge is standards, the number of which is proliferating in the organic food industry. Although Europe and North America (United States and Canada) have entered trade agreements / equivalency agreements, producers outside these two "trading blocs" have to consider multiple certification to access export markets. For

instance, an organic coffee producer in Indonesia would have to adopt EU, USDA NOP and JAS standards to access markets in Europe, the United States, and Japan respectively. The trend is most noticeable in Asia where almost all countries are developing national standards/regulations, but no harmonisation between standards.

In Europe and North America, various studies show that a small consumer base is responsible for most organic food purchases. Research conducted by Agence Bio showed that although 89 percent of French consumers buy organic foods, only 37 percent of this segment purchases them on a frequent basis (weekly or daily). The majority of organic foods are bought on an irregular basis. More consumers need to buy organic products on a regular basis if the market is to become mainstream.

There are also growing concerns about supply. Organic food sales have grown exponentially over the last two decades, however supply is not keeping pace with demand. The amount of international organic farmland has increased from 17.3 million hectares to 57.8 million hectares between 2001 and 2016; a rise of over 200 percent. Over these 15 years, global organic food and drink sales have expanded by roughly 330 percent. The difference is most marked in North America where the amount of organic farmland has only doubled from 1.5 million hectares to 3 million hectares over 15 years. In comparison, organic food & drink sales have expanded over four-fold from 10.5 billion US dollars to 46.3 billion US dollars. With the growth in organic farmland slowing in parts of Europe and North America, there are concerns about supply shortfalls.

Growth is expected to continue in the coming years. In the last decade, demand for organic products has taken off in countries, such as China, India, and Brazil. Just as production has become global, demand is becoming international. The question is whether supply will keep pace with demand.

Standards and Regulations

Standards and Regulations

BEATE HUBER,[1] OTTO SCHMID,[2] AND VERENA BATLOGG[3]

After more than three years of intensive and controversial debates, the European Council and Parliament have agreed upon a basic text for a new organic regulation. After some final formal revisions, the new regulation is expected to be adopted in April or May 2018. In the next two years, the implementation provisions will be discussed and agreed upon. The new regulation shall enter into force on 1 January 2021. Major changes in the new rules relate to the import policies where the current principle of equivalency will be replaced by compliance. Similar to the United States (US) system, products imported by the European Union (EU) will have to comply with the EU rules. Equivalent standards will only be recognized within bilateral trade arrangements or other existing agreements, for example, between the EU, the US, and Canada. Within a provisional period of five years, the EU will negotiate such reciprocal trade agreements with its partners.

In the United States, the revision of the organic livestock and poultry practices has been slowed down. At the end of 2017, the United States Department of Agriculture USDA announced its intent to withdraw the organic livestock rules (Organic Livestock and Poultry Practices OLPP). The United States Department of Agriculture (USDA) argued that the proposed OLPP final rule would exceed USDA's statutory authority beyond the intent of the Organic Foods Production Act. The USDA further strengthened its measures to maintain organic integrity and published, for example, "Interim Instruction on Maintaining the Integrity of Organic Imports."[4]

Organic legislation worldwide: current situation

According to the FiBL survey on organic rules and regulations, 87 countries had organic standards in 2017. Eighteen countries are in the process of drafting legislation. Data on regulations around the world were collected from various authorities and experts. The categorization of regulations as being "not fully implemented" or "fully implemented" was based directly on the feedback from the persons interviewed, and the information was not subject to verification. We received responses from experts and authorities from the majority of the countries. It is assumed that the non-responding countries had not passed legislation on organic production. It should be noted that some countries listed below have regulations, but do not enforce them. The indication "not fully implemented" therefore relates to countries that have only

[1] Beate Huber, Research Institute of Organic Agriculture (FiBL), 5070 Frick, Switzerland, www.fibl.org
[2] Otto Schmid, Research Institute of Organic Agriculture (FiBL), 5070 Frick, Switzerland, www.fibl.org
[3] Verena Batlogg, Research Institute of Organic Agriculture (FiBL), 5070 Frick, Switzerland, www.fibl.org
[4] More information is available on the USDA website at https://www.ams.usda.gov/rules-regulations/national-organic-program-notice-interim-instruction-maintaining-integrity-organic

recently adopted legislation and are still in the process of finalizing its implementation, as well as to countries that have adopted legislation but are not providing the resources necessary for its implementation.

Table 41 shows the list of countries that have regulations for organic agriculture, and Table 42 show the countries that are in the process of drafting them. Please send comments or information about countries that are not listed to Beate Huber (beate.huber@fibl.org).

Some countries have no organic legislation but have national production standards. Such standards provide a national definition of organic products and are a reference point for certification activities. They do not necessarily lead to the adoption of a national inspection and certification system, which would be supervised by the government. * Standards officially endorsed as organic by IFOAM – Organics International
Source: Survey by Verena Batlogg and Beate Huber, FiBL, January 2018

Table 43 shows that at least 33 countries, mostly in Asia and Africa, have adopted national standards for organic agriculture.

A list of organic regulations is available on the Organic Trade Association (OTA) website at http://www.globalorganictrade.com/country_list.php.

In the three following tables, countries marked with an asterisk have standards officially endorsed as organic by IFOAM – Organics International, based on their equivalence with the Common Objectives and Requirements of Organic Standards (COROS).[1] Both private standards and government regulations are admissible for the IFOAM Family of Standards.[2]

[1] Information on the Common Objectives and Requirements of Organic Standards (COROS) is available at www.ifoam.org/en/coros.
[2] Information on the IFOAM Family of Standards is available at www.ifoam.org/ogs.

Table 41: Countries with regulations on organic agriculture 2017

Region	Country	Remark
European Union (28)1	Austria*	Fully implemented
	Belgium*	Fully implemented
	Bulgaria*	Fully implemented
	Croatia*	Fully implemented
	Cyprus*	Fully implemented
	Czech Republic*	Fully implemented
	Denmark*	Fully implemented
	Estonia*	Fully implemented
	Finland *	Fully implemented
	France*	Fully implemented
	Germany*	Fully implemented
	Greece*	Fully implemented
	Hungary*	Fully implemented
	Ireland*	Fully implemented
	Italy*	Fully implemented
	Latvia*	Fully implemented
	Lithuania*	Fully implemented
	Luxemburg*	Fully implemented
	Malta*	Fully implemented
	Poland*	Fully implemented
	Portugal*	Fully implemented
	Romania*	Fully implemented
	Slovak Republic*	Fully implemented
	Slovenia*	Fully implemented
	Spain*	Fully implemented
	Sweden*	Fully implemented
	The Netherlands*	Fully implemented
	United Kingdom*	Fully implemented
Non-EU Europe (11)	Albania	Fully implemented
	Iceland	Fully implemented
	Kosovo	Not fully implemented
	Macedonia, FYROM	Fully implemented
	Moldova	Fully implemented
	Montenegro	Fully implemented
	Norway	Fully implemented
	Serbia	Fully implemented
	Switzerland*2	Fully implemented
	Turkey*	Fully implemented
	Ukraine	Not fully implemented
Asia & Pacific Region (25)	Armenia	Fully implemented
	Australia*	Fully implemented
	Azerbaijan	Not fully implemented
	China*	Fully implemented
	French Polynesia	Fully implemented
	Georgia	Fully implemented
	India3*	Fully implemented
	Indonesia	Fully implemented
	Iran	Fully implemented
	Israel*	Fully implemented
	Japan1*	Fully implemented

[1] Official Journal of the European Union (2007). REGULATIONS Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91. Available at eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF

[2] Swiss legislation, available at www.admin.ch/ch/d/sr/c910_18.html

[3] Information on the National programme for Organic Production (NPOP) in India is available at www.apeda.gov.in/apedawebsite/organic/index.htm

Region	Country	Remark
	Jordan	Not fully implemented
	Kazakhstan	Not fully implemented
	Korea, South*	Fully implemented
	Lebanon	Fully implemented
	Malaysia	Fully implemented
	New Caledonia	Fully implemented
	New Zealand[2]*	Fully implemented
	Philippines	Not fully implemented
	Saudi Arabia*	Fully implemented
	Solomon Islands	Fully implemented
	Taiwan	Fully implemented
	Tajikistan	Fully implemented
	Thailand[3]	Fully implemented
	United Arab Emirates	Fully implemented
The Americas & Caribbean (21)	Argentina*	Fully implemented
	Bolivia	Fully implemented
	Brazil	Fully implemented
	Canada*	Fully implemented
	Chile	Fully implemented
	Colombia	Fully implemented
	Costa Rica*	Fully implemented
	Cuba	Not fully implemented
	Dominican Republic	Fully implemented
	Ecuador	Fully implemented
	El Salvador	Not fully implemented
	Guatemala	Fully implemented
	Honduras	Fully implemented
	Mexico	Fully implemented
	Nicaragua	Fully implemented
	Panama	Fully implemented
	Paraguay	Fully implemented
	Peru	Fully implemented
	Uruguay	Fully implemented
	USA*	Fully implemented
	Venezuela	Not fully implemented
Africa (2)	Morocco	Not fully implemented
	Tunisia*	Fully implemented

** Standards officially endorsed as organic by IFOAM – Organics International*
Source: Survey by Verena Batlogg and Beate Huber, FiBL, January 2018

[1] JAS Standards for organic plants and organic processed foods:
http://www.maff.go.jp/e/policies/standard/jas/specific/attach/pdf/criteria_o-1.pdf
[2] New Zealand Food Safety Authority (NZFSA) Official Assurance Programme for Organic Products:
www.foodsafety.govt.nz/industry/sectors/organics
[3] Homepage of the Thai National Bureau of Agricultural Commodity and Food Standards,
www.acfs.go.th/eng/index.php

Table 42: Countries in the process of drafting regulations 2017

Region	Country
Europe (3)	Belarus*
	Bosnia & Herzegovina*
	Russia*
Asia and Pacific Region (6)	Bangladesh*
	Bhutan
	Jordan*
	Kyrgyzstan*
	Nepal*
	Pakistan*
The Americas & Caribbean (2)	Jamaica*
	St. Lucia*
Africa (7)	Algeria*
	Burundi
	Egypt*
	Kenya*
	South Africa*
	Sudan*
	Uganda

** Standards officially endorsed as organic by IFOAM – Organics International*
Source: Survey by Verena Batlogg and Beate Huber, FiBL, January 2018

Table 43: Countries with a national standard but without a national legislation 2017

Region	Country
Asia and Pacific Region (22)	Bahrein*
	Bhutan*
	Brunei Darussalam*
	Fiji
	Hong Kong*
	Kiribati (Micronesia)
	Kuwait*
	Kyrgyzstan
	Laos*
	Marshall Islands (Micronesia)
	Micronesia
	Nauru (Micronesia)
	Nepal
	Oman*
	Palau (Micronesia)
	Papua New Guinea
	Qatar*
	Samoa
	Tonga
	Tuvalu
	Vanuatu (Melanesia)
	Vietnam*
Africa (11)	Burkina Faso*
	Burundi*
	Egypt*
	Ghana*
	Kenya*
	Rwanda*
	South Africa*
	Tanzania*
	Uganda*
	Zambia*
	Zimbabwe*

** Standards officially endorsed as organic by IFOAM – Organics International*
Source: Survey by Verena Batlogg and Beate Huber, FiBL, January 2018

The Codex Alimentarius Guidelines: Recent developments[1]

The need for clear and harmonized rules has not only been taken up by private bodies, such as IFOAM – Organics International, and state authorities, but also by United Nations organizations, including the Food and Agriculture Organization (FAO), the World Health Organization (WHO), and the United Nations Conference on Trade and Development (UNCTAD). The Codex Alimentarius Commission approved plant production guidelines in June 1999 and animal production guidelines in July 2001. They also provide guidance to governments on developing national regulations for organic food. The latest update of the guidelines was done in 2013.[2]

The annex lists of the Codex Alimentarius Guidelines, which define the substances that can be used in organic food and farming systems and have been under revision since 2005, mainly focus on substances for food processing and criteria for the use of new substances. The Codex Commission adopted several amendments to the annex lists that were proposed by the Codex Committee for Food Labelling in July 2009. Other substances discussed, such as nitrites and nitrates, ascorbates for meat processing, and phosphates as food additives, were not approved in the Codex Guidelines for organic food. In 2010, an amendment was made to increase restrictions on the use of rotenone for pest control: the substance should be used in such a way as to prevent it from flowing into waterways.

In 2011, the Codex Committee for Food Labelling (CCFL) agreed (as proposed by the European Union) on the inclusion of spinosad, copper octanoate, potassium bicarbonate, and uses of ethylene for the degreening of citrus for fruit fly prevention, and flowering induction in pineapples. In May 2012, the committee decided that "Spinosad should only be used where measures are taken to minimize the risk to non-target species and to minimize the risk of development of resistance." Potassium hydrogen carbonate, copper octanoate (with the same conditions as other copper products), and ethylene for the degreening of citrus for fruit fly prevention and as a flowering agent for pineapples were included in the Annex 2 list of the Codex Guidelines of organically produced food. In 2012, the Codex Committee for Food Labelling decided that a structured approach with a two-year cycle would be followed for the revision of the regulation and the list of substances. Furthermore, in 2011 it was agreed that organic aquaculture and seaweed production would be taken up as a new area. However, after discussions at several draft working paper meetings, the Codex Committee for Food Labelling proposed, in 2016, to either discontinue the work on organic aquaculture guidelines or identify a different subsidiary body to continue the work. No compromise could be found on the most controversial issues, such as the use of juveniles, the use or non-use of recirculation or containment systems, breeding techniques, feeding sources, the ban or restriction of hormones, and

[1] Information about Codex Alimentarius is available at http://www.codexalimentarius.org/codex-home/en/
[2] http://www.fao.org/docrep/005/Y2772E/Y2772E00.HTM

conversion periods. Therefore no further work will be done on aquaculture rules in the Codex. At the CCFL Meeting in October 2017, the organic guidelines were not on the agenda. In November 2017, the General Assembly of IFOAM – Organics International passed a motion that organic aquaculture may include environmentally integrated types of recirculation systems with additional restrictions.

Import requirements of major economies

The major import markets for organic products are the European Union, the United States, Canada, and Japan. All of these markets have strict regimes for the importation of organic products. In the European Union, the United States, and Japan, products may only be imported if the certifying agency has been approved by the respective competent authority. The approval of certification bodies requires compliance or equivalency with the requirements of the importing countries, which can be achieved through (a) bilateral agreements between the exporting country and the target import country, or (b) direct acceptance of the certifying agency by the target import country.

Bilateral agreements between the exporting and the target import country

Most importing countries, including the United States, the European Union, and Japan have options for bilateral recognition (i.e., the option to confirm that another country's control system and its standards are in line with domestic requirements and that the products certified in those countries can be sold on the national market). Bilateral agreements are largely political agreements that depend on political will and negotiations between the governments, but they are also based on technical assessments.

The United States and the European Union have also recognized each other's national organic standards and control systems, except for animal products from the European Union and apples and pears from the United States, which require extra verification. Additional specifications are agreed upon for wine. In addition, products from aquaculture production are not yet included in this agreement.

In 2009, the United States and Canada concluded their first bilateral agreement. Under a determination of equivalence, producers and processors, who are certified according to the US National Organic Program (NOP)[1] standards by a certifying agent accredited by the United States Department of Agriculture (USDA), do not have to be certified by the Canada Organic Product Regulation (COPR) standards in order for their products to be represented as organic in Canada. Likewise, Canadian organic products certified to COPR standards may be sold or labelled in the United States as organically produced.[2] The United States has further concluded bilateral agreements with Japan, South Korea, and Switzerland and is currently assessing the Mexican

[1] National Organic Program (NOP) www.ams.usda.gov/AMSv1.0/NOP

[2] There are exemptions to the United States COR agreements relating to sodium nitrate, hydroponics and livestock for the United States and antibiotics for livestock in Canada.

organic control system. In October 2016, the United States Department of Agriculture (USDA) and Mexico established an agreement to require import certificates for all organic products traded between the United States and Mexico. The USDA and Mexico's National Service for Animal and Plant Health, Food Safety and Quality (SENASICA) are evaluating each other's systems to determine whether an organic equivalency arrangement could be established between the United States and Mexico.

Canada has signed equivalency agreements with the European Union, Costa Rica, Japan, and Switzerland.

The European Union currently recognizes twelve countries[1] as being equivalent to the European Union's system (known as the Third Country list). Furthermore, a trade agreement was established in 2017 with Chile. Subsequently, Chile will soon be listed in the Third Country list (for more information on the agreement between Chile and the EU, please see page 269).

The United States has accepted several foreign governments' accreditation procedures. Certification bodies accredited according to the United States requirements in India, Israel, and New Zealand are accepted by the United States Department of Agriculture (USDA) for certification according to the US National Organic Program (NOP), even though they are not directly accredited by the USDA. This level of recognition only covers accreditation procedures; the respective certification bodies still have to meet the requirements of NOP to issue certificates accepted by the United States.

Acceptance of the certifying agency by the target importing country

The United States, the European Union, and Japan have options for recognizing certification bodies operating outside of their countries. The technical requirements for achieving such recognition are difficult to meet, and the associated fees are high. Maintaining recognition and/or the necessary accreditation requires substantial financial capacity and personnel from the certification agency.

Products are only granted import into the European Union if they have been certified by an inspection body or authority recognized by the European Commission. In updates to EU regulation 1235/2008, the European Union published the list of approved control bodies and authorities recognized for applying equivalent standards and control schemes in non-EU countries. Certification from recognized control bodies has been accepted for imports to the European Union since July 1, 2012. The US system allows certification bodies to be approved to operate a US certification program. Inspections have to be conducted by inspectors trained in NOP requirements using NOP-based questionnaires, and only certificates issued by certification bodies accredited by the United States Department of Agriculture

[1] Argentina, Australia, Canada, Costa Rica, India, Israel, Japan, New Zealand, Republic of Korea, Switzerland, Tunisia and the United States.

(USDA) are accepted. It is not relevant whether the certification body is based in the United States or elsewhere. Approximately 80 agents are currently authorized to certify farms and businesses under the USDA organic regulations. Most USDA-accredited certifying agents are allowed to certify farms and businesses anywhere in the world.

Literature

Codex Alimentarius (2013): Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods. (GL 32 – 1999, Rev. 1 – 2001, Rev. 2013). Rome. https://tinyurl.com/y8mpxqmw

Commission Regulation (EC) No 1235/2008 of 8 December 2008 laying down detailed rules for implementation of Council Regulation (EC) No 834/2007 as regards the arrangements for imports of organic products from third countries; Consolidated version: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02008R1235-20171024

Commission Regulation (EC) No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control; Consolidated Version: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02008R0889-20170521

Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91; Consolidated version: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02007R0834-20130701

European Commission (2008) Guidelines on imports of organic products into the European Union. 15.12.2008. Rev.1. European Commission, Brussels. Available at https://ec.europa.eu/agriculture/organic/sites/orgfarming/files/docs/body/guidelines_for_imports_en.pdf

European Commission (2017): Fact Sheet The new organic regulation. European Commission, Press release database. Available at http://europa.eu/rapid/press-release_MEMO-17-4686_en.htm

USDA (2018): Organic Regulations. The USDA website, USDA, Washington DC. Available at https://www.ams.usda.gov/rules-regulations/organic

PGS in 2017 – Trends and Latest Figures

FLÁVIA MOURA E CASTRO[1] AND FEDERICA VARINI[2]

Participatory Guarantee Systems (PGS) are locally-focused quality assurance systems. They certify producers, based on the active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange (IFOAM definition, 2008).[3] PGS have proven to be an affordable alternative to third-party certification, an effective tool to develop local markets for organic produce, and they are particularly appropriate for small-scale farmers. IFOAM – Organics International is the only organization collecting data about PGS on a global level.

Government recognition and support

In 2004, when IFOAM – Organics International organized the first international workshop on alternative certification, in cooperation with the Latin American Agroecology Movement (MAELA), PGS were bottom-up initiatives developed mainly by farmer groups, often supported by NGOs, without government involvement. Back then, there was a strong need to legitimize and get recognition for these alternative certification strategies. In the last ten years, however, a new trend is emerging, which sees governments increasingly interested in playing a central role in supporting, recognizing, as well as regulating PGS.

PGS are mainly for national markets. In a few cases, there have been instances of exports of PGS products to countries where the organic market is not regulated, but these are rather exceptions. There is an increasing number of countries that include PGS as a guarantee system for the national organic market in their National Organic Regulation. In general, it means that third party certification and PGS are considered as equal guarantee systems for the national market, while products for export need to be certified by third-party certification bodies.

The pace and the dynamics of PGS development and their governmental recognition vary. Latin American governments have been pioneers in including PGS in their organic policies. In 2007, Brazil became the first country to recognise PGS at the same level as third party certification for organic quality assurance. Other countries followed: Costa Rica (2008), Uruguay (2008), Paraguay (2008), Mexico (2010), French Polynesia (2011), Bolivia (2012), New Caledonia (2017), Chile (2017) and India (2017).

[1] Flávia Moura e Castro, IFOAM – Organics International, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, f.castro@ifoam.bio, www.ifoam.bio
[2] Federica Varini, IFOAM – Organics International, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, f.varini@ifoam.bio, www.ifoam.bio
[3] More information about PGS can be found on the website of IFOAM – Organics International at https://www.ifoam.bio/en/organic-policy-guarantee/participatory-guarantee-systems-pgs,

In recent years, a particular momentum for PGS development can be observed in India and Southeast Asia.

During the last six years, India has been increasingly supporting PGS for its national market, developing a unique example of a large-scale government-facilitated PGS program, coordinated by its National Centre for Organic Farming, under the Ministry of Agriculture. Additionally, the government has allocated a significant amount of money to promoting conversion to organic farming and adoption of PGS through various programs. This has happened in the context of a non-regulated domestic organic market. At the end of 2017, the Indian government extended the organic regulation to its national market, recognizing the government-run PGS.

Even in countries with an unfavourable national legal framework, where only producers certified by third party certification bodies can make organic claims, there are some cases of local authorities having developed schemes to support PGS at the regional or municipal level. This has been happening, for example, in the Philippines and Peru. In the European Union countries and the United States, PGS initiatives continue to exist despite the fact that they cannot make organic claims.

It is crucial that a country deciding to regulate its organic sector does so without hindering PGS development by deliberately or inadvertently excluding PGS in the law. To promote organic regulations that enable PGS, IFOAM - Organics International (2017) has developed specific recommendations, available in the Organic Regulation Toolkit.[1] While including PGS as one of the conformity assessment systems permitted under the regulation is certainly the best way to promote PGS, increasing institutionalization may also have adverse impacts on PGS development. In some countries, PGS are currently facing some fundamental challenges due to hierarchical structures and demanding bureaucratic procedures that come with government recognition, which might clash with the original values of PGS, such as participation and horizontality.[2] The risk caused by a top-down approach can be mitigated through consultation with stakeholders during the development of policies and regulations, especially grassroots organizations, which are usually involved in PGS implementation.

Besides creating an enabling legal framework, governments can show support to PGS in other ways, for example by including PGS in trainings on organic agriculture systems, and through the endorsements of PGS by government officials at events and in general communications. Governments might be interested in supporting alternative certification approaches to third-party certification, such as PGS, as a way to promote organic agriculture adoption, livelihood improvements through market access, and empowerment of smaller farmers. Supporting PGS is suitable for all stages of development of the organic sector, whether or not there is a regulation, and whatever the size of the domestic organic market.

[1] The IFOAM Organic Regulation Toolkit is available at www.ifoam.bio/en/organic-regulation-toolkit

[2] This was indicated as a challenge faced by various PGS practitioners, who provided information to the IFOAM PGS survey conducted in 2015 and 2017.

Interesting examples can be found in Costa Rica, Mexico, Brazil and Argentina. More information with detailed examples of policy support for PGS development is available in the recently published "Global Policy Toolkit on Public Support to Organic Agriculture" (IFOAM – Organics International 2017). More information about this toolkit is available at page 170.

PGS worldwide: latest figures

Based on the data collected through the Global PGS Survey 2017 conducted by IFOAM – Organics International, PGS initiatives are established in 66 countries, with at least 311'449 farmers involved in PGS initiatives worldwide. This includes mostly small farmers and small processors. We estimate that there are currently at least 241 PGS initiatives, of which 127 are fully operational, and 115 are under development, with a total of 76'750 producers certified.

Some of these operational PGS initiatives consist of several local groups, that organise themselves under a local or national network or scheme. Thus, they have been considered as a single entry.

Compared to 2015 (date of our previous survey) the number of producers certified through PGS had a growth rate of 74 percent, while the number of producers involved has increased by more than four times.

The country with the most producers involved in PGS is undoubtedly India. The figures have risen from 6'000 producers involved in 2015 to 250'856 in 2017. Among these, a total of 46'598 have already obtained PGS certification.

Regional development

Asia has more PGS than any other region with 260'366 producers involved, 49'559 of which are certified. This development is related to the expansion of PGS in the whole region in the past years. After India, the Philippines have the highest amount of producers involved (1'995), whereas Thailand has the highest amount of producers certified (1'116). In South East Asia in general, PGS development has taken a big step forward in the last years, thanks to the support of the Asian Development Bank and FAO, and PGS training organised by IFOAM – Organics International.

In Latin and Central America, 22'726 producers are involved in PGS, out of which 16'756 are certified. Bolivia has the most PGS, with 9'284 producers involved and 8'164 certified. It is followed by Brazil (4'935 producers involved, 4'167 producers certified) and Peru (3'244 producers involved, 3'014 producers certified).

In Africa, it is estimated that there are 22'699 producers involved, 7'304 of whom are certified. For instance, there are well-established PGS initiatives in Tanzania with 515 farmers certified, in Kenya with 178 farmers certified and in Burkina Faso with 104 farmers certified. However, data collection in this region has been problematic.

In Oceania, there are more than 2'671 producers involved. Of these, 1'385 are certified. In the Pacific Islands, PGS certification is well accepted, and most PGS farmers in this region are based in Fiji, with 1'120 producers certified.

Due to an unfavourable legal framework, PGS initiatives are less widespread In North America and in Europe, where the figures tend to be relatively stable over the years. In North America, a total of 1'767 producers are involved in PGS, the majority of which are in the USA, where we find 776 certified producers. In Europe, we have seen a modest increase compared to 2015, with 1'220 producers involved, the majority of which are located in France (881 PGS-certified producers).

General notes on the PGS data

Every two years IFOAM – Organics International conducts a global PGS survey. In 2017, the survey was conducted from June to November; therefore, the figures for most of the PGS are from November 2017. Additional data were collected through bilateral communication with PGS initiatives, competent authorities and PGS experts. If new data is not received, data from the previous year or older data is used.
When PGS are recognised under a national organic regulation, we collect the data from the census conducted by competent authorities. This is the case in Brazil[1], Chile[2], Bolivia[3], Costa Rica[4], Mexico[5] and India.[6]
PGS initiative: A PGS initiative is understood as a group of producers (farmers and/or processors), who are committed to producing according to a mutually agreed organic standard and who decided to guarantee the organic quality of their products through a participatory approach. The PGS initiative may also include other stakeholders such as consumers, extension workers, NGOs or local authorities. Many PGS initiatives are composed of multiple local groups.
PGS status: Setting up a PGS is a long process and requires one or more years before the producers involved can be fully certified. In our data collection, we distinguish between two situations:

- Operational, when the initiative is fully working and has put into place all the necessary procedures to manage the guarantee system, and thus at least some farmers involved have received the certification; and
- Under development, when the initiative has started to set up the PGS, but still requires some time to develop and consolidate the system. Thus farmers are not yet certified.

Number of producers: Within a PGS initiative we distinguish between

- the number of producers certified, that is, the number of producers who are currently holding a valid certificate issued by the PGS initiative; and
- the number of producers involved, which includes the producers already certified and those who have not yet received a certificate, but who are nevertheless involved in the PGS operations.

[1] Ministério da Agricultura, Pecuária e Abastecimento, Brasil, Cadastro Nacional de Produtores Orgânicos. Available at http://www.agricultura.gov.br/assuntos/sustentabilidade/organicos/cadastro-nacional-produtores-organicos
[2] Servicio Agrícola y Ganadero, Chile: Certificación de Productos orgánicos. Available at http://www.sag.cl/ambitos-de-accion/certificacion-de-productos-organicos/132/registros
[3] Consejo Nacional de Producción Ecológica (UC-CNAPE), email communication, data for 2016.
[4] Servicio Fitosanitario del Estado, MAG, Costa Rica: Lista Oficial de Grupos en Certificación Participativa. Available at https://www.sfe.go.cr/DocsARAO/Lista_inscritos_Certificacion_Participativa.pdf
[5] Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria, Mexico: Padrón de Organismos de Certificación Participativa de productos orgánicos a pequeños productores y producción familiar. Available at https://www.gob.mx/senasica/documentos/padron-de-organismos-reconocidos-para-otorgar-certificacion-participativa-de-productos-organicos-a-pequenos-productores
[6] Department of Agriculture & Cooperation, India: Participatory Guarantee System for India. Available at http://pgsindia-ncof.gov.in

Processed with care? Comparing Different Organic Regulations and Standards for Major Markets

VERENA BATLOGG,[1] OTTO SCHMID,[2] AND BEATE HUBER[3]

Background

As the organic food sector continues to expand, the variety and complexity of food on the market is also rapidly increasing, particularly for processed foods. Consumers of organic food have particularly high expectations regarding the quality of processed food that go beyond aspects of food safety and sensory attributes. Organic standards represent important regulatory frameworks for guiding and controlling food processing activities for organic food.

This article compares various standards in order to understand the differences between private standards, governmental rules and regulations, as well as international norms, and the extent to which they provide guidance for the practical implementation of organic agriculture principles. For simplicity, the term "standards" will hereafter be used to refer to all types of standards, rules, regulations, norms, and guidelines. For this article, the IFOAM Norms for Organic Production and Processing, the standards of the European Union (EU), the United States (US), Japan, and China, as well three examples of European private standards (Demeter, Bio Suisse, and Soil Association) are compared. These are just three examples of private standards, though there are many more. Approximately 90 percent of the global organic food market (in monetary value) is certified under these eight standards. The US market alone comprises 47 percent of the global market and the European Union, the second-biggest single market 37 percent.[4]

General principles outlining organic food processing

IFOAM's "Norms for Organic Production and Processing" (2014) provide an important reference point for understanding how the principles of organic agriculture relate to processing: "Organic processing and handling provide the consumer with high-quality supplies of organic products without compromising the integrity of the products and protects the environment." Other standards formulate the general principles slightly differently. For example, the European Union (EU) regulation (EC) No 834/2007 states: "Organic processed products should be produced by the use of processing methods which guarantee that the organic integrity and vital qualities of

[1] Verena Batlogg, Research Institute of Organic Agriculture (FiBL), 5070 Frick, Switzerland, www.fibl.org
[2] Otto Schmid, Research Institute of Organic Agriculture (FiBL), 5070 Frick, Switzerland, www.fibl.org
[3] Beate Huber, Research Institute of Organic Agriculture (FiBL), 5070 Frick, Switzerland, www.fibl.org
[4] Based on figures published by FiBL in this volume (see chapter on organic statistics by Lernoud and Willer).

the product are maintained through all stages of the production chain." The Chinese standard states that "the processing stage shall maintain the nutrition and original nature of the product at the highest extent." The Soil Association standard defines organic foods as being "wholesome, authentic, unadulterated and of high quality."

Overall, organic standards regulate food processing through two main concepts:

(a) the authorization or prohibition of specific processing methods, and
(b) the authorization of ingredients and substances specifically allowed during processing (usually distinguishing between food additives and processing aids).

Rules relating to processing techniques and technologies

All eight standards contain some basic principles and specific restrictions for organic food processing, which can be translated into concrete, technical guidelines as to which processing techniques and technologies are allowed and which are not. However, the regulatory frameworks relating to food processing offer less specific guidance and receive less attention compared to those relating to crop and livestock production.

All standards studied prohibit the use of recombinant DNA technology (GMOs) during food processing as well as in the manufacturing of its components, such as ingredients, additives, processing aids or microorganisms (except veterinary products in the EU regulation on organic production).

In all standards covered, the use of ionizing radiation (irradiation), synthetic solvents, and asbestos filtrating materials is explicitly prohibited.

One notable difference between the standards covered relates to the degree to which processing techniques are allowed, restricted, or forbidden. For instance, the IFOAM norms, the Soil Association standards, and the EU regulations No 834/2007 and No 889/2008 state that processing techniques should be mechanical, physical, or biological.

The United States National Organic Program (NOP) lists 21 and the Chinese standard 10 specific processing techniques. However, they state that these lists are not limited to these methods, which include, for example, dehydrating, canning, fermenting, filtration, refrigeration.

Private standards are more restrictive concerning production techniques and technologies, and they often define certain techniques that are specifically allowed for certain product groups. For example, Bio Suisse permits seven processing methods for treating ready-to-consume cow's milk while explicitly prohibiting four others. Also, it defines the minimum β-lactoglobulin levels that should be present in the milk after microfiltration and UHT treatment. Furthermore, it sets out maximum pressure values allowed during homogenization.

All standards studied offer little specific guidance regarding the evaluation or use of new processing techniques or technologies for organic food.

Rules relating to additives and processing aids

All standards studied require that the use of additives should be kept to a minimum. Artificial flavours and colours are generally excluded. However, many governmental regulation and the Codex Alimentarius[1] rules allow nature-identical flavours, which are chemically synthesised, whereas the private organic standards analysed exclude these.

When compared with laws in the non-organic food industry, organic food processing standards are generally stricter regarding the use of additives and processing aids (for definition see below). All organic standards include lists of substances that are permitted for processing, so called positive lists. The standards, except the NOP national list, place the majority of these substances into one of two main categories: food additives and processing aids. Most standards also regulate the use of water, salt, flavourings, microorganisms, and enzymes as well as cleaning agents.

Additives are substances added to improve the colour, fragrance, taste, shape, and nutrition, as well as to satisfy the requirements of preserving and processing. They must be included in the ingredients list of a product.

By contrast, *processing aid*s are substances used for certain technological purposes during treatment, processing, or handling and are not declared in the ingredient list[2], even though unintentional but technically unavoidable traces of these or their residues can be found in the final product.

The so-called "positive lists" in the eight standards are exclusive, meaning that any substance that is not explicitly mentioned on the list cannot be used in organic food processing. As in the rest of the food industry, it is regarded as a best practice to use these substances only if necessary from a processing or product quality point of view, and then only in the minimal dose necessary.

Overall, the number of substances allowed in the different organic standards (e.g., the European Union has 71, and the US has 89) is significantly less than the approximately 430 substances appearing on the list of the International Numbering System for Food Additives (INS) of Codex Alimentarius.

Among the standards compared, governmental rules are the least specific when regulating the use of these substances, whereas the private standards, particularly the Demeter and Bio Suisse standards, are the most specific in this regard.

---

[1] The Codex Alimentarius is the international food standards organization of the WHO and FAO of the United Nations.

[2] With some exceptions such as baking enzymes which need to be declared in some countries and under some standards

Conclusions and outlook

The comparison of eight organic standards shows that the standards guiding and defining processing activities is complex. Overall, governmental standards are more general than private ones, with private ones offering more specific guidance as to what additives and processing aids, as well as processing methods, are allowed or not allowed.

Positive lists of permitted food additives and processing aids give clear guidance for the industry, but each standard uses a different categorisation, which makes comparisons difficult. The wording used in international standards (IFOAM Norms, Codex Alimentarius organic guidelines, and the EU regulations) is comparable.

For example, any substance added should be found in nature and may have undergone only mechanical/physical processes (e.g., extraction, precipitation), biological/ enzymatic processes, and microbial processes (e.g., fermentation). Chemically synthesized substances are allowed only in certain exceptions (e.g. nature-identical flavours). All standards require that the consumer will not be deceived concerning the nature, substance, and quality of the food.

It will be important for the organic industry to discuss whether it is desirable or even necessary to aim for a more uniform set of standards for food processing and, if yes, how this can best be achieved (Kahl et al., 2014). An interesting question is also how processing standards affect sensory properties of food (Schmid, 2009), environmental impact, and sustainability (Beck and Henkel, 2012). Furthermore, the consequences of the current differences between the standards on topics such as market distortions, consumer perception, or equivalencies between the standards remains an interesting topic of study.

Literature

Beck, A. and Henkel, Y. (2012), European Organic Regulations(EC) No 834/2007, 889/2008 and 1235/2008 An Evaluation of the First Three Years Looking for Further Development pp.44-46. Available, at http://www.ifoam-eu.org/sites/default/files/page/files/ifoameu_reg_regulation_dossier_201204_en.pdf

Bio Suisse (2017) Standards: Part III - Standards for Processing and Trade, 2017. Bio Suisse, Basel. Available at www.bio-suisse.ch/media/VundH/Regelwerk/2017/EN/pf_rl_2017_1.6_e_gesamt_28.09.2017.pdf and www.bio-suisse.ch/media/VundH/zusatzstoffe_d.pdf

China (2015) National Standard of the People's Republic of China, Organic Products, Part 2: Processing. Available at http://aco.net.au/wp-content/uploads/2015/08/GBT19630_2_en.pdf

Codex Alimentarius Commission (1999/2001/2004/2008/2013): Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods. Rome. Available at: http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCAC%2BGL%2B32-1999%252Fcxg_032e.pdf

Demeter (2017) Processing Standards for the Use of Demeter, Biodynamic and related trademarks from June 2017: Available at www.demeter.net/sites/default/files/di_processing_stds_demeter_biodynamic_17_-_e.pdf

European Commission Regulation No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and …: Available at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32007R0834

European Council Regulation (EC) No 834/2007 of June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:250:0001:0084:en:PDF

FAO, Codex Alimentarius. "Class names and the international numbering system for food additives CAC/GL 36-1989", last amended in 2017. FAO, Rome. Available at http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCAC%2BGL%2B36-1989%252FCXG_036e.pdf

FAO, Codex Alimentarius GL-32-1999 "Guidelines for the Production, Processing, Labelling and Marketing of Organically Processed Foods" last amended 2013: http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCAC%2BGL%2B32-1999%252Fcxg_032e.pdf

IFOAM – Organics International (2017): IFOAM Norms for Organic Production and Processing. IFOAM – Organics International, Bonn. Available at https://www.ifoam.bio/en/ifoam-norms

Kahl J, Alborzi F, Beck A, Bügel S, Busscher N, Geier U, Matt D, Meischner T, Paoletti F, Pehme S, Ploeger A, Rembiałkowska E, Schmid O, Strassner C, Taupier-Letage B, Załęcka A. 2014 Organic food processing: a framework for concept, starting definitions and evaluation. J Sci Food Agric. 2014 Oct;94(13):2582-94.

Ministry of Agriculture, Forestry and Fisheries (2005) Japanese Agricultural Standard for Organic Plants (Notification No. 1605) of October 27, 2005) Partial revision: Notification No.443 of March 27, 2017: Available at: www.maff.go.jp/e/policies/standard/jas/specific/attach/pdf/criteria_o-1.pdf

Schmid, O. (2009): Analysis of regulatory framework affecting sensory properties. Comparative report on specific sensory related requirements in regulations and standards for organic production. Deliverable No. 1.1 of ECROPOLIS Project. Research Institute of Organic Agriculture FiBL, Frick, Switzerland. Available at: http://orgprints.org/17256/1/deliverable_1.1_regulatory_framework.pdf

Soil Association (2016) Organic standards food and drink Revision 17.5 August 2016. Soil Association, Bristol. Available at www.soilassociation.org/media/7207/food-and-drink-v17-5-august-2016.pdf

USDA (2017): Organic Regulations. The USDA website, Washington. Available at www.ams.usda.gov/rules-regulations/organic

The First Global Compilation of Policies Supporting Organic Agriculture

JOELLE KATTO-ANDRIGHETTO[1]

For the first time, a complete global overview of policies supporting organic agriculture has been compiled, and tools for advocates and policymakers are now available in the "Global Policy Toolkit on Public Support to Organic Agriculture." The toolkit was published by IFOAM - Organics International in September 2017.

The toolkit is a result of a two-year long study, during which the IFOAM - Organics International policy team looked at examples of public support provided to organic agriculture in over 80 countries. The team gathered and compared information from various sources including policymakers, academia, consultants, and organic stakeholders. The results of this one-of-a-kind study are designed to serve the needs of organic advocates, policymakers and others who wish to advance agricultural sustainability in their countries.

There is increasing recognition from consumers, civil society and governments of the environmental, social and economic benefits of sustainable agricultural practices such as organic farming. Various governments now provide public support for organic agriculture, which are reflected in the stories, outcomes, lessons learned and policy recommendations published in a toolkit format. The toolkit aims to fill a knowledge gap in the area of organic advocacy and policy-making: now policy-makers can learn more about not only why we should support organic agriculture, but also how it can be done. The toolkit contains hundreds of examples of policy measures taken by local or national governments to support organic agriculture in various ways. The examples are organized by types of measures, which are in turn organized according to three broad categories:

- push measures (to support conversion to organic),
- pull measures (to support consumption/purchases of organic) and
- enabling measures (that combine push and pull elements).

The Global Policy Toolkit on Public Support to Organic Agriculture includes:

- The main study report, which presents a comprehensive overview of measures that can be taken by governments at various levels (municipal, regional, national) to promote and support organic agriculture, with country examples and advice related to each type of support.

[1] Joelle Katto-Andrighetto, Organic Policy & Guarantee Manager at IFOAM - Organics International, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, www.ifoam.bio

- Policy summaries, which are policy briefs on various topics that can be taken to meetings with policymakers.
- PowerPoint presentations that help break down the main arguments and successful examples from countries that have effectively implemented policy support measures.
- Tips for organic advocates on "How to raise political awareness of the need for support to organic agriculture".
- A decision aid to help users select the most appropriate support measures depending on their country situation.
- A policy template for countries with an emerging organic sector, which can serve as an inspiration for policy formulation covering the most common policy measures that will be relevant to such countries.

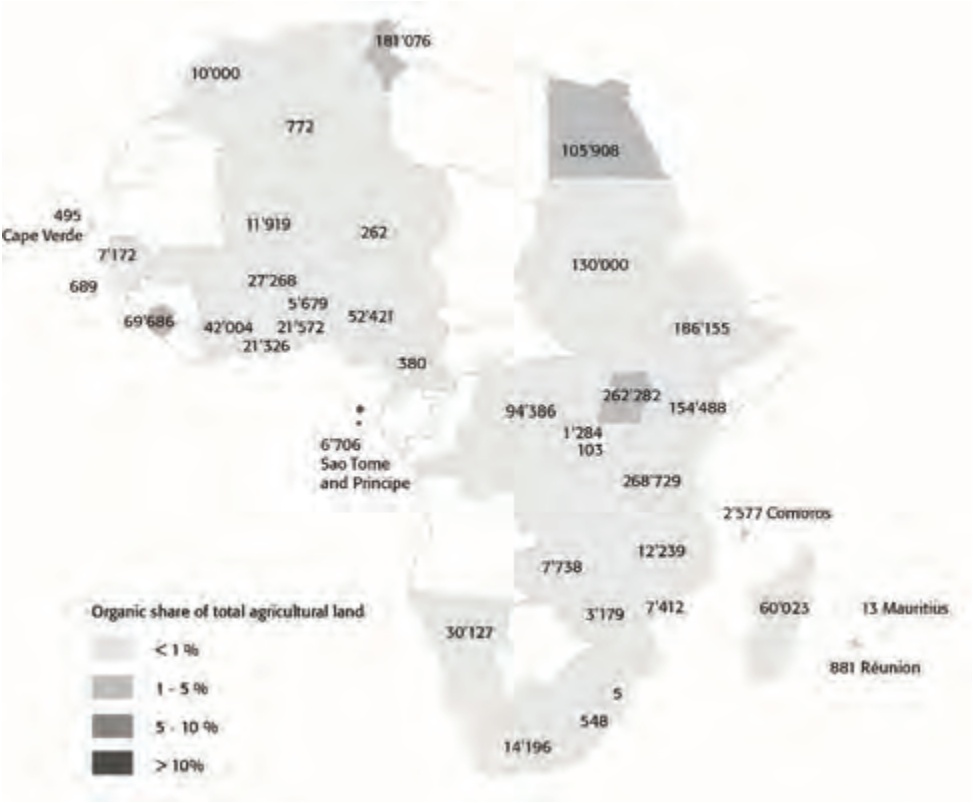
Link

The policy toolkit can be downloaded free of charge on the IFOAM - Organics International website at www.ifoam.bio/policy-toolkits.

Acknowledgment

The development of the policy toolkit was supported by the Swiss Agency for Development and Cooperation (SDC) and received co-funding from the Swedish International Development Cooperation (SIDA), Hivos, and Bio.inspecta.

Africa



Map 2: Organic agricultural land in the countries of Africa 2016 (in hectares)

Source: FiBL survey 2018, based on information from the private sector, certifiers, governments, and for North Africa, the Mediterranean Organic Agricultural Network (MOAN)
For detailed data sources see annex, page 330.

Latest Developments in Organic Agriculture in Africa

JORDAN GAMA[1]

The year 2017 continued to see growing recognition among policymakers that organic agriculture has a significant role to play in addressing food insecurity, land degradation, poverty, and climate change in Africa. Organic agriculture offers a valuable tool-kit of affordable and people-centered production practices, as well as high-yielding systems and both local- and export-focused marketing models. In the context of low carbon, resilient, and inclusive sustainable development, organic agriculture is an increasingly relevant and attractive proposition for many stakeholders.

The African Organic Network (AfrONet)

AfrONet[2] is the African organic umbrella organization, which was established during the Second African Organic Conference in 2012, in Lusaka, Zambia. It unites and represents African ecological/organic stakeholders. In terms of achievements, AfrONet stands out as an important body for the future of the African organic movement and sector.

AfrONet aims to strengthen and support regional networks and the Ecological Organic Agriculture Initiative for Africa.[3] Active regional networks include the Southern African Network for Organic Development (SANOD), IFOAM's Southern African Network (ISAN) and those from West, Central, and East Africa.

Furthermore, it supports the African conferences (see next sections) and actively participates in the events of the Forum for Agricultural Research in Africa (FARA, www.fara-africa.org) and the Organic World Congresses of IFOAM - Organics International. It is also a partner in projects such as the Productivity and Profitability of Organic and Conventional Farming Systems (ProEcoOrganicAfrica),[4] PROGROV,[5] the Ecological Organic Agriculture Initiative, and Organic Trade Development in East Africa (OTEA).[6] AfrONet has a permanent seat on the Continental Steering

[1] Jordan Gama, President AfrONet and CEO Tanzanian Organic Network (TOAM), Dar es Salaam, Tanzania. www.afronet.bio and www.kilimohai.org/TOAM

[2] Information about AfrONet is available at www.afronet.bio.

[3] The aim of EOAI, the Ecological Organic Agriculture Initiative for Africa, is to promote ecologically sound strategies and practices among diverse stakeholders in production, processing, marketing and policy making to safeguard the environment, improve livelihoods, alleviate poverty and guarantee food security.

[4] Information about the ProEcoOrganicAfrica is available at www.ProEcoAfrica.net

[5] Productivity and Growth in Organic Value-chains (ProGrOV) is led by the International Centre for Research in Organic Food Systems (ICROFS), Denmark. More information is available at http://drp.dfcentre.com/project/productivity-and-growth-organic-value-chains-progrov.

[6] OTEA is the Organic Trade and Value Chain Development project-run by IFOAM – Organics International http://www.ifoam.bio/en/organic-trade-and-value-chain-development-otea

Committee (headed by the African Union) and Regional/Cluster Steering Committees of the Ecological Organic active regional networks Agriculture Initiative (EOAI).

In collaboration with the African Union Commission (AUC), training on organic standards and certification is provided to stakeholders in the member countries of the Common Market for Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), and the East African Community (EAC). Furthermore, the Kasisi training centre in Zambia was identified by the AUC as one of the satellite centres for organic training on the continent, and the African Union Commission has approved the continent-wide Organic Product Standard for Africa.

Organic agriculture conferences

Organic conferences in Eastern, Western, Central and Southern Africa have become a success. Several West African organic conferences have been held, and the next East African Organic Conference is scheduled for May 2018. The Fourth African Organic Conference will take place in November 2018, in Yaoundé, Cameroon. These conferences mark significant milestones for mainstreaming Ecological Organic Agriculture (EOA)[1] in the regions and for member countries' policies, strategies, and programmes. Furthermore, in June 2017, AfrONet organized a policy forum for the East African region and continued to support NOARA, the Network of Organic Agriculture Research in Africa, to stage a conference in December 2017, in Uganda.

Bringing strong African representation to the Organic World Congress in November 2017, in India, Morocco bid to host the next Organic World Congress in 2020, in Marrakech. However, the voting process placed Morocco second after France, which was still a big milestone.[2]

Strategic Plan (2015-2025) for the Ecological Organic Agriculture Initiative (EOAI) for Africa

The Continental Steering Committee of the Ecological Organic Agriculture Initiative (EOAI-CSC) endorsed the Ecological Organic Agriculture (EOA) Continental Strategic Plan, which was unanimously approved by the African Union Ministerial Council at its special meeting held on October 5 and 6, 2015 in Addis Ababa, Ethiopia. The Strategic Plan (2015-2025) provides a visionary direction for the development of Ecological Organic Agriculture on the African continent and serves as a tool for fundraising. This is a significant milestone towards implementing the decision made by African heads of state and governments on organic farming.

---

[1] According to the EAO Initiative (2015), Ecological Organic Agriculture is a "holistic system that sustains the health of ecosystems and relies on functional cycles adapted to local conditions, rather than the use of synthetic inputs which have adverse effects on total health (human, animal, plant and environmental).

[2] Editors' note: The 7th IFOAM International Scientific Conference took place in 1988 in Ouagadougou, Burkina Faso, entitled "Agriculture alternatives and nutritional self sufficiency."

The Ecological Organic Agriculture Initiative, which started as a pilot programme in 2012, was launched as a full-fledged programme in 2014 and will end in 2018. It experienced encouraging growth over the past few years. According to the statistics in this book, organic land continues to increase, as the eating habits of our populations are changing, and health consciousness is growing. The demand for healthy organic products on the national, regional and continental markets has grown and surpassed the supply. The voices of EOA stakeholders are being heard in Africa and beyond, and international support is steadily increasing. Approval of the EOA Strategic Plan by the African Union Ministerial Council has come at the very right moment, as there could not be a better time to plan and develop strategies to guide this growth and reap the maximum impact and benefits from organic farming in a sustainable way.

Outlook

Organic growth projections show a substantial increase in organic production in Africa, with the potential for millions of smallholder farmers and their families to move out of poverty, gain food security, and enjoy a better quality of life. The fact that traditional African agriculture is based on low external inputs provides an excellent foundation upon which organic agriculture can enhance productivity, resilience, and the profitability of smallholder farming in Africa. It is, therefore, an ideal development option for Africa. Organic farming practices integrate traditional farming methods and the use of affordable, locally available resources. As such, they are highly relevant to a majority of African farmers. Therefore, the necessary intensification of agricultural production in Africa can and should be ecological, maintain ecosystem services, and be based on restoring, building, and maintaining the natural resource base, particularly soil, water, and biodiversity. Therefore, local communities, farmers, and their sustainable practices need to be supported and enhanced so that the potential benefits of improved agricultural systems, based on the principles of organic agriculture, can be unleashed and disseminated throughout the continent.

References and further reading

African Union, Executive Council (2011): Decision on organic farming. Doc. EX.CL/631 (XVIII). Eighteenth Ordinary Session. 24 - 28 January 2011, Addis Ababa, Ethiopia. Available at http://www.au.int/en/sites/default/files/decisions/9646 council_en_24_28_january_2011_executive_council_eighteenth_ordinary_session.pdf

Ecological Organic Agriculture (EOA) initiative, Continental Steering Committee (2015): The Ecological Organic Agriculture (EOA) Initiative in Africa. Action Plan 2015-2020. EOA Continental Steering Committee

Ecological Organic Agriculture (EOA) Initiative, Continental Steering Committee (2015): The Ecological Organic Agriculture (EOA)-Initiative. 2015-2025 Strategic Plan. EOA Continental Steering Committee, African Union Commission

Africa: Current Statistics

JULIA LERNOUD,[1] HELGA WILLER[2] AND BERNHARD SCHLATTER[3]

There were over 1.8 million hectares of agricultural land in 2016, which is 0.2 percent of the continent's total agricultural area and 3 percent of the global organic agricultural area. The organic agricultural land in Africa has increased by almost 119'000 hectares or 7 percent compared to 2015, and it increased by more than 1.7 million hectares from the 52'000 hectares in 2000. In 2016, 40 countries reported data on organic farming. Tanzania is the country with the largest organic area, with almost 270'000 hectares, and Uganda is the country with the highest number of organic producers, with over 210'000. The country with the highest organic share of the total agricultural land is the island state of Sao Tome and Principe, with 13.8 percent of its agricultural area being organic, followed by Egypt with 2.8 percent and Comoros with 1.9 percent.

Land use

In 2016, over half of all organic agricultural land was used for permanent crops (more than 1 million hectares) in Africa. Almost 30 percent was used for arable crops (over 525'000 hectares), and almost two percent (over 38'000 hectares) was grassland/grazing area. For 11 percent of the organic agricultural land no details were available.

Tunisia (almost 176'000 hectares, mainly olives), Ethiopia (161'000 hectares, mainly coffee), Uganda (157'000 hectares mainly nuts and coffee,), the United Republic of Tanzania (over 124'000 hectares, mainly coffee and cocoa), and Kenya (112'000 hectares, mainly nuts) had the largest organic permanent crop areas. The key organic permanent crop is coffee, with over 380'000 hectares reported, 12.7 percent of the total coffee area of the region. The largest organic coffee areas are in Ethiopia (over 160'000 hectares) and Tanzania (almost 94'000 hectares). The organic coffee area has increased 21-fold since 2004; some of the increase can be attributed to the continually improving data availability. Cocoa was grown on almost 111'000 hectares, and it has grown 48-fold since 2004, representing 1.7 percent of the continent's cocoa area. The largest areas of organic cocoa are found in the Democratic Republic of Congo (37'000 hectares), Tanzania (29'000 hectares), and Sierra Leone (over 20'300 hectares).

Almost thirty percent of the organic farmland was used for arable crops, most of which are oilseeds (almost 196'000 hectares, 0.7 percent of the total oilseed area; mainly sesame), textile crops (136'000 hectares, 2.7 percent of the region's total cotton

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

area), and cereals. Almost 63 percent of the region's cotton is found in the United Republic of Tanzania (almost 85'000 hectares), followed by Sudan (15'000 hectares).[1] Since 2004, the organic cotton area grew 14-fold. Cereals were grown on almost 67'000 hectares in 2016; the key producing countries were the United Republic of Tanzania (almost 51'000 hectares), Egypt (over 8'000 hectares), and Senegal (almost 4'000 hectares).

Producers

There were at least 741'000 organic producers in Africa. The countries with the most organic producers are Uganda (over 210'000), Ethiopia (over 203'000), and the United Republic of Tanzania (148'000). It can be assumed that the number of producers is higher because some countries only report the number of farm enterprises/companies.

Wild collection

Wild collection has an important role in Africa with over 12 million hectares certified as organic in 2016. Zambia is the country with the largest area (6.7 million hectares, mainly beekeeping), followed by Namibia (2 million hectares, medicinal plants), South Africa (1 million hectares, mainly devil's claw), Somalia (almost 850'000 hectares, mainly natural gums), and Zimbabwe (300'000 hectares, mainly baobab). Medicinal plants, such as devil's claw (*Harpagophytum procumbens*) are the commodities that have the largest wild collection area (over 3 million hectares), followed by oil plants (over 766'000 hectares), such as argan (with almost 67'000 hectares). Beekeeping is the key activity in organic wild collection in Africa with almost 6 million hectares. Zambia is the country with the largest wild collection area used for organic beekeeping with 5.9 million hectares, representing 99 percent of the total beekeeping area.

For more information about the African figures, see data tables for Africa, page 182.

[1] Please note that due to differences in the methodology, the cotton figures presented in this chapter differ from those from the Textile Exchange.

Organic Agriculture in Africa: Graphs

Africa: The ten countries with the largest organic area 2016
Source: FiBL survey 2018

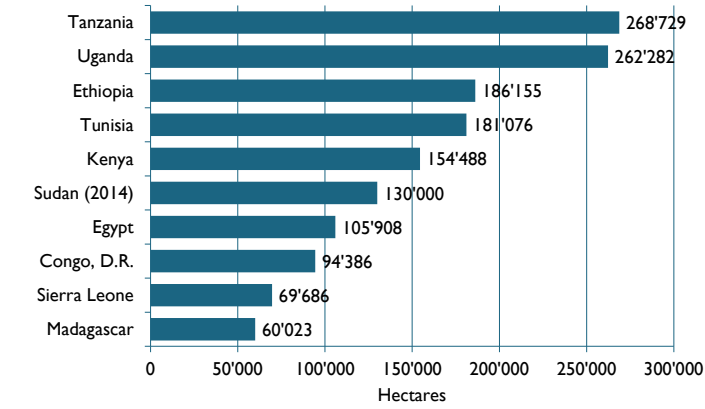


Figure 59: Africa: The ten countries with the largest organic agricultural area 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Africa: The countries with the highest organic share of total agricultural land 2016
Source: FiBL survey 2018

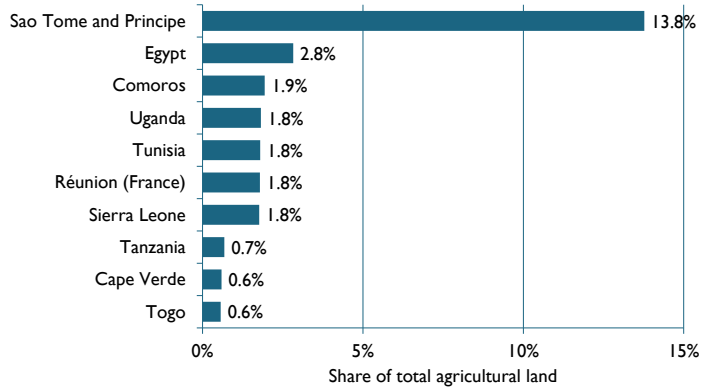


Figure 60: Africa: The countries with the highest organic share of total agricultural land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Africa: Development of organic agricultural land 2000 to 2016

Source: FiBL-IFOAM-SOEL-Surveys 2001-2018

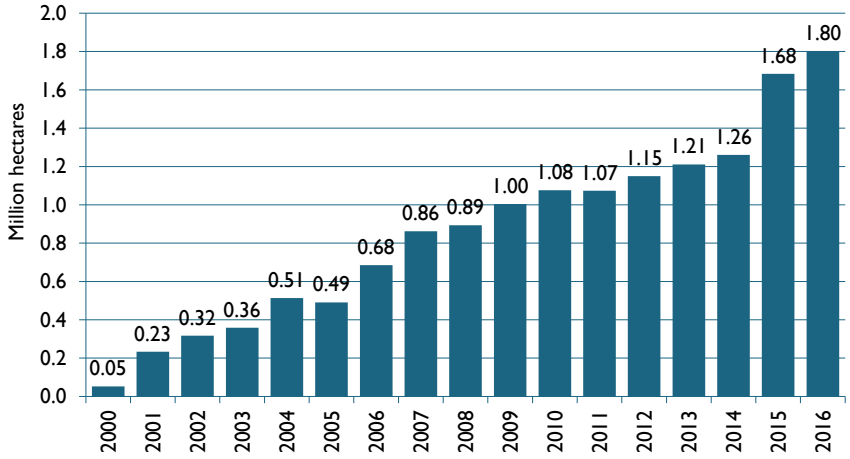


Figure 61: Africa: Development of organic agricultural land 2000 to 2016

Source: FiBL-IFOAM-SOEL-surveys 2000-2018

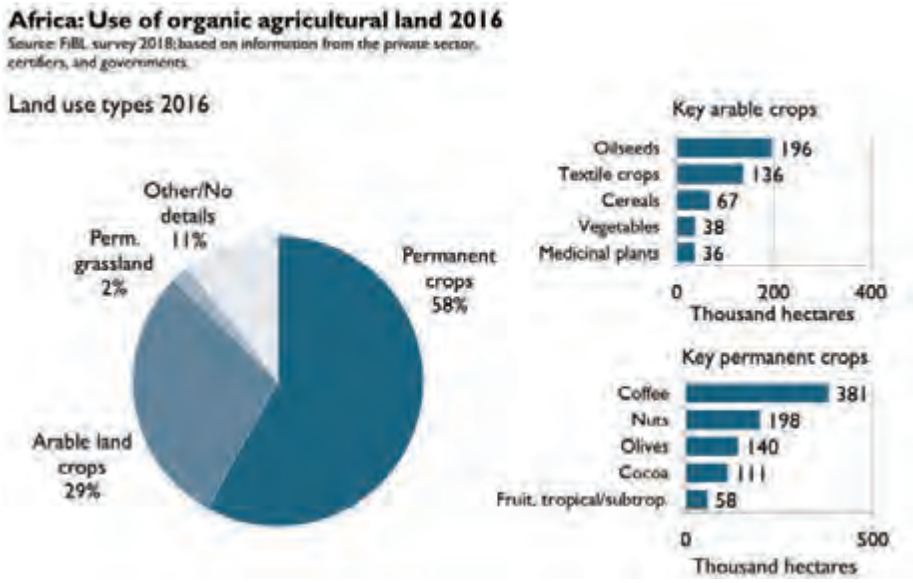


Figure 62: Africa: Use of organic agricultural land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Africa: The ten countries with the largest number of organic producers 2016
Source: FiBL survey 2018

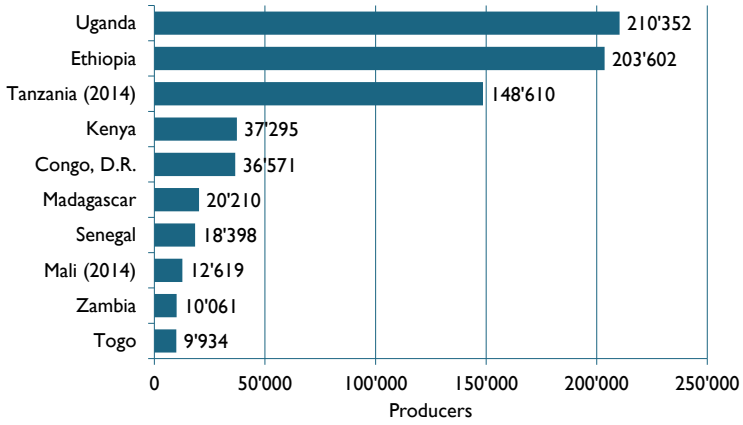


Figure 63: Africa: The ten countries with the largest number of organic producers 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Organic Agriculture in Africa: Tables

Table 44: Africa: Organic agricultural land, organic share of total agricultural land and number of organic producers 2016

For information on data year, see page 330.

Country	Area [ha]	Share of total agr. land [%]	Producers [no.]
Algeria	772	0.002%	64
Benin	5'679	0.2%	3'153
Burkina Faso	27'268	0.2%	9'036
Burundi	103	0.0%	35
Cameroon	380	0.004%	193
Cape Verde	495	0.6%	
Chad		Wild collection only	
Comoros	2'577	1.9%	1'540
Congo, D.R.	94'386	0.4%	36'571
Côte d'Ivoire	42'004	0.2%	494
Egypt	105'908	2.8%	970
Ethiopia	186'155	0.5%	203'602
Ghana	21'326	0.1%	2'673
Guinea-Bissau	689	0.04%	
Kenya	154'488	0.6%	37'295
Lesotho	548	0.02%	4
Madagascar	60'023	0.1%	20'210
Malawi	12'239	0.2%	7
Mali	11'919	0.03%	12'619
Mauritius	13	0.01%	22
Morocco	10'000	0.03%	80
Mozambique	7'412	0.01%	3
Namibia	30'127	0.1%	25
Niger	262	0.001%	
Nigeria	52'421	0.1%	102
Réunion (France)	881	1.8%	203
Rwanda	1'284	0.1%	4'013
Sao Tome and Principe	6'706	13.8%	3'738
Senegal	7'172	0.1%	18'398
Sierra Leone	69'686	1.8%	1'400
Somalia		Wild collection only	
South Africa	14'196	0.01%	196
Sudan	130'000	0.2%	354
Swaziland	5	0.0004%	
Tanzania, United Republic of	268'729	0.7%	148'610
Togo	21'572	0.6%	9'934
Tunisia	181'076	1.8%	3'400
Uganda	262'282	1.8%	210'352
Zambia	7'738	0.003%	10'061
Zimbabwe	3'179	0.0%	2'006
Total*	**1'801'699**	**0.2%**	**741'367**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
**Total number includes data for countries with less than three operators.*

Table 45: Africa: All organic areas 2016

Country	Agriculture [ha]	Forest [ha]	Wild collection [ha]	Total [ha]
Algeria	772		628	1'400
Benin	5'679		4'505	10'184
Burkina Faso	27'268		80'068	107'336
Burundi	103			103
Cameroon	380			380
Cape Verde	495			495
Chad			124'130	124'130
Comoros	2'577		63	2'641
Congo, D. R.	94'386			94'386
Côte d'Ivoire	42'004		344	42'348
Egypt	105'908		60'000	165'908
Ethiopia	186'155		9'033	195'188
Ghana	21'326		33'592	54'918
Guinea-Bissau	689			689
Kenya	154'488		121'625	276'113
Lesotho	548		50'000	50'548
Madagascar	60'023		10'897	70'920
Malawi	12'239		6'319	18'558
Mali	11'919		8'146	20'065
Mauritius	13			13
Morocco	10'000	35	170'035	180'070
Mozambique	7'412		147'930	155'342
Namibia	30'127		2'041'901	2'072'028
Niger	262			262
Nigeria	52'421	150	1'000	53'571
Réunion (France)	881			881
Rwanda	1'284		12	1'296
Sao Tome and Principe	6'706			6'706
Senegal	7'172		22'000	29'172
Sierra Leone	69'686			69'686
Somalia			849'482	849'482
South Africa	14'196		1'092'563	1'106'758
Sudan	130'000		84'960	214'960
Swaziland	5			5
Tanzania	268'729		15'040	283'769
Togo	21'572		242	21'814
Tunisia	181'076	13'538	45'486	240'100
Uganda	262'282		158'328	420'610
Zambia	7'738		6'700'680	6'708'418
Zimbabwe	3'179		300'600	303'779
Total	**1'801'699**	**13'723**	**12'119'609**	**13'955'031**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 46: Africa: Land use in organic agriculture 2016

Land use	Crop group	Area [ha]
Agricultural land, no details		65'020
Arable land crops	Arable crops, no details	11'801
	Cereals	66'765
	Dry pulses	1'955
	Fallow land, crop rotation	227
	Flowers and ornamental plants	159
	Green fodders from arable land	5'323
	Industrial crops	84
	Medicinal and aromatic plants	36'470
	Mushrooms and truffles	1
	Oilseeds	195'532
	Root crops	19'509
	Seeds and seedlings	4
	Strawberries	510
	Sugarcane	7'480
	Textile crops	136'033
	Tobacco	5
	Vegetables	37'622
	Arable crops, other	6'170
Arable land crops total		*525'649*
Cropland, no details		121'055
Other agricultural land	Home gardens	2
	Unutilised land	4'490
	Other agricultural land, no details	483
Other agricultural land total		*4'975*
Permanent crops	Berries	23
	Citrus fruit	7'532
	Cocoa	111'328
	Coconut	22'391
	Coffee	381'090
	Flowers and ornamental plants, permanent	2
	Fruit, no details	333
	Fruit, temperate	5'270
	Fruit, tropical and subtropical	58'448
	Grapes	2'915
	Medicinal and aromatic plants, permanent	71'402
	Nurseries	2
	Nuts	197'890
	Olives	140'022
	Tea/mate, etc.	9'113
	Permanent crops, other	39'072
Permanent crops total		*1'046'832*
Permanent grassland		38'168
Total		1'801'699

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 47: Africa: Use of wild collection areas 2016

Land use	Area [ha]
Apiculture	6'053'881
Fruit, wild	41'150
Medicinal and aromatic plants, wild	3'095'542
Nuts, wild	99'502
Oil plants, wild	766'663
Rose hips, wild	108'700
Wild collection, no details	1'954'171
Total	**12'119'609**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Asia

Map 3: Organic agricultural land in the countries of Asia 2016 (in hectares)

Source: FiBL survey 2018 based on information from the private sector, certifiers, governments, and, the Mediterranean Organic Agricultural Network (MOAN) for the Mediterranean countries
For detailed data sources see annex, page 330.

Asia Sector Report

COMPILED BY IFOAM ASIA[1]

Summary

In 2017, there was an overall increase in organic production in all countries that submitted their contributions to the Asia sector report for this book. Exports of organic products are also increasing as seen in the example of Bangladesh. An interesting development was the significant increase of national and local organic groups in China, such as organic marketing clubs or organic marketing alliances as market platforms. Community Supported Agriculture (CSA) and Participatory Guarantee Systems (PGS) are also attracting much interest. A mutual recognition of certified organic products between China and New Zealand was signed at the end of 2016. The authorities in India introduced a common logo for organic foods – "Jaivik Bharat." The relevant information to verify the authenticity of third-party and PGS certified organic produce is recorded in a database and the associated portal. The PGS certification provides small and marginal farmers with better access to certified organic markets. The Philippines saw an increase in active involvement of more than 120 local municipal mayors in the development of organic agriculture. Some municipalities such as Dumingag, Kasuwagan, and Bislig are now recognized internationally for their exemplary development of organic agriculture as a tool for poverty alleviation, peace-building and overall sustainable development of a city, which has mainstreamed organic farming in all its policies.

Bangladesh

The Bangladesh government approved its "National Organic Agricultural Policy 2016" on November 7, 2016 with the objective of setting up a National Organic Standard Board (NOSB) under the Ministry of Agriculture. It aims to oversee activities such as developing and updating standards and a certification system, and facilitating the export of organic products. Although the NOSB has not yet been formally launched, there has been a boost in the expansion of organic farming in the private sector.

Organic area and production are gradually increasing in Bangladesh. Tea is a major organic product that has been exported to the global market by Kazi & Kazi since 2010. The company registered a 10 percent increase in export volume in 2017 over the previous year, although the area under organic cultivation remains the same.

[1] Contact: Jennifer Chang, Vice President of IFOAM - Organics International and Executive Director of IFOAM Asia, Seoul, South Korea, e-mail jchang2011@gmail.com

Another tea company, Sabazpur Tea Ltd., started producing organic tea in 2017. They produced 12.4 tonnes of organic black tea and 2.4 tonnes of organic green tea on an area of 67.2 hectares; in total, they manage 205 hectares organically. Their products are being third-party certified and currently are more focused on local markets rather than export markets. The company plans to begin exporting their products in 2018.

The cashew nut is another organic product that is planned to be exported from Bangladesh. Approximately 800 tonnes of cashew nuts were produced in an area of about 3'000 hectares with the facilitation of the country's Ministry of Commerce and the Bangladesh Organic Products Manufacturer's Association (BOPMA). Production is expected to exceed 1'200 tonnes in 2018.

Furthermore, activists and entrepreneurs that are engaged in organic production in Bangladesh are currently focusing on the development of the local market. Supermarkets in Dhaka are now selling organic products. Some young entrepreneurs have come forward to start online marketing systems based on contract farming with the local farmers. Agricultural research organizations have adopted programs to develop organic techniques for producing high-value products like tomatoes, mangos, bananas, and even potatoes for export purposes. There are also programs for rice, which remains the major crop in Bangladesh.

China

The national government of China has declared "Green Development" as one of its development strategies, and the development of organic agriculture is among the actions adopted to this effect.

The Chinese Certification and Accreditation Administration (CNCA) has implemented a new policy to make the registration of organic certification bodies (CB) easier. At the same time, it has enforced stricter supervision on the operation of the CBs. Toward the end of 2017, more than 60 CBs were registered under CNCA for organic certification – twice as many as in the previous year.

Efforts to establish national and local organic groups, such as organic marketing clubs or organic marketing alliances, significantly increased in 2017, and interest in organic products has been increasing through the establishment of organic market platforms.

An alliance of local organic associations, mainly provincial associations, has been established, and actively promotes the exchange of experiences and information, the discussion of development strategies, and the promotion of market platforms.

Based on the expansion of Community Supported Agriculture (CSA) in China, participatory guarantee systems (PGS) have become a hot topic within the organic sector. More and more people are becoming interested in the organization and the implementation of the different kinds of PGS groups, although PGS is not yet officially recognized in China. The government authority has, however, been showing interest in the progress of such systems.

As the world's third largest organic single market (accounting for 7 percent of the global organic sales value in 2016), the organic market in China continued to grow in 2017. More and more countries are showing interest in exporting their organic products to China. After the signing of a bilateral agreement on mutual recognition of certified organic products between China and New Zealand at the end of 2016, an increasing number of countries are seeking the possibility of developing the same relationship with China, aiming at the Chinese organic market. The number of organic inspections and certifications conducted by Chinese organic CBs in other countries has seen a big increase in 2017.

Hong Kong SAR, China

With growing public concerns over food safety and environmental protection, the Hong Kong government has begun to promote organic farming. While organic farming can produce food in an environmentally friendly and sustainable manner and better protect our farmlands and countryside, it can also open up a niche market that can generate premium prices for local farmers. Moreover, it can offer a wider and better choice of fresh vegetables to residents.

In December 2000, the Agriculture, Fisheries and Conservation Department (AFCD) launched the Organic Farming Support Service (OFSS) to provide support to farmers engaged in organic farming. In 2002, the Hong Kong Organic Resource Centre (HKORC) was established to set up the organic standards for crop production and processing. An independent third-party certification body, the Hong Kong Organic Resource Centre Certification Ltd. (HKORC-Cert), was established in late 2004 to provide independent certification services to local organic farmers and organic processors. HKORC-Cert has been IFOAM-accredited since March 2012.

As at the end of 2016, 297 vegetable farms, with a total of 107 hectares, have made use of the Organic Farming Support Service. At the same time, 146 local farms, covering an area of 85 hectares, is certified under HKORC-Cert's certification service.

Currently, there is no regulatory control or legal definition of organic farming/organic produce in Hong Kong, and consumers have to rely on the certification service of HKORC-Cert for local organic produce.

Local organic farmers produce an average of approximately 6 tonnes of over 30 varieties of organic vegetables per day. Organic vegetables constitute less than 0.3 percent of the fresh vegetables sold. Currently, organic produce is mainly sold through wholesale vegetable markets, farmers' markets, direct sales to hotels or restaurants, "pick-your-own" farms, wet markets, health food stores and on-line orders.

Consumer survey results from HKORC show that almost 3 percent of the population bought organic products daily in 2016, and there was an increase in total sales of 12 percent as compared to 2015. A double-digit increase in organic sales is expected in

the coming year. The organic sector of Hong Kong expects continued steady growth in the future.

India

One of the significant developments in the Indian organic sector during the past year has been the recognition of Participatory Guarantee Systems (PGS) by the government at the policy and implementation levels. Recently, the Food Safety and Standards Authority of India (FSSAI) launched an "Indian Organic Integrity Database" to help consumers verify the authenticity of organic food. It has also introduced a common logo for organic foods with the tagline "Jaivik Bharat." The database and the associated portal verify the authenticity of the organic produce – certified by either third-party systems or Participatory Guarantee Systems (PGS). This development brings more small and marginal farmers within the ambit of certified organic markets. In addition to the 1.5 million organic hectares certified through the third-party systems, there are over 200'000 hectares certified under PGS.

The scope for certification of organic farm produce is far beyond this. It is estimated that at least 18 million hectares in the North-eastern region of India are traditionally organic, and so are many other farms managed by tribal populations and those in totally rain-fed areas. For instance, Sikkim, in the Northeast of India, is heavily mountainous and there is little farmland. Because most of these areas are very poor, farmers have little access to chemical inputs. It has therefore been easy for Sikkim to become fully organic.

The challenge is to recognize these products, which do not have any certification, as organic in the markets. PGS is one step in this direction.

The other major step is the declaration of entire states and districts as organic by prohibiting the use of chemicals through effective regulations. Sikkim, a state in Northeast India, with a cultivated area of 56'000 hectares, has been declared as organic. Arunachal Pradesh and Mizoram, two other states of Northeast India, are on the path to follow this suit. Similarly, Kasargode, a district of Kerala state in Southern India, has drafted a roadmap leading to become an organic district.

There is a rising demand for organic produce in the domestic and international markets. The export of organic products is estimated to triple by 2020, and the domestic market is also showing a similar trend. Presently, about one fifth of the total third-party certified organic produce is exported, while the rest is sold mainly in large cities in India. The PGS-certified products are sold almost entirely within the country. India is among the key players in the organic sector globally, with the largest number of certified organic producers in the world and an ever-growing market for organic produce.

Iran

Organic production has attracted significant attention in Iran. Positive measures have been taken, although further steps are required to catch up with the global pace of organic production, mainly through filling existing information gaps.

For the Iranian Organic Movement 2017 was a fruitful year:

- Policy & Action Plan: The Ministry of Agriculture established a "Committee on Organic Agriculture" to provide relevant policies and an action plan for the development of organic agriculture in Iran.
- Production: The future for organic agriculture in Iran is very positive. The growth rate experienced over the last few years suggests a fast and considerable development of the sector. Iran may become a central area for producing high-value organic products with a world-wide demand, such as saffron, pistachio, pomegranate, and medical plants.
- Market Development: The Iran Organic Association and IFOAM-IRAN in cooperation with the Management of Fruit and Vegetable Organization of Municipality of Tehran hosted the "Tehran Organic Week Festival" (31 December 2016 to 6 January 2017), which plays an important role in developing and promoting the marketing of organic products. Currently, there are 67 recognized organic shops, which also supply organic products to hypermarkets across the country.
- Membership of IFOAM Asia and the Asian Local Governments of Organic Agriculture (ALGOA): IFOAM-IRAN joined IFOAM Asia as a member for regional cooperation. Together with the Management of Fruit and Vegetable Organization of the Municipality of Tehran, IFOAM-IRAN signed a Memorandum of Understanding as a partner of ALGOA at the third ALGOA summit in South Korea. (See article by Jennifer Chang, page 198).
- Workshops: in addition to several local workshops, IFOAM-IRAN, in cooperation with the IFOAM Apiculture Forum, hosted the "Organic Apiculture" workshop in Tehran in July 2017. This workshop aimed at supporting the development of production and marketing of organic honey products and beekeeping. More than 120 participants from different disciplines, such as beekeepers (individual or from cooperatives), postgraduate students, faculty members, scientists, traders, stakeholders, and private and governmental authorities attended this 2-day workshop.
- IFOAM Academy: Two participants from Iran attended the Organic Leadership Course held in Croatia in May 2017.

Japan

The organic market is showing stable growth in Japan. Not only have imports increased, but the number of exported organic products, such as green tea, have also increased (up to 34 percent) after the agreement of equivalency with other countries (see also article by Beate Huber in this report, page 152).

The consumer demand for organic food as well as non-food products, like organic cosmetics and organic textiles, is growing. Today, organic does not only mean "safe and healthy food," but it is understood as a form of sustainable lifestyle.

Following this trend, a new trade fair called "Organic Lifestyle Expo" was organized for the first time in 2016, and in 2017, more than 22'000 visitors came to the fair. Another international organic fair in Yokohama city brought 181 exhibitors and 14'000 visitors.

A gathering of local government officers, who aim to promote and support organic agriculture, was held in July with about 100 people participating. This demonstrates the high interest of local governments to promote organic agriculture.

Although the number of certified organic farmers has slightly increased, the amount of certified organic land has decreased. The percentage of certified organic land remains at 0.2 percent.

The organic regulation of the Japanese Agricultural Standard (JAS) was revised, and minor changes were implemented in April 2017.

The Japanese Diet, Japan's bicameral legislature, passed a bill to abolish the "Main Crops Seed Law of Japan" in the spring of 2017, which will be carried out in April 2018. Under this law, seed production has been protected and supported by the government. There are concerns that this change will lead to the privatization of seeds, increase in seed price, and the loss of seed diversity.

Korea

2017 was a year of confusion in Korean society over pesticide-contaminated eggs. Pesticide contamination was found in eggs from farms certified under environmentally friendly standards (antibiotic-free certification). Traces of DDT were also found in some certified organic eggs. This led to a decrease in the consumption of environmentally-friendly certified agricultural products and deep distrust among consumers.

The government has announced stronger measures to strengthen the certification system, but without the resolution of structural problems, similar problems are bound to continue in future. Organic groups voiced their concerns that the government is only concerned about food safety (absence of chemicals) and does not have a broad understanding of organic agriculture as a holistic production system with health, environmental, economic and social impacts. Some groups have voiced their wish to move away from third-party certification and toward "self-certification" (PGS).

With the appointment of the new government in May 2017, due to early presidential elections caused by the impeachment of the former President, it was hoped that changes in the agricultural sector would take place. So far, the new government has not carried out any new changes but has been following the policies set in place by the former administration.

However, one expected positive step is the implementation of the direct payment system for "environmental preservation services" announced in the fourth "5-Year Plan of the Environmentally-Friendly Agriculture Promotion Law" in March 2016.

At the private sector level, organic farming groups (including farmer groups and consumer cooperatives) have been calling on the government to increase direct payments to preserve farm incomes, to implement full labelling of GMO, to stop research on GMO commercialization, and to increase environmentally friendly food for both schools and public food procurement.

Philippines

The League of Organic Agriculture Municipalities and Cities in the Philippines (LOAMC-PH) is the only national organization within the governance structures of municipalities, cities, and the national government departments, in which Local Chief Executives (LCEs) or mayors pro-actively engage in the institutionalization of organic agriculture in the Philippines.

Although the Philippines approved the National Organic Agriculture Law in 2010 with corresponding implementation through the National Organic Agriculture Program (NOAP), the results are not convincing. The NOAP 2012-2016 target that 5 percent of the Philippine's agricultural land should be converted to organic systems has not yet been achieved; currently only about two percent of the agricultural land is organic. The NOAP implementation by the Department of Agriculture (DA) is constrained by the capacities of its personnel in terms of medium to long-term strategic interventions and approaches. Organic agriculture is viewed as technology-related and not based on the foundational principles and philosophies that would guide the department and its personnel on the sustainability approaches together with farmers and other key stakeholders.

To fill this gap and to align with the implementation of the NOAP, the LOAMC-PH organized a systematic, sustainable organic agriculture development approach, which addresses:

- Proactive recruitment of municipal mayors to become LOAMC-PH members: By the end of the 3rd quarter of 2017, over 120 mayors were members, representing at least 8 percent of the 1'489 municipalities and component cities (46) in the Philippines (in total 1'535). Their commitment corresponds to a potential conversion of 1.2 million hectares of farmland in these municipalities/cities. The minimum municipal agricultural land amounts to 10'000 hectares.

- Institutionalization of the development approaches in family farms and municipalities/cities: LOAMC-PH started to formally support the systematic conversion of family farms and municipalities/cities by offering a four-week training course entitled "Bridging Leadership and Governance in Asset Based Sustainable Organic Agriculture Development" (BLG-ABSOA). This course was held in cooperation/partnership with the SEAOIL Foundation Inc. (SFI) and the Agricultural Training Institute of the Department of Agriculture (DA-ATI). The development of the course is based on the experiences of Dumingag in the province of Zamboanga del Sur, Kauswagan in the province of Lanao del Norte, and Bislig City in the province of Surigao del Sur, which are all are aiming to be a "Model City for Organic Agriculture in the Philippines" by 2020.

As mentioned above, one of the major constraints is the mind-set that views organic agriculture as technology and not as a sustainable development solution. Hence, the national government's intervention is mostly targeted toward input substitution, e.g., replacing chemical fertilizers with organic fertilizers, while organic seeds and organic feed is not immediately accessible. The national program is more focused on business as usual, especially when it comes to the use of hybrid seeds that require synthetic chemicals, or seeds generally used in conventional agriculture. There is a lack of financial support for organic agriculture, and the budget for organic agriculture constitutes only 2 percent of the annual budget of the Department of Agriculture.

Thailand

Organic agriculture continues to develop, with stable expansion of organic farms with both third-party certification and participatory guarantee systems (PGS). PGS appears to be the exciting word for many local producers, who are left out of third-party certification schemes, and a large expansion of organic farms is likely to take place in the coming years with PGS. Also, more processors, handlers, and traders began organic businesses. Even though primary organic products (e.g., rice, fresh vegetables) still dominate markets, both for exports and domestic consumption, a larger variety of processed organic products can be found in Thai markets.

Thai organic trade is very much export oriented, but domestic markets are expanding fast. Imports of processed products, mainly from the United States and the European Union, helped to enlarge product assortments. The Thai organic market is dominated by conventional modern trade and independent green/health shops. Lemon Farm, a dedicated health and organic supermarket, stands out as an exception. In 2016, Thai consumers started to hear more and more about high-end restaurants offering organic food.

The Thai government has long advocated organic agriculture as part of the policy framework, but little was done in concrete terms. Also, the government was trying to introduce compulsory labelling regulations, but this was met with strong opposition by the Thai organic movements. A national action plan (so-called "National Organic Development Strategy") was being drafted for over six years and was only finalized in

April 2017. The introduction of the "organic rice farming subsidy scheme" in mid-2017 lead to some confusion and controversy about the role of government versus private sector for the development of the organic sector in the country.

Vietnam

In 2017, the market for organic agricultural products in Vietnam showed a stable increase, supported by increased consumption and government policy. However, there is still mistrust among consumers due to many violations in food production and processing. Imports of organic products also grew steadily.

On the policy level, Vietnam does not have any legal regulations referring to organic production and support policies (the national standards were issued in 2015 but were not implemented). However, at the beginning of 2017, with the active policy advocacy of the Vietnam Organic Agriculture Association and the increasing demand for organic products, government and state agencies started to pay attention to the promotion of organic agriculture development. The government has requested the development of several policy documents, including: a decree on state management of organic agriculture, an action plan on the development of organic agriculture in Vietnam for 2018-2025, and the amendment and enhancement of the national standards on organic agriculture, suited to local and international conditions.

The decree on organic agriculture is under development with hopes of implementation in early 2018. Two organic certification schemes are being developed: a third-party certification system and a PGS certification system within the government system.

Achievements of IFOAM Asia in 2017

In 2017, IFOAM Asia focused on the expansion of activities in Asia, including Central Asia. Membership grew to 220 members (from 80 members in 2014 when it was legally established).

Great growth was seen in the Asian Local Governments of Organic Agriculture (ALGOA) project, where membership expanded to 55 members in 16 countries in Asia. There has been increasing interest and participation in the project from the local governments in Asia with some local governments expressing interest in the formation of local chapters of ALGOA in their respective countries. For more information see separate chapter on page 198.

About 500 local and foreign participants attended the 2nd IFOAM Asia Organic Congress in May 2017 in Xichong County, Sichuan Province, China, under the theme “Manifesting Local Organic Systems in Asia in the Era of Organic 3.0”.

The Vietnam Organic Agriculture Association became the first IFOAM member in Asia to officially celebrate September 19 as “Organic Day”, as adopted by the participants of the 2nd ALGOA Summit in 2016. The event was officially endorsed by the Ministry of Agriculture and Rural Development of Vietnam.

In September 2018, the 3rd IFOAM Asia Organic Congress will take place with the generous financial support of the city of Bislig and the central government of the Philippines. It will be a week-long celebration with international conferences, cultural events, trade fairs, organic trainings, etc. It will be the largest gathering of the organic sector in Asia in 2018.

Contributors by country

Bangladesh

- Dr. Shaikh Tanveer Hossain, Program Officer, Agriculture Department, Asian Productivity Organization, Japan, e-mail: tanveer107@yahoo.com
- Dr. Md. Khurshid Alam, Bangladesh Agricultural Research Institute (BARI), e-mail khurshidal@hotmail.com

Bhutan

- Pema Zangmo, Agriculture Supervisor-I, National Organic Programme E-mail: pemazangmo@moaf.gov.bt

China

- Zhou Zejiang, Senior Advisor of the Organic Farming Development Centre, (OFDC) and-Ministry of Environmental Protection, e-mail: zejzhou88@yahoo.com

Hong Kong

- Wendy W. C. KO, Senior Agricultural Officer (Crop Development), Agriculture, Fisheries and Conservation Department, e-mail wendy_wc_ko@afcd.gov.hk
- Prof. Jonathan Wong, PhD, Medal of Honour, Justice of the Peace, Director, Hong Kong Organic Resource Centre, e-mail: jwcwong@hkbu.edu.hk

India

- Joy Daniel, Director, Institute of Integrated Rural Development, e-mail: jdaniel@iird.org.in

Iran

- Dr. M. Reza Ardakani, Director, IFOAM-IRAN email: mreza.ardakani@gmail.com

Japan

- Miyoshi Satoko, Global Organic Textile Standard (GOTS) Representative in Japan, e-mail: miyoshi@global-standard.org

Korea

- Manchul Jung, Deputy director, Korea Institute of Rural Social Affairs, e-mail: jungkobe@hanmail.net

Philippines

- Vic Tagupa, Technical officer, League of Organic Agriculture Municipalities & Cities (LOAMC), e-mail: victagupa2016@gmail.com

Thailand

- Vitoon Panyakul, Green net, e-mail: vitoon@greennet.or.th

Vietnam

- Dang Thi Bich Huong – Officer of Vietnam Organic Agriculture Association, e-mail danghuong0990@gmail.com

Working in Partnership with Local Governments - the ALGOA Project

JENNIFER CHANG[1]

Asian Local Governments for Organic Agriculture (ALGOA) is a special project initiated by IFOAM Asia in 2014 in efforts to connect eco-villages in India, Philippines, and South Korea. IFOAM Asia members in these countries have been working with local governments to develop a more holistic and integrated form of organic agriculture development, focusing on the "village" as a whole rather than on individual farmers.

The project was boosted with the financial support of Goesan County, South Korea and with the active participation of a visionary group of local municipal leaders from the Philippines under the "League of Organic Agriculture Municipalities and Cities (LOAMC)". At that time, it was headed by the 2012 One World Award Winner, the Honourable Mayor Jun Pacalioga of Dumingag (Philippines). ALGOA was officially launched on September 19, 2015 in Goesan County, South Korea.

ALGOA is unique as it is an alliance built on cooperation between IFOAM Asia members and local governments in Asia. Any level of government below the central government, which promotes organic agriculture, is eligible to join ALGOA. Central governments or any IFOAM member outside Asia can join as "special members".

Due to the emphasis on mutual collaboration between local governments and IFOAM Asia members, "full membership" (with voting rights) is given, when a local government joins with an IFOAM Asia member or if a local government is endorsed for membership by an IFOAM Asia member who is already an ALGOA member. "Associate membership" is given when a local government or an IFOAM Asia member join on their own.

As of August 2017, membership in ALGOA has increased to 55 members in 16 countries in Asia, including Iran and Kyrgyzstan.

Annual summit

The most important activity of ALGOA is the annual summit, where local governments and IFOAM Asia members meet to learn about the major issues relevant to organic agriculture and share their best practices. Members learn about the diversity of the organic movements, get connected to the bigger international issues, and build relationships.

[1] Jennifer Chang, Vice President of IFOAM Organics International and Executive Director of IFOAM Asia, e-mail jchang2011@gmail.com

For example, members learn how organic farming was successful in building peace in rebel-controlled areas (the "Arms to Farms" project of the municipality of Kasuwagan, Philippines), how a local government manifested policies to mainstream organic farming (Sikkim, India), how a central government aims to create "1000 Organic Villages" (Indonesia), or how a local school meal center was set up (Hongseong County, South Korea).

Memoranda of Understanding (MoU) between ALGOA members

Memoranda of Understanding (MoU) were signed between the ALGOA members, and mutual visits took place, solidifying their networks and relationships. Members were also integrated into international partnerships such as the "Organic Food Systems Partnerships", which recognizes diverse and comprehensive developments of organic agriculture in ALGOA member countries.

Organic agriculture training

Another major activity of ALGOA is the fully-sponsored training in organic agriculture for local government officials and IFOAM Asia members. More than a hundred people in Asia from local governments and IFOAM Asia members have been trained under the ALGOA Organic Foundation Course (OFC) carried out in collaboration with the IFOAM Organic Academy.

IFOAM Asia Organic Youth Forum

An interesting development of the first ALGOA Organic Foundation Course was that the trainees spontaneously decided to group themselves into the IFOAM Asia Organic Youth Forum and since then have been self-organizing and financing their trainings. One thing that was particularly noteworthy about these trainings was their efforts to connect organic pioneers with the younger generation in Asia. Organic pioneers from China, India, Japan, and Korea were invited to give special lectures and testimonials, and these events were very successful in inspiring the younger generation to join the organic movements. Many members of the Youth Forum were also present at the Organic World Congress in Delhi in November 2017.

Asia Organic Day

In 2016, the participants of the 2nd ALGOA Summit adopted September 19th as "Asia Organic Day". Vietnam was the first country to celebrate this day in 2017 with an organic conference and trade fair. In 2018, "Asia Organic Day" will be celebrated in the Philippines with the start of the 3rd IFOAM Asia Organic Congress in Bislig City.

Outlook 2018

From 2018 onwards, ALGOA will also focus on developing policies in support of small and marginal farmers in line with the recent UN Declaration of the "Decade of Family Farming (2019 - 2028)".

Asia: Current statistics

JULIA LERNOUD,[1] HELGA WILLER,[2] AND BERNHARD SCHLATTER[3]

Overview

The area of organic agricultural land in Asia is almost 4.9 million hectares, which is 0.3 percent of the total agricultural area in the region. Nine percent of the global organic agricultural land is in Asia. Since 2001 (420'000 hectares), the organic land has grown over eleven-fold. Between 2015 and 2016, the organic area in Asia increased by over 900'000 hectares or 24 percent. The country with the largest organic agricultural area is China (2.3 million hectares), and the country with the most producers is India (835'000 producers). The countries with the highest organic shares of the total agricultural land are Timor-Leste (7.4 percent) and Sri Lanka (3.5 percent).

Land use

In Asia, 49 percent of all organic farmland was used for arable crops (2.4 million hectares) in 2016, 16 percent (775'500 hectares) for permanent crops, and one percent for grassland/grazing areas (over 32'000 hectares). Land use information was not available for 34 percent of the agricultural land, so we can assume that each category has a larger share of the total organic land.

Cereals comprise the key organic arable crop group (mainly wheat and rice), with over 1 million hectares, representing 0.3 percent of the total cereal area in Asia. Most organic cereals were grown in China (over 811'000 hectares) and Kazakhstan (130'000 hectares, 2012 data). Oilseeds (mainly soybeans) are also an important crop group grown on at least 582'000 hectares (mainly in China and India) and represented 1 percent of the total oilseed area in Asia. The key organic cereals were rice, wheat and grain maize. Organic rice represented almost 36 percent of the total organic cereal area and, together with wheat (26 percent) and grain maize (18 percent), represented almost 80 percent of the total organic cereal area in Asia. Organic rice was mainly grown in China (almost 276'000 hectares), constituting 75 percent of the total organic rice in the region. The largest organic wheat areas were in China (147'000 hectares) followed by Kazakhstan (almost 120'000 hectares), representing almost all of the total organic wheat area in Asia.

Most of the organic permanent crop land was used for coconuts (over 199'000 hectares), coffee (almost 112'000 hectares), temperate fruit (almost 100'000 hectares), and tea (93'000 hectares). The Philippines had the largest organic coconut area, with almost 150'000 hectares, representing over 75 percent of the total organic coconut area of the region. Most of the organic coffee in Asia was grown in Indonesia, where over

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

82'000 hectares were reported, followed by Timor-Leste (28'000 hectares); both countries represented 97 percent of the organic coffee area in Asia. Organic coffee represented 4.4 percent of the total coffee in Asia. Almost 2.6 percent of the total tea grown in Asia was organic; most of it was in China (79'000 hectares) followed by Myanmar (3'500 hectares).

Producers

In 2016, 1.1 million organic producers were reported in Asia. India is the country with the most organic producers (835'000), followed by the Philippines (almost 166'000). Unfortunately, many countries do not report the number of producers or only report the number of companies; thus it is assumed that the number of producers is higher. Since 2004, when there were 100'000 organic producers, the number has increased over eleven-fold.

Wild collection

In 2016, 6.3 million hectares of organic wild collection were reported in Asia. Unfortunately, detailed data is available for less than 10 percent of the reported area. From the details available, wild mushrooms (197'000 hectares) and wild oil plants (almost 119'000 hectares) are the key commodities. Furthermore, medicinal plants (almost 60'000 hectares) and wild fruits (almost 50'000 hectares) play an important role. India is the country in the region with the largest organic wild collection area, with 4.2 million hectares, followed by Tajikistan (1 million hectares), and China (0.8 million hectares).

Market

In Asia, organic market data is not available for most of the countries, but we can assume that the market is continually growing. Seven countries (less than 20 percent of the countries with organic data) provided organic retail sales values (Table 13, page 70). From the data available, we can assume that at least 7.3 billion euros of organic products were sold in Asia. For China, 5.9 billion euros were reported for 2016, making the country the world's fourth largest market for organic products. Furthermore, Japan has a large organic domestic market valued, 1 billion euros (data 2009), and South Korea reported a market of 281 million euros (2015 data). More information about the Asian market is available in the chapter about the global market from Amarjit Sahota (page 146).

For more information about the Asian figures, see data tables for Asia, page 204.

Organic Agriculture in Asia: Graphs

Asia: The ten countries with the largest organic area 2016
Source: FiBL survey 2018

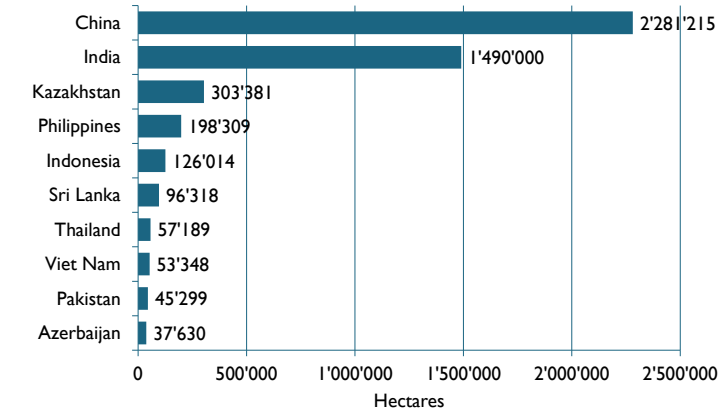


Figure 64: Asia: The ten countries with the largest organic agricultural area 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Asia: The countries with the highest organic share of total agricultural land 2016
Source: FiBL survey 2018

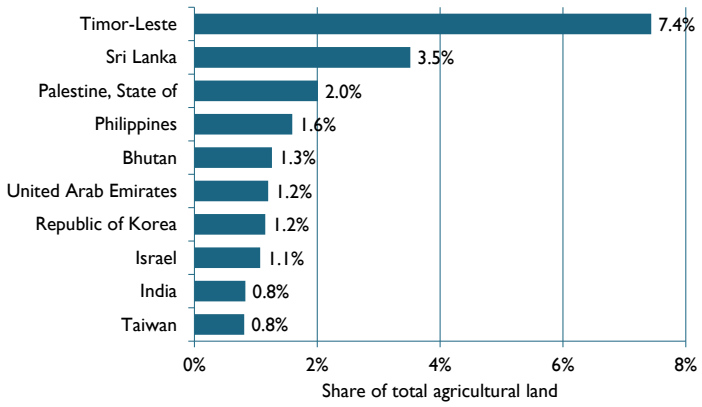


Figure 65: Asia: The countries with the highest organic share of total agricultural land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Asia: Development of organic agricultural land 2000 to 2016

Source: FiBL-IFOAM-SOEL-Surveys 2002-2018

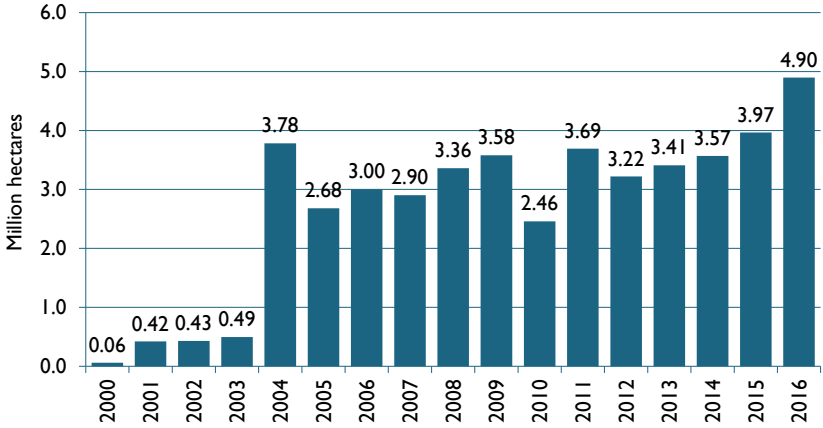


Figure 66: Asia: Development of organic agricultural land 2000 to 2016

Source: FiBL-IFOAM-SOEL surveys 2002-2018; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

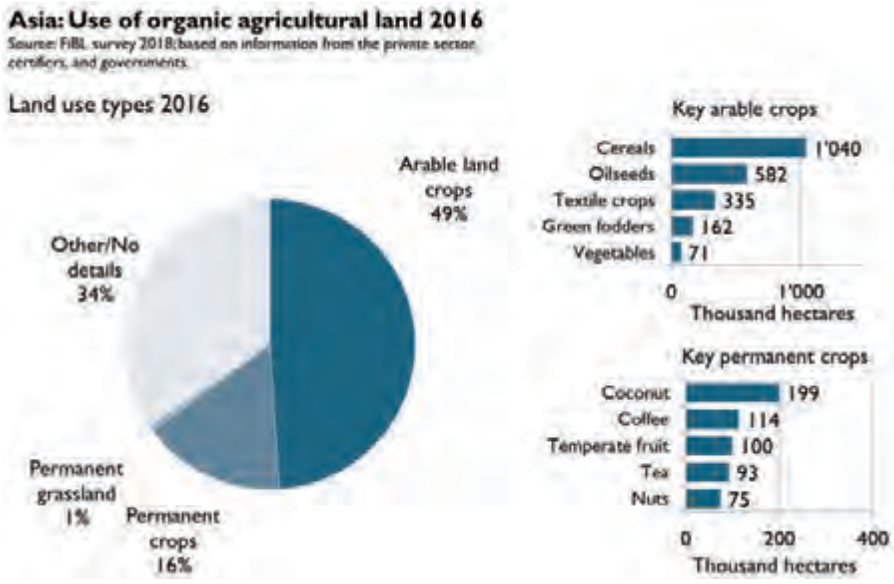


Figure 67: Asia: Use of organic agricultural land 2018

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Organic Agriculture in Asia: Tables

Table 48: Asia: Organic agricultural land, organic share of total agricultural land, and number of producers 2016

For information on data year, see page 326.

Country	Area [ha]	Organic share [%]	Producers [no.]
Afghanistan	408	0.001%	
Armenia	1'240	0.1%	16
Azerbaijan	37'630	0.8%	305
Bangladesh	6'860	0.1%	9'335
Bhutan	6'632	1.3%	4'293
Brunei Darussalam		Wild collection	
Cambodia	9'717	0.2%	6'753
China	2'281'215	0.4%	6'308
Georgia	1'452	0.1%	1'075
Hong Kong		Processing	
India	1'490'000	0.8%	835'000
Indonesia	126'014	0.2%	5'810
Iran	18'871	0.04%	3'879
Iraq	60	0.001%	
Israel	5'758	1.1%	303
Japan	9'956	0.2%	2'130
Jordan	1'517	0.1%	19
Kazakhstan	303'381	0.1%	29
Kuwait	20	0.01%	
Kyrgyzstan	7'974	0.1%	1'427
Lao, P.D.R.	7'668	0.3%	1'342
Lebanon	1'079	0.2%	101
Malaysia	603	0.01%	119
Myanmar	4'568	0.04%	12
Nepal	9'361	0.2%	687
Oman	38	0.003%	4
Pakistan	45'299	0.1%	111
Palestine, State of	5'993	2.0%	1'553
Philippines	198'309	1.6%	165'994
Republic of Korea	20'165	1.2%	12'896
Saudi Arabia	17'212	0.01%	151
Singapore		Processing	
Sri Lanka	96'318	3.5%	8'713
Syrian Arab Republic	19'987	0.1%	2'458
Taiwan	6'490	0.8%	2'598
Tajikistan	12'659	0.3%	10'486
Thailand	57'189	0.3%	15'670
Timor-Leste	28'259	7.4%	4
United Arab Emirates	4'590	1.2%	92
Uzbekistan		Wild collection	
Viet Nam	53'348	0.5%	8'365
Total*	**4'897'837**	**0.3%**	**1'108'040**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
**Total number includes data for countries with less than three operators.*

Table 49: Asia: All organic areas 2016

Country	Agri-culture [ha]	Aqua-culture [ha]	Forest [ha]	Wild collection [ha]	Other non agri. land [ha]	Total [ha]
Afghanistan	408					408
Armenia	1'240			6'000		7'240
Azerbaijan	37'630	123	123	1'063		38'939
Bangladesh	6'860	5'848				12'708
Bhutan	6'632			15'787		22'419
Brunei Darussalam		29				29
Cambodia	9'717					9'717
China	2'281'215			811'680		3'092'895
Georgia	1'452			215	1'507	3'174
Hong Kong			Processing			
India	1'490'000			4'220'000		5'710'000
Indonesia	126'014	3'320		10'700		140'034
Iran	18'871			30'502		49'373
Iraq	60					60
Israel	5'758					5'758
Japan	9'956					9'956
Jordan	1'517					1'517
Kazakhstan	303'381			863		304'244
Kuwait	20					20
Kyrgyzstan	7'974			10		7'983
Lao, P. D. R.	7'668			17'068		24'736
Lebanon	1'079			393		1'472
Malaysia	603					603
Myanmar	4'568					4'568
Nepal	9'361			24'422		33'783
Oman	38					38
Pakistan	45'299			44'620		89'919
Palestine, State of	5'993					5'993
Philippines	198'309					198'309
Republic of Korea	20'165					20'165
Saudi Arabia	17'212					17'212
Singapore			Processing			
Sri Lanka	96'318					96'318
Syrian Arab Republic	19'987			8'000		27'987
Taiwan	6'490					6'490
Tajikistan	12'659			1'055'890		1'068'549
Thailand	57'189	662				57'851
Timor-Leste	28'259					28'259
United Arab Emirates	4'590					4'590
Uzbekistan				5'000		5'000
Viet Nam	53'348	58'199		7'208		118'755
Total	**4'897'837**	**68'181**	**123**	**6'259'421**	**1'507**	**11'227'069**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 50: Asia: Land use in organic agriculture (fully converted and in conversion) 2016

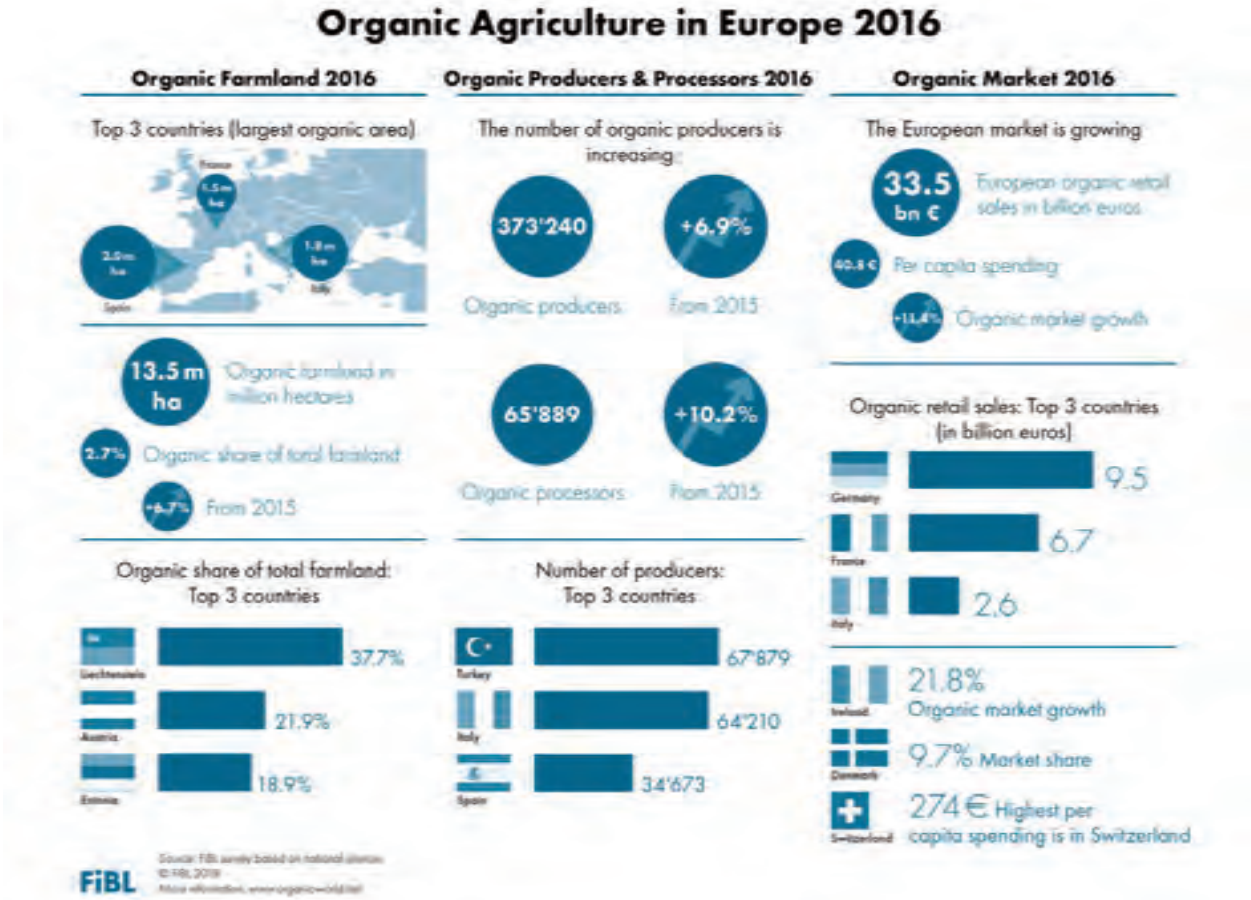
Land use	Crop group	Area [ha]
Agricultural land, no details		1'678'699
Arable land crops	Arable crops, no details	13'086
	Cereals	1'039'718
	Dry pulses	18'545
	Fallow land, crop rotation	57'995
	Flowers and ornamental plants	12'792
	Green fodders from arable land	161'550
	Medicinal and aromatic plants	39'498
	Mushrooms and truffles	2'546
	Oilseeds	582'069
	Root crops	14'757
	Seeds and seedlings	68
	Strawberries	623
	Sugarcane	6'045
	Textile crops	335'190
	Vegetables	71'442
	Arable crops, other	42'944
Arable land crops total		*2'398'867*
Cropland, no details		12'014
Other agricultural land	Home gardens	94
	Unutilised land	27
	Other agricultural land, no details	499
Other agricultural land total		*620*
Permanent crops	Berries	113
	Citrus fruit	14'853
	Cocoa	2'765
	Coconut	199'268
	Coffee	113'901
	Flowers and ornamental plants, permanent	20
	Fruit, no details	10
	Fruit, temperate	99'776
	Fruit, tropical and subtropical	70'308
	Grapes	22'596
	Medicinal and aromatic plants, permanent	21'306
	Nuts	75'105
	Olives	7'233
	Tea/mate, etc.	92'870
	Permanent crops, other	55'371
Permanent crops total		*775'494*
Permanent grassland		32'144
Total		**4'897'837**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 51: Asia: Use of wild collection areas 2016

Land use	Area [ha]
Apiculture	14'489
Berries, wild	161
Fruit, wild	48'987
Medicinal and aromatic plants, wild	58'626
Mushrooms, wild	197'104
Nuts, wild	70'038
Oil plants, wild	118'935
Palm sugar	1'087
Rose hips, wild	10
Seaweed	320
Wild collection, no details	5'749'664
Total	**6'259'421**

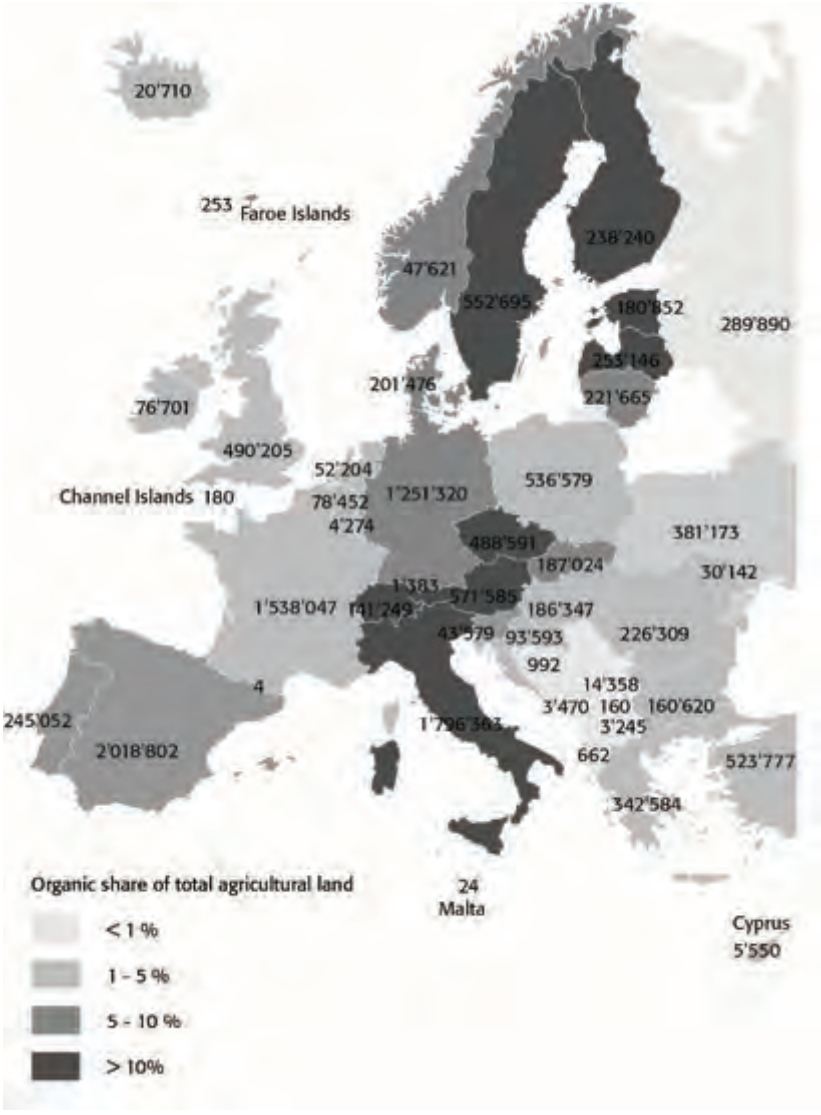
Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330



Infographic 5: Organic agriculture in Europe: Key indicators 2016

Source: FiBL-AMI survey 2018

Europe



Map 4: Organic agricultural land in the countries of Europe 2016 (in hectares)

Source: FiBL-AMI survey 2018; based on information from the private sector, certifiers, governments, Eurostat and the Mediterranean Organic Agriculture Network. For detailed data sources see annex, page 330.

Organic in Europe: Prospects and Developments

Helga Willer,[1] Stephen Meredtih,[2] Bram Moeskops,[3] and Emanuele Busacca[4]

In 2016/2017 the European organic food and farming sector continued to excel both in terms of organic production and market growth as well as the latest developments in European Union (EU) food and farming policy. Data for 2016 (for full data see page 218) shows the European organic food market recording significant growth – increasing by 11.4 percent (EU: 12.0 percent). At the same time, the organic sector faces a number of challenges, notably that the growth rates in organic production continue to lag behind the dynamic growth seen within the organic food market (Figure 68). In the public policy arena at the EU level, there are some opportunities for the organic sector to capitalise on the growing awareness and interest in tackling sustainability concerns in the agri-food sector amongst policymakers, but there are also challenges. These prospects and developments for organic in Europe are explored in this chapter.

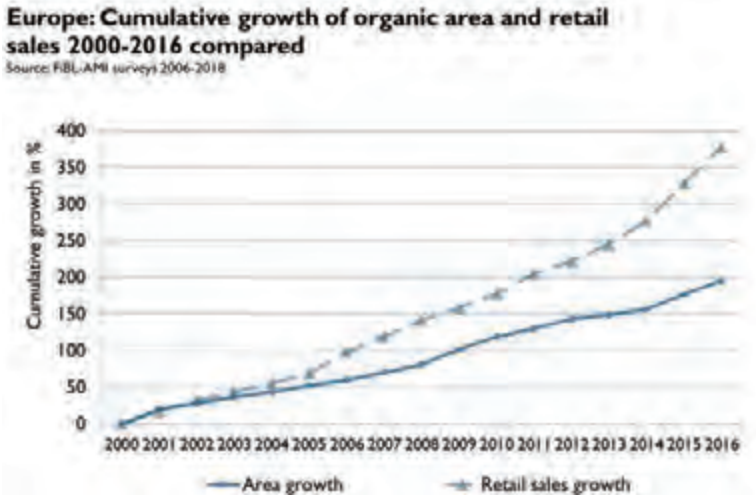


Figure 68: Europe and the European Union: Cumulative growth of organic farmland and retail sales compared 2000-2016

Source: FiBL-AMI surveys 2006-2018

[1] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Stephen Meredith, Deputy Policy Manager, International Federation of Organic Agriculture Movements EU (IFOAM EU), Brussels, Belgium, www.ifoam-eu.org
[3] Bram Moeskops, Research and Innovation Manager, International Federation of Organic Agriculture Movements EU (IFOAM EU), Brussels, Belgium, www.ifoam-eu.org
[4] Emanuele Busacca, IFOAM EU, Brussels, Belgium, www.ifoam-eu.org

EU policy and regulatory framework for the organic sector

The EU policy and regulatory framework continues to influence the development of organic food and farming across Europe with some notable developments in 2017.

Negotiations on the EU organic rules start to draw to a close

In 2017, EU negotiations on the review of the EU organic regulation started to draw to a close, four years after the European Commission launched its legislative proposals. The basic text has been approved, and will contain some changes to the rules on production, controls, and imports. Some of these include:

Production

- the scope of organically certified products has been enlarged to include products such as cotton, wool, hides but also sea salt and other salts for food and feed;
- the use of "heterogeneous" plant reproductive material will be allowed;
- food containing or consisting of engineered nanomaterial will be excluded.

Controls

- Operators, who sell pre-packed organic products, will be exempt from notification and certification for distribution. Operators that sell small amounts of unpacked organic products may also be exempt from certification for distribution.
- All operators will be subject to a physical on the spot inspection at least once a year. However, operators, for which previous controls have not revealed any non-compliance affecting the integrity of organic products during the last three years, and operators, which are considered as presenting a low likelihood of non-compliance, can be verified every 24 months.

Imports

- The import regime will be based on two systems with a transitional period considered for the current systems. The new system will only include Trade Agreements with Third Countries and the recognition of Control Bodies/Authorities for the purpose of compliance.
- The European Commission will have the possibility to grant specific authorisations for the use of products and substances in third countries and outermost regions of the Union, taking into account differences in the ecological balance in plant or animal production, specific climatic conditions, traditions and local conditions in these areas. Such specific authorisations may be granted for a renewable period of two years.

The new EU organic regulation will apply from 2021. It will be accompanied by more detailed requirements, which will be discussed by relevant EU institutions and subsequently, adopted over the next two years. Although many of the recommendations of the organic sector were taken up in the final text, IFOAM EU considers that the current basic text is still far from ideal. It therefore called on the EU

Institutions to address the important weaknesses that still exist to ensure the long-term development of the organic sector in Europe (IFOAM EU, 2017a).

Debate about the future of the Common Agricultural Policy kicks-off

Discussions on the direction of the future of the Common Agricultural Policy (CAP) Post-2020 officially kicked-off in February 2017 with the launch of a public consultation by the Commission. This culminated in the publication of a Commission Communication on the Future of Food and Farming to the other EU Institutions, including the European Parliament and Council in November (European Commission, 2017a). The Communication draws on key results from the public consultation, which saw a majority of farmers and citizens expressing the need for agricultural policy to deliver more for the environment and climate change, and for farmers to continue to receive direct income support (ECORYS, 2017). In the document the Commission outlines its perspectives on the future direction of the CAP setting out three overarching objectives for the next reform:

- to foster a smart and resilient agricultural sector;
- to bolster environmental care and climate action and to contribute to the environmental and climate objectives of the EU;
- to strengthening the socio-economic fabric of rural areas.

The communication puts a strong emphasis on the establishment of a more results-based approach for the CAP, including a new delivery model which would place more responsibility on Member States to meet EU objectives and achieve specific targets. The Commission foresees Member States developing their individual "CAP strategic plans," with "realistic" and "adequate" targets agreed between the Commission and Member States. The overall direction of the Communication is grounded on the Commission's current outlook of moving the EU's budgetary spending across different sectors towards more results-based outcomes Post-2020.

Some aspects of the document were welcomed by the organic sector as offering some possibilities for improvement on the current policy. However, the Communication was seen by the organic sector to lack a clear and common EU approach to realise the Commission's wider intentions of shifting towards more sustainable growth models as part of next EU Budget reform. In particular, IFOAM EU highlighted that despite the increasing pressure for a more results-orientated CAP, no explicit link is made between the amount of income support farmers received an the contribution of their farm to delivering environmental and socio-economic outcomes. It also pointed out that the Commission's outlook does not decisively prioritise the growth of sustainable farming systems, such as organic farming (IFOAM EU, 2017b). In its vision for the CAP Post-2020, IFOAM EU has called for a new deal between farmers and citizens with the concept of public money for public goods. IFOAM EU maintains that while improvements to the CAP have been made over the past decades, sustainability is still not at the core of the policy, making it ill-equipped to address the wide range of economic, social and environmental challenges facing the agri-food sector. Based on this assessment, the group points to the need to orient future CAP payments towards

rewarding and incentivising farmers willing to deliver a wide range of environmental and socio-economic benefits that are not fully taken into account by the majority of markets (IFOAM EU, 2017c).

Over the last decades, the CAP has been the key policy for the development of organic farming in Europe. Currently, Commission figures project that over 10 million hectares of farmland will be supported under the CAP 2014-2020 through the EU's national and regional rural development programmes. Current spending for organic conversion and maintenance payments accounts for 1.5 percent of EU agricultural spending for that period. In terms of future growth, these figures suggest that there are limited opportunities under the CAP to significantly increase the organic land area by 2020 in the majority of countries (Stolze et al. 2016). Indeed it is notable that despite dynamic growth in the European organic retail market and the public consultation results showing strong interest amongst respondents for organic farming to be a new objective of a modernised CAP, prospects for the development of the organic food and farming sector are largely ignored.

Discussions on the future of food and farming are also strongly linked to the debate on the future of the EU budget with the CAP representing about 40 percent of EU spending. Following the launch of a Reflection Paper on the future of EU finances by the Commission in June 2017 (European Commission, 2017b), these discussions are already in full swing with both legislative proposals of the Budget and the CAP expected in the second half of 2018.

This along with a new European Commission and Parliament in 2019 means that the next years will be a critical period for the organic sector to work with policymakers and other agri-food stakeholders to use the debate on the future CAP as a means to decisively support the development of organic food and farming in Europe.

Research

Organic farming research is funded under national research programs or national organic action plans as well as through European programmes.[1] Several organic farming research projects have been funded under the EU framework programmes since the mid-1990s. So far, the following projects in the current framework programme (Horizon 2020), focussing on organic agriculture have started: OK-Net Arable, OK-Net EcoFeed (see more information below), and LIVESEED (organic seed and plant breeding). RELACS, which will investigate alternatives for contentious inputs used in organic farming, will start in spring 2018. A new project addressing animal welfare in organic farming is expected to start in 2019.

Under CORE Organic, a new call for projects was launched in 2016. CORE Organic was initiated as a part of the Commission's ERA-NET Scheme in 2004. It intends to step up cooperation between national research activities and aims to enhance the

[1] For a list of organic farming research projects funded by the European Commission, see http://www.organic-research.org/european-projects.html

quality, relevance, and utilisation of European research resources through coordination and collaboration.

OK-Net platforms for farmers to exchange knowledge

In October 2016, the Horizon 2020-funded "OK-Net Arable" project launched the new knowledge platform farmknowledge.org, which aims to promote the exchange of information and share practical solutions among farmers across Europe. The platform is available in ten languages, and the solutions are divided according to the most relevant topics in organic arable farming: soil quality and fertility, nutrient management, pest and disease control, weed management, and solutions for specific crops. Within a new European-funded project, "OK-Net Ecofeed", the platform will now be expanded to cover tools and solutions related to organic feed for pigs and poultry.

National and international meetings of farmers, researchers, and other actors in the sector for knowledge exchange have been gaining in importance in recent years. The French "Tech and Bio" and the Swiss organic arable day ("Bioackerbautag") have taken place for several years now. A similar event took place in 2017 in Germany: In June 2017, more than 8000 visitors attended the first nationwide Organic Field Days near Kassel in the centre of Germany. More than 200 companies, associations, and organisations presented what they have to offer in the organic agriculture arena. Most exhibitors were from the sectors of agricultural engineering, inputs, and seeds/vegetative propagation material. Eleven additional categories ranging from consultancy to research and certification all the way to animal husbandry and marketing were present. The Organic Field Days provided information about how organic farms can further develop. Central themes were organic breeding, nutrient management, and reduced tillage, as well as agriculture and nature conservation.

Science Day 2017 at Biofach

On February 17, 2017, the fifth Science Day took place at BIOFACH, the World Organic Trade Fair, in Nuremberg, Germany. It was a joint event of TIPI, IFOAM's Technology Innovation Platform and TP Organics, the European Technology Platform for Organic Food and Farming. The morning session was devoted to the review of TP Organics' achievements in the wake of its 10th anniversary and the development of a new long-term strategy. The participants had the chance to put forward their priorities for TP Organics' advocacy work and suggestions for improving services for members. The outcomes of the workshop were taken as a basis to develop a new long-term strategy for the platform which was presented at the Organic Innovation Days (see below). TIPI organized the afternoon session, which focussed on identifying the research gaps in organic food and farming systems in the context of international cooperation. Participants suggested several simple and cost-efficient tools to follow up on the ideas expressed at the event (TIPI 2017).

TP Organics

On 15-17 November, 2017, the third edition of the Organic Innovation Days was organised by TP Organics[1] in Brussels. The event gathered actors from the organic and conventional food and farming sectors as well as policy-makers to discuss the latest innovations in agriculture and food, in organic food and farming and beyond. The 2017 edition included the final conference of the Horizon 2020 project OK-Net Arable. Best practices to improve yields in organic farming were presented, followed by a discussion on knowledge exchange and innovation support in organic farming.

At the event, TP Organics launched its position paper "Research and Innovation for Sustainable Food and Farming" outlining what it would like to see in terms of the 9th EU Research & Innovation Framework Programme (FP9), which will start in 2021. TP Organics calls for the UN Sustainable Development Goals to be the basis for the next Framework Programme's architecture. FP9 should feature a mission for the transformation of the European food and farming system towards more sustainability with at least 50 percent of EU agricultural land managed according to organic and agroecological principles by 2030. Furthermore, 10 percent of the total budget for agricultural research should be dedicated to the organic sector.

FiBL Europe

In July 2017, FiBL Europe was founded in Brussels as an umbrella organisation representing the five national institutes of the Research Institute of Organic Agriculture FiBL. Currently, FiBL Europe works on themes such as a European input list as well as the OrganicXSeeds database for organic seeds and propagation materials.

Organic Roadmap for Sustainable Food and Farming

The latest production and market trends and policy developments at the EU level demonstrate the important role that organic food and farming continues to play in helping to move European food and farming in a more sustainable direction both as an economic actor and as part of a wider social movement. As part of these efforts, the "Organic Roadmap to Sustainable Food and Farming Systems in Europe" by IFOAM EU was presented at the 11th European Organic Congress in September 2017 in Tallin, Estonia (IFOAM EU, 2017d). It sets out pathways for how the organic movement, other farming actors and policymakers can reach the Organic Vision 2030 (IFOAM EU, 2015) across three cross-cutting themes: "Organic on every table," "Improve, inspire and deliver," and "Fair play - fair pay." The roadmap serves as an invitation to all agri-food actors to engage with the organic sector to actively transform food and farming in their day to day work in Europe and beyond. The launch of the roadmap was also accompanied by the establishment of a new online platform, EUORGANIC2030.bio, to promote new and exciting initiatives which can support the Organic Vision 2030.

[1] TP Organics is the European Technology Platform for organic food and farming. More information is available on tporganics.eu

References and further reading

ECORYS (2017): Modernising and Simplifying the Common Agricultural Policy: Summary of the results of the public consultation for European Commission DG AGRI, 07 July 2017, revised 06 September, Available at: ec.europa.eu/agriculture/sites/agriculture/files/consultations/cap-modernising/summary-public-consul.pdf

European Commission (2016): New rules for electronic certification of EU organic imports. News of October 19, 2016. Website of the European Commission, Brussels Available at https://ec.europa.eu/agriculture/newsroom/302_en

European Commission (2017a): The Future of Food and Farming - Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - The Future of food and farming, COM (2017) 0713 final. Available at: http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2017:713:FIN

European Commission (2017b): Reflection Paper on the Future of EU Finances, COM(2017) 358. Available at: ec.europa.eu/commission/sites/beta-political/files/reflection-paper-eu-finances_en.pdf

FiBL (2017): European organic farming research projects. The Organic-Research website. Research Institute of Organic Agriculture FiBL, Frick. Available at http://www.organic-research.net/transnational-projects/european-projects.html. Date given on website: January 10, 2015

IFOAM EU (2015): Transforming Food and Farming. An organic vision for Europe 2030. IFOAM EU Group, Brussels. Available at: www.ifoam-eu.org/sites/default/files/413-ifoam-vision-web.pdf

IFOAM EU (2017a): Strong Institutional commitment needed to ensure a good legislative transition. IFOAM EU Press Release. IFOAM EU, Brussels, Available at: www.ifoam-eu.org/sites/default/files/ifoameu_regulation_press_release_20171122.pdf

IFOAM EU (2017b): CAP Communication: EU agriculture needs clearer direction for long-term sustainability. IFOAM EU Press Release. IFOAM EU, Brussels, Available at: www.ifoam-eu.org/en/news/2017/11/29/press-release-cap-communication-eu-agriculture-needs-clearer-direction-long-term

IFOAM EU (2017c): A CAP for healthy farms, healthy people, healthy planet. Public money must deliver public goods. IFOAM EU, Brussels. Available at: www.ifoam-eu.org/sites/default/files/ifoameu_policy_cap_post_2020_vision_paper_201701.pdf

IFOAM EU (2017d): Transforming Food and Farming – Making it Happen: An Organic Roadmap to Sustainable Food and Farming Systems in Europe. IFOAM EU Group, Brussels. Available at: www.euorganic2030.bio

Stolze, M., Sanders, J., Kasperczyk, N., Madsen, G., (2016): CAP 2014-2020: Organic farming and the prospects for stimulating public goods. IFOAM EU Group, Brussels

TIPI – Technology Platform of IFOAM - Organics International (2017): Science Day 2017 at BIOFACH. The website of the Research Institute of Organic Agriculture, Frick. Available at http://www.fibl.org/en/service-en/news-archive/news/article/report-from-science-day-2017-at-biofach.html

Websites

- ec.europa.eu/agriculture/future-cap_en : European Commission on the CAP reform
- ec.europa.eu/agriculture/organic/index_en: European Commission's organic farming website
- ifoam-eu.org: International Federation of Organic Agriculture Movements EU - IFOAM EU
- organic-market.info: Market News and updates: www.organic-market.info
- tipi.ifoam.org: Technology Innovation Platform of IFOAM (TIPI)
- tporganics.eu: European Technology Platform TP Organics
- www.ok-net-arable.eu*: OK-Arable Net*
- www.liveseed.eu: LIVESEED

Europe and the European Union: Key indicators 2016

Table 52: Europe and the European Union: Key indicators 2016

Indicator	Europe	European Union	Top 3 countries Europe
Organic farmland in hectares	13.5 million ha	12.1 million ha	Spain (2.0 million ha) Italy (1.8 million ha) France (1.5 million ha)
Organic share of total farmland	2.7 %	6.7 %	Liechtenstein (37.7%) Austria (21.9%) Estonia (18.9%)
Increase of organic farmland 2015-2016 in hectares	845'232 ha	912'746 ha	Italy (+303'071.0 ha) France (+215'845 ha) Germany (+162'482 ha)
Relative increase of organic farmland 2015-2016	6.7%	8.2%	Iceland (+ 132%) Bosnia and Herzegovina (+72%) Macedonia, FYROM (+49%)
Land use [in million hectares]	Arable crops: 6.0 Permanent crops: 1.5 Permanent pastures: 5.6	Arable crops: 5.2 Permanent crops 1.3 Permanent pastures: 5.5	
Top arable crops	Cereals: 2.3 million ha; Green fodder: 2.3 million ha Dry pules: 0.4 million ha	Green fodder: 2.1 million ha Cereals:1.9 million ha Dry pules: 0.4 million ha	Largest arable areas: France (0.8 million ha) Italy (0.8 million ha) Germany (0.5 million ha)
Top permanent crops	Olives: 0.6 million ha Grapes: 0.3 million ha Nuts: 0.3 million ha	Olives: 0.5 million ha Grapes: 0.3 million ha Nuts: 0.2 million ha	Largest permanent crop areas: Spain (0.5 million ha) Italy (0.4 million ha) Turkey (0.2 million ha)
Wild collection area	16.7 million ha	14.3 million ha	Finland (11.6 million ha) Romania (1.8 million ha; 2014) Bulgaria: (0.9 million ha)
Producers [no.]	373'240	295'123	Turkey: (67'879) Italy (64'210) Spain (34'673)
Processors [no.]	65'889	62'652	Italy (16'578) Germany (14'501) France (12'826)
Importers [no.]	4'657	3'968	Germany (1'598) Switzerland (501) Netherlands (364)
Retail sales	33.5 billion euros	30.7 billion euros	Germany (9'478 million euros) France (6'736 million euros) Italy (2'644 million euros)
Growth of retail sales 2015-2016	11.4%	12.0%	France, Ireland (22 %) Denmark (20 %)
Organic share of total market	No data	No data	Denmark (9.7 %) Luxembourg (8.6%) Switzerland (8.4 %)
Per capita consumption [euros]	40.8 euros	60.5 euros	Switzerland (274 euros); Denmark (227 euros) Sweden (197 euros)

Source: FiBL-AMI survey 2018.
For detailed data sources see annex.

Organic Farming and Market Development in Europe and the European Union

HELGA WILLER,[1] DIANA SCHAACK,[2] AND JULIA LERNOUD[3]

This chapter is an update of the article "Growth trends in European organic food and farming", published by IFOAM EU and the Research Institute of Organic Agriculture FiBL in the volume "Organic in Europe, 2016" (Willer et al. 2016). Therefore, the structure of this chapter is different from the other regional statistics chapters in this book. The article focuses on Europe as a whole[4] and the 28 member states of the European Union (EU-28).[5]

Data collection in Europe, like in the rest of the world, is carried out using multiple information sources. We would, however, like to point out that Eurostat, the statistical office of the European Union, is constantly expanding its data collection effort in the field of organic agriculture, and most of the data on organic areas, livestock, and operators was taken from Eurostat. The Eurostat organic farming statistics are available at

- ec.europa.eu/eurostat/web/agriculture > Database > Organic farming
- ec.europa.eu/eurostat/statistics-explained/index.php/Organic_farming_statistics

For market data, data from the private sector, market research companies, or statistical offices are used.

The development of the European and the European Union's organic sector in 2016 was characterized by two trends. On the one hand, the market showed a double-digit growth rate again (11.4 percent in Europe; 12 percent in the European Union). On the other hand, organic farmland growth continued to be slower than that of the market, but it was considerably faster than in the previous years, increasing by 6.7 percent in Europe and 8.2 percent in the European Union. The trend of the market growing at a faster rate than the area (Figure 68) has been occurring for several years, showing that production is still not keeping pace with consumer demand.

---

[1] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Diana Schaack, Agrarmarkt Informations-Gesellschaft mbH, Bonn, Germany, www.ami-informiert.de
[3] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[4] Europe consists of the 28 countries of the European Union, the EU Candidate and Potential Candidate countries (CPC: Albania, Bosnia-Herzegovina, Kosovo, Macedonia FYROM, Montenegro, Serbia, Turkey), the members of the European Free Trade Association (EFTA: Iceland, Norway, Liechtenstein, Switzerland), as well as other European countries: Andorra, Belarus, Moldova, Russian Federation, San Marino and Ukraine.
[5] The 28 member states of the European Union consist of the EU-13 countries, which became members of the European Union in or after May 2004, and of the EU-15 countries, who were member countries of the European Union prior to the accession of ten candidate countries on May 1, 2004.

1 Production and market highlights

- In Europe, **13.5 million hectares were organic in 2016** (European Union: 12.1 million hectares). With more than 2 million hectares, Spain continues to be the country with the largest organic area in Europe, followed by Italy (1.8 million hectares) and France (1.5 million hectares).
- The organic land increased by almost one million hectares in Europe and in the European Union, representing **an increase of 6.7 percent in Europe** and 8.2 percent in the European Union. Growth was higher than in 2015 and substantially higher than in the first years of the current decade. In the decade 2007-2016, organic agricultural land increased by two thirds.
- **Organic farmland in Europe constitutes 2.7 percent of the total agricultural land** and 6.7 percent in the European Union. In Europe (and globally), Liechtenstein has the highest organic share of all farmland (37.7 percent) followed by Austria, the country in the European Union with the highest organic share of agricultural land (21.9 percent).
- There were more than **370'000 organic producers in Europe** (European Union: almost 300'000), and the largest numbers were in Turkey (almost 68'000) and Italy (more than 64'000). While the number of producers grew by 7 percent in Europe (10 percent in the European Union) in 2016, growth was 76 percent in Europe and 58 percent in the European Union during 2007-2016.
- There were **almost 66'000 organic processors in Europe** and almost 63'000 in the European Union. Almost 4'700 importers were counted in Europe and almost 4'000 in the European Union. Particularly strong growth was noted for importers, which increased by double digits in both Europe and the European Union. The country with the largest number of processors was Italy (almost 17'000), while Germany had the most importers (almost 1'600).
- **Organic retail sales in Europe were valued at 33.5 billion euros** (30.7 billion euros in the European Union). The European Union represents the second largest single market for organic products in the world after the United States.
- **The European organic market recorded a growth rate of 11.4 percent** (European Union: 12 percent), which is the second time retail sales have shown a double-digit growth rate since the financial crisis. Among the key markets, the highest growth was observed in France (22 percent). In the decade 2007-2016, the value of European and European Union markets has more than doubled.
- **European consumers spent 41 euros on organic food per person** (European Union: 61 euros). Per capita consumer spending on organic food has doubled in the last decade. The Swiss spent the most money on organic food (274 euros per capita).
- Globally, European countries account for the highest shares of organic food sales as a percentage of their respective food markets. **Denmark has the highest organic market share (9.7 percent)**.

2 Organic agricultural land

Table 53: Europe: Organic agricultural land in Europe and the European Union

	Organic area [million ha]	Organic share [%]	Increase 2015-2016 [%]	Increase 2015-2016 [million ha]	Increase 2007-2016 [%]	Increase 2007-2016 [million ha]
European Union	12.1	6.7%	8.2%	0.91	68%	4.9
Europe	13.5	2.7%	6.7%	0.85	68%	5.7

Source: FiBL-AMI survey based on Eurostat and national data sources. For country details, see Table 60.

2.1 Organic agricultural land

In 2016, 13.5 million hectares were farmed organically in Europe and almost 12.1 million hectares in the European Union (Table 53). Almost 90 percent of Europe's organic farmland is in the European Union. The countries with the largest areas of organic land are Spain, Italy, France, Germany, and Poland; half of Europe's organic farmland is in these countries (Figure 69, Figure 70). Almost one-quarter of the world's organic farmland is in Europe.

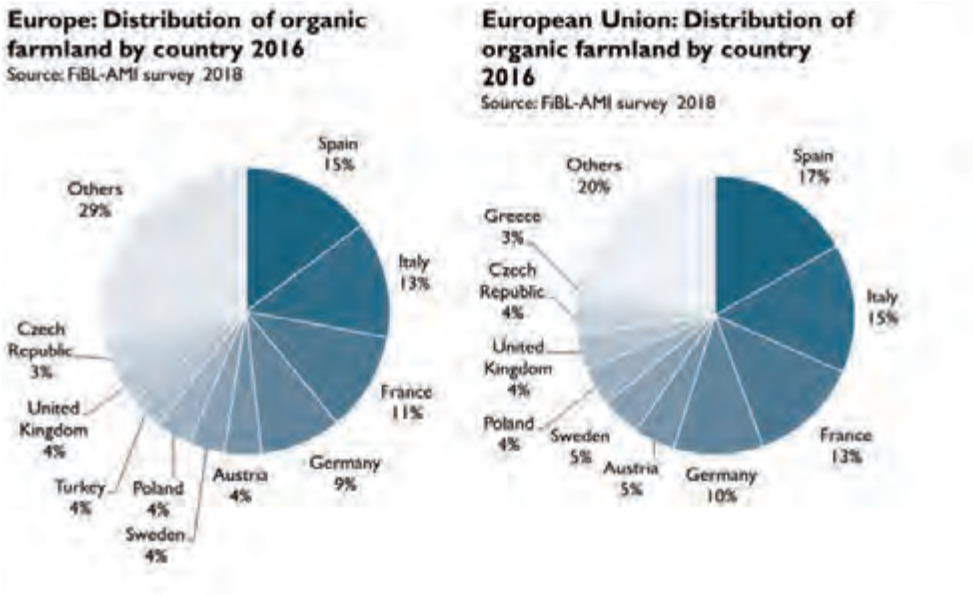


Figure 69: Europe: Distribution of organic farmland by country 2016

Source: FiBL-AMI survey 2018 based on national data sources and Eurostat
For detailed data sources see annex, page 330.

Europe: Organic agricultural land by country 2016

Source: FiBL-AMI survey 2018

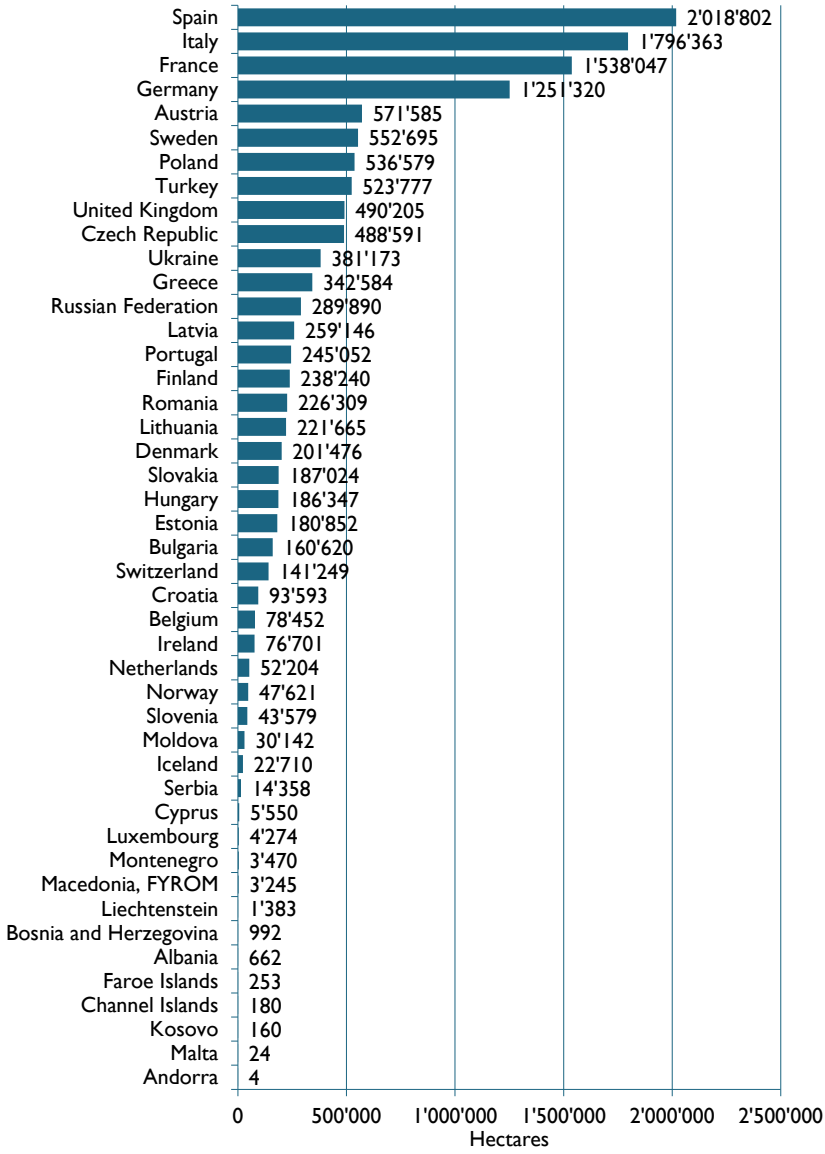


Figure 70: Europe: Organic agricultural land by country 2016

Source: FiBL-AMI survey 2018 based on Eurostat national data sources.
For detailed data sources see annex.

2.2 Organic shares of total agricultural land

In Europe, 2.7 percent of the agricultural land is organic and in the European Union, 6.7 percent (Table 53). In nine countries (European Union: seven), ten percent or more of the agricultural land is managed organically (Figure 71). The countries with the highest organic shares are Liechtenstein (37.7 percent), Austria (21.9 percent), Estonia (18.9 percent), and Sweden (18.0 percent). Liechtenstein is the country with the highest share of organic area in the world.

2.3 Growth of organic agricultural land

In 2016, the organic agricultural land in Europe increased by 845'232 hectares (EU: 912'746 hectares) or 6.7 percent (EU 8.2 percent). Growth was therefore comparable with that of 2015 and considerably faster than between 2011 and 2014 (Figure 72, Figure 73). In Europe, the absolute growth was less than in the European Union, due to a major decrease of organic farmland in the Russian Federation reported by one international certifier.

The countries that contributed the most to the growth were Italy and France with more than 500'000 hectares together (Figure 74), whereas the highest relative increases were in Iceland, Bosnia & Herzegovina, and Macedonia FYROM, which showed a growth rate of at least 50 percent. However, there were also countries that showed stagnation or only a small increase of organic land such as Luxembourg and the Czech Republic. In some countries, the organic area decreased, such as the Greece, Poland, Romania, and the Russian Federation (Table 60).

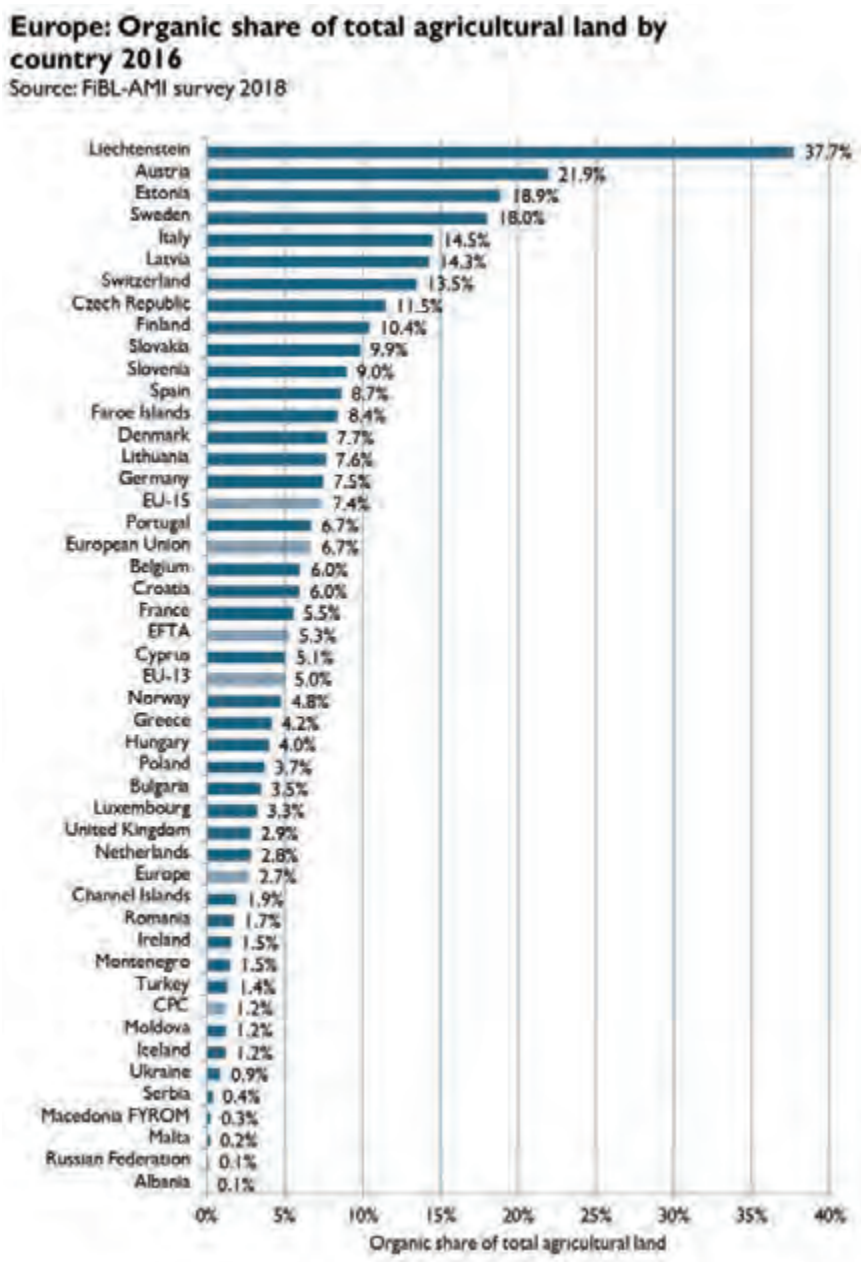


Figure **71: Europe: Organic shares of total agricultural land 2016**

Source: FiBL-AMI survey 2018 based on national data sources and Eurostat
For detailed data sources see annex of this book.

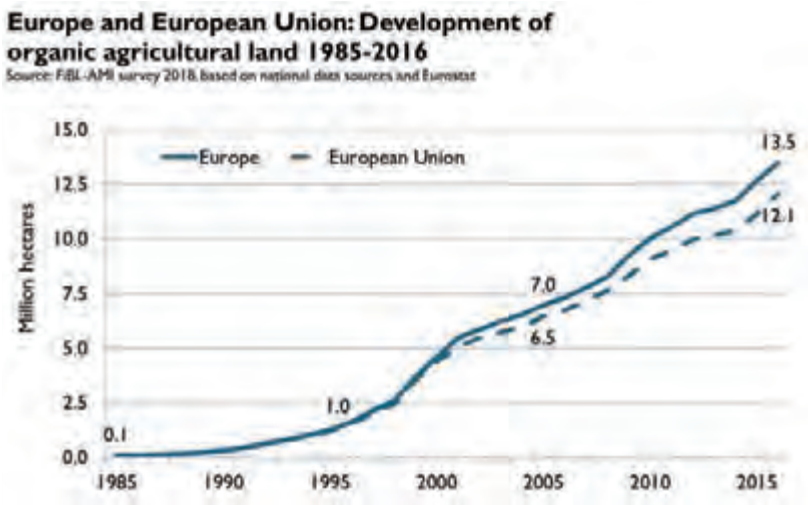


Figure 72: Europe and the European Union: Development of organic agricultural land 1985-2016

Source: FiBL-AMI Surveys 2006-2018 based on national data sources and Eurostat. Data from before 2000 based on surveys from Nic Lampkin. The data for the European Union cover all countries that were members of the European Union in 2016.

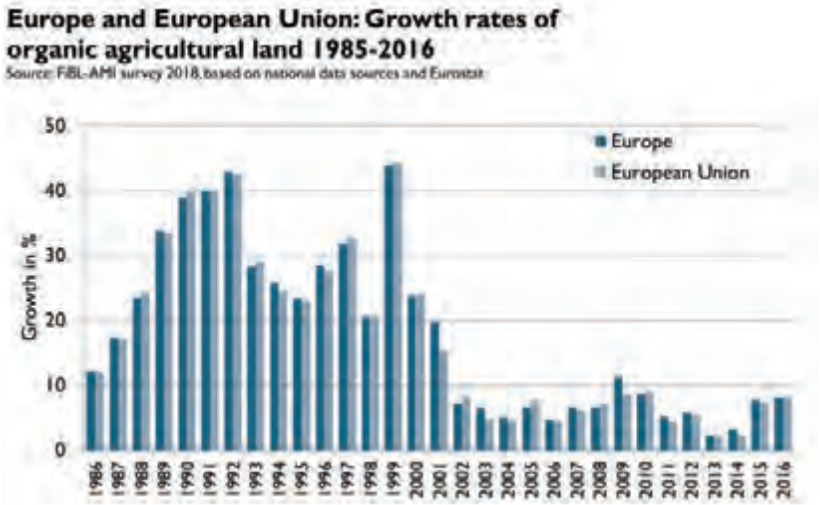
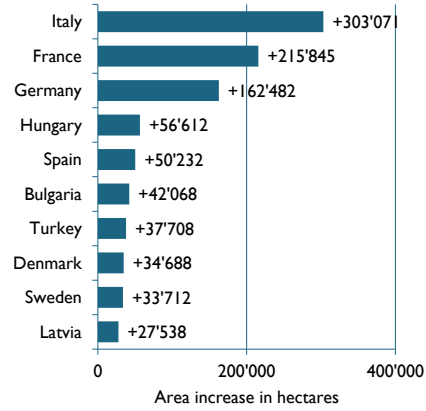


Figure 73: Europe: Growth rates for organic agricultural land in Europe and the European Union 1985-2016

Source: FiBL-AMI Surveys 2006-2018 based on national data sources and Eurostat. Data from before 2000 based on surveys from Nic Lampkin. For detailed data sources see annex.

Europe: The 10 countries with the highest growth of organic farmland in 2016 (hectares)
Source: FiBL-AMI survey 2018 based on Eurostat and national data sources



Europe: The 10 countries with the highest relative growth of organic agricultural land in 2016 (%)
Source: FiBL-AMI survey 2018 based on Eurostat and national data sources

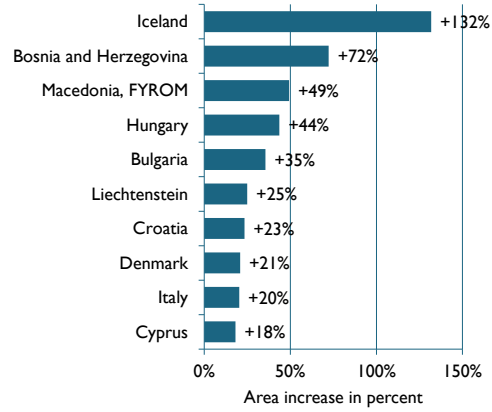


Figure 74: Europe: The ten countries with the highest growth of organic agricultural land in hectares and percentage in 2016

Source: FiBL-AMI survey 2018 based on national data sources and Eurostat
For detailed data sources see annex.

2.4 Conversion status of organic farmland

Most, but not all, countries provided data on their fully converted and under-conversion areas, but such details are not available for all countries – for instance, for Austria, Germany, and Switzerland (Table 61).

In Europe, of the 13.5 million hectares of organic agricultural land, 8.1 million hectares were fully converted (7.3 million in the European Union), and 3.2 million hectares were under conversion (2.9 million in the European Union). This reflects the fact that in the near future an increase in the supply of organic products can be expected (Figure 75).

This trend is confirmed by the fact that the in-conversion area increased by one third in Europe and the European Union. By country, the largest in-conversion areas are in the major European supplying countries, notably Spain (619'069 hectares), Italy (594'522 hectares), France (483'058 hectares), and Turkey (144'735 hectares).

Among arable and permanent crops, a major supply of cereals (approximately 500'000 hectares under conversion), olives (150'000 hectares), and dry pulses (almost 100'000 hectares) may be expected. For more information, see the crop chapters in this book, page 91.

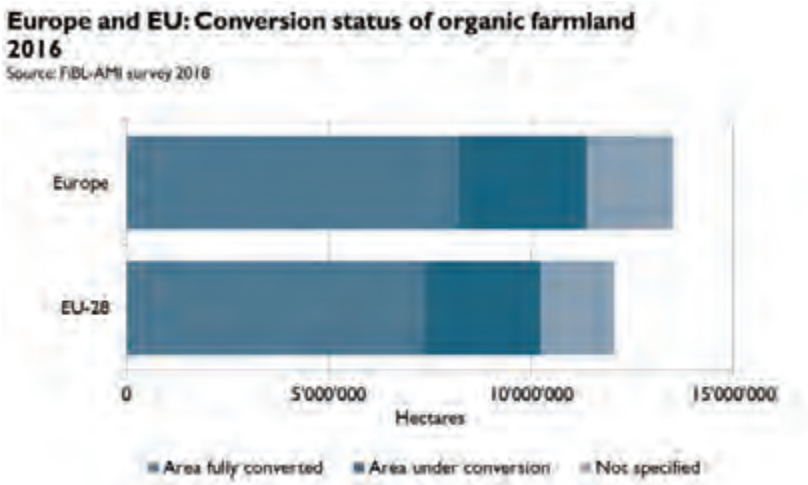


Figure 75: Europe and the European Union: Conversion status of organic land in Europe and the European Union 2016

Source: FiBL-AMI survey 2018 based on national data sources and Eurostat
For detailed data sources see annex.

3 Land use and crops grown in organic agriculture

3.1 Land use

For all countries in Europe, land use and crop details are available. In this respect, Europe differs substantially from other parts of the world, for which such data is often not available. The area for all land use types[1] has grown steadily since 2004.

Table 54: Europe and the European Union: Land use 2016

Crop group	Europe [ha]	European Union [ha]	Change 2015-2016 Europe/EU [%]	Change 2007-2016 Europe/EU [%]
Arable land	6'036'893	5'236'049	7% / 11%	77% / 69%
Permanent grassland	5'648'692	5'453'914	5% / 6%	69% / 70%
Permanent crops	1'508'016	1'280'678	9% / 6%	117% / 112%
Total	**13'509'146**	**12'047'878**	**7% / 8%**	**73% / 68%**

Source: FiBL-AMI survey 2018 based on national data sources Eurostat. For country details see Statistics.FiBL.org
Note: Total includes other agricultural land and correction values for double-cropped areas.

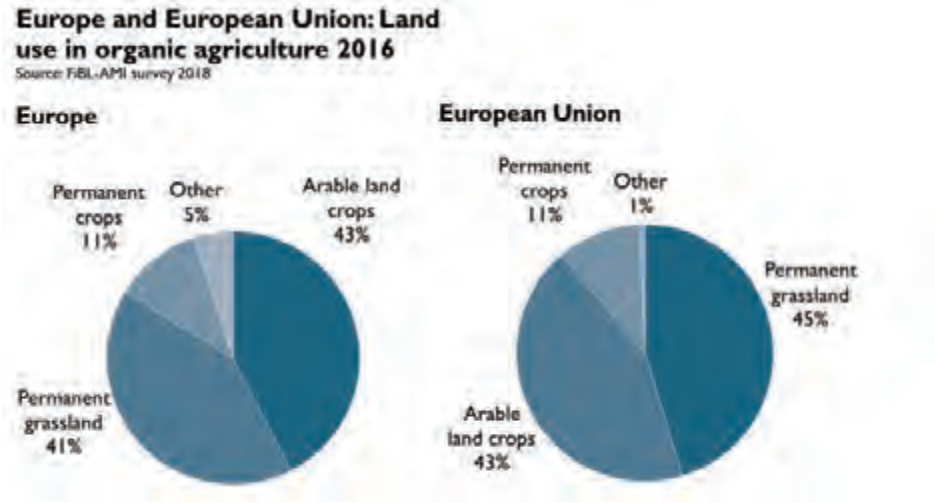


Figure **76: Europe: Distribution of land use in organic agriculture 2016**

Source: *FiBL-AMI survey 2018 based on Eurostat and national data sources*

Table 54 and Figure 76 show that arable land constitutes a large part of the organic farmland, with 6 million hectares in Europe and 5.2 million hectares in the European

[1] The main land use types are: arable land crops (mainly cereals, fresh vegetables, green fodder and dry pulses and oilseeds), permanent grassland (pastures and meadows), and permanent crops (fruit trees and berries, olive groves and vineyards).

Union (44 and 43 percent of the organic farmland, respectively). Permanent grassland accounted for 5.6 million hectares in Europe and 5.5 million hectares in the European Union. Permanent crops constituted 11 percent of the organic farmland with 1.5 and 1.3 million hectares in Europe and the EU, respectively.

The largest increase in 2015-2016 was in permanent crops (9 percent in Europe and 6 percent the European Union), whereas arable land increased by 7 percent in Europe and by 11 percent in the European Union (Table 54, Figure 78; Figure 79).

Also, over the 2007-2016 decade, permanent crops more than doubled and thus showed a greater increase than arable land and permanent grassland, each of which grew by about two thirds (Table 54, Figure 78; Figure 79).

By country, the largest permanent grassland or grazing areas are in Spain with more than one million hectares, followed by Germany and France (Figure 77). The largest cropland areas (i.e., arable and permanent crops together) are in Italy (1.2 million hectares), Spain (1.0 million hectares), and France (0.9 million hectares) (Figure 77).

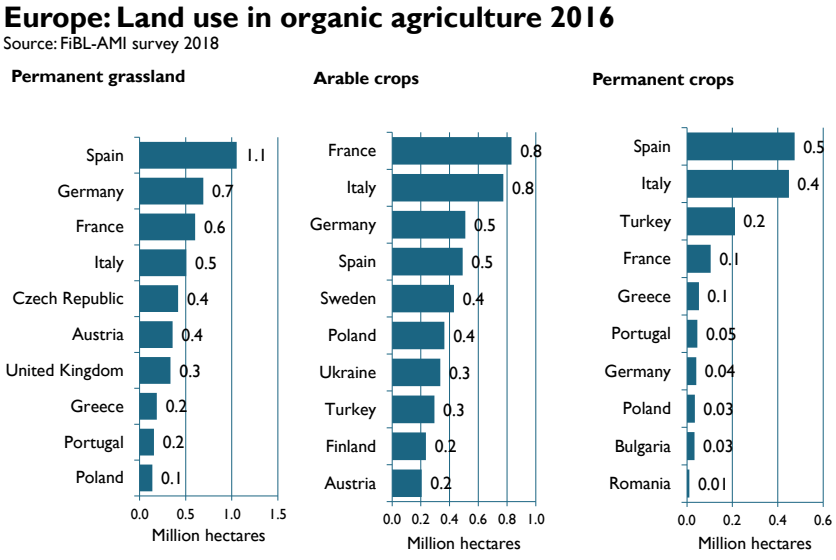


Figure 77: Europe: Land use in organic agriculture by top 10 countries 2016

Source: FiBL-AMI survey 2018 based on Eurostat and national data sources

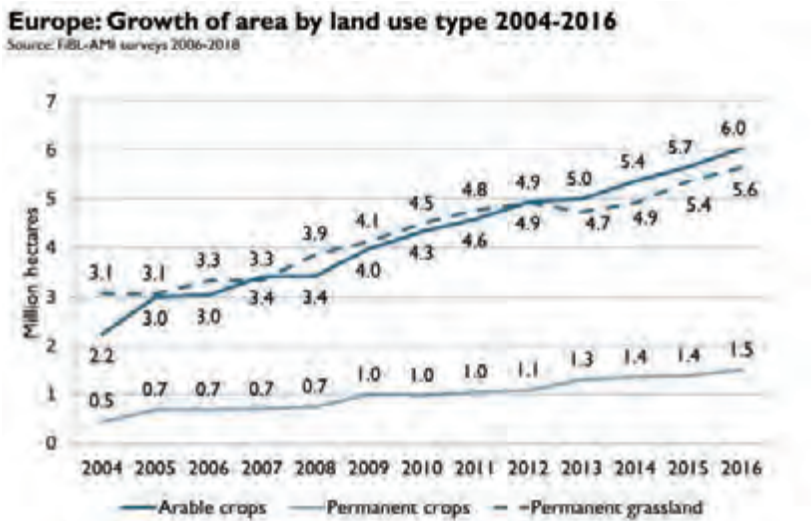


Figure 78: Europe: Growth of organic agricultural land by land use type 2004-2016

Source: FiBL-AMI Surveys 2006-2018 based on national data sources and Eurostat

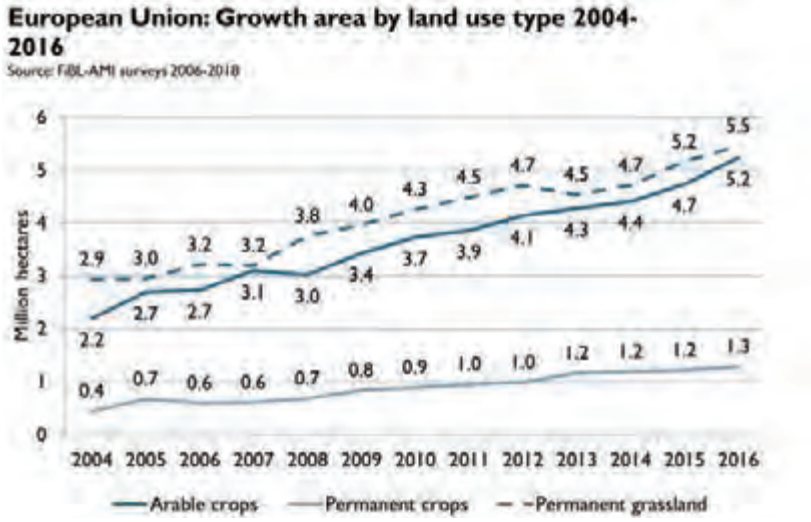


Figure 79: European Union: Growth of organic agricultural land by land use type 2004-2016

Source: FiBL-AMI Surveys 2006-2018 based on national data sources and Eurostat

3.2 Crops grown in organic agriculture

Most of the key arable and permanent crops and crop groups showed growth in Europe and the European Union.

Table 55: Europe and the European Union: Key crops/crop group 2016

	Crop group	Europe (ha)	European Union (ha)	Organic share (%) Europe/EU	Change 2015-2016 Europe/EU	Change 2007-2016 Europe/EU
Arable land crops	Cereals	2'279'155	1'889'408	1.7%/3.3%	2%/12%	71%/59%
	Dry pulses	418'520	381'887	8.2%/17.9%	15%/14%	312%/323%
	Oilseeds	339'630	224'193	1.0%/1.9%	14%/6%	214%/152%
	Green fodder	2'255'059	2'066'861	n/a	9%/11%	68%/61%
	Root crops	41'901	33'401	0.5%/1.0%	4%/9%	41%/32%
	Vegetables	148'088	135'684	2.9%/5.8%	19%/24%	41%/38%
	Berries	35'135	32'507	12.3%/19.8%	11%/9%	360%/341%
Permanent crops	Citrus fruit	48'967	48'486	6.7%/8.1%	15%/15%	116%/136%
	Temperate fruit	127'749	105'296	4.6%/8.1	1%/1%	63%/71%
	(Sub)Tropical fruit	30'433	11'980	13.4%/7.6%	15%/30%	4700%/1822%
	Grapes	328'492	313'642	8.4%/10%	12%/12%	225%/246%
	Nuts	267'080	233'344	15.7%24%	22%/23%	134%/144%
	Olives	574'826	493'568	9.7%/9.8%	8%/9%	90%/79%

Source: *FiBL-AMI survey 2018 based on national data sources and Eurostat*
Note: For crop details by country, please check crop chapter in this book from page 92.

Arable land

A large proportion of the organic arable land (6 million hectares in Europe and 5.5 million in the European Union) is used for the production of cereals and green fodder from arable land, which, together, account for more a large part of the organic arable land. Regarding the organic share, dry pulses are the most successful crop; in the European Union, they account for almost one-fifth of the total dry pulses area. Together with vegetables, they had the highest increase in land area, thus reflecting that European organic farmers are meeting the increasing market demand for vegetables and feedstuffs. Over the decade 2007-2016, the largest growth was noted for dry pulses, which more than quadrupled (Figure 80).

Cereals were the largest crop group in Europe and accounted for 2.3 million hectares or 1.7 percent in Europe, and in the European Union, they were the second largest group, accounting for 1.9 million hectares or 3.3 percent of the total cereal area. Wheat is the most important cereal (900′000 hectares), covering almost half of the cereal area. Italy (approx. 300′000 hectares, including large areas of durum wheat), Germany (approx. 242′000 hectares), and France (approx. 217′000 hectares) have the largest cereal areas. The highest organic shares of the total cereals area are in Austria (13.5 percent), Sweden (10.5 percent) and Estonia (9.8 percent). Outside the European Union, Ukraine, Turkey, and the Russian Federation are major cereal producers (see also the chapter on cereals in this volume, page 92).

In the European Union, the arable crop group with the largest area was **plants harvested green** (green fodder from arable land) with 2.1 million hectares (Europe: 2.3 million hectares). Clover, green maize, and grass on arable land were the main crop types.

In 2016, organic **vegetables**[1] were grown on almost 150'000 hectares of land in Europe, and more than 135'000 hectares in the European Union, covering 2.9 percent and 5.8 percent of the vegetable area respectively. While vegetables had the largest growth in 2016, compared to the other crop groups, they did not grow as fast in the decade 2007-2016. This is because vegetables are one of the pioneer crops of organic agriculture and strong growth already occurred in the previous decades. The largest areas were in Italy (43'648 hectares), France (18'064 hectares), and Spain (17'013 hectares). High organic shares of all vegetables are found in Denmark (28 percent) and Austria (20 percent) (See also the chapter on vegetables in this volume, page 122).

With 420'000 hectares in Europe and 380'000 hectares in the European Union, organic **dry pulses** accounted for a large share of all dry pulses (8.2 percent in Europe; 17.9 percent in the European Union). One reason is that the conventional crop area has been decreasing for many years due to the availability of cheap protein like soybeans on the world market for both animal feed and human consumption. The strong growth of dry pulses and their high organic shares also reflects the efforts of European organic farmers to improve soil fertility and to become less dependent on imports of protein crops. The countries with the largest areas for dry pulses were France (85'827), Poland (55'968), and Italy (43'986). The highest organic shares were found in Austria (58 percent), Italy (44 percent), and Denmark (40 percent) (see also the chapter on dry pulses in this volume, page 103).

Permanent crops

A large part of the permanent cropland (1.5 million hectares in Europe and 1.3 million hectares in the European Union) is used for olives, grapes, and nuts. Olives cover one-third of the permanent crop area, and grapes one fifth. Over the decade 2007-2016, the largest growth was noted for grapes, which more than tripled (Figure 80). The organic shares for most permanent crops were higher than those for the arable crops; however, it should be noted that particularly for nuts and berries, the FAO data, with which the organic data is compared, do not include all berries or nut types grown in organic agriculture. Thus a direct comparison is not possible in all cases.

Olives (0.57 million hectares) and grapes (0.33 million hectares) cover half of the permanent cropland. Both reach an organic share of almost ten percent of their respective totals. Spain and Italy have an organic grape area of more than 100'000 hectares each, and they reach the highest organic shares (except some minor organic grape producers that reach even higher shares, such as the UK or Belgium). In Italy 15.5 percent of the grape area is organic and 11.6 percent in Spain (for details see also

[1] It should be noted that for some countries, potatoes are included in the vegetable category.

chapter on organic grapes, page 114). Also for **olives**, Italy and Spain have the lead (222'453 hectares and 196'567 hectares, respectively). France has the highest organic share with 27 percent. The largest growth occurred in Italy, where the organic olive area increased by more than 40'000 hectares in 2016. (See also the chapter on olives in this volume, page 119).

Temperate fruits are grown on 127'749 hectares (European Union 105'296 hectares), and they cover 4.6 percent of the total temperate fruit area (8.1 percent in the European Union). The countries in the European Union have a considerable amount of land dedicated to temperate fruit (e.g., apples in Poland and berries in the Baltic countries). The most important fruits were apples (45'880 hectares), plums (12'882 hectares), and cherries (10'227 hectares). Both Polish apples (mainly for concentrate) and berries from the Baltic countries can be found in juices or yogurts all over Europe. The largest temperate fruit producers are Italy (22'378 hectares) and Poland (18'616 hectares); the highest organic area shares are found in Austria (53 percent) and Latvia (39.2 percent)[1]. (See also the chapter on temperate fruits in this volume, page 106).

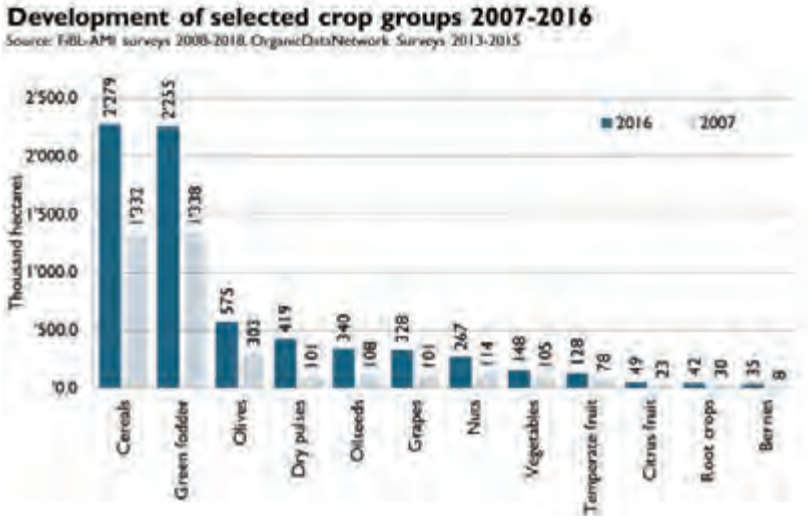


Figure 80: Europe: Growth of selected arable and permanent crop groups in Europe 2007 to 2016

Source: FiBL-AMI survey 2018

[1] With these high organic proportions of the total temperate fruit area, it should be borne in mind that the certified organic area is not necessarily comparable to the FAO total data, which show the area harvested and exclude, for instance, new plantations.

3.3 Further organic areas

In addition to the agricultural land, there are further organic areas. Large parts of these are wild collection areas constituting 16.7 million hectares (European Union: 14.3 million hectares). The largest wild collection area in Europe (and in the world) is in Finland with 11.6 million hectares (mainly berries). For country details on wild collection areas, see Table 63.

4 Organic livestock

Statistics on the number of organic animals are incomplete and do not currently allow for a complete picture of the sector. However, taking into account all currently available information, the organic animal sector is developing at a fast pace in European countries. Table 56 provides a European overview of organic livestock in 2016. In many countries, organic animal husbandry began with beef, lamb, and milk production. In Europe, 3.9 million bovine animals, 4.6 million sheep, 1 million pigs, and 46 million poultry were kept. (For European Union data, see Table 56).

Table 56: Europe and the European Union: Organic livestock 2016

	Europe				European Union	
	Animals [heads]	Organic share of total [%]	Change 2015-2016 [%]	Change 2007-2016 [%]	Animals [heads]	Organic share of total [%]
Bovine animals	3'857'782	3.0%	6%	68%	3'642'372	4.5%
Sheep	4'591'943	3.0%	-1%	34%	4'365'188	4.5%
Pigs*	992'752	0.6%	6%	55%	963'221	0.7%
Poultry**	45'639'898	1.8%	11%	131%	43'262'652	3.1%

Source: FiBL-AMI Survey 2018 based on Eurostat and national data sources.

Notes

Data for the calculation of organic shares are based on Eurostat and FAOSTAT. The numbers for the organic shares of all livestock are based on FAOSTAT data. FAOSTAT only provides totals for bovine animals, sheep, pigs, and poultry, without further specifications. Please note that growth rates 2007-2016 were similar for Europe and the European Union and are hence not included in the table.

* Please note the there is no consistent reporting in the official statistics, no clear distinction is made between the number of animals slaughtered, the places or average numbers of stock. Therefore, the data should be treated with caution. According to the Agricultural Market Information Company AMI, the average stock of fattening pigs was 454'247 in Europe, and 426'946 in the European Union.

** As for pigs (see note above), there is no consistent reporting for poultry. According to the Agricultural Market Information Company AMI, the average stock was 41'569'199 in Europe, and 39'136'927 in the European Union.

Organic shares of all animals

The organic share of all livestock remains small – depending on the animal species (between 0.5 percent and 5.7 percent, Table 56). Monogastric animals (pigs and poultry) account for the lowest shares, partly because of the difficulties posed by the insufficient local supply of organic feeds, the difficulties in the provision of traceable certified feed imports, the high investment in pig barns and pens, and the high price

premiums consumers have to pay. The highest organic shares are for organic sheep and cattle as conversion of these rather extensive production schemes is easier.

Increase in numbers

Between 2007 and 2016 (and also 2015 and 2016), the greatest increase was in poultry (+131 percent), which can be partly attributed to the high demand for eggs (see the chapter on the organic market in Europe, Table 59). However, beef and dairy cattle also grew substantially in that decade (+68 percent), as did pigs (+55 percent) and sheep (+34 percent) (Table 56).

Organic livestock by livestock group

- For bovine animals (3.9 million heads in Europe), the largest numbers are found in France (573'623 heads), Germany (410'500 heads), and Austria (404'648 heads). The highest organic shares are in Liechtenstein (26 percent), Latvia (24 percent), Austria (21 percent), and Sweden (20 percent).
- For sheep (4.6 million heads in total), the largest numbers are in the United Kingdom (841'110 heads) and Italy (785'170 heads). The highest organic shares are in Estonia (47 percent) and the Czech Republic (46 percent).
- Looking at the available data for pig stocks (992'752 heads), Germany (118'000 heads), Denmark (66'000 heads) and France (63'000 heads) have the highest numbers (country data: average stock of fattening pigs only).
- For poultry, we assume that country-level data is not comparable, due to different definitions (see explanation below).

Pigs and poultry: Data remain a challenge

In the case of pigs and poultry, in the official statistics, no clear distinction is made between the number of animals slaughtered and the places or average numbers of stock over the year, and it is not always clear which of these is given when "livestock numbers" are quoted. Adding up the data for pigs and poultry over all countries, therefore, is not completely reliable and country data are not necessarily comparable. The data that are presented here should, therefore, be treated with caution and are only an approximation of the overall picture.

Organic cows' milk

Organic cow's milk production is one of the production-related indicators with good coverage across all European countries. Organic cows' milk has almost doubled since 2007 to meet rising demand for milk and dairy products. Organic cows' milk production now stands at 4.4 million metric tons (European Union: 4.1 million), constituting more than 2.8 percent of the European Union's milk production from dairy cows in 2016. Some of this growth, however, can be attributed to improved data availability (Figure 81).

Figure 81: Europe and the European Union: Development of organic cows' milk production 2007-2016[1]

Source: *FiBL-AMI survey 2009-2018*

[1] Please note that due to data revisions, the data presented here are not comparable to those published in the 2017 edition of "The World of Organic Agriculture".

5 Producers, processors, importers, and exporters

While data on organic producers are available for almost all countries, this is not the case of processors and importers and even less for exporters. While data availability is improving, it is still not possible to draw a clear picture for the latter groups over the years; hence, in the table below, a ten-year development is only shown for the number of producers.

Table 57: Europe: Organic operators by country group 2016

	Producers			Processors		Importers		Exporters	
	No.	Growth 1 year	Growth 10 year	No.	Growth 1 year	No.	Growth 1 year	No.	Growth 1 year
EU	295'123	10%	58%	62'652	8%	3'968	13%	2'050	5%
Europe	373'240	7%	76%	65'889	10%	4'657	25%	2'235	6%

Source: FiBL-AMI survey 2018 based on national data sources and Eurostat. For a breakdown by country, see Table 64. For detailed data sources see annex.

5.1 Organic producers

In 2016, there were more than 370'000 organic producers in Europe and almost 300'000 in the European Union (Table 57 and Table 64). In the European Union, the country with the largest number of producers is Italy (more than 64'000); in Europe, it is Turkey (almost 68'000) (Figure 84). Compared to the growth in 2015, the increase in numbers of producers was higher (+7 percent in Europe; +10 percent in the European Union). Over the decade 2007-2016, the number of producers in Europe increased by 76 percent (EU +58 percent). Fourteen percent of the world's organic farmers are in Europe (Figure 82).

5.2 Organic processors and importers

The number of processors and importers increased in almost all European countries in 2016 (Table 57). In Europe, there were almost 66'000 processors (European Union: almost 63'000 in Europe) and almost 4'700 importers (European Union: almost 4'000 in Europe). The largest increase was noted for importers. The country with the largest number of processors is Italy (almost 15'000), and the country with the most importers is Germany (1'500) (Table 57, Figure 83).

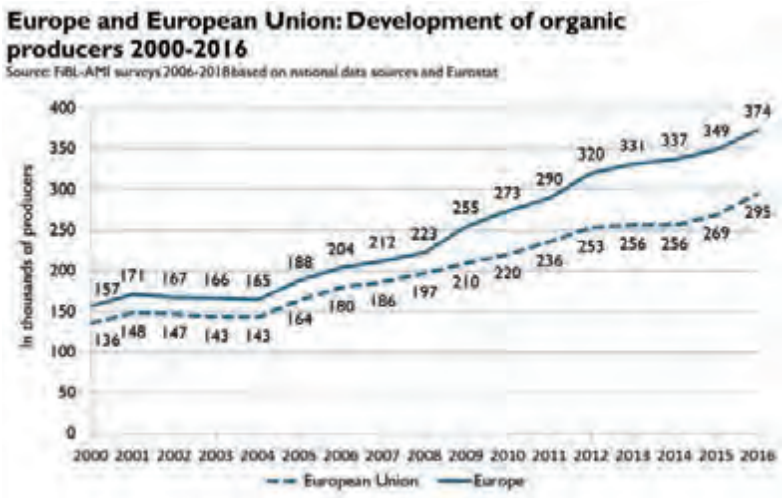


Figure 82: Europe and the European Union: Development of organic producers in 2000-2016

Source: FiBL-AMI surveys 2006-2018 based on national data sources and Eurostat

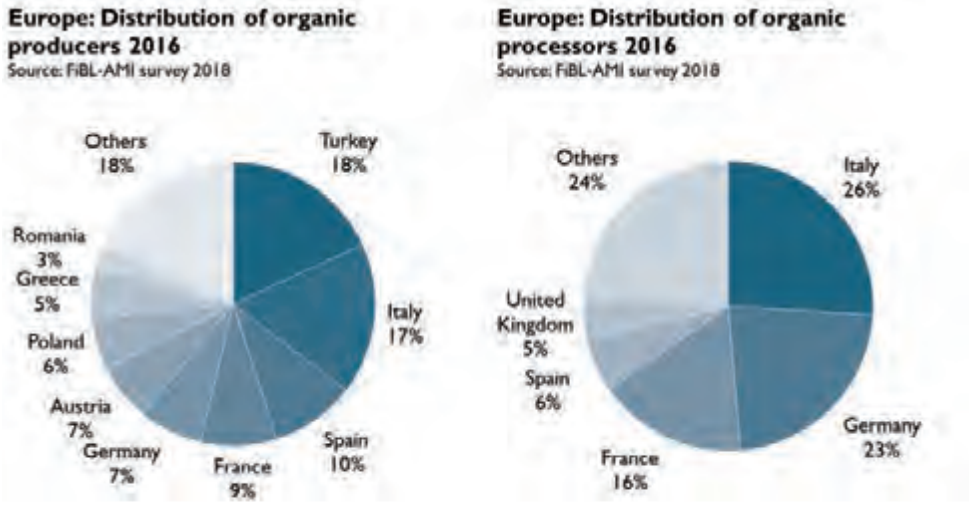


Figure 83: Europe: Distribution of organic producers and processors by country 2016

Source: FiBL-AMI survey 2018, based on national data sources and Eurostat.

Europe: Organic producers by country 2016
Source: FiBL-AMI survey 2018

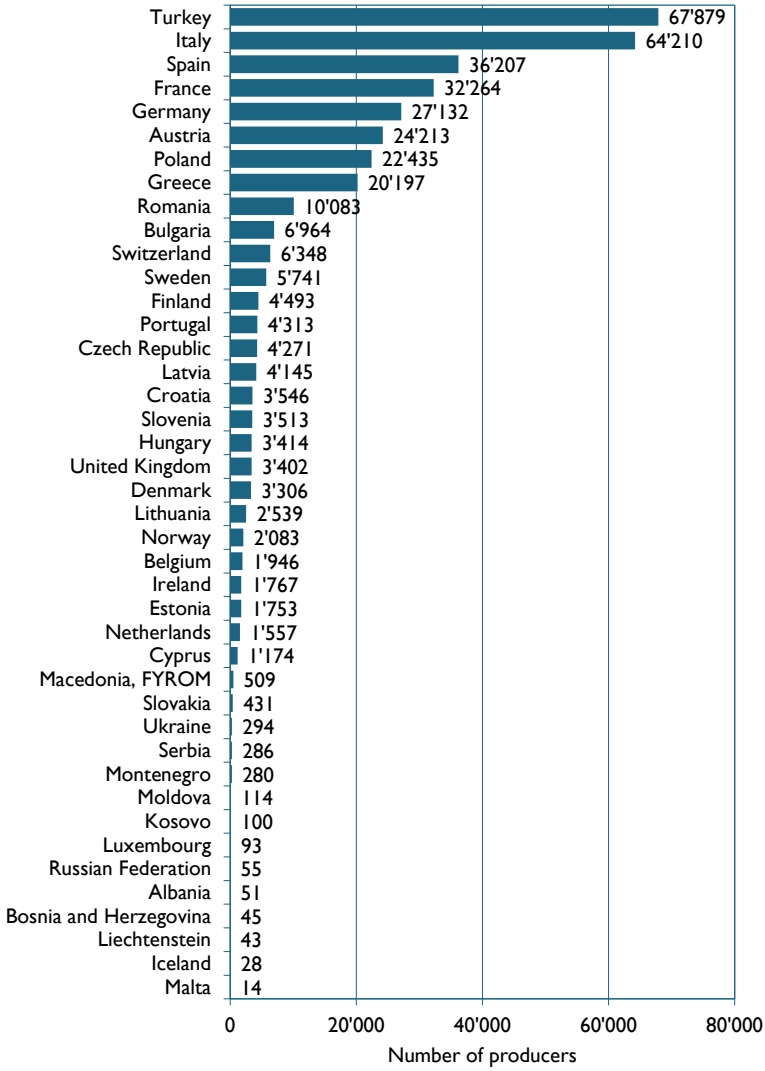


Figure 84: Europe: Numbers of organic producers by country 2016

Source: FiBL-AMI survey 2018 based on national data sources and Eurostat. For detailed data sources see annex.

6 Organic retail sales

In 2016, the organic market in Europe grew to 33.5 billion euros (European Union: 30.7 billion euros). Unfortunately, not all countries provide data on their domestic markets on a regular basis (Table 65), and it may, therefore, be assumed that the market is larger than indicated by the figures in Table 58 and Table 13.

Table 58: Europe and the European Union: Organic retail sales 2016: Key data

	Retail sales [Million €]	Per capita consumption [€]	Growth 2015-2016 [%]	Growth 2007-2016 [%]
European Union	30'682	60.5	12.0%	111.6%
Europe	33'526	40.8	11.4%	117.4%

Source: FiBL-AMI survey 2018 based on national data sources. For country details, see Table 65.

6.1 Size of the organic market

Germany continues to be the largest market in Europe (9.5 billion euros) (Figure 86), and, after the United States, it is the second biggest organic market in the world. France holds second place in Europe with 6.7 billion euros. Comparing organic markets worldwide by single market, the United States has the lead: 47 percent of global retail sales of organic products are in the United States (38.9 billion euros), followed by the sales in the European Union (30.7 billion euros; 37 percent of global retail sales).

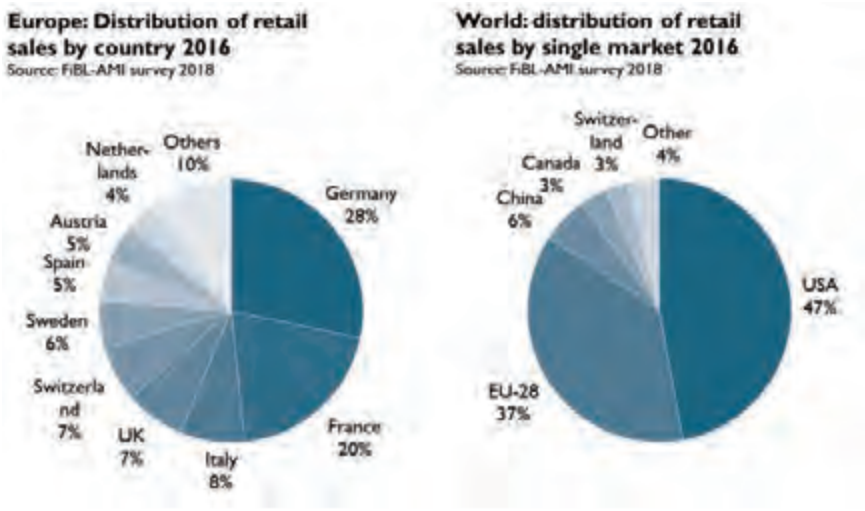


Figure 85: Europe: Distribution of retail sales by country and by single market worldwide 2016

Source: FiBL-AMI survey 2018 based on national data sources

Comparing retail sales by continent, North America is the largest market (41.9 billion euros) (Figure 12). Please note that there has been a major shift in the relative importance of single markets/continents compared to the 2014 data due to fluctuating exchange rates.

Europe: Organic retail sales value by country 2016
Source: FiBL-AMI survey 2018

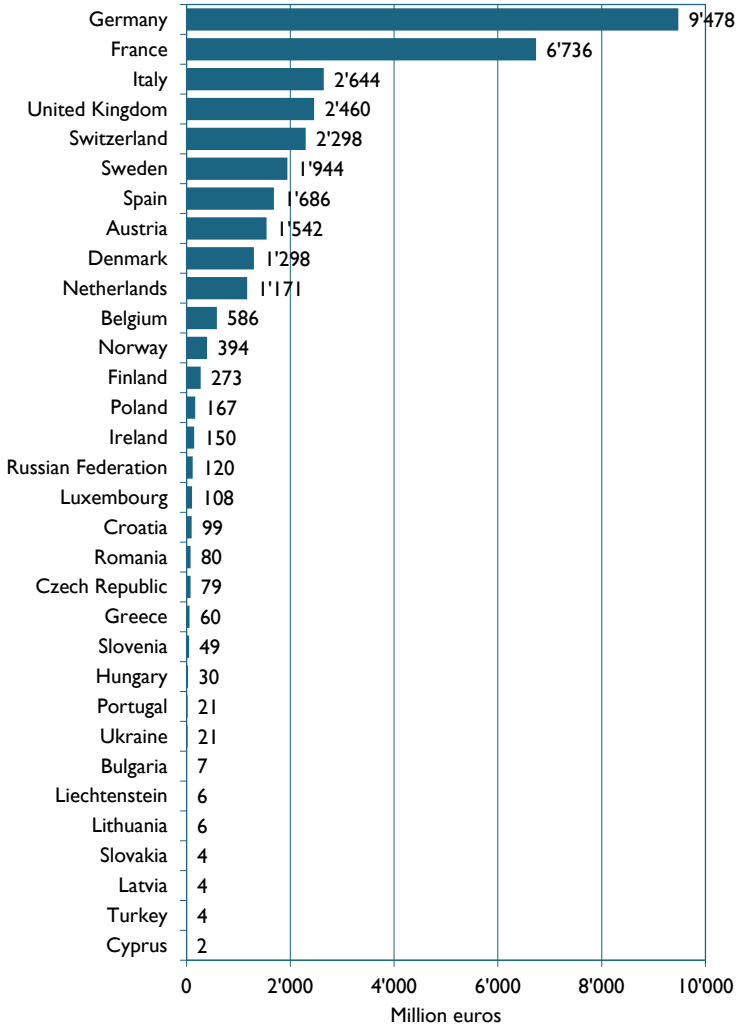


Figure 86: Europe: Retail sales by country 2016

Source: FiBL-AMI survey 2018 based on national data sources (only countries with a turnover of more than one million euros). Please note, that 2016 data were not available for all countries. For detailed data sources see annex.

6.2 Growth of the organic market

The organic market grew by approximately 11.4 percent in Europe and 12 percent in the European Union in 2016. It is the second time since the financial crisis in 2008 that double-digit growth occurred in Europe. In the decade 2007 to 2016, the organic market more than doubled in size (Figure 87).

All countries for which new data was available showed growth, many double-digit, with France (the second-largest market in Europe) and Ireland leading with more than 20 percent (Figure 88). Germany, the largest market in Europe, again showed strong growth, increasing by 10 percent. Scandinavian countries also showed strong growth, with Denmark and Norway leading with a 20 percent increase (Table 65).

In the United Kingdom, where retail sales had been decreasing for several years, growth was noted (7.1 percent in 2016) for the fifth consecutive year.[1]

In 2017, in many European countries, the market often experienced further double-digit growth: figures are expected to be available at the beginning of 2018.

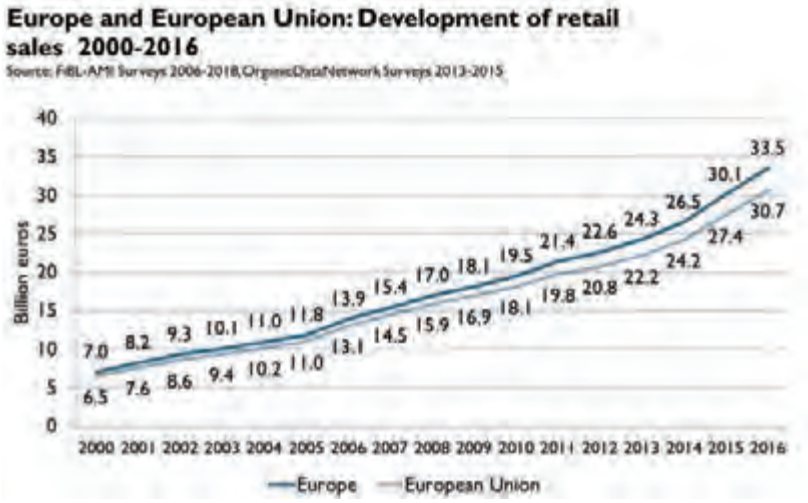


Figure 87: Europe: Growth of organic retail sales in Europe and the European Union, 2000-2016

Source: FiBL-AMI surveys 2004-2018, and OrganicDataNetwork Surveys 2013-2015

1 Note: Although the UK market grew by nearly eight percent in the national currency in 2016, if converted into Euro there has been a drop, due to the exchange rate loss of the British pound after the Brexit vote.

Figure 88: Europe: The countries with the highest organic market growth 2016

Source: FiBL-AMI surveys 2018

6.3 Per capita consumption of organic food

Like in the previous years, the highest per capita consumption of organic food in 2016 was in Switzerland (274 euros), followed by Denmark (227 euros), Sweden (197 euros), and Luxembourg (188 euros) (Figure 89). Eight countries had a per capita consumption of more than 100 euros in 2016 (Table 65).

The continual growth in consumer interest is well documented by the growth of per capita consumption, with specific notable growth in 2016 (Figure 90). The per capita consumption in Europe has risen to just over 40 euros per year per European citizen and to more than 60 euros in the European Union.

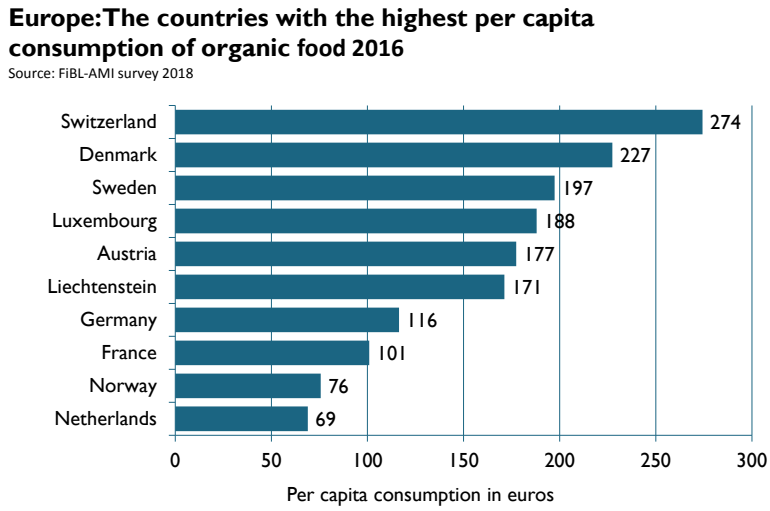


Figure 89: Europe: The countries with the highest per capita consumption 2016

Source: FiBL-AMI survey 2019based on national data sources. For detailed data sources see annex.

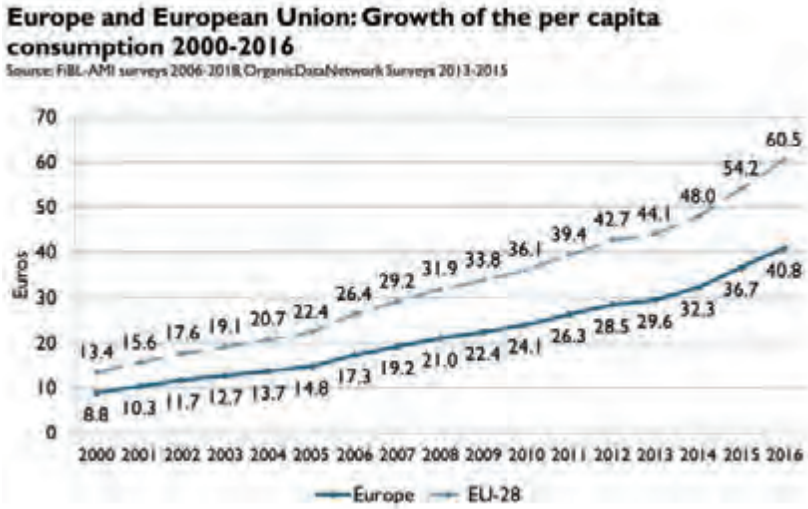


Figure 90: Europe: Growth of the per capita consumption 2000-2016

Source: FiBL-AMI survey 2018 based on national data sources. Calculation based on Eurostat population data. For detailed data sources see annex.

6.4 Organic market shares

The organic share of overall retail sales shows the importance that the organic market has in a given country. As in the past, the highest market shares were reached in Denmark (9.7 percent), Luxembourg (8.6 percent), and Switzerland (8.4 percent) (Figure 91, Table 65). The fact that in many countries the total food market is not growing and that in many cases food prices are decreasing makes organic shares grow even faster. Market shares of individual products can be far higher; these data are provided in Table 59. As there are no retail sales data for Europe or the European Union as a whole, it is not possible to calculate overall organic market shares.

Europe: The countries with the highest organic shares of the total market 2016

Source: FiBL-AMI survey 2018

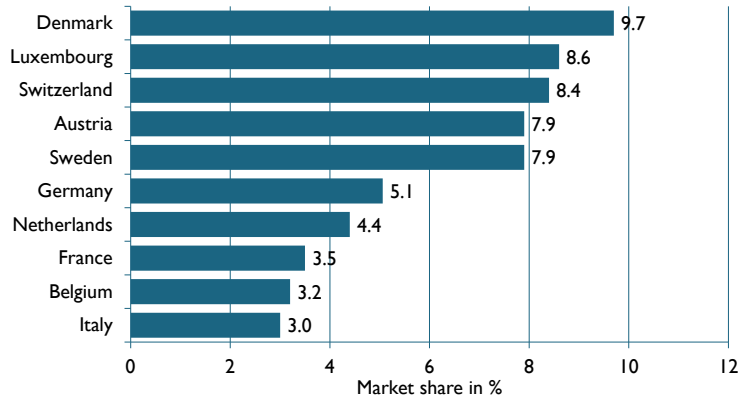


Figure 91: Europe: The countries with the highest shares of the total retail sales 2016

Source: FiBL-AMI survey 2018 based on national data sources
for detailed data sources see annex.

6.5 Comparison of organic products and product groups with the total market

While the organic share of the total market is an important indicator, it is also important to look at the organic market shares that individual products can have.

In many countries, organic eggs are one of the success stories within the total retail market. Table 59 shows that Switzerland, Sweden, and France reach market shares (in value) of over 20 percent.

Organic fruit and vegetables continue to be highly popular purchases among European organic consumers. Organic vegetables have the highest market shares after eggs, representing 10 percent or more of the sales value of all vegetables sold in countries such as Switzerland, Austria, Sweden, and Germany. For example, fresh carrots or fresh pumpkins alone have a nearly 30 percent market share in Germany.

In Sweden and Switzerland, organic dairy products are reaching organic market shares of 10 percent and higher.

Individual products can reach much higher market shares. Organic baby food (over 40 percent in Germany) or organic meat substitutes (46 percent in Germany) are good examples.

On the other hand, products like organic beverages (except wine) and meat (especially poultry), have low market shares in many countries. Often, these products are highly processed and very cheap on the conventional market. Another factor is that many organic consumers tend to eat little or no meat.

6.6 Marketing channels in organic agriculture

Some countries are in a position to break down their retail sales data by marketing channel. Some are even able to provide a breakdown by product and marketing channel. Some countries have data for catering sales, and some countries provide data for direct marketing and box schemes. Wherever possible, the figure for the catering sales was deducted from the figure for the total organic market (Table 65).

Figure 92 shows that the importance of the various marketing channels differs from country to country. In the past, countries with strong involvement by general retailers showed steady organic market growth (e.g., Austria, Denmark, Sweden, Switzerland, and the United Kingdom). However, the financial crisis showed the danger of a strong dependence on supermarkets. In those years, the market decreased in the UK, and in Germany, stagnation was noted for general retail sales, whereas the market continued to grow in specialized channels. France and Italy are good examples of countries with strong market growth, where specialized retailers play a very important role, even though their importance is decreasing.

In Germany, the market has entered into a transition period. Supermarkets have become the driving force in the market, whereas specialised retailers are facing more and more competition. While in 2014, 33 percent of all organic products were sold in organic food shops, this number decreased to 30 percent in 2016. In 2016, 58 percent of the organic food was sold by general retailers.

Table 59: Organic shares for retail sales values (euros) for selected products 2016

	Austria	Belgium (2015)	Czech Republic (2015)	Finland	France (2016)	Germany	Ireland	Nether-lands	Norway	Sweden	Switzer-land	UK
Beverages			0.3%		4.2%				0.3%	5.5%[1]	3.2%	
Bread and bakery products		1.9%	0.4%	1.0%	2.9%	7.7%		1.6%	1.5%	3.7%	20.7%	0.4%
Eggs	20.1%			15.4%	27.0%	19.4%	5.2%	14.1%	8.1%		25.5%	6.8%
Fish and fish products					2.3%			1.4%	0.5%			0.7%
Fresh vegetables	14.4%	6.0%		3.9%[2]	5.4%	9.7%	23.0%	4.1%[3]	4.3%	12.2%	21.2%	4.3%
Fruit	10.6%	3.9%	0.7%		6.6%	7.8%			2.3%[4]	19.6%	12.9%	2.8%
Meat and meat products	3.5%[5]	1.8%	0.2%	1.10%	2.0%	2.5%	8.0%		0.4%	3.2%	5.3%[5]	1.4%
Milk and dairy products	10.4%	2.7%	1.0%		4.0%			4.1%	1.9%	11.0%	12.6%	3.8%
- Butter	9.3%	4.1%			6.3%	4.7%			3.1%			2.0%
- Cheese	8.9%	1.0%		1.5%	1.5%	4.4%			0.6%		6.5%	1.1%
- Milk	17.9%	3.0%		4.1%	12.5%	12.1%	4.3%		4.3%			5.9%
Yoghurt		7.2%		1.9%	4.8%	7.7%	18.3%		0.4%			8.2%

Sources: FiBL-AMI survey 2018, based on data from: Austria: RollAMA based on GfK, Belgium: LV based on GFK; Czech Republic: UZEI; Finland: Pro Luomu; France: Agence Bio; Germany: Agricultural Market Information Company based on GfK; Netherlands: Bionext; Norway: Nielsen Norway; Sweden: Statistics Sweden; Switzerland: Bio Suisse; UK: Soil Association.
Note: Due to classifications and nomenclature differing from country to country, it is not possible to supply data for all product groups, even if data for individual products may be available. Not all countries have data on the market shares of organic products. Please note that groups are not complete; the products shown in the table above are a selection.

[1] Excludes alcoholic beverages.
[2] Includes fruit
[3] Includes fruit.
[4] Please note that the category "fruit" also includes berries and nuts.
[5] Meat only: 4%

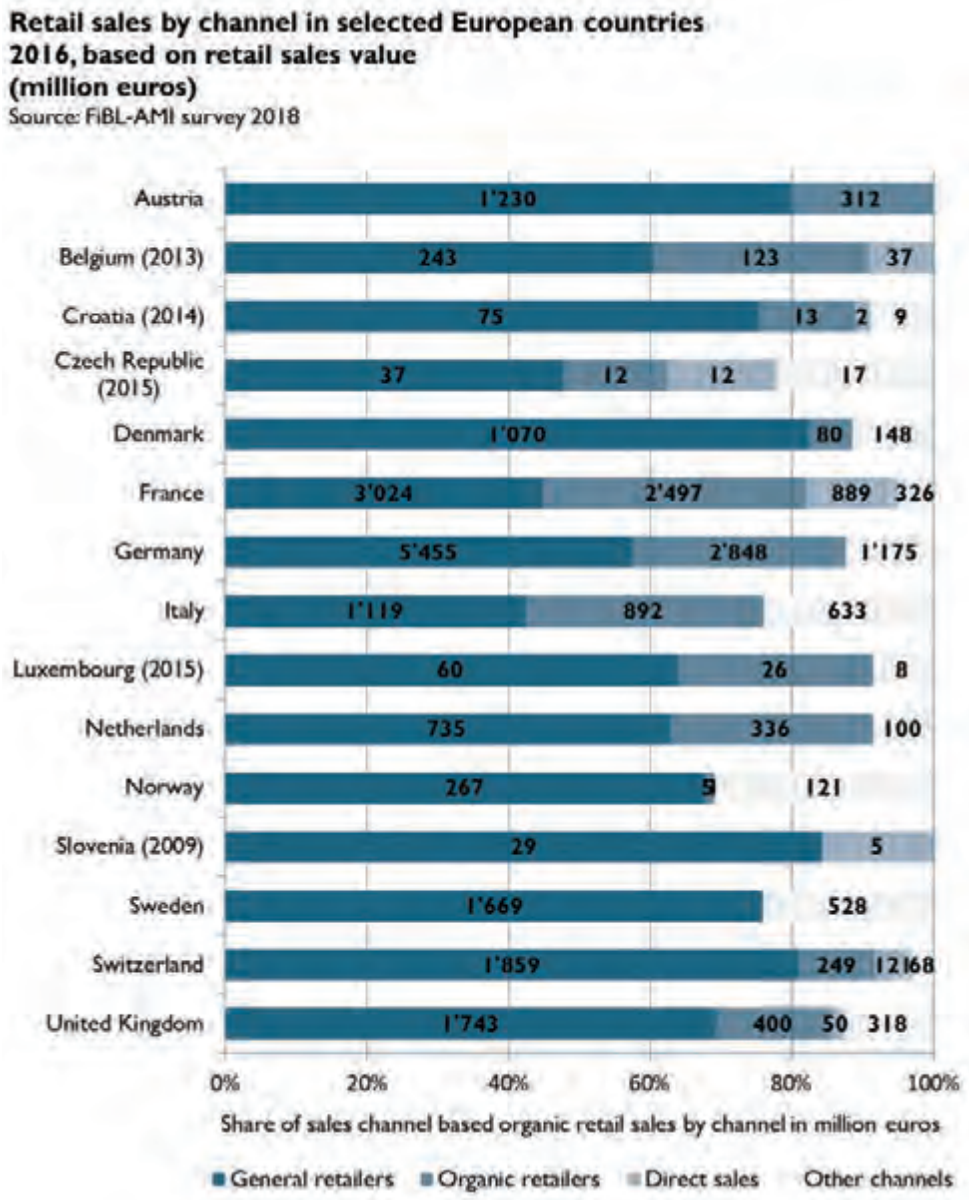


Figure 92: Europe: Marketing channels for organic products in selected countries 2016

Source: FiBL-AMI survey 2018 based on national data sources

For detailed data sources see annex.

7 Conclusion

Currently available data on organic farming and the global and European market shows that, in an international context, the European organic sector is well developed. Relatively high shares of agricultural land, continual growth of the area and number of operators, as well as a fast-growing market, show the exceptional dynamics that the European organic market and sector has.

For many countries, the organic market is growing faster than production, and domestic supply cannot meet demand. Therefore, many organic organisations or market actors are calling for more farmers to convert to organic.

The data analysis provided in this report shows that there are still large discrepancies among European countries. Even though organic agricultural land in some countries in Central and Eastern Europe account for large shares of the overall agricultural land, consumer spending, although growing, remains low as a proportion of total spending on food in these countries.

Another issue that needs to be solved is data availability and quality. For instance, imports and exports play a very important role in trade within the European Union and with external partners, but almost no relevant data exists. Denmark is the only European country that consistently supplies international trade data with a breakdown by country of origin/destination and product. In order to increase the transparency of the organic market, the availability of export and import values could play an important role. Currently, it is not possible to compare production data versus international trade data, which could give important hints on potential fraud cases.

Furthermore, while the availability of domestic market data is improving, it is collected with a wide range of methods and, strictly speaking, is not accurately comparable. Diverging methods and availability remain a challenge. For many countries, particular in Central and Eastern Europe, retail sales data are not collected on a continual basis, and thus, little is known about the importance of organic product sales.

Therefore, we recommend that data availability and accessibility are increased, that classifications, nomenclature, and definitions, in particular for organic market data, are harmonized, and that data quality is improved (Willer and Schaack 2014).

8 Acknowledgements

The data compiled for this article builds on the collection activities of the OrganicDataNetwork project, which was funded by the European Union (EU) under its seventh framework programme for research, demonstration and technological

development, which ended in 2014.[1] Under this project, for the first time, detailed organic market data for all European countries was collected[2] and stored in one single database, which is available online.[3] To present these data, the statistical report for Europe is more comprehensive than for the other continents. The authors would like to thank all of those who have provided data and information for this report, in particular, the partners of the OrganicDataNetwork project.

9 References and further reading

European Commission (2010): An Analysis of the EU Organic Sector. European Commission, Directorate-General for Agriculture and Rural Development. An analysis of the EU organic sector. Brussels. Available at: ec.europa.eu/agriculture/analysis/markets/organic_2010_en.pdf

European Commission, DG Agriculture and Rural Development, Unit Economic Analysis of EU Agriculture (2014): Facts and figures on organic agriculture in the European Union. European Commission, Brussels. Available at: ec.europa.eu/agriculture/markets-and-prices/more-reports/pdf/organic-2013_en.pdf

Eurostat (2017): Organic farming statistics. Data extracted in November. Statistics explained. The Eurostat website, Luxembourg. Last modified December 20, 2017. Available at http://ec.europa.eu/eurostat/statistics-explained/index.php/Organic_farming_statistics

Eurostat (2017): Data tables organic agriculture. The Eurostat website eurostat.ec.europa.eu Eurostat, Luxembourg.
Available at http://ec.europa.eu/eurostat/data/database

Eurostat (2016): Organic crop area on the rise in the EU. Eurostat News release of October 25, 2016. Available at http://ec.europa.eu/eurostat/documents/2995521/7709498/5-25102016-BP-EN.pdf

Meredith, S. and Willer, H. (Eds.) (2016): Organic in Europe 2016. IFOAM EU, Brussels and Research Institute of Organic Agriculture FiBL, Frick, 83 pages

Willer, H., Schaack, D., Lernoud, J. and Meredith, S. (2016): Growth trends in European organic food and farming. In: Meredith, S. and Willer, H. (Eds.) (2016): Organic in Europe 2016. IFOAM EU, Brussels and Research Institute of Organic Agriculture FiBL, Frick, pp 21-83

Willer, H. and Schaack, D. (2014) Final report on compilation of key organic market data. Research Institute of Organic Agriculture (FiBL), Frick, Switzerland.

[1] The project "Data network for better European organic market information" (OrganicDataNetwork) has received funding from the European Union's Seventh Framework Programme for Research, Technological Development and Demonstration under grant agreement no 289376.

[2] The data was collected by the Research Institute of Organic Agriculture (FiBL), Switzerland, and the Agricultural Market Information Company (AMI), Germany, which are among the partners of the OrganicDataNetwork. In addition, further data sources were used.

[3] This database is available at http://www.organicdatanetwork.net/odn-statistics.html

Organic Agriculture in Europe: Tables

Table 60: Europe: Organic agricultural land by country 2016

Country	Organic area [ha]	Organic share [%]	Increase 2015-2016 [%]	Increase 2007-2016 [%]	Increase 2015-2016 [ha]
Albania	662	0.1%	-	+244.7%	-
Andorra	4	0.02%	+100.0%	-	+2
Austria	571'585	21.9%	+3.3%	+19.3%	+18'015
Belarus		Wild collection only			
Belgium	78'452	6.0%	+14.0%	+152.7%	+9'634
Bosnia & Herzegovina	992	0.05%	+72.3%	+42.6%	+416
Bulgaria	160'620	3.5%	+35.5%	+672.1%	+42'068
Channel Islands	180	1.9%	-	-	-
Croatia	93'593	6.0%	+23.3%	+846.2%	+17'710
Cyprus	5'550	5.1%	+18.1%	+219.2%	+851
Czech Republic	488'591	11.5%	+2.2%	+56.2%	+10'558
Denmark	201'476	7.7%	+20.8%	+40.9%	+34'688
Estonia	180'852	18.9%	+16.1%	+117.1%	+25'046
Faroe Islands	253	8.4%	-	+2009.2%	-
Finland	238'240	10.4%	+5.8%	+60.8%	+13'005
France	1'538'047	5.5%	+16.3%	+174.1%	+215'845
Germany	1'251'320	7.5%	+14.9%	+46.5%	+162'482
Greece	342'584	4.2%	-15.8%	+24.0%	-64'485
Hungary	186'347	4.0%	+43.6%	+38.4%	+56'612
Iceland	22'710	1.2%	+131.8%	+344.2%	+12'913
Ireland	76'701	1.5%	+5.0%	+55.7%	+3'664
Italy	1'796'363	14.5%	+20.4%	+60.5%	+303'784
Kosovo	160	0.04%	-	-	-
Latvia	259'146	14.3%	+11.9%	+74.4%	+27'538
Liechtenstein	1'383	37.7%	+24.9%	+34.6%	+276
Lithuania	221'665	7.6%	+3.8%	+71.2%	+8'086
Luxembourg	4'274	3.3%	+1.4%	+26.3%	+58
Macedonia' FYROM	3'245	0.3%	+49.3%	+107.4%	+1'071
Malta	24	0.2%	-20.0%	+100.0%	-6
Moldova	30'142	1.2%	+4.9%	+160.6%	+1'413
Montenegro	3'470	1.5%	+8.0%	-69.1%	+257
Netherlands	52'204	2.8%	+5.9%	+15.0%	+2'931
Norway	47'621	4.8%	-	+1.3%	-19
Poland	536'579	3.7%	-7.6%	+101.6%	-44'152
Portugal	245'052	6.7%	+1.5%	+0.1%	+3'677
Romania	226'309	1.7%	-8.0%	+79.7%	-19'615
Russian Federation	289'890	0.1%	-24.7%	+748.7%	-95'250
San Marino		Processing only			
Serbia	14'358	0.4%	-6.1%	+2393.8%	-940
Slovakia	187'024	9.9%	+2.8%	+62.1%	+5'142
Slovenia	43'579	9.0%	+3.3%	+49.5%	+1'391
Spain	2'018'802	8.7%	+2.6%	+168.0%	+50'232
Sweden	552'695	18.0%	+6.5%	+82.3%	+33'712
Switzerland	141'249	13.5%	+2.9%	+22.3%	+4'015
Turkey	523'777	1.4%	+7.8%	+175.2%	+37'708
Ukraine	381'173	0.9%	-7.2%	+47.4%	-29'377
United Kingdom	490'205	2.9%	-1.2%	-23.4%	-5'724
Europe	**13'509'146**	**2.7%**	**+6.7%**	**+68.5%**	**+845'232**
European Union	**12'047'878**	**6.7%**	**+8.2%**	**+69.1%**	**+912'746**

Source: FiBL-AMI survey 2018 based on Eurostat and national data sources. For data sources see annex.

Table 61: Europe: Conversion status of organic agricultural land 2016

Country	Area [ha]	Area fully converted [ha]	Area under conversion [ha]
Albania	662		
Andorra	4	4	
Austria	571'585		
Belarus		Wild collection	
Belgium	78'452	56'055	22'397
Bosnia and Herzegovina	992	880	111
Bulgaria	160'620	36'275	124'345
Channel Islands	180	180	
Croatia	93'593	29'172	64'421
Cyprus	5'550	3'083	2'467
Czech Republic	488'591	427'331	61'260
Denmark	201'476	158'796	42'680
Estonia	180'852	150'442	30'411
Faroe Islands	253	253	
Finland	238'240	198'202	40'035
France	1'538'047	1'054'877	483'170
Germany	1'251'320		
Greece	342'584	308'279	34'305
Hungary	186'347	91'301	95'045
Iceland	22'710	22'594	116
Ireland	76'701	46'517	30'185
Italy	1'796'363	1'201'476	594'888
Kosovo	160	160	
Latvia	259'146	166'551	92'596
Liechtenstein	1'383	1'111	272
Lithuania	221'665	134'266	87'399
Luxembourg	4'274	3'746	528
Macedonia' FYROM	3'245	2'047	1'199
Malta	24	21	3
Moldova	30'142	21'394	8'747
Montenegro	3'470	3'049	421
Netherlands	52'204	46'669	5'534
Norway	47'621	44'681	2'940
Poland	536'579	430'896	105'683
Portugal	245'052	73'308	171'743
Romania	226'309	149'613	76'696
Russian Federation	289'890	69'042	31'237
Serbia	14'358	7'391	6'967
Slovakia	187'024	140'531	46'493
Slovenia	43'579	36'353	7'226
Spain	2'018'802	1'399'734	619'069
Sweden	552'695	472'237	80'458
Switzerland	141'249		
Turkey	523'777	379'042	144'735
Ukraine	381'173	289'551	91'622
United Kingdom	490'205	466'041	24'164
Europe	**13'509'146**	**8'123'150**	**3'231'568**
European Union	**12'047'878**	**7'281'771**	**2'943'201**

Source: FiBL-AMI survey 2018 based on Eurostat and national data sources. For data sources see annex.

Table 62: Europe: Land use in organic agriculture by country 2016

Country	Arable land crops [ha]	Permanent crops [ha]	Permanent grassland [ha]	Total [ha]
Albania	93	420		662
Andorra		4		4
Austria	205'610	8'777	357'037	571'585
Belarus				
Belgium	26'437	807	51'208	78'452
Bosnia and Herzegovina	408	68		992
Bulgaria	89'472	33'108	38'736	160'620
Channel Islands				180
Croatia	44'186	10'316	39'089	93'593
Cyprus	2'909	2'556	85	5'550
Czech Republic	64'995	5'608	417'987	488'591
Denmark	167'990	687	32'798	201'476
Estonia	84'023	2'007	94'821	180'852
Faroe Islands	1		252	253
Finland	235'929	445	1'863	238'240
France	830'870	104'504	601'974	1'538'047
Germany	510'000	19'000	712'000	1'251'320
Greece	104'529	52'692	185'363	342'584
Hungary	73'252	8'226	104'869	186'347
Iceland	697	280	8'227	22'710
Ireland	6'114	50	70'551	76'701
Italy	774'449	449'004	506'152	1'796'363
Kosovo	160			160
Latvia	138'247	1'919	118'979	259'146
Liechtenstein	308	7	1'069	1'383
Lithuania	144'485	6'218	70'961	221'665
Luxembourg	1'804	76	2'393	4'274
Macedonia' FYROM	2'815	430		3'245
Malta	9	15		24
Moldova	25'982	4'160		30'142
Montenegro	263	408	2'799	3'470
Netherlands	21'888	577	29'738	52'204
Norway	38'383	282	8'956	47'621
Poland	364'440	34'642	137'497	536'579
Portugal	47'310	45'395	152'351	245'052
Romania	158'009	10'689	57'612	226'309
Russian Federation	92'303	84	725	289'890
Serbia	9'592	3'339	1'429	14'358
Slovakia	60'263	1'577	125'184	187'024
Slovenia	5'700	2'384	35'494	43'579
Spain	491'786	474'635	1'052'381	2'018'802
Sweden	430'361	543	121'790	552'695
Switzerland	28'695	1'730	110'823	141'249
Turkey	294'146	211'127	15'499	523'777
Ukraine	307'000	5'000	45'000	381'173
United Kingdom	150'982	4'221	335'001	490'205
Europe	**6'036'893**	**1'508'016**	**5'648'692**	**13'509'146**
European Union	**5'236'049**	**1'280'678**	**5'453'914**	**12'047'878**

Source: FiBL-AMI survey 2018 based on Eurostat and national data sources. For data sources see annex. Total includes other agricultural areas for which no land use details were available.

Table 63: Europe: Organic agricultural land and wild collection areas by country 2016

Country	Agricultural land [ha]	Wild collection [ha]	Total [ha]
Albania	662	467'783	468'445
Andorra	4		4
Austria	571'585		571'585
Belarus		2'742	2'742
Belgium	78'452	3	78'454
Bosnia and Herzegovina	992	69'310	70'302
Bulgaria	160'620	307'020	467'640
Channel Islands	180		180
Croatia	93'593	8	93'601
Cyprus	5'550		5'550
Czech Republic	488'591		488'591
Denmark	201'476	2'648	204'124
Estonia	180'852	40'579	221'431
Faroe Islands	253		253
Finland	238'240	11'628'576	11'866'816
France	1'538'047		1'538'047
Germany	1'251'320		1'251'320
Greece	342'584	317'053	659'637
Greenland			
Hungary	186'347		186'347
Iceland	22'710	212'468	235'178
Ireland	76'701		76'701
Italy	1'796'363	176'628	1'972'991
Kosovo	160	179'580	179'740
Latvia	259'146		259'146
Liechtenstein	1'383		1'383
Lithuania	221'665		221'665
Luxembourg	4'274		4'274
Macedonia' FYROM	3'245	556'600	559'845
Malta	24		24
Moldova	30'142		30'142
Montenegro	3'470	143'410	146'880
Netherlands	52'204		52'204
Norway	47'621		47'621
Poland	536'579		536'579
Portugal	245'052	40'000	285'052
Romania	226'309	1'787'548	2'013'857
Russian Federation	289'890	30'921	320'811
San Marino			
Serbia	14'358	1'550	15'908
Slovakia	187'024		187'024
Slovenia	43'579	13'238	56'817
Spain	2'018'802		2'018'802
Sweden	552'695		552'695
Switzerland	141'249		141'249
Turkey	523'777	137'433	661'210
Ukraine	381'173	550'000	931'173
United Kingdom	490'205		490'205
Europe	**13'509'146**	**16'665'097**	**30'174'243**
European Union	**12'047'878**	**14'313'300**	**26'361'178**

Source: FiBL-AMI survey 2018 based on Eurostat and national data sources. For data sources see annex.

Table 64: Europe: Organic producers' processors and importers by country 2016

Country	Producers	Processors	Importers	Exporters
Albania	51	22	4	25
Andorra	1	3	1	
Austria	24'213	1'683	57	10
Belarus		1		1
Belgium	1'946	1'116	183	84
Bosnia and Herzegovina	45	17		13
Bulgaria	6'964	175	13	9
Croatia	3'546	312	8	0
Cyprus	1'174	57	4	4
Czech Republic	4'271	616	190	96
Denmark	3'306	972	78	80
Estonia	1'753	135	26	2
Faroe Islands	1	1		
Finland	4'493	535	80	11
France	32'264	12'826	223	
Germany	27'132	14'501	1'598	787
Greece	20'197	1'495	20	69
Hungary	3'414	442	34	
Iceland	28	30	2	2
Ireland	1'767	277	24	
Italy	64'210	16'578	363	518
Kosovo	100	5		2
Latvia	4'145	48	9	1
Liechtenstein	43			
Lithuania	2'539	65	11	2
Luxembourg	93	82	4	
Macedonia, FYROM	509	17	1	6
Malta	14	7	13	
Moldova	114	2	1	72
Monaco		1		
Montenegro	280	12		
Netherlands	1'557	990	364	81
Norway	2'083	399	79	1
Poland	22'435	705	120	180
Portugal	4'313	616	9	7
Romania	10'083	150	5	5
Russian Federation	55	35		9
San Marino		2		
Serbia	286	44	39	8
Slovakia	431	36	13	2
Slovenia	3'513	310	14	
Spain	36'207	3'810	205	92
Sweden	5'741	1'144	165	10
Switzerland	6'348	1'224	501	
Turkey	67'879	1'422	61	46
Ukraine	294			
United Kingdom	3'402	2'969	135	
Europe	**373'240**	**65'889**	**4'657**	**2'235**
European Union	**295'123**	**62'652**	**3'968**	**2'050**

Source: FiBL-AMI survey 2018 based on Eurostat and national data sources. For data sources see annex.

Table 65: Europe: The organic food market 2016

Country	Retail sales [Million €]	€/person [€]	One year growth [%]	Organic share [%]	Exports [Million €]	Catering [Million €]
Austria	1'542	177	13%	7.9%	80 (2011)	98
Belgium	586	52	12%	3.2%		
Bosnia and Herzegovina	0.4	0.1			2	
Bulgaria	7 (2010)	1 (2010				
Croatia	99 (2014)	24 (2014)		2.2% (2014)	3 (2011)	
Cyprus	2 (2006)	2 (2006)				
Czech Rep.	79 (2015)	7 (2015)		0.8% (2015)	53 (2015)	3
Denmark	1'298	227	20%	9.7%	329	271
Finland	273	50	14%	2.0%	10 (2014)	
France	6'736	101	22%	3.5%	629	411
Germany	9'478	116	10%	5.1%		
Greece	60 (2010)	5 (2010)				
Hungary	30 (2015)	3 (2015)			20 (2009)	
Ireland	150	32	22%	0.7% (2011)		
Italy	2'644	44	14%	3.0%	1'915	377
Kosovo					6	
Latvia	4 (2011)	2 (2011)		0.2%(2011)		
Liechtenstein	6	171	15%			
Lithuania	6 (2011)	2 (2011)		0.2% (2011)		
Luxembourg	108	188	15%	8.6%		
Moldova					15	
Montenegro	0.1	0.2				
Netherlands	1'171	69	9%	4.4%	1'200	230
Norway	394	76	20%	1.7%		25
Poland	167 (2015)	4 (2015)				
Portugal	21 (2011)	2 (2011)		0.2%		
Romania	80 (2011)	4 (2011)		0.7%(2011)	200 (2011)	
Russia	120 (2009)	1				
Serbia					19	
Slovakia	4	1		0.2%		
Slovenia	49 (2013)	27 (2013)		1.8%(2013)	0	0
Spain	1'686	36	13%	1.7%	891	
Sweden	1'944	197	12%	7.9%	84	475
Switzerland	2'298	274	8%	8.4%		
Turkey	4	0.05			78	
Ukraine	21	0.5			59	
UK	2'460	38	7%	1.5%		93
Europe	**33'526**	**60**	**11%**			
European Union	**30'682**	**40**	**12%**			

Source: FiBL-AMI survey 2018. For details on data sources see annex.

Note on table: Where no published data exists, best estimates from experts have been used, but new data were not available for all countries. Therefore, in some cases earlier estimates are shown. Values published in national currencies were converted to euros using the 2016 average exchange rates according to the Central European bank. Please note that due to fluctuating exchange rates it is not possible to make a year-to-year comparison for countries that do not have the Euro as their currency.

Organic in Ukraine

OLGA TROFIMTSEVA[1] AND NATALIE PROKOPCHUK[2]

The organic market in Ukraine is constantly developing. Thanks to the country's size (603.6 thousand km² including 42.7 million hectares of agricultural land, according to the State Statistics Service of Ukraine), geographical location, proximity to potential international buyers, and widespread fertile black soils, Ukraine has favourable conditions for organic agriculture.

Organic area and operators

In 2017, the Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine collected data on organic agriculture among certification bodies that certified organic production and trade of organic products according to the EU organic regulation and the US National Organic Program (NOP) in Ukraine.

The data (as of December 31, 2016) show the following:

- Fully converted organic agricultural area (EU): 289'551 hectares,
- Agricultural area in conversion (EU): 91'622 hectares,
- Total area of agricultural land organic (fully converted and in conversion) (EU): 381'173 hectares
- Total area of agricultural land: 42.7 million hectares (http://www.ukrstat.gov.ua)
- Organic share of total agricultural land: 0.89%
- Total number of operators (EU): There are 426 operators of which 294 are agricultural producers
- Total number of certification bodies (EU): 19

The majority of organic operators in Ukraine are certified according to the EU organic standard, i.e., equivalent to EU Regulations 834/2007 and 889/2008, which are used for both export and domestic markets.

Organic exports

In the last few years, Ukraine has become an important supplier of organic products for Western markets. The main organic export products from Ukraine are cereals, oil crops, pulses, wild collected berries, mushrooms, nuts, and herbs.

[1] Olga Trofimtseva, Ministry of Agrarian Policy and Food of Ukraine, Deputy Minister on European Integration, olga.trofimtseva@minagro.gov.ua, Khreshchatyk street, 24, Kyiv city, 01001, Ukraine; www.minagro.gov.ua
[2] Natalie Prokopchuk, SECO-FiBL Project "Organic Market Development in Ukraine", Project Manager, natalie.prokopchuk@fibl.org, Khreshchatyk street, 15, office 6, Kyiv city, 01001, Ukraine; www.ukraine.fibl.org

According to data from the leading certification body, Organic Standard, in 2017, the top organic products (by volume) exported by their clients from Ukraine were: corn, wheat, soya, barley, spelt, sunflowers, hulled millet, rapeseed, blueberries (frozen), oats, millet, lupine, apples (fresh), buckwheat, mustard, elderberries (fruits), pumpkin seeds, birch sap, flax, flakes, rye, walnuts (kernel), sea-buckthorn (frozen), blackberries (frozen), rosehip (frozen), coriander, pea, elderberries (flowers frozen), wild strawberry (frozen), cranberries (frozen), apple juice concentrate, hawthorn (frozen), sunflower cakes, durum wheat flour, cowberry fruits (frozen), black chokeberry fruits (frozen), chamomile (dried), hemp, raspberries (frozen), and sunflower oil.

More and more Ukrainian operators intend to export not only raw materials but also organic semi-processed and processed products.

In 2016, organic exports from Ukraine were about 300 thousand tons with a value of more than 65 million US dollars[1] (estimated data from the survey conducted by the Organic Standard certification body with Ukrainian exporters). The organic exporters from Ukraine benefit from the Association Agreement signed in June 2014 between the EU and Ukraine, which has reduced trade barriers for Ukrainian exporters. Since January 2016, the EU and Ukraine have been applying the Deep and Comprehensive Free Trade Area (DCFTA), which forms part of the Association Agreement. At the same time, Ukrainian exporters suffer from the EU guidelines on additional official controls on products from Ukraine, which have been applied since January 2016.

According to the Organic Standard data, the top 11 importers (by volume) of Ukrainian organic products[2] are the Netherlands, Germany, the UK, Italy, Austria, Poland, Switzerland, Belgium, the Czech Republic, Bulgaria, and Hungary. Ukrainian producers also export to the United States, Canada, Australia and some Asian countries.

Domestic market

The domestic market for organic products started to emerge at the end of the 2000s, and in 2008, the first Ukrainian organic labelled products appeared on the shelves of Ukrainian retailers. The main sales channels are supermarkets and specialty shops in big cities. The assortment of organic products available on the shelves is still not full. Consumers can buy the following Ukrainian organic product categories in retail shops: dairy and meat products, grocery and bakery products, flour, macaroni products, vegetable oils, beverages (juice, birch sap, herbal tea), canned products (e.g., berry paste, syrup, jam), some vegetables and fruits, etc. The biggest challenge for the domestic market is a low awareness of organic among consumers.

[1] According to the Central European Bank, I euro corresponded to 1.1069 US dollars in 2016.
[2] The data do not only refer to operators that were certified by Organic Standard.

Ukraine follows the global trend of "regional + organic" and already has some success stories of Ukrainian exporters with products having both organic and regional labelling (from the Ukrainian Carpathians).

Certification bodies

Fifteen internationally accredited certification bodies are included in the official list of approved organic certification bodies for Ukraine according to EU Regulation 1235/2008 (as of 16/10/2017). These are: Organic Standard, Bio.inspecta AG, Ecocert SA, CERES Certification of Environmental Standards GmbH, Control Union Certifications, Kiwa BCS Öko-Garantie GmbH, Ecoglobe, Istituto Certificazione Etica e Ambientale (ICEA), Lacon GmbH, Suolo e Salute srl, Agreco R.F. Göderz GmbH, Bioagricert S.r.l., Ekoagros, A CERT European Organization for Certification S.A. and Valsts SIA "Sertifikācijas un testēšanas centrs". The only Ukrainian certification body is Organic Standard; all others are foreign or their local branches. Since 2015 most of the certification bodies active in Ukraine have participated in the Platform Ukraine at the European Organic Certifiers Council (EOCC).

Organic stakeholders

The Ukrainian organic sector is represented by the following organic stakeholders: QueS consultancy body, Organic Standard certification body, Information center "Green Dossier", Organic Ukraine Public Union of Producers of Certified Organic Products, Organic Federation of Ukraine, Ecoterra Lviv NGO, VIP Group, Organic Business, Sib-Agro, Institute of Organic Production, BIOLan Ukraine Association of Organic Production Stakeholders, Natur Boutique, Ukrainian Organic Cluster, Retail Academy as well as active organic producers, processors, and traders.

International support

Ukraine had been receiving international support for the organic market development from

- Switzerland: Swiss State Secretariat for Economic Affairs (SECO), Research Institute of Organic Agriculture (FiBL), Swiss Agency for Development and Cooperation (SDC), and Bern University of Applied Science (BFH) since 2002,
- Germany: Federal Ministry of Food and Agriculture (BMEL) and AFC/IAK[1] since 2016, and
- United States: USAID through the AgroInvest project in 2011-2016 and the Agriculture and Rural Development (ARDS) project since 2016.

[1] AFC is the Agriculture & Finance Consultants GmbH (AFC), www.afci.de. IAK is the IAK Agrar Consulting GmbH www.iakleipzig.de.

Policy on organic

The development of the organic market in Ukraine is one of the priority areas in the reforming strategy plan for the agricultural sector "3+5", which is based on the Strategy for Agriculture and Rural Development 2015-2020. This strategy has been initiated and elaborated by the Ministry of Agrarian Policy and Food of Ukraine in cooperation with local organic stakeholders and international partners. Experts of organic priority of the Strategy started their work in May 2017 at the Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine.

The Ukrainian Law on organic production and trade of organic products and raw materials No 425-VII was adopted on September 3, 2013 but has not been implemented. The Ministry of Agrarian Policy and Food of Ukraine has initiated a new draft of the organic law and elaborated it in partnership with key organic stakeholders and with support from international partners aiming at harmonization with the EU organic Regulation. This draft of the organic law on basic principles and requirements for organic production, circulation, and labelling of organic products is registered in the Ukrainian Parliament under No 5448 from 24.11.2016 and is now being fine-tuned by the Committee on Agricultural Policy and Land Affairs of the Verkhovna Rada of Ukraine (the Ukrainian Parliament).

The Ukrainian state logo for labelling of organic products was officially registered as a trademark owned by the Ministry of Agrarian Policy and Food of Ukraine.

Figure 93: Ukrainian state organic logo

Key organic events in 2017

The First International Congress "Organic Ukraine 2017" (January 26-28, 2017, Kyiv city) gathered more than 250 participants, including 70 speakers from nine countries, for the exchange of experience and the establishment of mutually beneficial cooperation. Both Deputy Ministers of Agrarian Policy and Food of Ukraine, who are responsible for the topic of organic agriculture, Olga Trofimtseva and Olena Kovaliova, made presentations and answered questions from Ukrainian producers, international buyers, and other participants. One of the practical results of the

Congress was the conclusion of two international agreements on the supply of organic products to Switzerland. Within the framework of the Congress, there was also an exhibition of organic products, where 36 exhibitors attracted the attention of more than 3'000 visitors.

More transparency could be achieved through verifying good organic farming practices, shorter supply chains, and traceability – these were the conclusions of the approximately 169 participants from 14 countries at the International Conference "Improving Integrity of Organic Supply Chains" held on September 22 and 23, 2017 in Odesa city.

The fourth Ukrainian National Pavilion was organized at BIOFACH 2017 (February 15-18, 2017, Nuremberg, Germany). Seventeen exhibitors of the Ukrainian National Pavilion had more than 800 business meetings. For the first time, Ukraine was presented at a high policy level. The 2nd Forum "Ukraine — Your organic sourcing Partner" at the BIOFACH 2017 gathered about 120 participants from 10 countries.

In 2018, the Ukrainian National Pavilion will celebrate its fifth anniversary at the international organic trade fair BIOFACH.

Mediterranean Countries

Organic Agriculture in the Mediterranean Region: Recent Data Outline

MARIE REINE BTEICH,[1] PATRIZIA PUGLIESE,[2] LINA AL-BITAR,[3] AND SUZANA MADŽARIĆ[4]

The Mediterranean Organic Agriculture Network (MOAN[5]) pursues its commitment to collect and disseminate data on the organic sector in the Mediterranean region and plays a bridging role for institutional dialogue and exchange among member countries. Figures presented in this report refer to 2016.

Latest figures

According to the latest data, the total certified organic area in the Mediterranean region covers over 7.9 million hectares, of which 6.9 million hectares are organic agricultural area (Table 66). The largest part of the Mediterranean organic area is in the Mediterranean countries of the European Union (EU Med) totalling 79 percent of the total organic area and 87 percent of the agricultural organic area. Candidate and Potential Candidate (CPC) countries follow with 14 and 8 percent, respectively. Only 7 percent and 5 percent of these areas are located in the Southern and Eastern Mediterranean (SEM) countries, respectively.

Countries with the largest organic agricultural land areas are Spain, Italy and France, which are all EU Med countries. Turkey is by far the leader in the CPC countries. Tunisia followed by Egypt, stand out in the SEM countries in terms of organic agricultural area.

[1] Marie Reine Bteich, MOAN Secretariat, CIHEAM Bari, Istituto Agronomico Mediterraneo di Bari, Via Ceglie, 9, 70010 Valenzano, Italy. www.iamb.it.
[2] Patrizia Pugliese, MOAN Secretariat, CIHEAM Bari, Istituto Agronomico Mediterraneo di Bari, Via Ceglie, 9, 70010 Valenzano, Italy. www.iamb.it.
[3] Lina Al-Bitar, MOAN Secretariat, CIHEAM Bari, Istituto Agronomico Mediterraneo di Bari, Via Ceglie, 9, 70010 Valenzano, Italy. www.iamb.it.
[4] Suzana Madžarić, CIHEAM Bari, Istituto Agronomico Mediterraneo di Bari, Via Ceglie, 9, 70010 Valenzano, Italy. www.iamb.it.
[5] MOAN is an institutional platform for representatives of Ministries in charge of agriculture to exchange data, knowledge and experience for the development of Mediterranean Organic Agriculture. MOAN is a tool to promote cooperation and policy dialogue for sustainable production and consumption patterns in changing Mediterranean communities and territories, through the diffusion of organic agriculture's lasting values and innovative practices. Currently, the network includes 23 Euro-Mediterranean countries (http://moan.iamb.it/).

Table 66: Organic statistics in EU Med, Candidate and Potential Candidate (CPC) and Southern and Eastern Mediterranean (SEM) countries, 2016

	Country	Total organic area[a] [ha]	Organic agricultural area [ha]	Total number of organic operators [no.]
EU Med Countries	Croatia	93'814	93'814	3'673
	Cyprus[b]	5'550	5'550	1'239
	France	1'537'351	1'537'351	47'106
	Greece	342'584	342'584	21'781
	Italy	1'972'991	1'796'363	72'154
	Malta	24	24	37
	Portugal	245'052	245'052	4'672
	Slovenia	43'579	43'579	3'842
	Spain	2'018'802	2'018'802	39'744
	EU Med total	*6'259'748*	*6'083120*	*194 '248*
Candidate and Potential Candidate countries	Albania[c]	330'885	662	51
	Bosnia & Herzegovina	n.a.	n.a.	n.a.
	FYROM	15'192	2'818	588
	Montenegro	146'880	3'470	280
	Serbia	14'358	14'358	290
	Turkey	576'983	523'777	69'408
	CPC total	*1'074'297*	*545'084*	*70'617*
Southern and Eastern Med Countries	Algeria	1'400	772	70
	Egypt	165'908	105'908	1'212
	Jordan	1'517	1'517	19
	Lebanon	1'472	1'079	129
	Libya	n.a.	n.a	n.a.
	Morocco	180'035	10'000	400
	PNA[d]	5'993	5'993	1'553
	Syria	n.a.	n.a	n.a.
	Tunisia	234'457	178'536	3'655
	SEM total	*590'781*	*303'805*	*7'038*
Total		**7'925'385**	**6'932'009**	**271'903**

Source: MOAN - Mediterranean Organic Agriculture Network
[a] Includes wild collection and forests; [b] Eurostat data; [c] Data from 2014; [d] Palestine National Authority
Note: For some countries, FiBL and MOAN are not using the same data sources, hence the differences in the data in some cases (both for the organic agricultural area as well as the percentages).

The regional patterns change when considering non-agricultural area distribution. As noted in past years, in non-EU countries a substantial share of the total organic area is dedicated to non-agriculture land use, mainly for grazing, wild collection and forests, with almost equal in the CPC and SEM countries (49 percent). In EU Med countries, the non-agricultural organic area is by far less important (2.8 percent of the total organic area).

At the country level, Montenegro is the country with the highest share of non-agricultural organic area (97 percent) followed by Morocco (94 percent) and the Former Yugoslav Republic of Macedonia (82 percent). As of 2014, almost all of

Albania's organic area was non-agricultural land; no recent data are available to confirm whether this is still the case.

Over 71 percent of the organic operators are concentrated in the EU Med countries, 26 percent in the CPC and 3 percent in the SEM countries.

Producers remain the most numerous category of operators in all the Mediterranean countries (89 percent) regardless of geographical sub-region or country.

Organic share of the agricultural area

In order to have a more comprehensive picture of the organic cultivated land in each country in the Mediterranean region, the organic share of the total Utilized Agricultural Area (UAA) is given.

Italy has a leading position within EU Med countries with an organic share of 14.5 percent of the total agricultural land followed by Spain (7.7 percent) and Slovenia (7.1 percent). In France, despite the 1.5 million hectares of organic agricultural area, the organic share is only 5.4 percent.

The organic share of total agricultural land is significantly lower in CPC and SEM countries, where the highest values are in Montenegro (1.5 percent) and Turkey (1.4 percent) in CPC, and Egypt (2.8 percent) and Tunisia (1.8 percent) in SEM.

A focus on processors

The distribution of processors among the three sub-regions is not much different from that of the producers. EU Med countries account for 94 percent of organic processors, while only 4 percent and 2 percent are present in the CPC and SEM countries, respectively.

At the same time, it is worth noting that in most SEM countries, an important share of organic operators are engaged in processing, particularly in Morocco (71 percent) and Lebanon (39.5 percent) (Figure 94). This is a clear indicator of the growing importance of processing activities in the organic sector of these countries. Unfortunately, detailed information about organic processors in the SEM and CPC countries is not yet regularly available.

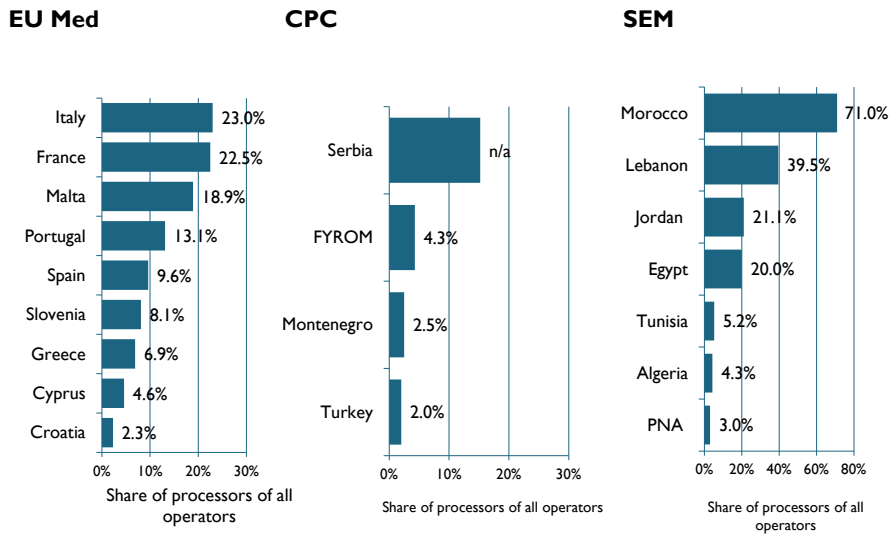


Figure 94: Share of organic operators involved in processing in the EU Med, candidate and potential candidate (CPC), and southern and eastern Mediterranean (SEM) countries, 2016

Source: MOAN - Mediterranean Organic Agriculture Network
Note: For some countries, FiBL and MOAN are not using the same data sources, hence the differences in the data in some cases (both for the organic agricultural area as well as the percentages).

A focus on data collection[1]

The legislative and regulatory framework in the Mediterranean area highly differs between the EU Med, CPC and SEM and among countries within the CPC and SEM sub-regions. This directly affects organic data collection and availability.

Each year, all EU countries have to send the sector figures to the European Commission. Therefore, official mechanisms for organic statistics collection are well established.

In the CPC countries, many countries, such as the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey have already implemented their national organic legislation and are at a very advanced stage of harmonisation with the (EC) No. 834/2007. Consequently, the competent authority (Ministry of Agriculture) has the mandate to collect and store data on the sector. Therefore, structural data on the organic sector are officially available and communicated to the EC. In Serbia, an *ad hoc* software has been developed for the Ministry of Agriculture and is currently being further modified to regularly collect and organise data and information about the

[1] Contents based on information from: Patrizia Pugliese, Marie Reine Bteich and Lina Al-Bitar (eds.) (8. (2014) Mediterranean Organic Agriculture key Features, recent Facts, latest Figures. REPORT 2014. Mediterranean Organic Agriculture Network (MOAN), CIHEAM Bari.

organic sector in the country. In Turkey, the Organic Farming Information System (OFIS) has been in operation since 2005 and allows direct data entry from the control bodies. In Albania and in Bosnia and Herzegovina, where national organic legislation is absent, data collection is not mandatory. Therefore, comprehensive data are very hard to obtain and, when available, data collection is still essentially based on direct communication with informal contacts.

Among the SEM countries, detailed data are available in Lebanon and Tunisia. In Lebanon, where the sector is regulated by a ministerial decree and there is only one control body operating in the country, data are mandatorily communicated to the Ministry of Agriculture. In Tunisia, the national law is fully implemented and data are mandatorily communicated by the control bodies to the Ministry of Agriculture. In the other SEM countries (Algeria, Egypt, Jordan, Morocco and Palestine National Authority), where no national law is fully implemented, data collection is also essentially based on direct and informal communication and contacts, which sometimes provide only partial information.

Acknowledgements

Our special thanks to all MOAN contacts who shared country data:

- Ms Hadjira Houria Abdellaoui, MOAN delegate. Ministry of Agriculture and Rural Development, Algeria
- Ms Darija Musulin. Ministry of Agriculture, Croatia
- Mr Atef Abdel-Azziz Ragab, MOAN Delegate. Central Laboratory for Organic Agriculture, Egypt
- Ms Olivera Bicikliski, MOAN Delegate. Ministry of Agriculture, Forestry and Water Management, Former Yugoslav Republic of Macedonia
- Ms Florence Aillery, MOAN delegate. Ministry of Agriculture, Food and Forestry, France
- Mr Filippos Sekkas. Ministry of Rural Development and Food, Greece
- Ms Roberta Cafiero, MOAN delegate. Ministry of Agriculture and Forestry Policies, Italy
- Ms Tamam Khawalda, MOAN Delegate. Ministry of Agriculture, Jordan
- Ms Pauline Eid Saad, MOAN Delegate. Ministry of Agriculture, Lebanon
- Mr Leo Vella, MOAN delegate. Ministry for the environment, sustainable development and climate change, Malta
- Ms Andrijana Rakočević, MOAN Delegate. Ministry of Agriculture Montenegro
- Mr Allal Chibane, MOAN Delegate. Ministry of Agriculture and Fisheries, Morocco
- Mr Ibrahim Abdalhamid, MOAN Delegate. Ministry of Agriculture and Rural Development, Palestine National Authority
- Ms Cristina Hagatong, MOAN delegate. Ministry of Agriculture, Forestry and Rural Development, Portugal
- Ms Jelena Milic, MOAN delegate. Ministry of Agriculture, Forestry and Water Economy, Serbia
- Mr Tomaž Džuban, MOAN delegate. Ministry of Agriculture, Forestry and Food, Slovenia
- Mr José Miguel González, MOAN delegate. Ministry of Agriculture, Food and Environment, Spain
- Ms Samia Maamer, MOAN Delegate. Ministry of Agriculture and Water Resources, Tunisia
- Ms Elif Bayaraktar Öktem, MOAN Delegate. Ministry of Food, Agriculture and Livestock, Turkey

Latin America and the Caribbean

Map 5: Organic agricultural land in the countries of Latin America and the Caribbean 2016 (in hectares)

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330.

Latin America and the Caribbean

PATRICIA FLORES[1]

The region has the challenge of pursuing economic growth and development while securing wellbeing, democracy, and peace. The high inequity, which is demonstrated by the fact that seven out of the ten most inequitable countries are in Latin America, indicates that major efforts are needed to bring prosperity to a vast part of the population. These efforts should mainly target the rural population, most of whom make their living from agriculture and natural resources. Hence, the kind of growth the region needs has to do with inclusion, social equity, climate change dynamics and environmental needs.

Latin America has very prominent organic value chains in the international market, delivering tangible and growing benefits to thousands of smallholders. Some examples are organic panela and banana in north-western Peru, chocolate in Ecuador, quinoa in Bolivia, and coffee in Mexico.

Organic domestic markets have been growing steadily in the last decade. The biggest organic domestic market is in Brazil, where the National Program of School Meals, which has been a major achievement since 2009, stipulates that 30 percent of the public procurement budget should be used to buy from family farms with preference given to organic farmers. Nowadays, more than 40 million students in public schools are fed under this program, and it has resulted in a secure market for organic family farmers.

Climate change is causing severe climate events, which are becoming part of the news every year in climate vulnerable countries. Hurricane Maria (and Irma) is the worst natural disaster on record in Dominica, and caused catastrophic damage and a major humanitarian crisis in Puerto Rico. The La Niña floods in early 2017 on the Pacific coast of North and Central Peru also caused such significant damage that the Peruvian government is still struggling to restore parts of northern Peru.

In this challenging scenario, the potential of the organic sector and movement in Latin America and the Caribbean is linked to its strategy for sustainable development. Therefore, in order to reach the Sustainable Development Goals (SDG), the region definitely needs to embrace organic food systems to bring equity, prosperity and peace to the region.

Inter-American Commission for Organic Agriculture (CIAO)

The Inter-American Commission for Organic Agriculture (CIAO) was launched in 2008, embedded in the hemispheric outreach of the Inter-American Institute for

[1] Patricia Flores Escudero, Latin America Coordinator of IFOAM – Organics International, Salta, Argentina

Cooperation on Agriculture (IICA). After nine years of meeting, discussing, developing ideas and implementing initiatives and programs, CIAO launched its new webpage and newsletter and also integrated authorities promoting organic agriculture. By doing so, CIAO is not only working together with control authorities but also with governmental staff in charge of fostering and strengthening the organic sector in each country.

CIAO works on issues in four strategic areas:

- Facilitating trade and market development of organic products (in which a lot of work is dedicated to harmonizing and developing equivalent organic regulations with the European Union, USA, Canada and Japan);
- Strengthening national control systems for organic production;
- Fostering organic production; and
- Information and knowledge management.

CIAO has 19 country members: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, United States of America, Honduras, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay, and Venezuela. Spain and Canada are permanent observers. The elected Board is comprised of Ecuador (President), United States of America, Honduras, and the Dominican Republic.

Country reports

Mexico

Mexico has committed to remaining the seventh largest producer of organic food globally, and the fourth in the region, with at least 1.2 million hectares of organic land (including wild collection). With 210'000 organic producers, it also has the third most organic producers, after India and Uganda.

SAGARPA, the national authority for the organic sector, has also committed to continuing its effort to develop their domestic markets. They will allocate resources to promote and strengthen organic production and markets, as it is in Guadalajara, Oaxaca, Jalapa, Texcoco, and Guanajato among others. The social impact of the organic sector is huge as eight out of ten organic producers are indigenous people with less than one hectare of land.

Panama

The Ministry of Agricultural Development (Ministerio de Desarrollo Agropecuario – MIDA), with the support of the Spanish Agency for International Development Cooperation (AECID), officially launched a public organic certification program in 2017. With this initiative, Panama is the first Latin-American country to have a public certification service for organic products. The Panama national organic authority (Autoridad de Control y Certificación de Productos Orgánicos - ACERT) will be in

charge of the public certification. They will authorize sales and promote organic products within the national territory.

The organic regulation, which came into force with Executive Decree 121, of September 2015, introduced important changes such as the inclusion of animal husbandry in the regulation, which was the base to create and develop the Organic Public Certification (ACERT) and the National Organic Seal.

The Spanish Agency for International Development Cooperation (AECID) has been supporting MIDA for more than ten years with the aim to strengthen and promote public policies through the "Institutional Strengthening and Integration of Policies and Strategies for National Rural Development" and the "Integrated Project for the Costa Debajo de Colon Development." projects. Currently, AECID has dedicated a fund of 2.26 million US dollars and a team of experts to support a public-private alliance for development, and foster local organic markets with public certification. The government has acknowledged the work done by the Ministry and the Direction of Plant Protection, Riba Smith Group, Tienda Orgánica, the Panamanian Association of Organic Production (APAO), and La Esperanza Cooperative (of smallholders), who are jointly working with AECID toward these goals.

This is the first time that a public-private alliance for development has worked together with civil society, the private sector and international cooperation agencies to build public policies to improve economic opportunities for rural families that work as organic producers. Already more than 30 organic farmers have registered to obtain the organic seal through the public certification program.

Ecuador

Agrocalidad Ecuador launched its official national seal for organic production with the aim to develop a tool to facilitate the identification of organic products for consumers. The seal has to be used by all organic operators for labelling and marketing purposes, for fresh and processed products complying with the organic regulation of Ecuador.

AGROCALIDAD allows certification bodies that have been accredited by the national authority the use of the seal.

The organic regulation in Ecuador was approved in 2013 via the Ministerial agreement Nº 299 and Resolution Nº 99 of the same year. Organic production in Ecuador is developed in 23 out of 24 provinces. It has registered almost 34'000 organic hectares, and 6'000 hectares are in transition. There are 468 operators, half of which are individual enterprises, whereas others are group certifications, made up of more than 12'000 producers.

Figure 95: Ecuador: Agrocalidad organic seal

Colombia

Colombia is a relevant country in the history of agroecology and organic production in the region. The organic movement is trying to reorganize with a national event gathering organic leaders and pioneers of the organic and biodynamic movement.

In 2017, the Colombian government implemented the program "Promotion for Sustainable Economic Development" (PRODES) with the German Development Organisation (GIZ). This program puts a strong focus on Participatory Guarantee Systems (PGS) with the aim to strengthen capacities to organize and implement PGS for organic domestic markets in Colombia. Furthermore, the programme includes a draft for discussion among stakeholder for policy development and a 40-hour course for interested stakeholders. Pilot areas were identified, and the program is running with high expectations from the organic sector.

Chile

In October 2017, the Republic of Chile and the European Union (EU) announced the completion of the necessary internal procedures related to the agreement on trade in organic products. The agreement entered into force on January 1, 2018.

According to the Chilean Ministry of Agriculture of Chile, the new rules are based on the mutual recognition, between the European Union and Chile, of the equivalence of their respective rules and control systems about organic production.

The agreement, which aims to encourage trade in organic products and thereby boost development in the organic sector in Chile and the European Union, also includes a system of co-operation, exchange of information and dispute settlement in organic trade.

With this agreement, organic food that is produced in the European Union and covered by the agreement can be marketed in Chile without further controls. The same will apply to a number of Chilean organic products in the European Union.

It will apply to EU organic products such as unprocessed plant products, live animals or unprocessed animal products (including honey), aquaculture products and seaweeds, processed agricultural products for use as food (including wine), processed agricultural products for use as feed, vegetative propagating material and seeds for cultivation.

On the other hand, the European Union will recognize the following products from Chile as equivalent: unprocessed plant products, honey, processed agricultural products for use as food (including wine), vegetative propagating material, and seeds for cultivation.

In relation to labelling, the agreement stipulates that products may bear the European Union's organic logo, the Chilean organic logo, or both logos, as set out in the relevant laws and regulations, if they comply with the labelling requirements for the respective logo or for both logos.

The agreement with Chile is the first of the "new generation" of agreements in trade in organic products and the first bilateral recognition with a Latin American country. Chilean authorities are now working on a similar agreement with the US government.

Another major achievement of Chile in 2017 was the approval of a new national seal for organic products.

Figure 96: Chile: National organic seal

It will be compulsory to use the national organic seal for all products that are marketed or promoted as organic, ecological or biological. The seal was officially launched by the Chilean Ministry of Agriculture national authorities at Ecoferia La Reina, in Santiago de Chile, a fair organized by organic farmers. This fair has been running for ten years and gathers around 30 organic farmers.

Chilean authorities are supportive of the organic sector development, offering capacity development programs and opportunities for agricultural products as well as for wild collection products. The latter products are significant and have to comply with environmental and organic regulations.

Regional meetings of the agroecological and organic movement

Bolivia: VII Latin-American and Caribbean Meeting of Organic and Ecological Agriculture (ELAEO)

In May 2017, the VII Latin-American and Caribbean Meeting of Organic and Ecological Agriculture (ELEAO) took place in Rurrenabaque, Bolivia. Farmers, researchers, public sector representatives and organic movement organizations got together to discuss challenges and exchange information. This event was supported

and co-organized by the FAO's Forest and Farm Facility (FFF)[1] together with the national association of organic producers, AOPEB. It was also the venue for the IFOAM Latin America group to meet and renew its board of directors, resulting with Homero Blas of SOMEXPRO (Mexico) as the new elected president for the next three years (2017-2020).

Brazil: VI Latin-American Congress of Agroecology

The Latin-American Congress of Agroecology is an initiative of SOCLA (Latin-American Society of Agroecology). The congress took place in Brasilia and it was a huge event with multiple activities. IFOAM - Organics International was represented by its Executive Director, and potential partnerships were discussed to further develop agroecology in the region, with a global outreach.

Peru: First Latin-American meeting of biodynamic agriculture in the tropics (coffee, cacao, ginger)

In July 2017, in Lima, Peru, 26 representatives of biodynamic projects from Mexico, Puerto Rico, Ecuador, Brazil and Peru gathered to exchange information and strengthen their capacities to further develop their biodynamic projects and initiatives in tropical and sub-tropical ecosystems. As a result, participants engaged in networking and information exchange.

Latin American Organic Leadership Course (OLC) in Brazil – IFOAM – Organics International Academy

There were 200 applications for the second edition of the Latin American Organic Leadership Course (OLC), which started in September 2017 in the inspiring surroundings of the Gaia Foundation, in Porto Alegre[2] (Rio Grando Do Sul). There, the legacy of Jose Lutzenberger is alive, and it was energized by the presence of 20 enthusiastic participants coming from different states of Brazil. This OLC edition was a unique experience as there were many highly qualified participants, such as professors and researchers from universities, extension services of governmental agencies, farmers and individual initiatives, embedded in a community approach. The course is scheduled to end in June 2018, on an organic farm in Campinas. The graduation ceremony will take place at BIOFACH Latin America in Sao Paulo.

Nutrition in Mountain Agroecosystems (NMA) – Peru

The project "Nutrition in Mountain Agroecosystems", which is in its third year, managed to fulfil its objective of providing evidence of Nutrition Sensitive

[1] The Forest and Farm Facility (FFF) is an initiative of the Food and Agriculture Organisation of the United Nations FAO. It provides support to forest and farm producer organizations (smallholders, rural women's groups, local communities and indigenous peoples' institutions) to increase their technical and business capacities so they can play their precious role in fighting against climate change and improving food security. More information is available at http://www.fao.org/partnerships/forest-farm-facility/en/.
[2] The Gaia Foundation engages in environmental activities and was founded by the Brazilian Environmentalist José Lutzenberger. More information is available at http://www.fgaia.org.br.

Agriculture based on Agroecology by implementing micro interventions based on agroecology while monitoring the impact on the nutrition status of 450 rural families, using global indicators for healthy diversified and nutritious diets. The project also intends to strengthen a network of rural service providers (RSPs) and a virtual platform that unites and articulates RSPs for knowledge exchange and capacity development (www.maan.ifoam.bio). Five countries are involved: Peru (extending to neighbouring countries for 2018), Pakistan, Nepal, Kyrgyzstan, and Ethiopia. NMA is a project funded by the Swiss Development Cooperation (SDC) in cooperation with IFOAM - Organics International, HELVETAS Swiss Intercooperation (a development organisation based in Switzerland), and the Research Institute of Organic Agriculture (FiBL).

Latin America and the Caribbean: Current statistics

JULIA LERNOUD,[1] HELGA WILLER,[2] AND BERNHARD SCHLATTER[3]

Overview

In 2016, 7.1 million hectares were reported as being under organic production, which is 0.9 percent of the total agricultural land in Latin America and the Caribbean. Twelve percent of the world's organic agricultural land is in Latin America and the Caribbean. Almost 400'000 hectares more were reported than in 2015, a significant increase for the region after six years of drops. This growth can be attributed to a major increase, mainly of grassland/grazing areas, in Uruguay (almost 350'000 hectares). However, other countries reported a big increase of organic agricultural land in 2016: In Mexico, the area increased by almost 90'000 hectares. Furthermore, the Dominican Republic showed a big growth with over 40'000 hectares. The organic area has increased by over 80 percent since 2000 (over 3.2 million hectares). The country with the largest organic agricultural area was Argentina with 3 million hectares (Figure 97), and the country with the largest number of producers is Mexico with more than 210'000 (Table 67). The highest proportion of the total agricultural area being organic was reached in the Falkland Islands (Malvinas) with 12.2 percent, closely followed by Uruguay with 11.5 percent.

Land use

Land use details were available for more than 80 percent of the organic agricultural land. In 2016, only seven percent of all organic farmland was utilized for arable crops (almost 475'000 hectares); while almost 62 percent was grassland/grazing areas (4.4 million hectares). Permanent crops were grown in almost 993'000 hectares (14 percent of the organic area in the region), and for 17 percent of the reported area no details were available. Argentina (2.6 million hectares), Uruguay (almost 1.7 million hectares), and the Falkland Islands/Malvinas (almost 134'000 hectares) had the largest permanent grassland/grazing areas.

The key organic arable crops are cereals, with almost 164'000 hectares, representing 34 percent of the organic arable area of Latin America and Caribbean, and 0.3 percent of the total cereal area in the region. Most of the cereals were grown in Bolivia (87'000 hectares, mainly quinoa and amaranth), Mexico (40'000 hectares, mainly wheat and grain maize) and Argentina (almost 26'000 hectares, mainly wheat). The key organic cereal in the region was quinoa (almost 87'000 hectares) representing more than 53 percent of all the quinoa grown in the region. Organic sugarcane was grown on almost 70'000 hectares in 2016, 0.5 percent of the total sugarcane in the region, with

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

the key producing countries being Paraguay (over 48'000 hectares) and Argentina (almost 13'000 hectares).

The main organic permanent crops were coffee (almost 424'000 hectares), cocoa (almost 230'000 hectares), and tropical and subtropical fruits (almost 190'000 hectares). Organic coffee represented 8 percent of the total coffee area in the region and 45 percent of the world's organic coffee. The countries with the largest organic coffee areas were Mexico (231'000 hectares), Peru (110'000 hectares), and Honduras (23'500 hectares). Furthermore, 12.5 percent of the cocoa area in Latin America is organic. Almost 70 percent of the world's organic cocoa area and some of the countries with the largest organic cocoa areas are in Latin America. The Dominican Republic is by far the country with the largest area, with 159'000 hectares, followed by Peru (more than 25'600 hectares), and Panama (14'000 hectares). Organic bananas and avocados are the key tropical fruits grown in the region (over 51'000 hectares each), 2.4 percent of the regional banana area and avocados represent 14.3 percent of the total avocados area in the region. The countries with the largest organic banana area are the Dominican Republic (almost 22'000 hectares) and Ecuador (17'000 hectares); these two countries represent almost 76 percent of the regional organic banana area.

Producers

Almost 460'000 organic producers were recorded in Latin America and the Caribbean, in 2016. The countries with the most organic producers are Mexico (210'000), Peru (almost 92'000), and Paraguay (over 58'000). It can be assumed that the number of producers is higher because some countries only report the number of farm enterprises/companies.

Wild collection

In Latin America and the Caribbean, organic wild collection plays an important role. There are almost 4.2 million hectares of organic wild collection areas. They are mainly used for the collection of fruits (1.2 million hectares) and nuts (almost 1.1 million hectares), palmito (almost 148'000 hectares), and rose hips (almost 71'000 hectares). Beekeeping areas represent almost 10 percent of the region's organic wild collection area, almost 420'000 hectares. The countries with the largest organic wild collection areas are Mexico (almost 1.3 million hectares), Brazil (1.2 million hectares, data 2011), Bolivia (0.9 million hectares, 2014), and Argentina (0.4 million hectares). Information on wild collection is not available for many countries, so it can be assumed that the total organic wild collection area is higher than that presented here.

For more information about the Latin American and the Caribbean figures, see data tables for the region, page 279.

Organic Agriculture in Latin America and Caribbean: Graphs

Latin America and Caribbean: The ten countries with the largest organic area 2016
Source: FiBL survey 2018

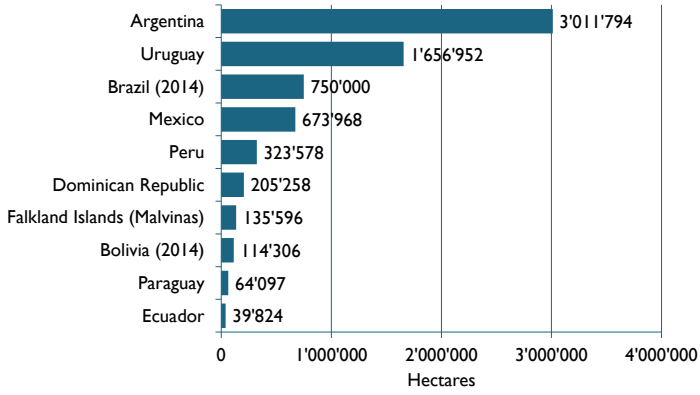


Figure 97: Latin America and Caribbean: The ten countries with the largest areas of organic agricultural land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Latin America and Caribbean: The countries with the highest organic share of total agricultural land 2016
Source: FiBL survey 2018

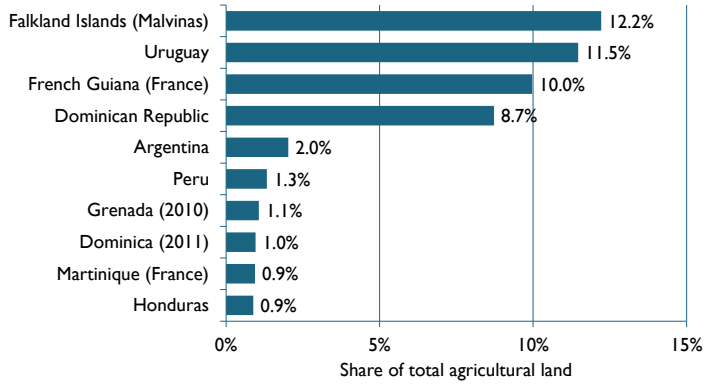


Figure 98: Latin America and Caribbean: The ten countries with the highest organic share of total agricultural land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Latin America and Caribbean: Development of organic agricultural land 2000 to 2016
Source: FiBL-IFOAM-SOEL-Surveys 2002-2018

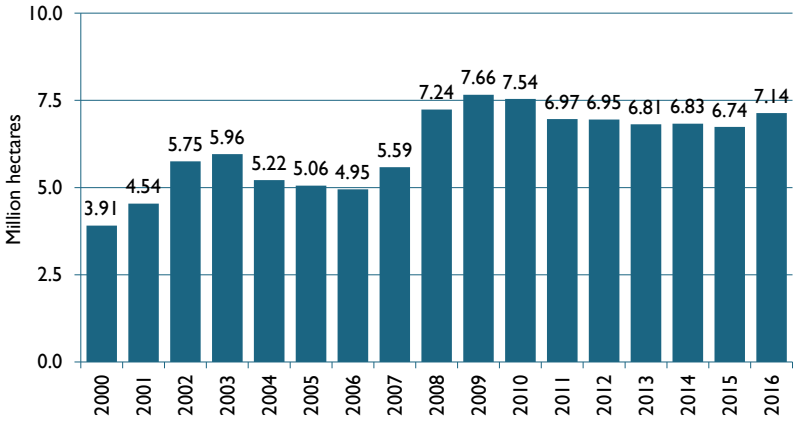


Figure 99: Latin America and Caribbean: Development of organic agricultural land 2000-2016

Source: FiBL-IFOAM-SOEL surveys 2000-2018

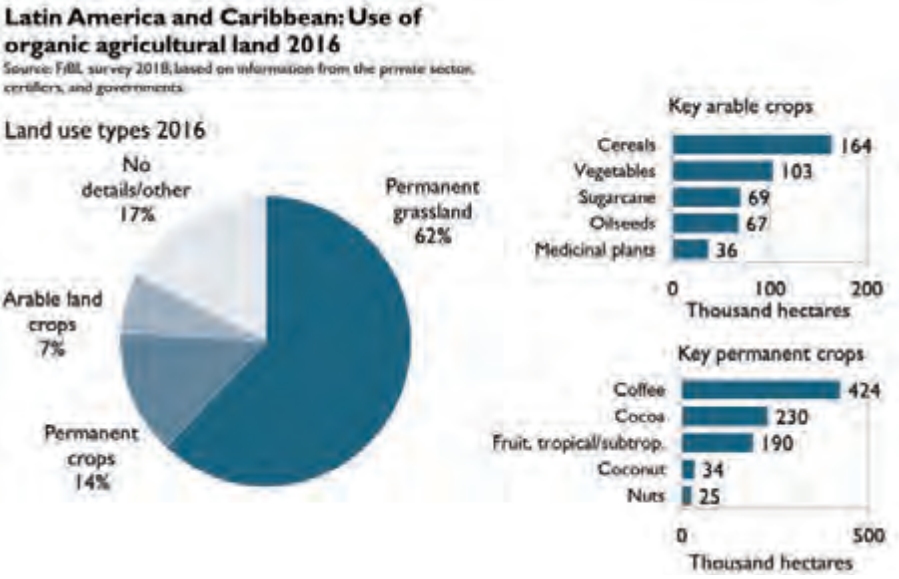


Figure 100: Latin America and Caribbean: Use of agricultural organic land 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Organic Agriculture in Latin America and Caribbean: Tables

Table 67: Latin America: Organic agricultural land, organic share of total agricultural land, and number of producers 2016

For information on data year, see page 326.

Country	Area [ha]	Organic share [%]	Producers [no.]
Argentina	3'011'794	2.0%	1'148
Bahamas	49	0.3%	
Belize	380	0.2%	820
Bolivia	114'306	0.3%	12'114
Brazil	750'000	0.3%	10'336
Chile	15'838	0.1%	446
Colombia	31'621	0.1%	4'775
Costa Rica	7'908	0.4%	3'000
Cuba	1'282	0.02%	508
Dominica	240	1.0%	
Dominican Republic	205'258	8.7%	29'311
Ecuador	39'824	0.7%	12'483
El Salvador	1'426	0.1%	2'000
Falkland Islands (Malvinas)	135'596	12.2%	5
French Guiana (France)	3'051	10.0%	62
Grenada	85	1.1%	3
Guadeloupe (France)	168	0.3%	37
Guatemala	13'380	0.4%	3'008
Guyana		Wild collection	
Haiti	6'112	0.3%	1'210
Honduras	28'689	0.9%	5'686
Jamaica	374	0.1%	127
Martinique (France)	297	0.9%	50
Mexico	673'968	0.6%	210'000
Nicaragua	33'621	0.7%	10'060
Panama	15'183	0.7%	1'300
Paraguay	64'097	0.3%	58'258
Peru	323'578	1.3%	91'771
Puerto Rico	14	0.01%	5
Suriname	39	0.04%	
US Virgin Islands	26	0.7%	
Uruguay	1'656'952	11.5%	6
Total	**7'135'155**	**0.9%**	**458'532**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330
**Total number includes data for countries with less than three operators.*

Table 68: Latin America: All organic areas 2016

Country	Agriculture [ha]	Aquaculture [ha]	Other non agri. land [ha]	Wild collection [ha]	Total [ha]
Argentina	3'011'794		11'930	319'370	3'343'094
Bahamas	49				49
Belize	380				380
Bolivia	114'306			922'991	1'037'297
Brazil	750'000			1'213'351	1'963'351
Chile	15'838			116'137	131'975
Colombia	31'621			7'320	38'941
Costa Rica	7'908	664			8'571
Cuba	1'282				1'282
Dominica	240				240
Dominican Republic	205'258				205'258
Ecuador	39'824	3'123		1'260	44'207
El Salvador	1'426				1'426
Falkland Islands (Malvinas)	135'596				135'596
French Guiana (France)	3'051				3'051
Grenada	85				85
Guadeloupe (France)	168				168
Guatemala	13'380			5	13'385
Guyana				58'000	58'000
Haiti	6'112				6'112
Honduras	28'689				28'689
Jamaica	374			36	410
Martinique (France)	297				297
Mexico	673'968			1'292'306	1'966'274
Nicaragua	33'621			11'463	45'084
Panama	15'183				15'183
Paraguay	64'097			3'067	67'164
Peru	323'578	4		249'413	572'995
Puerto Rico	14				14
Suriname	39				39
US Virgin Islands	26				26
Uruguay	1'656'952				1'656'952
Total	**7'135'155**	**3'791**	**11'930**	**4'194'720**	**11'345'597**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 69: Latin America: Land use in organic agriculture 2016

Land use	Crop group	Area [ha]
Agricultural land, no details		1'045'300
Arable land crops	Cereals	163'573
	Dry pulses	17'879
	Fallow land, crop rotation	2'255
	Green fodders from arable land	9'867
	Hops	0
	Industrial crops	642
	Medicinal and aromatic plants	36'371
	Oilseeds	67'282
	Root crops	1'501
	Seeds and seedlings	99
	Strawberries	1'312
	Sugarcane	69'451
	Textile crops	1'224
	Tobacco	35
	Vegetables	102'599
	Arable crops, other	685
Arable land crops total		*474'776*
Cropland, no details		189'780
Other agricultural land	Home gardens	1'200
	Unutilised land	4'788
	Other agricultural land, no details	2'240
Other agricultural land total		*8'228*
Permanent crops	Berries	11'320
	Citrus fruit	14'425
	Cocoa	229'917
	Coconut	34'321
	Coffee	423'604
	Flowers and ornamental plants, permanent	49
	Fruit, no details	1
	Fruit, temperate	8'227
	Fruit, tropical and subtropical	189'527
	Grapes	11'458
	Medicinal and aromatic plants, permanent	8'071
	Nuts	25'372
	Olives	24'839
	Tea/mate, etc.	1'745
	Permanent crops, other	10'174
Permanent crops total		*993'050*
Permanent grassland		4'424'021
Total		**7'135'155**

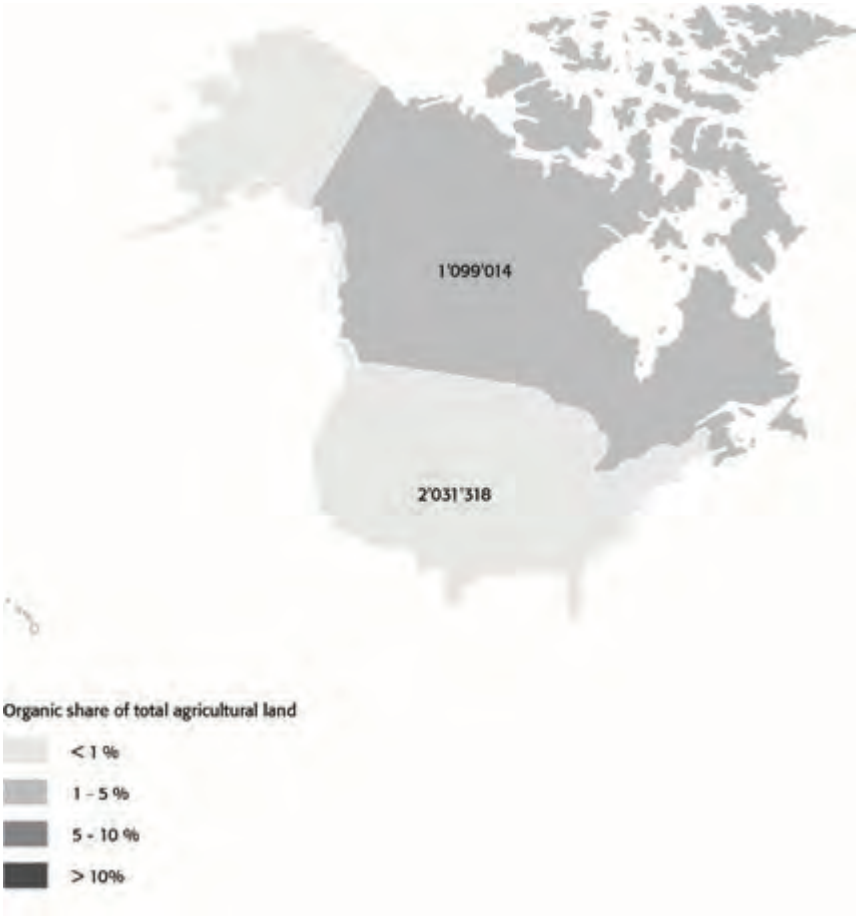
Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 70: Latin America: Use of wild collection areas 2016

Land use	Area [ha]
Apiculture	419'837
Berries, wild	36'243
Fruit, wild	1'200'000
Mushrooms, wild	2'862
Nuts, wild	1'090'834
Palmito, wild	147'867
Rose hips, wild	70'799
Seaweed	500
Wild collection, no details	1'225'778
Total	**4'194'720**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

North America



Map 6: Organic agricultural land in Canada and the United States 2016 (in hectares)

Source: Canada Organic Trade Association (COTA) and United States Department of Agriculture (USDA). For detailed data sources see annex, page 330.

U.S. organic sales set new records

BARBARA FITCH HAUMANN[1]

The U.S. organic sector continues its upward trajectory, gaining new market share and shattering records, as consumers across the United States ate and used more organic products than ever before. Organic sales in the U.S. totalled approximately 47 billion US dollars[2] in 2016, reflecting new sales of almost 3.7 billion US dollars from the previous year.

The 43 billion US dollars in organic food sales in 2016 marked the first time the American organic food market had broken through the 40-billion US dollar mark. Organic food now accounts for 5.3 percent of total food sales in the United States, another significant first.

Organic food sales increased by 8.4 percent, or 3.3 billion US dollars, from the previous year, blowing past the stagnant 0.6 percent growth rate in the overall food market. Sales of organic non-food products were up 8.8 percent in 2016, also surpassing the overall non-food growth rate of 0.8 percent.

The survey also showed that organic is creating jobs. More than 60 percent of all organic businesses with more than five employees reported an increase of full-time employment during 2016 and said they planned to continue boosting their full-time staff in 2017.

The organic fruits and vegetables sector (15.6 billion US dollars) held on to its position as the largest of the organic food categories, accounting for almost 40 percent of all organic food sales. Posting an 8.4 percent growth rate, almost triple the 3.3 percent growth pace of total fruit and vegetable sales, organic fruits and vegetables now make up almost 15 percent of the produce that Americans eat.

Consumer trends

Consumers in recent years have sought clean products abundant in protein, and sales of organic meat and poultry shot up by more than 17 percent in 2016 to 991 million US dollars, for the category's biggest-ever yearly gain. Continued strong growth in that category was expected to push sales across the 1-billion US dollar mark for the first time in 2017.

Survey results also showed that today's consumers are not just eating more organic, they're also using more organic products in their wardrobes, bedrooms, bathrooms and throughout their homes. Sales of non-food organic products increased by almost 9 percent to 3.9 billion US dollars. Organic fiber, supplements and personal care

---

[1] Barbara Fitch Haumann is Senior Writer/Editor for the Organic Trade Association, 28 Vernon St. Suite 413, Brattleboro, VT 05301, United States, www.ota.com

[2] The European Central Bank reference exchange rate U.S. dollar/Euro was 1.1069 in 2016.

products accounted for the bulk of those sales. Adequate supplies of organic textiles are a continuing challenge in the organic fiber market. However, U.S. organic cotton farmers produced a record 17'000-plus bales in 2016, which should help alleviate some supply concerns.

A new and expanded survey on the organic attitude of U.S. families released in September 2017 showed that Millennials are big buyers of organic and that becoming a parent will only deepen the strong affinity for organic shared by this powerful generation.

This survey showed that the frequent buyer of organic is driven by a strong belief that selecting organic for their family makes them a better parent. That buyer is actively seeking out healthy, nutritious choices for themselves and their children. Concerns about the effects of pesticides, hormones and antibiotics on an individual's health and the health of that individual's children, along with the desire to avoid highly processed foods and artificial ingredients for the family were top reasons given for buying organic.

Production growth

U.S. farm-gate sales of organic agricultural production continued to increase in 2016, with U.S. farms producing and selling 7.6 billion US dollars in certified organic commodities, according to the farmer-based *2016 Certified Organic Survey* conducted by the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) released in September 2017. This showed that 2016 farm-gate sales were up 23 percent from 6.5 billion US dollars reported for 2015. During the same time, according to this survey, certified organic farms grew 11 percent to 14'217, with acreage increasing 15 percent to reach 5 million acres.[1]

It is important to note that these numbers, **self-reported by farmers** responding to the survey, are lower than the numbers released in December 2016 by NASS in a **certified-based survey** that tallied 14'861 U.S. organic farms in operation in 2015, with 5.3 million acres farmed organically. Certified organic farm acres currently comprise about 0.54 percent[2] of total farm acres in the United States.

To capture the bigger picture, a look at the United States Department of Agriculture (USDA) Agricultural Marketing Service's online Organic Integrity Database in mid-December showed 25'615 certified organic operations—farms, handling and processing facilities—in the United States, and 39'509 operations recognized by the National Organic Program (NOP) worldwide.

Integrity of imports

The discovery of fraudulent grain imports from Turkey that violated federal organic regulations prompted the revocation of the organic certification for a major Turkish

[1] 1 acre is 0.404686 hectares; 5 million acres is approx. 2 million hectares.
[2] 5.3 million acres correspond to 2.14 million hectares.

grain exporter and brought a wider call for changes to improve import verification of organic products going forward. As a result, the Organic Trade Association convened a member task force, the Global Organic Supply Chain Integrity Task Force, to develop a best practices guide to use in managing and verifying global organic supply chain integrity to help brands and traders manage and mitigate the risk and occurrence of organic fraud.

In addition, the organic sector worked with U.S. Representatives John Faso of New York and Michelle Lujan Grisham of New Mexico who introduced the Organic Farmer and Consumer Protection Act. This bill, if enacted by Congress, would make significant strides to improve the oversight of global organic trade, and establish a better system to ensure the integrity of organic.

Animal welfare

Another critical topic has been animal welfare standards, under development for over a decade.

In defence of the integrity of the USDA organic seal and organic standards, the Organic Trade Association in September filed suit against the U.S. Department of Agriculture after the agency repeatedly delayed implementation of its final rule published in January on animal welfare standards for organic livestock and poultry. The lawsuit alleges USDA violated the Organic Foods Production Act, and unlawfully delayed the effective date of the final livestock standards developed by industry in accordance with the processes established by Congress. Also supporting the suit are groups harmed by this protracted government inaction, including organizations representing organic livestock farmers, organic certification agencies, and organic retailers and consumers. In November, USDA further delayed the final rule until May 14, 2018. Reiterating its stance, the Organic Trade Association in December filed an amended complaint and strengthened its call for the final animal welfare rule to move forward without further delay.

However, USDA in mid-December published a proposed rule announcing its intentions to withdraw the final rule, and said it would take public comments until January 17, 2018, on this plan. Expressing dismay, the Organic Trade Association vowed to rally against this move, and to continue with the course of its lawsuit.

Advocating for organic

Meanwhile, Farm Bill advocacy has been a major thrust during the past year, and will continue to take center stage during 2018. The Farm Bill, updated approximately every five years, is federal legislation approved by Congress that sets and authorizes farm and nutrition programs and policy.

More than 500 organic stakeholders across 45 states weighed in on issues they see as critical to the organic sector as part of a comprehensive farm bill survey conducted by the Organic Trade Association in the lead up to Congress beginning their debate on the 2018 Farm Bill. The trade association collaborated with members of its Farmers Advisory Council and other organic organizations to poll stakeholders directly on

issues. Survey respondents answered questions concerning barriers they face in their organic operations—from regulatory, research, and marketing, to production and investment barriers. They also evaluated the effectiveness of existing programs geared towards the organic sector. The findings have helped shape a well-vetted farm bill platform for organic.

During 2017, the organic sector actively engaged with members of Congress and their staff to advocate for organic provisions. Events have included organized visits to D.C. by organic company CEOs, the annual Hill Visits Day activities in May organized by the Organic Trade Association, and a farmer fly-in to Washington in October organized by the trade association's Farmers Advisory Council.

Moreover, organic leaders have worked with legislators to create three bipartisan bills for consideration in deliberating the final farm bill provisions. The first is the Organic Farmer and Consumer Protection Act (mentioned above under Integrity of imports) to improve oversight over global organic trade. The second is the Organic Research Act of 2017 to increase annual funding for USDA's Organic Agriculture Research and Extension Initiative from its current 20 million to 50 million US dollars a year. The third is the Organic Farmers Access Act, designed to expand organic agriculture's access to, and eligibility for, rural development programs.

Rallying check-off support

In other issues, the U.S. Department of Agriculture sought public comments in January after publishing the GRO Organic Check-off proposal for a nationwide research and promotion check-off program for organic. The industry proposal, spearheaded by the Organic Trade Association, estimates the program would raise over 30 million US dollars a year to spend on research to make farmers more successful, technical services to accelerate the adoption of organic practices, and consumer education and promotion of the organic brand.

The Organic Trade Association (OTA) submitted comments and named 1'358 public endorsers including over 1'230 certified organic operators. Joining these organic farmers, ranchers and business stakeholders were over 11'000 supporters who commented directly on the proposal. The trade association is now awaiting the publication of USDA's final proposal, to be followed by a vote on the proposed program by the organic sector.

Advocating for organic research

In early March, the Organic Trade Association submitted comments to USDA's Office of the Chief Scientist on the importance of organic in the long-term health and viability of U.S. agriculture over the next 50 years. OTA underscored that a vibrant organic industry is integral to the longevity of the U.S. agricultural systems, and cited organic as the almost 50 billion dollar-a-year bright spot in the economy that is experiencing double-digit growth, creating jobs, and for which consumer demand continues to outpace supply. OTA offered support for separate comments provided by The Organic Center underscoring that organic is an integral part of the solution for

agricultural sustainability by supporting soil health, mitigating climate change, upholding pollinator health, and contributing to a successful economy.

In October, more than 60 agriculture groups and research universities asked Congress to double the funding for agriculture research in the next farm bill. The letter sent to the House of Representatives and Senate Agriculture Committees represents a consensus formed by the organizations and includes support for 50 million US dollars per year in funding for the Organic Agriculture Research and Extension Initiative.

Meanwhile, the U.S. Federal Reserve Board of Governors and U.S. Department of Agriculture published a new report, Harvesting Opportunity: The Power of Regional Food System Investments to Transform Communities, recognizing organic as having significant and long-lasting economic benefits to local communities.

International trade

During 2017, the Organic Trade Association spearheaded and co-authored a second study updating international trade data for U.S. organic exports and imports for 2011 through 2016. Assisting with this study were researchers from Ohio State University and Penn State University. The U.S. remains the largest organic market in the world. Exports of U.S. grown organic produce still account for the bulk of American organic exports, and continue to gain markets around the world. In other international news, the Organic Trade Association co-hosted the Inter-American Commission on Organic Agriculture Annual meeting in Portland Oregon. The meeting gathered organic program heads from 13 different Latin American governments to exchange ideas and strengthen collaborations for organic throughout the region.

References

Organic Trade Association, 2017 Organic Industry Survey, 2017

Organic Trade Association, U.S. Families' Organic Attitudes and Behaviors, September 2017

U.S. Department of Agriculture's National Agricultural Statistics Service (NASS), 2016 Certified Organic Survey, September 2017. See www.nass.usda.gov/organics.

U.S. Department of Agriculture's National Agricultural Statistics Service (NASS), 2014 and 2015 Certified Organic Surveys, December 2016. See www.nass.usda.gov/organics.

U.S. Department of Agriculture's Agricultural Marketing Service, Organic Integrity Database. Available at https://organic.ams.usda.gov/integrity

U.S. Federal Reserve Board of Governors and U.S. Department of Agriculture, Harvesting Opportunity: The Power of Regional Food System Investments to Transform Communities, 2017.

Canada

TIA LOFTSGARD[1] AND JILL GUERRA[2]

Canada's organic sector continues its steady spread across Canada's farmland and onto Canadians' plates. There are over 5'000 organic operations nationally offering more organic ingredients, products and services than ever before. Canada's organic market is maturing, valued at an estimated 5.4 billion Canadian dollars in 2017, up from 4.7 billion Canadian dollars in 2015. As the market matures, organics continue to capture a greater market share in the food and beverage market. Reflecting Canadians' increased appetite for organic products, two-thirds of Canadian organic shoppers now purchase organic items weekly. There are many reasons to celebrate the achievements of organics, yet new regulatory and trade challenges have surfaced amidst this success. The need for continuous dialogue with government and regulators is required to ensure that organic can stay competitive.

Data collection

Canada's organic sector continues to rely on the voluntary disclosure of operator and acreage data by organic certifiers and Conformity Verification Bodies (CVBs) as the government does not collect this data. Data consistency and harmonization are the main challenges encountered in the annual collection of data about organic operators and acreage. In 2016, there was almost universal participation from certification bodies, resulting in the best estimate of operations and acreage in Canada. Some certification bodies did not provide up to date data, and thus 2015 datasets were used. Furthermore, the ability to extricate transitional and certified acreage was not possible for all datasets. These data gaps and inconsistencies will continue to be a risk to the organic sector until a national data system is prioritized and implemented by the government.

Statistics Canada, after substantial lobbying efforts by the Canada Organic Trade Association (COTA), started collecting organic export values and volumes at the border for the first time in its history, providing additional insights into target markets for a handful of products. Commencing in January 2017, 17 new Harmonized System (HS) codes were created, mostly for primary commodities. These complement the 65 organic import codes that already existed, providing additional trade flow insights on organic sales occurring inside and outside of the country. Lack of data is a major limitation for the organic industry in Canada. As such, it was high on the list of recommendations outlined in the "Next Agricultural Policy Framework", a position

[1] Tia Loftsgard, Executive Director, Canada Organic Trade Association (COTA), Ottawa, Canada, www.ota.com/canada-ota
[2] Jill Guerra, Data and Special Project Coordinator, Canada Organic Trade Association (COTA), Ottawa, Canada. www.ota.com/canada-ota

paper submitted by COTA, USC Canada,[1] the Canadian Organic Growers (COG) and the Organic Federation of Canada (OFC) to influence the priorities of the next agricultural budget, which is set to start April 1, 2018.

Expansion of organic operations and acreage

According to the 2016 Census of Agriculture, 2.2 percent of farms in Canada are now certified organic or in-transition, up from 2.0 percent in 2011. This development highlights the trend of declining number of farms in general alongside the steady increase of organic farms each year. Between 2011 and 2016, the number of farms across Canada declined by 5.9 percent, while the number of organic farms increased by 4.1 percent.

A new generation of farmers is driving the expansion of organic production. Organic farmers tend to be younger. The average age of farm operators is 55. Only 9.1 percent of farm operators are under 35 for farms in general; this percentage rises to 14.6 percent for farm operators on organic farms (Canadian Census of Agriculture, 2016). Organic farmers also tend to be more highly educated and come from non-farming backgrounds. These demographic shifts will continue to drive the growth of organics in Canada.

Canadian farmers are increasingly adopting organic practices. Organic acreage has increased from 988'000 to 1.1 million hectares between 2015 and 2016. Data shows fairly consistent growth in organic acreage across the country, with some localized jumps due to the introduction or re-introduction of large areas for cattle grazing. The majority of organic acreage is pasture and forage areas, followed by field crops. Inconsistencies in data format and the lack of data provided resulted in data gaps. One of the largest data gaps relates to transitional acreage, which could not be extricated from certified acreage in all cases.

The organic manufacturing sector is also growing steadily. Processors are concentrated in Quebec, Ontario and British Columbia. Preliminary estimates reveal an increase of 200 processors over the 2016 number of 1'739 processors.

Investment in innovation for processing raw organic ingredients (e.g., seed cleaning, abattoirs) and manufacturing processed finished goods is necessary to reduce cost and accessibility barriers for organic processing. Reliable access to abattoirs is a key limiting factor for the organic meat and poultry sectors. A full report investigating the limitations and opportunities for processors is presently being written, and will be available in the future to address this knowledge gap.

The number of producers, processors and acreage is expanding across the country. However, domestic production still falls short of meeting consumer demand for products that could be grown or processed in Canada. For this reason, the industry is

[1] USC Canada works with family farmers and seed savers in twelve countries around the world, including Canada. It supports seed savers who preserve local seeds and breed new ones, better adapted to their changing needs. Furthermore, it bolsters community initiatives that revive rural economies and empower women, youth and indigenous farmers. More information is available at www.usc-canada.org.

recommending that the government support transition support programs to encourage more farmers to adopt organic practices. The Canadian Organic Growers (COG) launched a new federally-funded research project to identify the risks involved with transitioning from non-organic to organic production and outline key recommendations to mitigate these risks.

Research and innovation

The Organic Agriculture Centre of Canada manages the Federal Government's Organic Science Cluster (OSC), a funding stream dedicated to scientific research on organics in Canada. The first two OSC cycles have funded projects related to animal welfare, innovative processing solutions, sustainable pest management strategies and optimizing productivity. The third funding cycle will be confirmed in 2018, determining the direction of organic research in Canada and the types of projects that will qualify.

Market growth and trends

Consumers increasingly reaching for organics

Consumers across regions, income levels, educational attainment and gender are choosing organics. Recent consumer research from the Canada Organic Trade Association shows that two-thirds of Canadian grocery shoppers are purchasing organic products weekly. Millennials are becoming a strong advocate for organics – they purchase more organic products and are much more likely than older generations to connect organics to both health and environmental benefits. The younger generation is poised to continue supporting the growth in organics across Canada's farmlands and on the country's plates.

COTA's consumer research has showcased a steady increase in both trust in, and familiarity of, the Canada Organic logo (Figure 101). Nearly half of Canadians consider the Canada Organic claim to be trustworthy, up nine percentage points from 2016. Forty-one percent of Canadians report they are very familiar or somewhat familiar with the logo. As the Canadian organic logo was first launched in 2009, when the national regulation came into force, these findings indicate a positive future for Canadian organics.

Figure 101: Canada organic logo

Domestic market

COTA's Organic Market Report 2017 shows continued growth of the organic sector in Canada. The total market – including food and non-food items - is estimated at 5.4 billion Canadian dollars, with organic food and beverages alone valued at 4.4 billion Canadian dollars. As the market has matured, organics continue to capture a greater market share despite the growth rates not being as grand as in the early years. Between 2012 and 2017, the market share of organic food and beverages through mainstream retailers has grown from 1.7 percent to 2.6 percent.

Mainstream retailers are the primary market channel for food and beverage purchasing by consumers nationwide. With the expansion of these retailers into the organic sector, organic products have become more available and more affordable. Other channels that were the birthplace of the organic food industry, such as natural health stores and farmer's markets, continue to grow, but due to the faster growth among mainstream retailers, their market share is decreasing.

Canada organics on the global stage

According to the 65 Harmonized System (HS) import codes, Canadian organic imports were valued at 637 million Canadian dollars in 2016. Unroasted coffee, bananas and olive oil are Canada's top imports by value. Green and red lentils and red spring wheat are the highest valued exports.

In January 2017, the first organic HS export codes were introduced. These export codes include 17 organic ingredients and products. Based on data for January-May 2017, organic exports are expected to reach an estimated 607 million Canadian dollars by the end of 2017. Although the HS codes only provide a snapshot of organic trade in Canada, the figures indicate that Canada is a net-importer of organic products.

Canada: Tracked certified organic imports by volume and value, 2009-2016
Source: Statistics Canada and CATSNET Analytics, 2017

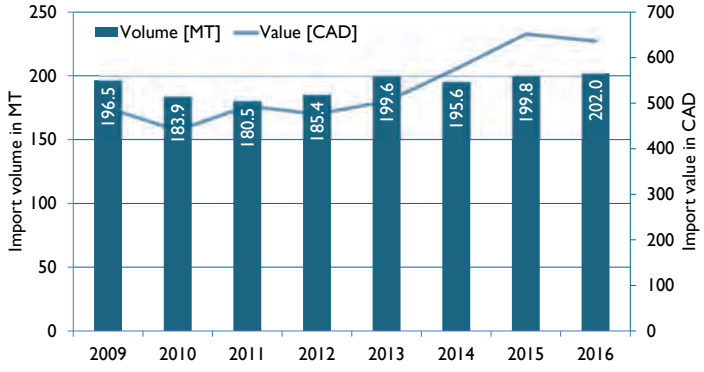


Figure 102: Canada: Tracked certified organic imports by volume and value, 2009-2016

Source: Statistics Canada and CATSNET Analytics, 2017

Canada currently has organic equivalency arrangements with the United States, European Union (EU), Switzerland, Costa Rica and Japan. Trade between these regions and Canada account for over half of Canada's organic imports and a little over a third of exports. Not surprisingly, the vast majority is traded between Canada and the United States. Discussions regarding equivalency arrangements with Mexico and South Korea are currently underway.

The Canadian Government is in the midst of discussions with the United States, Canada's largest trading partner, regarding the North American Free Trade Agreement (NAFTA), which affects trade between Canada, Mexico and the United States. This agreement has significantly increased trading between the United States and Canada – including trade of organic products. There are mixed reports emerging from the ongoing negotiation rounds, but on the whole, the discussions have not yet resulted in a final agreement. Given the impact a no-NAFTA landscape will have on organic trade, the outcome of these negotiations will be an important issue for the organic industry, alongside all other industries, to ensure that Canada does not lose this significant market. Canadian organic producers will now be able to take advantage of opportunities in the Canada–EU Comprehensive Economic and Trade Agreement (CETA). CETA's date for provisional application was September 21, 2017. Under CETA, approximately 95 percent of the EU's agricultural, fish and seafood imports will be duty-free. The government estimates indicate that CETA will increase Canada's annual agri-food exports by up to 1.5 billion Canadian dollars.

Challenges ahead

Safe Food for Canadians

In January 2017, Gazette I of the Safe Food for Canadians Regulation (SFCR) was published, announcing a 90-day comment window in which the industry could review and comment. This new regulation added Chapter 14 on organic products, which created sweeping changes to the implementation of organic agriculture policies in Canada. Certification would have been required for any operators involved in conveying and storage. Other areas were vague and would have resulted in challenges in the audit process. Many organic associations rallied their stakeholders to write formal comments opposing these changes, resulting in over 50 percent of the comments submitted to the Canadian Food Inspection Agency (CFIA) in the overall public consultation. As Gazette II is set to be published and bring the Act into force in the spring of 2018, stakeholders in Canada are waiting for the final published Chapter 14 of the SFCR before knowing whether industries concerns were adequately heard.

Restructuring of the Canadian Organic Office within Canadian Food Inspection Agency

In the same period that the Safe Food for Canadians Regulation (SFCR) was published, the Canadian organic industry discovered that the Canadian Organic Office had been removed from the organizational chart of Canadian Food Inspection Agency (CFIA) and that a major restructuring of CFIA was occurring. This disruption

to the industry was a significant challenge for several months as the industry tried to get answers out of the CFIA about why they would eliminate the Canadian Organic Office and to understand who was now in charge of organics in Canada. After significant lobby efforts, which are ongoing, the government of Canada revealed in December 2017 that they created a new branch that will work with both the CFIA and Agriculture and Agri-Food Canada to handle overlap areas and facilitate broader support and interdepartmental dialogue. The industry will push to ensure that organic is positioned well as this transition occurs and that support and understanding of organic is at the forefront of their planning.

Consistent and permanent funding for Canadian Organic Standards needed

In Canada, organic standards are owned by the Canadian General Standards Board (CGSB). Although this is a government agency, the content of the standards is fully determined by voting industry members of the CGSB. The Canadian government expects the organic industry to fund the standards revision process, which puts Canadian operators at a significant trading disadvantage compared to their trading partners in the USA and the European Union (where the standards process is publically funded). The industry has no practical way to fund the standards as the industry is still comparatively small, and it is impossible presently to create a check-off program in Canada under the current regulatory environment.

Canada Organic Trade Association (COTA), Canadian Organic Growers (COG) and the Organic Federation of Canada (OFC), with the support of each provincial organic association, are leading a government relations campaign to secure permanent funding as part of the 2018 Federal Budget. There is an imminent need to raise one million Canadian dollars by 2020 for the standards revisions. In addition, funding needs to be secured to incorporate new organic standards as a result of the Safe Foods for Canadians Act (it will be permitted to certify aquaculture under the Canadian Organic Regulation COR). The standards are the backbone of the industry, and they are at risk of being shelved should the funding not be made available. Such an outcome would have massive negative implications for organic trade. The organic standards should have consistent and permanent government funding, as is the case in the United States and in the European Union.

Closing regulatory gaps across provinces and territories

The Canadian Government introduced the national organic regulations in 2009. These standards apply to products that cross provincial, territorial or federal borders, or use the Canada Organic logo. However, they do not apply to products that are produced and sold within the same province/territory, leaving a significant regulatory gap.

Manitoba, British Columbia, Nova Scotia and New Brunswick have adopted the national standards and Quebec has its own regulation. The remainder of Canada's provinces and territories do not have any regulation at all. This gap creates an unequal playing field and creates vulnerabilities for transgressions that affect the

integrity of the Canada Organic brand. Ensuring that all provinces and territories have their own organic regulations is necessary to establish a strong and fair organic sector.

Resources

- Canada Organic Trade Association - www.ota.com/canada-ota
- Canadian Organic Growers - www.cog.ca
- Census of Agriculture 2016 - https://www.statcan.gc.ca/eng/ca2016
- Organic Agriculture Centre of Canada at Dalhousie University - https://www.dal.ca/faculty/agriculture/oacc/en-home.html
- Organic Federation of Canada - https://www.organicfederation.ca/

North America: Current statistics

JULIA LERNOUD,[1] HELGA WILLER,[2] AND BERNHARD SCHLATTER[3]

Overview

North America's organic agricultural land was 3.1 million hectares in 2016, which is 0.8 percent of the total agricultural area. The area under organic cultivation has almost trebled from the million hectares in 2000, and now represents six percent of the global organic agricultural land. Between 2015 and 2016, the area increased by over 156'000 hectares or 5.3 percent. Almost 1.7 percent of the farmland in Canada is organic, and the proportion in the United States is 0.6 percent. There is a total of 18'422 producers in North America; most of them are in the United States (almost 77 percent).

Land use

Land use details were available for almost the whole of the organic agricultural land. In 2016, only three percent of all organic farmland was utilized for permanent crops (almost 104'000 hectares) while almost 38 percent was used to grow arable crops (almost 1.2 million hectares), and 46 percent (over 1.4 million hectares) was grassland/grazing. The United States has the largest grassland/grazing area, almost 933'000 hectares, and Canada reported almost 506'000 hectares.

The key organic arable crop group is cereals, with almost 542'000 hectares, representing almost 46 percent of the region organic arable area, and 0.7 percent of the total cereal area in the region. In the United States over 281'000 hectares of organic cereals were grown, and Canada reported almost 261'000 hectares. The key organic cereal in the region was wheat (almost 247'000 hectares), this represented almost one percent of the total wheat grown in the region. Organic vegetables were grown on almost 78'000 hectares in 2016, 8.3 percent of the total vegetables in the region, with leafy/stalked vegetables (26'230 hectares) and fruit vegetables (over 16'000 hectares) being the key produced vegetables.

The main organic permanent crops were temperate fruits (almost 13'000 hectares), grapes (12'000 hectares), and berries (almost 10'000 hectares). Organic temperate fruits represented four percent of the total temperate fruit area in the region. The key temperate fruits are apples, cherries, and plums. The key organic berries are blueberries (over 7'500 hectares, 8.2 percent of the total blueberries grown in the region), and cranberries (800 hectares, 3.3 percent of the total cranberry area).

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

Producers

In 2016, 18'422 organic producers were reported in North America. The United States is the country with the most organic producers, over 14'000, and Canada reported over 4'200 organic producers. Since 2004, when there were 11'000 organic producers, the number increased over 60 percent.

Wild collection

Unfortunately, for the United States data on organic wild collection is not available with the exception of over 300 of wild blueberries, so it can be assumed that the wild collection area is much bigger in the region than the current 79'855 hectares reported mainly by Canada. In Canada, there are almost 63'000 hectares of maple trees, a key commodity for the country.

Market

In 2016, the organic market continued to grow in North America, reaching 41.9 billion euros. In Canada, the organic market grew by over 9 percent in 2016, and in the United States, the organic market grew by 8 percent. The United States is the largest single organic market in the world, and North America continues to be the region with the largest organic market. In the United States, people spent 121 euros per capita on organic products in 2016, while in Canada the per capita consumption was 83 euros. For 2016, Canada reported an organic share of the total retail sales of 2.6 percent, and in the United States an organic share 5.3 percent was noted.

For more information about the North American figures, see data tables, page 300.

Organic Agriculture in North America: Graphs

North America: Organic agriculture area 2016
Source: COTA and USDA, 2018

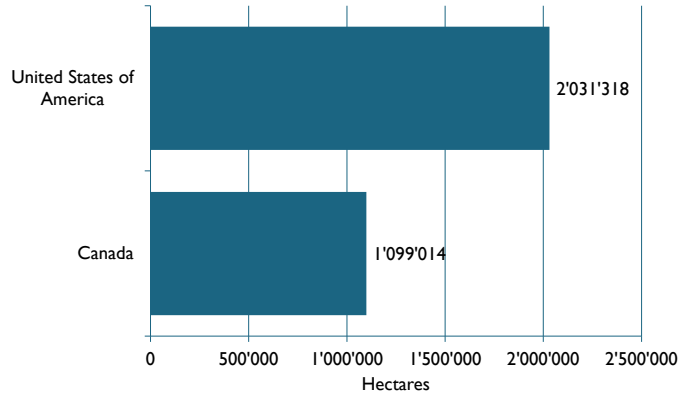


Figure 103: North America: Organic agricultural land in Canada and the United States 2016

Source: Canada Organic Trade Association and United States Department of Agriculture.

North America: Organic share of total agricultural land 2016
Source: COTA and USDA, 2018

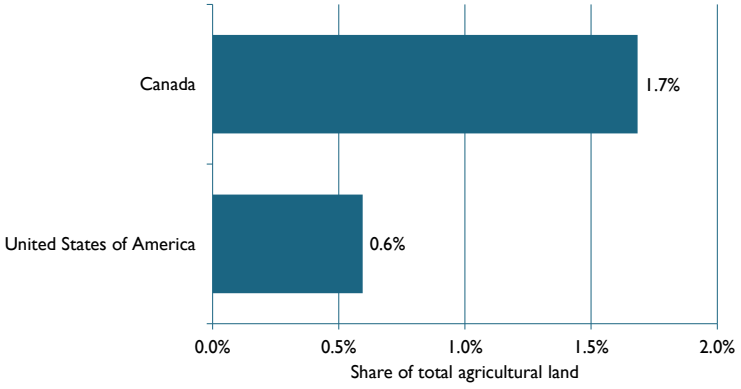


Figure 104: North America: Organic share of total agricultural land in Canada and the United States 2016

Source: Canada Organic Trade Association and United States Department of Agriculture.

North America: Development of organic agricultural land 2000-2016
Source: COG-COTA and USDA, 2001-2018

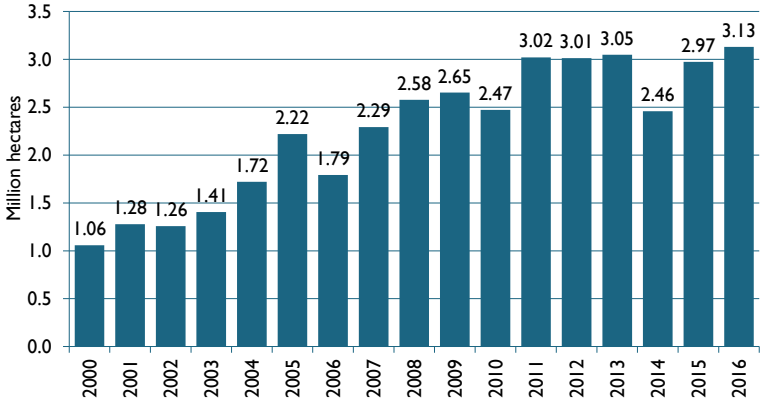


Figure 105: North America: Development of organic agricultural land 2000-2016

Source: Canada Organic Trade Association and United States Department of Agriculture1

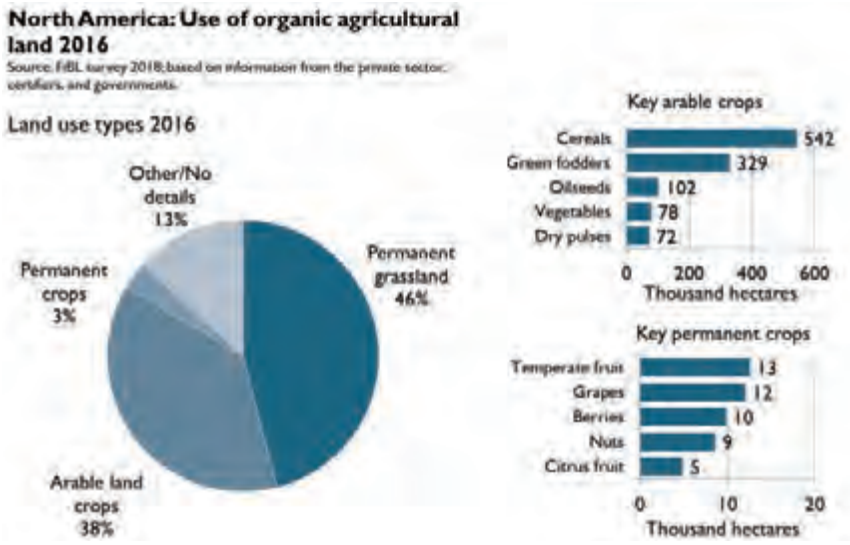


Figure 106: North America: Land use in organic agriculture 2016

Source: Canada Organic Trade Association and United States Department of Agriculture

[1] Due to methodological differences, the United States shows a drop of its area in 2014. A reason could be that the wild collection might have been included in the past.

Organic Agriculture in North America: Tables

Table 71: North America: Organic agricultural land, organic share of total agricultural land, and number of producers 2016

Country	Area [ha]	Share of total agr. land [%]	Producer [no.]
Bermuda		Processing only	
United States of America	2'031'318	0.6%	14'217
Canada	1'099'014	1.7%	4'205
Total	**3'130'332**	**0.8%**	**18'422**

Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2018

Table 72: North America: All organic areas 2016

Country	Agriculture [ha]	Forest [ha]	Wild collection [ha]	Total [ha]
Bermuda		Processing only		
Canada	1'099'014	49'459	79'517	1'227'990
United States of America	2'031'318	205'196	338	2'236'852
Total	**3'130'332**	**254'655**	**79'855**	**3'464'842**

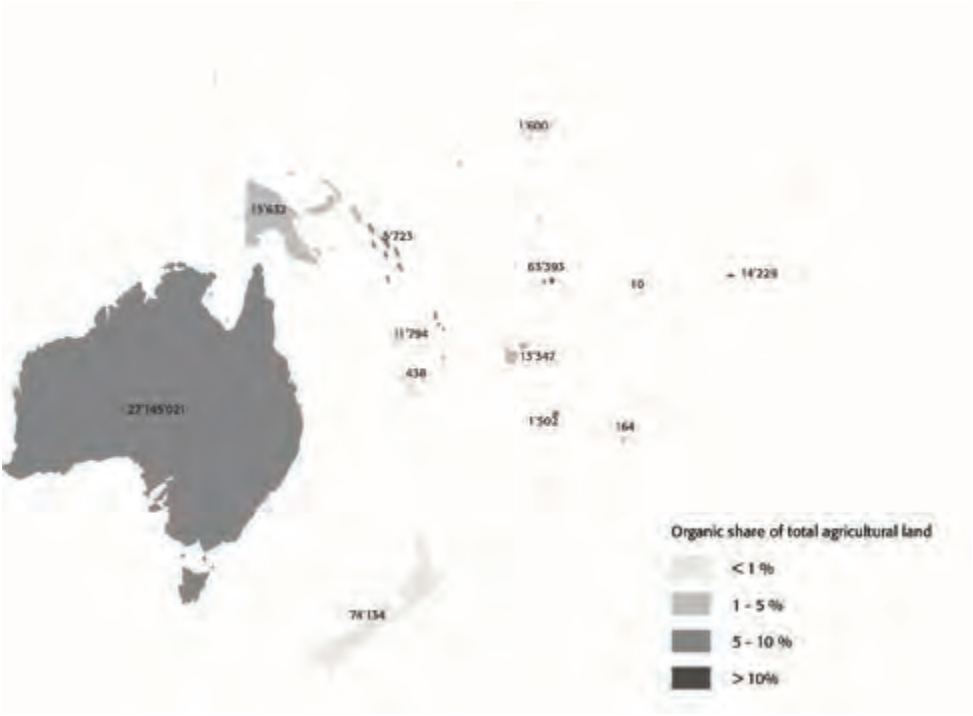
Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2018

Table 73: North America: Land use in organic agriculture 2016

Land use	Crop group	Area [ha]
Agricultural land, no details		407'550
Arable land crops	Arable crops, no details	10'159
	Cereals	541'971
	Dry pulses	72'239
	Fallow land, crop rotation	8'583
	Flowers and ornamental plants	634
	Green fodders from arable land	328'751
	Hops	367
	Medicinal and aromatic plants	3'671
	Mushrooms and truffles	22
	Oilseeds	102'075
	Root crops	12'618
	Strawberries	2'702
	Textile crops	8'959
	Tobacco	4'045
	Vegetables	77'691
Arable land crops total		*1'174'489*
Other agricultural land		6'038
Permanent crops	Berries	9'853
	Citrus fruit	4'919
	Coffee	87
	Fruit, temperate	12'578
	Fruit, tropical and subtropical	3'520
	Grapes	12'072
	Nurseries	91
	Nuts	8'622
	Olives	719
	Permanent crops, other	51'321
Permanent crops total		*103'781*
Permanent grassland		1'438'474
Total		**3'130'332**

Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2018

Oceania



Map 7: Organic agricultural land in the countries of Oceania 2016 (in hectares)

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 330.

Australia

ANDREW LAWSON,[1] ANDREW MONK,[2] AND AMY COSBY[3]

Introduction

Australia has seen even more growth in 2016 in the area of pastoral land under certified organic management. The number of certified organic primary producers also increased steadily in 2016. Using a limited data set, it is estimated that the overall volume (in metric tons) of Australian-grown organic products exported to other countries increased 17 percent between 2015 and 2016. The regulatory and governance arrangements in the certified organic sector in Australia have remained stable since the last World of Organic Yearbook (Lawson et al. 2107), but change is in the air. The Australian Government, organic industry groups, and the participants in the organic supply chain generally are involved in a number of initiatives aimed at enhancing value for the organic sector in Australia.

Primary producers and area of farmland

By the end of 2016, Australia had an estimated 2'075 certified organic producers, including both fully certified and in-conversion. Producer numbers are more than 20 percent higher than a decade ago, though they have not yet returned to the highpoint of 2009 shown in Table 74. This may be due to consolidation of smaller farms into bigger enterprises.

The area under certified organic management (in-conversion and fully certified) is estimated to be about 27 million hectares (see Table 74). This is more than double the area a decade ago and four-times the area in 2002. The Australian Bureau of Statistics estimates the total area of farmland in Australia to be about 385 million hectares, which means about 7 percent of Australian farmland is under certified organic management. The vast majority of the area under certified organic management in Australia is for pasture-based beef cattle production in the "Outback" (the semi-arid rangelands or pastoral zones of Australia). The size of individual cattle production enterprises in the Outback are typically tens of thousands of hectares each.

[1] Andrew Lawson, Australian Centre for Agriculture and Law, University of New England, Armidale, NSW 2351, Australia

[2] Andrew Monk, Australian Organic Ltd, 18 Eton Street, Nundah, Queensland 4012, Australia

[3] Amy Cosby, Australian Centre for Agriculture and Law, University of New England, Armidale, NSW 2351, Australia

Table 74: Estimated certified organic primary production operations and area [ha] in Australia 2002-2016

Year	Primary production operations	Area under certified organic management (ha)
2002	1'650	6'150'171
2003	1'730	11'198'188
2004	1'859	12'077'362
2005	1'871	11'715'744
2006	1'691	12'294'290
2007	1'776	11'988'044
2009	2'129	12'001'724
*2011	2'117	11'199'578
2014	1'707	22'690'000
**2015	1'999	22'108'495
**2016	2'075	27'145'021

** Estimated using Australian Bureau of Statistics (ABS) data. Organic industry sources put this as high as almost 17 million hectares*
*** Based on data from the two largest certifiers only – Australian Certified Organic (ACO) and NASAA Certified Organics (NCO) – and therefore an underestimate.*

It is estimated that 37 percent of all certified organic producers in Australia were involved in the fruit-growing sector in 2016, which has the highest proportion of producers in the plant-based sectors. About one third of all producers grow vegetables, about one third produce lucerne hay, and about one fifth grow root crops or cereals. The proportions are relatively stable between 2015 and 2016, with the exception of oilseed growers, which dipped downwards.

Beef production is the animal-based sector that involves the most certified organic producers in Australia – almost a third. The numbers of producers in the animal-based sectors were relatively stable between 2015 and 2016, with the exception of lamb producers – a greater proportion of organic producers were raising lamb in 2016 compared with 2015.

Exports

Like much of the conventional Australian agriculture, Australian organic production has a strong export orientation. Based on limited data on exports, it is estimated there was a 17 percent increase in the overall tonnage of organic products exported from Australia between 2015 and 2016. Export certificates were issued for Australian organic products going to at least 69 different countries in 2016. Exports increased to all continents in 2016, as shown in Figure 107, and new markets opened up in Central Asia and South America.

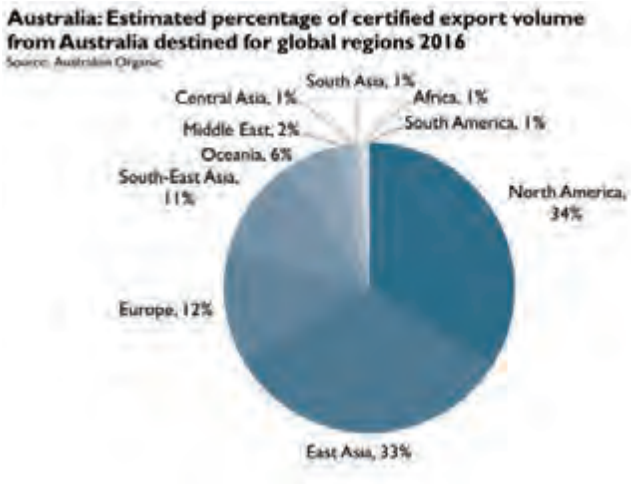


Figure 107: Estimated percentage of certified export volume from Australia destined for global regions 2016

Source: Australian Organic 2017

The top five export destinations for 2016 accounted for about two-thirds of total volume (in metric tonnes) exported from Australia. The United States was the biggest export destination and accounts for about one third of exported tonnage. South Korea remained the second most important export destination, though exports dipped in 2016. China (excluding Hong Kong), in third place, saw 27 percent growth in 2016, and Singapore, in fifth place, showed 39 percent growth. The quiet achiever was Hong Kong, which moved Japan out of fourth position, more than tripling imports of Australian organic products in 2016. Destinations that showed the largest growth in imports of organic products from Australia (by tonnage) in 2016 were Hong Kong, the United States, Sweden, China and New Zealand.

Beef was the top export commodity (based on volume in metric tons), at close to 20 percent of all exports in 2016. Horticultural produce, dairy products and wine all contributed around 5 percent of exports. Some sectors dipped in 2016, but most showed strong growth. Bakery items showed more than four-fold growth, and sheep/lamb meat, cosmetics, alcoholic drinks, dairy products and chicken all showed exceptional growth.

The United States dominates overall in terms of total imported volume (in metric tons) of Australian organics, and beef dominates the United States imports. About 56 percent of United States imports of Australian organic volume was organic beef. The United States is also the leading destination for certified lamb, horticultural products, and tea, coffee, and snacks.

In some cases, a single destination accounted for half or more of the volume ascribed to export certificates. For example, beef and lamb to the United States; chicken to Hong Kong; bakery items to South Korea; and alcohol other than wine to New

Zealand. About a third of Australian organic dairy products, cosmetics, and wine go to China, Hong Kong and Sweden respectively.

Regulatory framework

There have been few substantive changes to the regulatory framework for governing organics in Australia since the 2017 edition of "The World of Organic Agriculture" yearbook. In summary, Australian law provides that Australian-produced products that are labelled as organic and exported from Australia must be certified as organic by one of six government-accredited certifying organizations: AUS-QUAL, Australian Certified Organic (ACO), Bio-Dynamic Research Institute (BDRI), National Association for Sustainable Agriculture Australia (NASAA) Certified Organic, Organic Food Chain (OFC), and Safe Food Production Queensland (SFPQ).

The certifiers must certify, at a minimum, to the *National Standard for Organic and Bio-Dynamic Produce* (National Standard). Some certifiers, for additional market access or branding purposes, also certify operators to their own standard, which must be at least as stringent as the National Standard. The National Standard was last updated in 2016 and is maintained by the industry owned and funded Organic Industry Standards and Certification Council (OISCC) on behalf of the Department of Agriculture and Water Resources (DAWR).

Certification means the exported products leave Australia in compliance with Australian law, but it does not guarantee the products comply with the importing country's law. Consequently, the Australian Government and individual Australian certifiers must engage in equivalency negotiations with the importing country on a government-to-government or certifier-to-government basis respectively. Consequently, and by example, three separate Australian certifiers are accredited directly with the USDA[1] NOP[2] requirements for access to the United States marketplace. Government-to-government negotiations are continuing with South Korea to enable direct access to that market via equivalency provisions. These negotiations have been ongoing for some years but are expected to be finalised in 2018.

In the domestic Australian market, there is no legislation specifically referencing organic production and marketing requirements. There is, however, strict domestic consumer protection legislation (Australian Consumer Law 2010) prohibiting misleading or deceptive conduct. All the major chain retailers also require certification to recognised industry standards for access to their shelves, as do some farmers markets and other independent retailers.

[1] USDA is the United States Department of Agriculture. The USDA website is available on https://www.ams.usda.gov/.
[2] NOP is the National Organic Programme of the United States of America. More information is available at https://www.ams.usda.gov/about-ams/programs-offices/national-organic-program.

The majority of the Australian industry is covered under the provisions of the National Standard, which has been in place since the 1990s. There is also a shadow organic standard, which was established by industry via Standards Australia (an Australian standards setting organization), known as the AS6000, which is based on the National Standard. This standard is not used as a certification standard commercially within Australia but has the potential to be referenced by the government consumer organisation the Australian Competition and Consumer Commission (ACCC) in cases of dispute over organic claims domestically. Convergence of the two regimes or standards – export and domestic – remains a work in progress. In 2018, industry is expected to preside over a major review of the Export Orders and regulatory arrangements, in order to develop one single standard and related regulatory regime when the current regulatory arrangements sunset in 2020.

Competitive exports

In mid-2015, the Australian Government released a policy paper on increasing the competiveness of Australian agriculture. A key plank of the paper focuses on access to premium international export markets for Australian-grown produce. The Government's connection with organics from a regulatory point of view is the oversight of the export regime, via export regulations. Under the banner of access to premium export markets, the Government is working with players in the organic sector in Australia on a number of initiatives including:

- Development of an action plan, with the specific aim of creating a national voice for the organic sector
- A review of the organic export regulations, and
- Public funding to support development and implementation of a five-year Organic Market Access Strategy

On the industry side, leading organic sector players have founded a project called "Organic Industries" led by an organizing committee – the Australian Organic Industry Working Group – "with a view to establishing a harmonised national voice for all organic producers, certifiers and the supply chain" (Organic Industries, 2017).

A new peak structure and voice for organics in Australia?

The deliberations of the organic industries project may result in a new national representative structure "that will be the voice of organic industries at national and state level and that promotes viable and sustainable industries with broad representation from all sectors" (Organic Industries, 2017).

Thus far, there have been a series of consultative workshops in regions across Australia. The consultations involved government agencies, certified organic producers and support industries, organic exporters, value-adders, and retailers. A consultation paper collating and analysing responses to the consultation process has now been published (Policy Partners, 2017).

The consultation paper focuses on the importance of the Australian organic sector enhancing relationships with government, producers, supply chains and external stakeholders. The main objectives are value creation, effective regulation, and building trust, not just for the export of Australian-produced organics, but also for the integrity of the Australian domestic market. The consultants prepared a roadmap for the sector to develop a preferred option for a proposed peak structure. The structure could be operating by mid-2018, depending on the sector's deliberations. The two most promising options canvassed by the consultants were:

- Establishing an entirely new peak body, or
- Morphing the parent body of ACO – Australian Organic Limited – into the peak body, taking advantage of its existing profile and resources.

The consultation and engagement process is ongoing, and this space will be one to watch over the coming year.

The other significant industry event of the year was the approval by members of Australian Organic Ltd (AOL) to separate its certification subsidiary, ACO Pty Ltd. Starting in 2018, this will enable greater competition for service providers for access to the Bud logo (the logo found on the majority of certified organic products in Australia), while enabling AOL to become more of a focused industry services group. Whether or not industry in turn requests the use of AOL resources and structures to form a new peak structure, or sets up a separate structure to complement the work of this industry services organisation remains to be seen and will be determined through industry consultation in 2018.

Review of export regulations

As mentioned above, organic products come within the operation of Australia's export regulations, which class organic products as "prescribed goods" subject to legal requirements – in particular, certification. The specific regulation is subject to a "sunset clause" and will expire in 2020. The Government has engaged the professional services firm Deloitte to lead a review of the export regime, with a review report expected in mid-2018.

There are a number of actions the government could take – continue the current arrangements requiring certification of exports of Australian-produced organics, abolish the current arrangements, or strengthen, weaken or otherwise amend the export regime. Once again, this is a space to watch during 2018.

Common voluntary organic logo for Australia

Unlike the United States and European Union, there is no Australian Government organic logo. There have been attempts over the years to create one, but the results of these attempts have not persisted. The lack of a national logo was raised as a

negotiating issue in 2015 by South Korea in government-to-government equivalency negotiations with the Australian Government.[1]

In 2017, Australia's trademark authority (IP Australia) formally registered two trademarks in the name of the Organic Industry Standards and Certification Council (OISCC). OISCC's organic trademarks are available for use by operators certified by any of the six government accredited certifiers. Use of the marks is voluntary and does not prevent a certifier from using its own logo.

Meanwhile the domestic marketplace in Australia continues to consolidate and simplify. The Australian marketplace remains an open market with moderate regulatory arrangements in place domestically (rather than mandatory legislative requirements), driven by the buyer in terms of demand for certified organic products. The year ahead will be a major year for the Australian organic industry as it lobbies government for an updated legislative arrangement that references one single standard for export and domestic market requirements – a long-standing desire of the trade and the movement.

References

Australian Bureau of Statistics (2016): 7121.0 – Agricultural Commodities, Australia, 2014-15. Available at http://www.abs.gov.au/ausstats/abs@.nsf/mf/7121.0

ACO (2016): National Organic Seal (OISCC). https://aco.net.au/national-organic-seal-oiscc/

Australian Government (2015): Agricultural Competitiveness White Paper. Canberra. Available at http://agwhitepaper.agriculture.gov.au/

Australian Government Department of Agriculture and Water Resources (2017): Accessing Premium Markets: Australian Organics – Discussions with Industry on Implementing the Australian Government Agricultural Competitiveness Policy. Canberra.

Australian Government Department of Agriculture and Water Resources (2017): Improving Access to Premium Markets for Organic Products. Available at http://www.agriculture.gov.au/export/controlled-goods/organic-bio-dynamic/accessing-premium-markets-organic-products

Australian Organic (2017): Australian Organic Market Report 2017. Australian Organic, Nundah, www.austorganic.com

Lawson, A., Monk, A., and Cosby A. (2017) Australia. In: Willer, H. and Lernoud, J. (2017): The World of Organic Agriculture. Statistics and Emerging Trends 2017. FiBL and IFOAM – Organics International, Bonn and Frick

Organic Industry Standards and Certification Council (OISCC) (2010): National Standards sub Committee (NSsC). The website of the Organic Industry Standards and Certification Council, Brisbane. Available at https://oiscc.org/national-standards-sub-committee/

Organic Industries (2017): Organic Industries. A voice for Australia's organic industries. Available at https://www.onevoice.organicindustries.com.au

Policy Partners (2017): A Proposed Roadmap for Australia's Organic Industry – Considering Options for the Leadership of the Industry. Consultation paper prepared for Organic Industries. The Organic Industry website, Available at https://www.onevoice.organicindustries.com.au/Consultation/Paper

[1] It is possible for individual Australian certifiers to be accredited by the South Korean Government, and ACO has achieved this accreditation.

The Pacific Islands

KAREN MAPUSUA[1]

Recent developments

Regional and national agencies and development partners increasingly recognize the value of organic agriculture as a development tool for the Pacific Islands context. Innovations such as the Pacific Organic Tourism and Hospitality Standard and the online Pacific Organic Policy Toolkit are attracting interest from organic farmers through to policymakers. Successes and lessons learned from past projects are being incorporated into programmes to upscale activities, like Participatory Guarantee System (PGS) development, and are being recognized as providing a platform for social development including women's and youth economic empowerment.

The number of organic farmers in the region is continuing to grow with PGS growing at a faster rate than third-party certification.

The Pacific Organic Tourism and Hospitality Standard

The organic movement and members of the hospitality industry currently involved in organic farm-to-table projects called for a brand or identifier they can use to promote their use of organic produce. The Pacific Organic Tourism and Hospitality Standard (POTHS) was developed in 2016 with the assistance of the European Union Pacific Agriculture Policy Project (PAPP) to meet this need. The POTHS and accompanying guarantee system can be applied to menu items, food/catering providers or whole destinations. The POTHS aligns with the standards and requirements of the Pacific Organic Standard (POS). The POTHS will enable tourism operators to procure fresh and value-added products through a certified organic value chain and, if compliant with other environmental and social standards, will qualify to be certified to the Standard and use the "Organic Pasifika" mark in their branding and marketing.

Pilots for the POTHS have been established with the assistance of the International Fund for Agricultural Development IFAD, the Sustainable Development Goals Fund and the United Nations Development Programme in Vanuatu and Fiji during 2017. The first certification is expected in 2018.

Participatory Guarantee Systems

Interest in Participatory Guarantee Systems (PGS) in the Pacific Islands continued to expand through 2016-2017 as market opportunities for PGS-certified products evolved, and examples were generated of how organic and PGS can be tools for holistic and sustainable social and economic development. The Pacific Organic and

[1] Karen Mapusua, Team Leader, Land Resources Division, Pacific Community, Suva, Fiji

Ethical Trade Community (POETCom) with support from the International Fund for Agricultural Development (IFAD) began in 2013 developing models for Participatory Guarantee Systems tailored to the diverse situations of Pacific organic growers. After learning from the first Pacific PGS – BioCaledonia and BioFetia in New Caledonia and French Polynesia respectively – three pilot PGS were established in Fiji and Kiribati focusing on specific products (virgin coconut oil, coco sap sugar and papaya).

A PGS training package has been developed, and it is now being utilised to assist further development.

PGS models in the Pacific include wild harvest, "whole island"[1], as well as more traditional grower groups. Respect for traditional authorities (chiefs) is strong in the Pacific Islands, and in some cases, traditional village or island governance systems have been embraced to provide support to the guarantee system. Processing and value-adding operations are also certified through the PGS process. This has created a need to provide considerable upskilling to those PGS that include processing so that they can manage the more complex inspection requirements. Processor PGS certification at this point is only provided in countries, where there are multiple processors to allow PGS processors to peer review across the PGS groups.

A unique aspect of PGS in the Pacific is the regional PGS Mark "Organic Pasifika Guaranteed". PGS can apply to POETCom to be licensed to use this mark, which not only facilitates the recognition of organic product in the local market but is recognized across the 22 Pacific Island countries and territories, facilitating intra-regional trade in organic products. This trade is in its infancy but already small quantities of organic products such as forest nuts, virgin coconut oil and coco sap sugar are being exported to other Pacific Island countries for their developing organic markets. There are currently eight PGS approved to use the Organic Pasifika Mark, and a further three are under development.

Third-party certification

Third-party organic certification continues to grow slowly. Each year shows some withdrawals from certification and some new licensees. For some growers of long-term crops, such as coconuts, devastation by tropical cyclones makes maintaining certification through the recovery period uneconomical. Costs remain high and in some cases, prohibitive for smallholder family farms. A considerable proportion of the costs relate to travel expenses, as inspectors have to fly in, usually from Australia or New Zealand. Due to flight logistics, geographic spread or locations of grower groups, inspectors are often required to stay on an island a considerable amount of time. In 2015, POETCom initiated training of organic inspectors based in the Pacific Islands with trainees from seven Pacific Island countries beginning the process of training to be organic inspectors. Training was delivered by the International Organic

[1] Under the „whole island" approach, an entire island is certified under traditional land tenure arrangements.

Inspectors Association together with the National Association of Sustainable Agriculture Australia (NASAA) and with support from Biogro and Bioagricert. The aim is to build a pool of locally based inspectors that POETCom's partner certifying bodies can contract to undertake inspections on their behalf, reducing travel costs for operators. Lack of resources has constrained the continued development of inspectors.

Market & trade

Most of the organically certified products from the region are for export. There are indications of growing local markets through basket (box) schemes, unverified organic claims on labels, PGS development, organic stalls at farmers markets, and increased awareness. As of yet, however, there are no mechanisms for collecting local organic market data.

Commodities

The following summary table lists the main products, which are currently organically certified in the Pacific region.

Table 75: Pacific region: Main products, which are currently organically certified

Products	Countries
Vanilla, ginger & other spices	Fiji, Vanuatu, Niue, Samoa
Cocoa	Vanuatu, Samoa, Papua New Guinea
Virgin coconut oil	Samoa, Fiji, Solomon Islands, Tonga, Vanuatu
Coconut meal	Vanuatu
Nonu /noni (*Morinda Citrifolia*)	Cook Islands, Samoa, Fiji, Niue, French Polynesia
Honey	Niue
Bananas (including processed)	Fiji, Papua New Guinea, Samoa
Coffee	PNG, Samoa, Fiji
Livestock(beef, goats and sheep)	Vanuatu, Fiji
Fruit & Vegetables (including processed)	Fiji, New Caledonia, Samoa, French Polynesia
Rum	French Polynesia
Forest nuts	Solomon Islands

Source: SPC

Domestic Markets

Domestic markets for certified organic products are slowly developing. Organic products are commonly sold as conventional without premiums or any acknowledgment of the organic status of the product. Some initiatives are ongoing or are in the pipeline to promote consumer awareness about organic products, in particular in linking the concept of organic with local food consumption as part of strategies to reduce non-communicable diseases, which are a major health issue in the Pacific Islands. Interesting opportunities are now being explored within the tourist structures of several countries that have larger tourism industries (e.g. Fiji, Vanuatu, Cook Islands and Samoa) focusing on development of Pacific cuisine and linking smallholder organic farmers directly with tourism and hospitality providers. There are now several up-market island-based resorts in Fiji, which have their island

organically certified and which commit to serving guests organic produce from their land. The development of the Pacific Organic Tourism and Hospitality Standard (POTHS) is expected to support growth in domestic markets in coming years. The growth in interest in PGS in several counties also implies that there is an opportunity for further development of domestic markets, and the acceptance of PGS certification across the region has stimulated initial regional trade in organic goods.

Legislation

Until recently, there have been no significant changes in legislation and no real indication governments were considering policy in the area of organic agriculture. However, in recent years, governments of the region have approached POETCom for advice on assisting the growth of organics. In 2016, POETCom partnered with IFOAM – Organics International to develop an online Pacific Organic Policy Toolkit, which is now available. The government of Vanuatu has utilized the toolkit to develop a national policy with the objective for Vanuatu to be 100 percent organic by 2020. Governments of Fiji and Samoa are also planning to utilize this online resource.

Government and international support

Pacific Community (SPC) as a regional intergovernmental organization continues to provide support for organics development and now houses the POETCom secretariat. However, as current project funding cycles come to an end, the need for bridging finance and developing a longer-term financing strategy to support the organic movement is critical.

POETCom national affiliates continue to receive assistance from partners such as OXFAM New Zealand, Canada Fund, UNDP[1] small grants programmes and bilateral donor assistance from Australia and New Zealand. In a few cases, national governments also provide financial support for organic certification costs as in the case of Samoa, Tonga and Niue, where the national governments cover certification fees for large national grower groups.

Outlook

Sustainable resourcing for the secretariat and core services of POETCom presents a challenge. Since 2016, the coordinator´s role in POETCom had been unfunded. This created a significant burden on remaining staff and required substantial voluntary work from members and supporters. Functioning in this way is not sustainable. However, as governance and management structures are strengthened and with the implementation of the Pacific Organic Guarantee System, in particular the elements of PGS, the export certification scheme and regional organic branding, growth and momentum are likely to continue. Funding support is being sought to design and

[1] UNDP is the United Nations Development Programme. For more information, see www.undp.org.

develop cost recovery mechanisms for services. Projects for development funding are also under development.

A growing understanding of the role and potential for organic agriculture in adaptation to climate change will provide a basis for incorporating organics as a development tool in Pacific agriculture and climate change policy, but financial support will be required to undertake the necessary trials and demonstrations required for farmers and policymakers to widely adopt organic agriculture.

There is also an expectation that the local market for organic products will start to expand as the tourism and hospitality industries start to look towards organic and sustainability as part of the Pacific Islands' brand.

Links and further reading

- Pacific Organic and Ethical Trade Community
  www.organicpasifika.com
- Pacific Organic Standard
  http://www.organicpasifika.com/poetcom/wp-content/uploads/sites/2/2014/08/POS.pdf
- Growing Our Future POETCom Strategic Plan 2013 – 2017
  http://www.organicpasifika.com/poetcom/wp-content/uploads/sites/2/2014/08/POETCom-Strategic-Plan.pdf
- POETCom Annual Reports
  http://www.organicpasifika.com/poetcom/who-are-we/annual-reports/
- Pacific Organic Policy Toolkit http://www.organicpasifika.com/pasifikapolicytoolkit/

Oceania: Current statistics

JULIA LERNOUD,[1] HELGA WILLER,[2] AND BERNHARD SCHLATTER[3]

In 2016, the organic agricultural land in Oceania was 27.3 million hectares, which constituted 6.5 percent of the total agricultural area in the region. Forty-seven percent of the world's organic agricultural land is in Oceania. The area under organic production has increased 5-fold since 2000 (5.3 million hectares). Between 2015 and 2016, the area in Oceania grew by over 5 million hectares – almost 23 percent more - mainly due to a large growth of the organic agricultural area in Australia. However, further countries, such as Samoa (almost 36'000 hectares more) and French Polynesia (over 14'000 hectares more) showed an important growth. The country with the biggest organic agricultural area is Australia with 27.1 million hectares, and the highest organic share of total agricultural land is in French Polynesia, with 31.3 percent of all farmland under organic cultivation, followed by Samoa with 22.4 percent.

Land use

It is estimated that in 2016, almost 96 percent of all organic farmland in Oceania was grassland/grazing areas (26 million hectares, mainly in Australia). Detailed data on land use was not available for Australia, the country with the largest area. However, it was available for all other countries. From the available data, we can assume that permanent crops play an important role in the region. Coconuts is the largest grown commodity (over 93'000 hectares, 17.4 percent of the total region's tropical fruit area). Furthermore, coffee (nearly 15'300 hectares, 28 percent of the total coffee grown in the region) are largely grown in the Pacific Islands, mainly for oil production.

Producers

There were more than 27'000 organic producers in the region, with the largest number of producers in Papua New Guinea (almost 15'000 producers), Australia (over 2'000 producers), and the Solomon Islands (over 1'500 producers). Since 2006, when data for most of the countries became available, their number has more than trebled.

Market

For 2016, no updated data on the organic market was available. In 2015, the total organic market was 1.1 billion euros for the region. Australia, reported an organic market of 941 million euros and New Zealand retail sales value 124 million euros. For the other countries in the region, no data is available. The annual organic consumption was 40 euros per person in Australia (2015) and 27 euros per person in New Zealand (2015). For more information, see the data tables on page 314.

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

Organic Agriculture in Oceania: Graphs

Oceania: Organic agricultural land by country 2016
Source: FiBL survey 2018

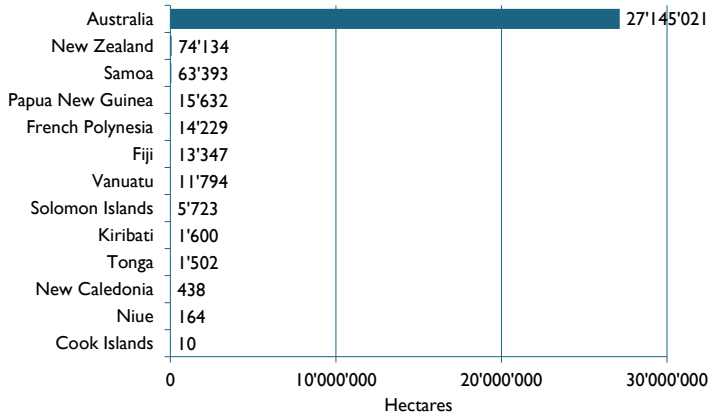


Figure 108: Oceania: Organic agricultural land by country 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Oceania: Organic share of total agricultural land by country 2016
Source: FiBL survey 2018

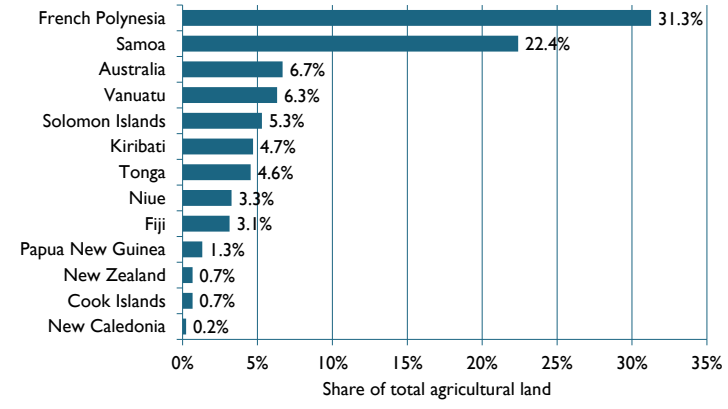


Figure 109: Oceania: Organic share of total agricultural land by country 2016

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Oceania: Development of organic agricultural land 2000-2016

Source: FiBL-IFOAM-SOEL-Surveys 2002-2018

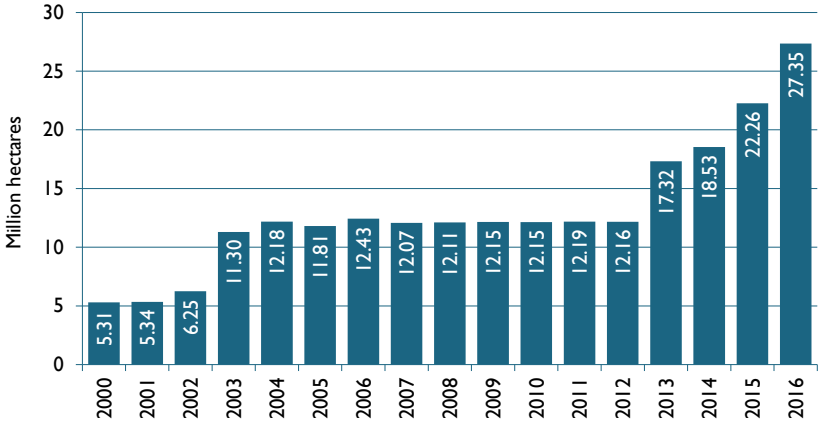


Figure 110: Oceania: Development of organic agricultural land 2000-2016

Source: FiBL-IFOAM-SOEL 2000-2018; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Organic Agriculture in Oceania: Tables

Table 76: Oceania: Organic agricultural land, organic share of total agricultural land, and number of producers 2016

Country	Area [ha]	Share of total agr. land [%]	Producer [no.]
Australia	27'145'021	6.7%	2'075
Cook Islands	10	0.7%	50
Fiji	13'347	3.1%	1'547
French Polynesia	14'229	31.3%	140
Kiribati	1'600	4.7%	900
New Caledonia	438	0.2%	94
New Zealand	74'134	0.7%	842
Niue	164	3.3%	51
Papua New Guinea	15'632	1.3%	14'914
Samoa	63'393	22.4%	1'614
Solomon Islands	5'723	5.3%	1'510
Tonga	1'502	4.6%	1'146
Vanuatu	11'794	6.3%	2'483
Total	**27'346'986**	**6.5%**	**27'366**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 77: Oceania: All organic areas 2016

Country	Agriculture [ha]	Wild collection [ha]	Total [ha]
Australia	27'145'021		27'145'021
Cook Islands	10		10
Fiji	13'347	653	14'000
French Polynesia	14'229		14'229
Kiribati	1'600		1'600
New Caledonia	438		438
New Zealand	74'134		74'134
Niue	164	112	276
Papua New Guinea	15'632		15'632
Samoa	63'393		63'393
Solomon Islands	5'723		5'723
Tonga	1'502		1'502
Vanuatu	11'794		11'794
Total	**27'346'986**	**765**	**27'347'751**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Table 78: Oceania: Land use in organic agriculture 2016

Land use	Crop group	Area [ha]
Agricultural land, no details		836'205
Arable land crops	Medicinal and aromatic plants	1'231
	Sugarcane	7
	Arable crops, other	438
Arable land crops total		*1'676*
Cropland, no details		9'677
Other agricultural land		5'821
Permanent crops	Cocoa	657
	Coconut	93'376
	Coffee	15'268
	Fruit, temperate	1'000
	Fruit, tropical and subtropical	3'883
	Grapes	2'022
	Medicinal and aromatic plants, permanent	59
	Permanent crops, other	835
Permanent crops total		*117'099*
Permanent grassland total		26'376'507
Total		**27'346'986**

Source: FiBL survey 2018, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 330

Achievements and Outlook

A new narrative for the organic movement and IFOAM – Organics International

MARKUS ARBENZ[1]

The global General Assembly of IFOAM – Organics International 2017 decided unanimously that Organic 3.0[2] *shall be incorporated into the strategy of all IFOAM members and that it shall guide change in the organic movement. IFOAM – Organics International is taking the lead with a new strategic plan and gives itself a new identity as an agent of change.*

The umbrella

IFOAM – Organics International has been the global organic umbrella organization since 1972: From the early days of the pioneers (i.e. "Organic 1.0") to the formation of the organic movement and the codification of standards and enforced rules that have established the organic sector with a market value of almost 90 billion US dollars per year (i.e. "Organic 2.0").[3]

IFOAM – Organics International is the organic agent of change for true sustainability in agriculture, value chains and consumption. It works on behalf of its membership, the global organic movement in over 120 countries.

Its mission is: Leading Change, Organically!

In the 45 years of its existence, IFOAM – Organics International has managed to facilitate the building of a dynamic global organic movement and sector with active institutions and local and global organic value chains. However, thanks to the achievements and due to a changed environment (e.g., the development of information technology, the introduction of organic regulations in many countries and the emergence of like-minded initiatives such as Fair Trade), the mission of IFOAM – Organics International has evolved. For a long time, it has been stakeholder-oriented and focused on uniting and assisting its affiliates. It has shown its relevance, e.g., through the development of basic standards for producers and certification bodies, through advocacy, and through sector development projects.

Now the organic movement is entering a new phase that we call "Organic 3.0". Organic 3.0 positions organic as a modern, innovative system that has positive impacts on global environmental and social challenges. It is the overall strategic plan

---

[1] Markus Arbenz, Executive Director, IFOAM - Organics International, Bonn, Germany, www.ifoam.bio

[2] IFOAM – Organics International & SOAAN (2017): Organic 3.0 for truly sustainable farming & consumption. A Landmark Document of the Organic Movement. IFOAM – Organics International, Bonn. Available at https://www.ifoam.bio/sites/default/files/summary_organic3.0_print__0.pdf

[3] For definitions see above-mentioned publication.

of the global organic movement for further growth and sustainable development in order to increase positive impacts on the planet and the people. At the same time, we see increased recognition of the need for a more sustainable agriculture in general. We are spearheading momentum in which citizens, consumers, companies, governments and the United Nations start to act and call for change to agriculture policies.

So far, our organic solutions have only been adopted on a small percentage of the farmland, and the organic market share is still low. Yet, we are fast growing and have the responsibility to support, facilitate and advocate change.

The new narrative

The world faces challenges: poverty, hunger and malnutrition are prevailing, the global society has an unfair distribution of wealth and power, biodiversity is decreasing, natural resources like soil and water are deteriorating, and the planet´s climate is changing. Agriculture and related value chains, as presently practiced, are among the main causes of the above-mentioned challenges and are responsible for bringing the planet to its limit. There is a wide consensus that we need to move towards more sustainable agriculture and food systems and that business as usual is not an option any more. Agriculture, done differently, can be part of the solution. If we get it right with agriculture and food systems, we get it right for the people and the planet!

Organic agriculture, a dynamic and continuously developing farming system based on the science of agroecology, is a form of truly sustainable agriculture and offers practical solutions to address major global challenges. Organic agriculture and equally sustainable systems produce healthy, nutritious food and other natural products for a growing population. They enable farmers to earn a fair living, regenerate and enhance soil fertility and biodiversity, safeguard and replenish scarce water resources, mitigate climate change, and help people, who have been negatively impacted by climate change, to adapt to it and become more resilient.

As an agent of change, IFOAM – Organics International - legitimized by its membership and in collaboration with its networks - facilitates and actively contributes to improvements towards true sustainability in agriculture, in its value chains and in consumption. It pursues the trifold goal of enhancing growth of the global organic sector, making it more sustainable and inspiring mainstream agriculture.

In order to fully utilize the potential of organic agriculture, IFOAM – Organics International works on three key factors or levers (see Figure 111 and the strategic plan below):

- Enhancing **supply** with capacity development of operators and other value chain actors;
- Stimulating **demand** with communication support and awareness campaigns; and

- Advocating for a **policy and guarantee** environment that is conducive to truly sustainable production and consumption.

Figure 111: The theory of change of IFOAM – Organics International

The strategic plan of IFOAM – Organics International

VISION	Broad adoption of truly sustainable agriculture, value chains and consumption in line with the principles of organic agriculture
MISSION	Leading change, organically.
GOALS	We contribute to an increased: Uptake of organic agriculture and similar approaches, certified or non-certified; Number of organic operations that move from good practice towards best practice; Number of agriculture operations that are becoming more sustainable and integrate organic principles and methods.
THE 3 PILLARS OF ACTION	1. Supply: We facilitate capacity development for truly sustainable production; 2. Demand: We campaign to multipliers and act as a resource center for organic communications; 3. Policy and Guarantee: We advocate and provide competence for the creation of a favorable policy environment.
GOVERNANCE	A democratic, international association of organic and likeminded institutions, that is accountable to its members. We also facilitate a global action network of self-organized institutions that have "IFOAM" in their name and we join forces with actors who share our vision.

The institutional context

The impact of this strategy development on the membership system of IFOAM - Organics International is still in discussion. In November 2017, the IFOAM General Assembly mandated the IFOAM World Board to introduce a discussion process and to present a reformed system to a virtual General Assembly in the second half of 2018.

As a consequence of the strategic plan, IFOAM – Organics International seeks further collaboration and partnerships. This includes discussions with organisations

advocating for agroecology, food sovereignty and fair trade organisations, which include livelihood and nutrition development or environmental protection in their objectives.

IFOAM – Organics International is acting in the "IFOAM Action Group", a network that includes all ten self-organised regional bodies and seven sector platforms (see Figure 112). All of these structures carry "IFOAM" in their name, and they all commit to the so-called organic landmarks,[1] which are the highest-level positions of IFOAM – Organics International (e.g., the principles of organic agriculture[2] or the best practice guidelines). In 2018, the IFOAM Action Group is planning to develop a strategic plan for the network to support all of the above-mentioned trends and to mainstream organic 3.0 in all institutions of the organic movement.

Figure 112: The institutional context

[1] IFOAM - Organics International (2017): Organic Landmarks. The IFOAM.bio website. IFOAM- Organics International, Bonn. Available at https://www.ifoam.bio/en/what-we-do/organic-landmarks

[2] IFOAM - Organics International (2017): Principles of Organic Agriculture. The IFOAM.bio website. IFOAM-Organics International, Bonn. Available at https://www.ifoam.bio/en/organic-landmarks/principles-organic-agriculture.

Annex

Key Indicators by Country and Region

Table 79: Organic agricultural land (including in-conversion areas): Key indicators by region 2016

Region	Organic area [ha]	Shares of the global organic farmland area [%]	Organic share of total farmland area [%]	Growth 2015-2016 [%]	Organic producers [no.]	Organic retail sales [Mio €]
Africa	1'801'699	3%	0.2%	7.1%	741'367	16*
Asia	4'897'837	8%	0.3%	23.5%	1'108'040	7'343
Europe	13'509'146	23%	2.7%	6.7%	373'240	33'526
Latin America	7'135'155	12%	0.9%	5.9%	458'532	810
North America	3'130'332	5%	0.8%	5.3%	18'422	41'939
Oceania	27'346'986	47%	6.5%	22.9%	27'366	1'065
World**	**57'816'759**	**100%**	**1.2%**	**15.0%**	**2'726'967**	**84'698**

Source: FiBL survey 2018. Note: Agricultural land includes in-conversion areas and excludes wild collection, aquaculture, forest, and non-agricultural grazing areas.
**Data from Ethiopia and Kenya. **Includes correction value for French overseas departments.*

Table 80: Organic agricultural land, share of total agricultural land, number of producers, and retail sales 2016

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Mio €]
Afghanistan	408	0.001%		
Albania	662 (2014)	0.1%	51	
Algeria	772	0.002%	64	
Andorra	4	0.02%		
Argentina	3'011'794	2.0%	1'148	
Armenia	1'240	0.1%	16	
Australia	27'145'021	6.7%	2'075	941 (2015)
Austria	571'585	21.9%	24'213	1'542
Azerbaijan	37'630 (2015)	0.8%	305	3 (2011)
Bahamas	49	0.3%		
Bangladesh	6'860 (2012)	0.1%	9'335 (2011)	
Belarus		Wild collection only		
Belgium	78'452	6.0%	1'946	586
Belize	380	0.2%	820	0.01 (2015)
Benin	5'679	0.2%	3'153	
Bermuda		Processing only		
Bhutan	6'632	1.3%	4'293	
Bolivia	114'306 (2014)	0.3%	12'114	
Bosnia and Herzegovina	992	0.05%	45	0.1
Brazil	750'000 (2014)	0.3%	10'336	778
Brunei Darussalam		Aquaculture only		
Bulgaria	160'620	3.5%	6'964	7 (2010)
Burkina Faso	27'268	0.2%	9'036	
Burundi	103	0.01%	35	
Cambodia	9'717	0.2%	6'753	
Cameroon	380 (2014)	0.004%	193	
Canada	1'099'014	1.7%	4'205	3'002
Cape Verde	495	0.6%		
Chad		Wild collection only		

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Mio €]
Channel Islands	180 (2014)	1.9%		
Chile	15'838	0.1%	446	2 (2009)
China	2'281'215	0.4%	6'308	5'900
Colombia	31'621 (2014)	0.1%	4'775 (2011)	
Comoros	2'577	1.9%	1'540	
Congo, D.R.	94'386	0.4%	36'571	
Cook Islands	10	0.7%	50	
Costa Rica	7'908	0.4%	3'000 (2009)	1 (2008)
Côte d'Ivoire	42'004	0.2%	494	
Croatia	93'593	6.0%	3'546	99 (2014)
Cuba	1'282	0.02%	508	
Cyprus	5'550	5.1%	1'174	2 (2006)
Czech Republic	488'591	11.5%	4'271	79 (2015)
Denmark	201'476	7.7%	3'306	1'298
Dominica	240 (2011)	1.0%		
Dominican Republic	205'258	8.7%	29'311	
Ecuador	39'824	0.7%	12'483	
Egypt	105'908	2.8%	970	
El Salvador	1'426	0.1%	2'000	
Estonia	180'852	18.9%	1'753	
Ethiopia	186'155 (2015)	0.5%	203'602	13 (2015)
Falkland Islands (Malvinas)	135'596	12.2%	5	
Faroe Islands	253	8.4%		
Fiji	13'347	3.1%	1'547	
Finland	238'240	10.4%	4'493	273
France	1'538'047	5.5%	32'264	6'736
French Guiana (France)	3'051	10.0%	62	
French Polynesia	14'229	31.3%	140	
Georgia	1'452 (2015)	0.1%	1'075	
Germany	1'251'320	7.5%	27'132	9'478
Ghana	21'326	0.1%	2'673	
Greece	342'584	4.2%	20'197	60 (2010)
Grenada (2010)	85	1.1%	3	
Guadeloupe (France)	168	0.3%	37	
Guatemala (2011)	13'380	0.4%	3'008	
Guinea-Bissau	689	0.04%		
Guyana		Wild collection only		
Haiti	6'112	0.3%	1'210	
Honduras	28'689	0.9%	5'686	
Hong Kong		Processing only		
Hungary	186'347	4.0%	3'414	30 (2015)
Iceland	22'710	1.2%	28	
India	1'490'000	0.8%	835'000	130 (2012)
Indonesia	126'014	0.2%	5'810	
Iran	18'871	0.04%	3'879	
Iraq	60	0.001%		
Ireland	76'701	1.5%	1'767	150
Israel (2015)	5'758	1.1%	303	
Italy	1'796'363	14.5%	64'210	2'644
Jamaica	374	0.1%	127	1
Japan	9'956	0.2%	2'130 (2012)	1'000 (2009)
Jordan	1'517	0.1%	19	
Kazakhstan (2015)	303'381 (2015)	0.1%	29	
Kenya	154'488	0.6%	37'295	3

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Mio €]
Kiribati	1'600	4.7%	900	
Kosovo (2015)	160	0.04%	100	
Kuwait	20	0.01%		
Kyrgyzstan	7'974	0.1%	1'427	
Lao, P.D.R.	7'668	0.3%	1'342	
Latvia	259'146	14.3%	4'145	4 (2011)
Lebanon	1'079	0.2%	101	
Lesotho (2015)	548	0.02%	4	
Liechtenstein	1'383	37.7%	43	6
Lithuania	221'665	7.6%	2'539	6 (2011)
Luxembourg	4'274	3.3%	93	108
Macedonia, FYROM	3'245	0.3%	509	
Madagascar	60'023	0.1%	20'210	
Malawi	12'239	0.2%	7	
Malaysia (2013)	603	0.01%	119	
Mali (2014)	11'919	0.03%	12'619	
Malta	24	0.2%	14	
Martinique (France)	297	0.9%	50	
Mauritius	13	0.01%	22	
Mexico	673'968	0.6%	210'000	14 (2013)
Moldova	30'142	1.2%	114	
Monaco		Processing only		
Montenegro	3'470	1.5%	280	0.1 (2010)
Morocco	10'000	0.03%	80	
Mozambique	7'412	0.01%	3	
Myanmar	4'568	0.04%	12	
Namibia (2015)	30'127	0.1%	25	
Nepal (2013)	9'361	0.2%	687	
Netherlands	52'204	2.8%	1'557	1'171
New Caledonia	438	0.2%	94	
New Zealand (2015)	74'134	0.7%	842	124
Nicaragua (2009)	33'621	0.7%	10'060	
Niger	262	0.001%		
Nigeria	52'421	0.1%	102	
Niue	164	3.3%	51	
Norway	47'621	4.8%	2'083	394
Oman	38 (2015)	0.003%	4 (2013)	
Pakistan	45'299	0.1%	111	
Palestine, State of	5'993	2.0%	1'553	
Panama (2013)	15'183	0.7%	1'300	
Papua New Guinea	15'632	1.3%	14'914	
Paraguay (2015)	64'097	0.3%	58'258	
Peru	323'578	1.3%	91'771	14 (2010)
Philippines	198'309	1.6%	165'994	
Poland	536'579	3.7%	22'435	167 (2015)
Portugal	245'052	6.7%	4'313	21 (2011)
Puerto Rico	14	0.01%	5	
Republic of Korea	20'165	1.2%	12'896	281 (2015)
Réunion (France)	881	1.8%	203	
Romania	226'309	1.7%	10'083	80 (2011)
Russian Federation	289'890	0.1%	55	120 (2012)
Rwanda	1'284	0.1%	4'013	
Samoa	63'393	22.4%	1'614	
San Marino		Processing only		
Sao Tome and Principe (2014)	6'706	13.8%	3'738	

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]*	Organic retail sales [Mio €]
Saudi Arabia	17'212	0.01%	151	
Senegal	7'172	0.1%	18'398	
Serbia	14'358	0.4%	286	
Sierra Leone	69'686	1.8%	1'400	
Singapore		Processing only		
Slovakia	187'024	9.9%	431	4 (2010)
Slovenia	43'579	9.0%	3'513	49 (2013)
Solomon Islands	5'723	5.3%	1'510	
Somalia		Wild collection only		
South Africa	14'196	0.01%	196	
Spain	2'018'802	8.7%	36'207	1'686
Sri Lanka (2015)	96'318	3.5%	8'713	
Sudan (2014)	130'000	0.2%	354	
Suriname	39	0.04%		
Swaziland	5	0.0004%		
Sweden	552'695	18.0%	5'741	1'944
Switzerland	141'249	13.5%	6'348	2'298
Syrian Arab Republic	19'987 (2010)	0.1%	2'458 (2010)	
Taiwan (2015)	6'490	0.8%	2'598	
Tajikistan (2012)	12'659	0.3%	10'486	
Tanzania	268'729 (2015)	0.7%	148'610 (2013)	
Thailand	57'189	0.3%	15'670	12 (2014)
Timor-Leste	28'259	7.4%	4	
Togo	21'572	0.6%	9'934	
Tonga	1'502	4.6%	1'146	
Tunisia (2015)	181'076	1.8%	3'400	
Turkey	523'777	1.4%	67'879	4 (2009)
Uganda	262'282	1.8%	210'352	
Ukraine	381'173	0.9%	294	21
United Arab Emirates	4'590	1.2%	92	
United Kingdom	490'205	2.9%	3'402	2'460
United States	2'031'318	0.6%	14'217	38'938
US Virgin Islands	26	0.7%		
Uruguay	1'656'952	11.5%	6	
Uzbekistan		Wild collection only		
Vanuatu	11'794	6.3%	2'483	
Venezuela		Processing only		
Viet Nam	53'348	0.5%	8'365	18
Zambia	7'738	0.03%	10'061	
Zimbabwe	3'179	0.02%	2'006	0.01
World	**57'816'759**	**1.2%**	**2'726'967**	**84'698**

Source: FiBL survey 2018, based on data from governments, the private sector, and certifiers. For retail sales data: FiBL-AMI- survey 2018, based on data from government bodies, the private sector, and market research companies. For detailed data sources see annex, page 330

**Total number includes data for countries with less than three operators.*

Data Providers and Data Sources

Compiled by Julia Lernoud[1] and Helga Willer[2]

Afghanistan

Certifier data.

Albania

› Source for all data: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Algeria

Source

› Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Andorra

Source

› Ecocert, 32600 L'Isle Jourdain, France

Contact

› Emma Tsessue, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Argentina

Source

› Land use/operator/production data: SENASA, 2017 "Situación de la Producción Orgánica en la Argentina durante el año 2016". Buenos Aires. In addition, further data was provided by SENASA, www.senasa.gov.ar

› Export value data is from 2009.

Contact

› Juan Carlos Ramirez and Diego Pinasco, SENASA, Buenos Aires, Argentina, www.senasa.gov.ar

Armenia

Source

› Survey of Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia www.ecoglobe.am.

Contact

› Nune Darbinyan, Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia www.ecoglobe.am.

› Eliza Petrosyan, Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia

Australia

Source

› Australian Organic (2017): Market Report 2017. Australian Organic, Nundah

› Retail sales data is from 2015

Contact

› Andrew Monk, Chairman, Australian Organic, Nundah, Australia, www.austorganic.com

› Andrew Lawson, University of New England, Armidale, Australia

Austria

Sources

› Area, land use and farms: Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, Vienna, Austria, and Eurostat Luxembourg

› Retail sales: RollAMA based on GfK, AMA-Marketing, Agrarmarkt Austria Marketing GesmbH, Vienna, Austria

› Export data are from 2011 and were compiled by the Organic Retailers Association (ORA).

Contact

› Otto Hofer, Federal Ministry of Agriculture, Forestry, Environment and Water Management (AT), Vienna, Austria

› Barbara Köcher-Schulz, AMA-Marketing GesmbH AMA, Vienna, Austria

› Pia Reindl, AMA-Marketing GesmbH AMA, Vienna, Austria

Azerbaijan

Source

› Experimental and Resource Center affiliated to the Azerbaijan Botanic Center, Ganja, Azerbaijan, www.etkt.az. The data is from 2015.

Contact

---

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

[2] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

› Nick Nwolisa; Experimental and Resource Center affiliated to the Azerbaijan Botanic Center, Ganja, Azerbaijan, www.etkt.az

Bahamas

› Certifier data.

Bangladesh

Source

› Horticulture Export Development Foundation, Dhaka, Bangladesh, www.hortex.org. For the crops, some data from an international certifier were included. The data is from 2012.

Belarus

Source

› Certifier data (wild collection only). Products include among others blueberries, cranberries, and mushrooms.

Belgium

Sources

› Area and operator data: Landbouw en Visserij, Brussels, Belgium
› Livestock data: Eurostat database, Eurostat, Luxembourg
› Retail sales: Landbouw en Visserij, Brussels, Belgium
› Organic share of all retail sales. Biowallonie (2017): Les Chiffres du Bio 2016. Biowallonie, Namur, Belgium. https://www.biowallonie.com/wp-content/uploads/2017/06/Le-bio-en-chiffre-2016-1.pdf

Contact

› Jonathan Platteau, Landbouw en Visserij, Brussels, Belgium

Belize

Source

› Survey among the certified companies in Belize.

Contact

› Estevan Assi Jr, Toledo Cacao Growers Association, Belize

Benin

Source

› Survey among certifiers

Contact

› Laurent C. Glin, FiBL Terrain, SYPROBIO-CRRA, Sikasso, République du Mali

Bermuda

Source

› Certifier data.

Bhutan

Source

› Ministry of Agriculture (MOA), National Organic Programme DOA, Thimphu, Bhutan, www.moa.gov.bt

Contact

› Kesang Tshomo, Ministry of Agriculture MOA, National Organic Programme DOA, Thimphu, Bhutan, www.moa.gov.bt.
› Tshering Zam, Ministry of Agriculture MOA, National Organic Programme DOA, Thimphu, Bhutan, www.moa.gov.bt.

Bolivia

Source

› Survey of the Bolivian Association of Organic Producers Organisations – AOPEB. The data is from 2014.

Contact

› Edmundo Janco Mita, Asociación de Organizaciones de Productores Ecológicos de Bolivia AOPEB, Bolivia

Bosnia Herzegovina

Source

› Organska Kontrola, Sarajevo, Bosnia & Herzegovina

Contact

› Bernisa Klepo, Organska Kontrola, Sarajevo, Bosnia & Herzegovina
› Mersida Musabegović, Organska Kontrola, Sarajevo, Bosnia and Herzegovina

Brazil

Sources

› Area data: Ministério da Agricultura, Pecuária e Abastecimento, Ministry of Agriculture website. Available at http://www.agricultura.gov.br/comunicacao/noticias/2015/03/numero-de-produtores-organicos-cresce-51porcento-em-um-ano
› Operator data: certifiers data
› Retail sales data: Organic Brazil

Contacts

› Ming Liu, Organic Brasil, Brazil

Brunei Darussalam

Source

› Ecocert China, Beijing, China

Contact

› Lisha Zheng, Ecocert China, Beijing, China

Bulgaria

Sources

- Land area, operators: Eurostat, Luxembourg/Ministry of Agriculture, Bulgaria
- Domestic market data (from 2010): Bioselena, Karlovo, Bulgaria. www.bioselena.com
- Wild collection data; Bioselena, Karlovo, Bulgaria and Ministry of Agriculture, Bulgaria
- In addition to the agricultural land and wild collection areas, 900 hectares of Damask roses (Rosa damascena) were grown in 2016

Contact

- Dr. Stoilko Apostolov, FOA Bioselena, Karlovo, Bulgaria. www.bioselena.com

Burkina Faso

Sources

The data were compiled by FiBL based on the data of the following international certifiers.

- CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
- Ecocert West Africa, Ougadougou, Burkina Faso
- LACON GmbH, Moltkestraße 4, 77654 Offenburg, Germany (2012 data)

Not all certifiers provided updated data.

Contact

- Nathalie Boes, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
- Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Burundi

Source

- Ecocert East Africa, Madagascar

Contact

- Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com.

Cambodia

Source

- The data is based on a survey among organic certifiers and organisations of the organic sector in Cambodia.
- GIZ Cambodia, ASEAN Sustainable Agrifood Systems, Phnom Penh, Cambodia; www.asean-agrifood.org
- Cambodian Organic Agriculture Association (COrAA), Khan Chamkar Morn, Phnom Penh, Cambodia, www.coraa.org.

Contact

- Claudius Bredehoeft, GIZ Cambodia, ASEAN Sustainable Agrifood Systems, Phnom Penh, Cambodia; www.asean-agrifood.org
- Channa Samorn, GIZ Cambodia, ASEAN Sustainable Agrifood Systems, Phnom Penh, Cambodia; www.asean-agrifood.org

Cameroon

Source

- Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com. The data is from 2014.

Contact

- Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Canada

Source

- Land area, producers and other operator types, market data: Survey of the Canada Organic Trade Association (COTA), Ottawa, Canada, based on information of the certifiers.

Contact

- Jill Guerra, Canada Organic Trade Association (COTA), Ottawa, Canada, http://ota.com/otacanada.html

Note

See also article about organic farming in Canada in this and in previous editions of "The World of Organic Agriculture."

Cape Verde

Source

- Certifier data.

Chad

Source

- Certifier data.

Channel Islands

Source

- FAOSTAT (2016) Organic area data Channel Islands. The FAOSTAT website, FAOSTAT, Rome, Italy, FAOSTAT > Agri-Environmental Indicators> Inputs. The data is from 2014.

Chile

Source

- Certified areas, producers/ smallholders, livestock and export data: Servicio Agrícola y Ganadero (SAG) Santiago, Chile, www.sag.gob.cl.
- Domestic market data (2009) according to USDA: Organic Products Report Chile. GAIN Report Number CI0031. November 30, 2010

Contact

- Pilar M. Eguillor Recabarren, Oficina de Estudios y Políticas Agrarias (ODEPA), Ministerio de Agricultura, Teatinos 40, Santiago, Chile, www.odepa.gob.cl.

China

Sources

- Land area, operators, market and export data; Chinese Agricultural University, Beijing, China

Contact

- Dr. Wang Maohua, Certification and Accreditation Administration of the People's Republic of China CNCA
- Yuhui Qiao, Chinese Agricultural University, Beijing, China
- Zejiang Zhou, President, Board of IFOAM Asia, China

Colombia

Source

- ECONEXOS, Conexion Ecologica, Calle 5 No. 45A-125, Cali, Colombia, info@econexos.org, www.econexos.com, based on a survey among the certifiers. The data is from 2015.

Contact

- Carlos Escobar, ECONEXOS - Desarrollo en Movimiento, Cali República de Colombia, www.econexos.com.

Comoros

Source

- Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Contact

- Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com.

Congo, Democratic Republic of

Source

- Certifier data.

Cook Islands

Source

- Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

- Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Costa Rica

Source

- Land area, operators and export volume data: Servicio Fitosanitario del Estado (2017): Programas Especiales/ Agricultura Orgánica. Estadísticas 2016. M.A.G Costa Rica, San José.
- Export value (2009 data) PROMOCER (2011): Costa Rica: exportaciones de productos orgánicos según destino.
- Domestic market data (2008) were provided by the organic sector organization MAOCO.

Contact

- Roberto Azofeifa, Ministerio de Agricultura y Ganadería, 10094-1000 San José, Costa Rica.

Côte d'Ivoire

Sources

The data were compiled by FiBL based on the data of the following international certifiers.

- BCS, Nürnberg, Germany, www.bcs-oeko.de
- CERTISYS, B-1150 Bruxelles, Belgium
- Control Union, Zwolle, The Netherlands, www.controlunion.org
- Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Not all certifiers provided updated data.

Contact

- Nathalie Boes, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
- Tobias Fischer, BCS, Nürnberg, Germany, www.bcs-oeko.de;
- Daniel Szalai, Control Union, Zwolle, The Netherlands, www.controlunion.org
- Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Croatia

Sources

- Area and operators: Eurostat database organic farming, Eurostat, Luxembourg
- Wild collection data (from 2013): Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy
- Market (from 2014) & export data (from 2011): Darko Znaor, Independent Consultant, 10000 Zagreb, Croatia

Contact

- Darko Znaor, Independent Consultant, 10000 Zagreb, Croatia

Cuba

- Certifier data.

Cyprus

Source

- Land area and producer data: Eurostat, Luxembourg
- Market data (from 2006): Organic Retailers Association, Ecozept and Biovista (eds.) (2008): Specialised Organic Retail Report 2008. Freising and Vienna 2008

Czech Republic

Source

- Area and operator data: Eurostat database, Eurostat, Luxembourg
- Market and international trade data: Institute of Agricultural Economics and Information (UZEI), Department of Agri-environmental Policy, 602 00 Brno, Czech Republic. The market and international trade data are from 2015.

Contact

- Hana Šejnohová, Institute of Agricultural Economics and Information (UZEI), Department of Agri-environmental Policy, 602 00 Brno, Czech Republic
- Andrea Hrabalova, Institute of Agricultural Economics and Information (UZEI), 602 00 Brno, Czech Republic

Denmark

Sources

- Land area, land use, Operators: Eurostat database, Eurostat, Luxembourg
- Domestic sales: Landbrug & Fødevarer. Based on data from Statistics Denmark (retail sales) and Organic Denmark (for other marketing channels)
- Exports, imports: Statistics Denmark
- Other marketing channels: Organic Denmark. Data compiled by Danish Agriculture & Food Council, Agro Food Park 15, 8200 Aarhus

Contact

- Martin Lundoe, Statistics Denmark, Copenhagen, www.statbank.dk
- Ejvind Pedersen, Danish Agriculture & Food Council, Agro Food Park 13, 8200 Aarhus N, Denmark

Dominica

Source

- Division of Agriculture provided by Dominica Organic Agriculture Movement (DOAM) Inc., PO Box 1953 - Roseau, Commonwealth of Dominica. The data is from 2014

Contact

- Ms. Aikuali Joseph, Dominica Organic Agriculture Movement (DOAM) Inc., Roseau, Commonwealth of Dominica.

Dominican Republic

Source

- Secretaria de Estado de Agricultura, Oficina de Control Orgánico, Santa Domingo, Dominican Republic, www.agricultura.gob.do.

Contact

- José A. Zapata, Secretaria de Estado de Agricultura, Oficina de Control Orgánico, Santa Domingo, Dominican Republic, www.agricultura.gob.do.

Ecuador

Source

- Land area, operators, exports: Agrocalidad, Quito Ecuador, www.agrocalidad.gob.ec. The crop data is from 2014 and the aquaculture data is from 2012.

Contact

- Paulina Betancourt, Agrocalidad, Quito, Ecuador
- Omar Pavón, Agrocalidad, Quito, Ecuador

Egypt

Source

- Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

El Salvador

Source

- Ministerio de Agricultura y Ganadería, Final 1a. Avenida Norte, 13 Calle Poniente y Avenida Manuel, Gallardo, Santa Tecla, El Salvador

Contact

- Jose Fernando Maldonado Cestona, Coordinador Area de Inocuidad de Alimentos y Agricultura Orgánica Ministerio de Agricultura y Ganadería Dirección General de Sanidad Vegetal, El Salvador

Estonia

Sources

- Land area, land use, operators: Eurostat database, Eurostat, Luxembourg
- Market data was not available
- A detailed report about organic farming in Estonia can be found at http://www.maheklubi.ee/upload/Editor/mahe_eestis_2016.pdf

Contact

- Merit Mikk, Centre of Ecological Engineering, Tartu, Estonia

Ethiopia

Source

- Ethiopian Institute of Agricultural Research, Akaki, Ethiopia. The data is from 2015.

Contact

- Addisu Alemayeh, Ethiopian Institute of Agricultural Research, Akaki, Ethiopia

Falkland Islands

Source

- Department of Agriculture, Bypass Road, Stanley, Falkland Islands, www.agriculture.gov.fk. Data on export is from 2013.

Contact

- Lucy Ellis, Department of Agriculture, Bypass Road, Stanley, Falkland Islands, www.agriculture.gov.fk

Faroe Islands

Source

- Vottunarstofan Tún ehf, Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is.

Contact

- Gunnar Gunnarsson, Vottunarstofan Tún ehf., Reykjavík, Iceland, www.tun.is
- Rannveig Guðleifsdóttir, Vottunarstofan Tún ehf., Reykjavík, Iceland, www.tun.is

Fiji Islands

Sources

- Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- Karen Mapusua, Pacific Organic and Ethical Trade Community (POETCom), Suva, Fiji

Finland

Sources

- Land area and operators: Eurostat database, Eurostat, Luxembourg.
- Wild collection provided Pro Luomu, Kauniainen, Finland;
- Market data: Pro Luomu, Kauniainen, Finland
- Export data (2015): Pro Luomu, Kauniainen, Finland
- Beehives (2015): Eurostat database, Eurostat, Luxembourg

Contact

- Marja-Riitta Kottila, Pro Luomu, Kauniainen, Finland
- Minna Nurro, Pro Luomu, Kauniainen, Finland

France

Source

- Area and operators: Agence Bio, Montreuil-sur-Bois, France. www.agencebio.org, and Eurostat database, Eurostat Luxembourg
- Retail sales: Agence Bio, Montreuil-sur-Bois, France
- Export and import data: Agence Bio, Montreuil-sur-Bois, France

Contact

- Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

French Guyana

Source

- Agence BIO: The Agence Bio website, Agence Bio, 93100 Montreuil-sous-Bois, France. Available at http://www.agencebio.org/la-bio-dans-les-regions

Contact

- Nathalie Rison, Agence Bio, Montreuil sous Bois, France, www.agencebio.fr

French Polynesia

Sources

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Gambia

Data for Gambia have not been supplied since 2007 by any of the certification bodies. Any information on certified organic farming in Gambia should be sent to Julia Lernoud or Helga Willer at julia.lernoud@fibl.org and helga.willer@fibl.org.

Georgia

Source

› Elkana Survey, Elkana, 16 Gazapkhuli street, 0177 Tbilisi, Georgia, www.elkana.org.ge.

Contact

› Elene Shatberashvili, Biological Farming Association Elkana, 16 Gazapkhuli street, 0177 Tbilisi, Georgia, www.elkana.org.ge

Germany

Sources

› Agrarmarkt Informations-Gesellschaft mbH (AMI), Bonn, Germany, www.ami-informiert.de.

› Retail sales: Arbeitskreis Biomarkt (Working group organic market), coordinated by AMI based on data of GfK, Nielsen, bioVista und Klaus Braun Kommunikationsberatung.

Contact

› Diana Schaack, Agrarmarkt Informations-Gesellschaft mbH (AMI), Bonn, Germany, www.ami-informiert.de

Ghana

Source

The data was compiled by FiBL based on the data of the following international certifiers.

› BCS, Nürnberg, Germany, www.bcs-oeko.de;

› CERTISYS, Brussels, www.certisys.eu

› Control Union, Zwolle, The Netherlands, www.controlunion.org

› Ecocert West Africa, Ougadougou, Burkina Faso

› IMO, Weinfelden, Switzerland, www.imo.ch

Contact

› Ruben Cortes, IMO, Weinfelden, Switzerland

› Tobias Fischer, BCS, Nürnberg, Germany, www.bcs-oeko.de

› Nathalie Boes, CERTISYS, Brussels, Belgium

› Daniel Szalai, Control Union, Zwolle, The Netherlands

› Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Greece

Sources

› Land area and operators: Eurostat database, Eurostat, Luxembourg.

› Market data (from 2010) were provided by Nicolette van der Smissen, Feres, Greece

› Wild collection data (2015) Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Contact

› Nicolette van der Smissen, Feres, Greece

Grenada

› Data from one international certifier (data from 2010).

Guadeloupe

Source

› Agence BIO: The Agence Bio homepage 93100 Montreuil-sous-Bois, France. Available at http://www.agencebio.org/la-bio-dans-les-regions

Contact

› Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

Guatemala

Source

› Department of Organic Agriculture, Ministerio de Agricultura, Ganaderia y Alimentación (MAGA), Ciudad de Guatemala, Guatemala C.A. 01013, http://www2.maga.gob.gt. The data is from 2011.

Contact
› Ing. Agr. Alvaro Alfredo Ramos Méndez, Departamento de Agricultura Orgánica, Viceministerio de Sanidad Agropecuaria y Regulaciones, Ministerio de Agricultura Ganadería y Alimentación

Guinea Bissau
› Certifier data.

Guyana
Source
› Ecocert Colombia, Bogota D.C., Colombia (wild collection only).
Contact
› Richard Escobar, Henao, Ecocert Colombia, Bogota D.C, Colombia.

Haiti
Source
› Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com
Contact
› Eva Berre, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Honduras
Source
› Agricultura Orgánica Honduras, Secretaria de Agricultura y Ganadería, Tegucigalpa, Honduras, SENASA Honduras.
Contact
› Carlos Galo, Jefe del Departamento de Agricultura Orgánica (DAO) Sub Dirección de Sanidad Vegetal (SAVE). Servicio Nacional de Sanidad Vegetal (SENASA) Secretaría de Agricultura y Ganadería (SAG) Edificio Senasa Boulevard Centroamérica, Ave. La FAO, antes de INJUPEMH, Tegucigalpa. M.D.C. Honduras.

Hong Kong
› Certifier data.

Hungary
Sources
› Land area: Eurostat database organic farming, Eurostat, Luxembourg
› Operators: National Food Chain Safety Office, Budapest, Hungary, www.nebih.gov.hu
› Market and trade data (2015): Survey/Estimate by Ferenc Frühwald, Budapest, Hungary
Contact
› Dora Drexler, ÖMKI, Budapest, Hungary, www.biokutats.hu

Iceland
Source
› Vottunarstofan Tún ehf., Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is.
Contact
› Gunnar Gunnarsson, Vottunarstofan Tún ehf., Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is
› Rannveig Guðleifsdóttir, Vottunarstofan Tún ehf., Reykjavík, Iceland, www.tun.is

India
Source
› Land area, operators, exports: Agricultural and Processed Food Products Export Development (APEDA) Ministry of Commerce & Industry, Government of India, New Delhi - 110 016, India, www.apeda.com. The retail sales data is from 2012.
Contact
› Manoj Kumar Menon, International Competence Centre for Organic Agriculture ICCOA, Bangalore, India

Indonesia
Source
› Indonesian Organic Alliance, Bangor, Indonesia (www.organicindonesia.org). Survey among the certifiers active in the country.
Contact
› Lidya Ariesusanty, Indonesia Organic Alliance, Indonesia, www.organicindonesia.org

Iran
Source
› Environmental Sciences Research Institute, Shahid Beheshti University ESRI, Evin, Tehran, Iran. The information is based on the data of the certifiers active in the country.
Contact
› Hossein Mahmoudi, Environmental Sciences Research Institute, Shahid Beheshti University ESRI, Tehran, Iran

Iraq
Source
› Zakho Small Villages Projects (ZSVP), Dohuk City, Dohuk, Iraq
Contact
› Dr. Abid Ali Hasan, Zakho Small Villages Projects (ZSVP), Program Coordinator in Iraq, Dohuk City, Dohuk, Iraq

Ireland

Source

› Area, operators and livestock data: Eurostat, Luxembourg
› Market data: Bord Bia, Dublin, Ireland

Contact

› Philipp Cullen, Department of Agriculture Fisheries and Food, Johnstown Castle Estate, Co. Wexford, Ireland www.agriculture.gov.ie.
› Lorcan Burke, Bord Bia, Dublin, Ireland

Israel

Source

› Standardization and Accreditation Department Ministry of Agriculture and Rural Development Plant Protection and Inspection Services (PPIS), Israel, www.ppiseng.moag.gov.il/ppiseng/ISRAEL The data is from 2015.

Contact

› Brett Hickson, Senior Chief Officer, Standardization and Accreditation Department, Ministry of Agriculture and Rural Development, Plant Protection and Inspection Services (PPIS), Israel

Italy

Sources

› Operator, primary crops, livestock products, imports: Eurostat database, Eurostat, Luxembourg and SINAB, Rome, Italy
› Market: Assobio based on FederBio, Nielsen, Nomisma, and Sana Observatory.

Contact

› Roberto Pinton, ASSOBIO, 35121 Padova, Italy
› Silvia Zucconi, Nomisma, Bologna, Italy

Jamaica

Source

› Jamaica Organic Movement JOAM, P.O. Box 5728, Kingston 6, Jamaica, www.joamltd.org

Contact

› Trevor Brown, Jamaica Organic Movement JOAM, www.joamltd.org

Japan

Source

› Area and producer data: Ministry of Agriculture, Forestry and Fisheries (MAFF), Tokyo 100 - 8950, Japan, www.maff.go.jp/e/index.html. The producer data is from 2012
› Domestic market data (from 2009): Heinz Kuhlmann, ABC Enterprises, Tokyo, Japan

Contact

› Heinz Kuhlmann, ABC Enterprises, Tokyo, Japan

Jordan

Source

› Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Kazakhstan

Source

› V.V. Grigoruk and E.V. Klimov (2016): Developing Organic Agriculture in Kazakhstan. FAO, Ankara. Report provided by Evgeny Klimov, Kazakhstan federation of organic agriculture movements - KAZFOAM, Kazakhstan. The data is from 2015.

Contact

› Evgeniy Klimov, Kazakhstan federation of organic agriculture movements - KAZFOAM, Kazakhstan, www.organiccenter.kz

Kenya

Source

› Kenya Organic Movement (KOAN), Nairobi, Kenya, www.koan.co.ke.

Contact

› Jack Juma, Kenya Organic Movement (KOAN), Nairobi, Kenya, www.koan.co.ke

Kiribati

Sources

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Korea, Republic of

Source

› Korea Rural Economic Institute (KREI), Republic of Korea.

Contact

› Jennifer Chang, Korean Federation of Organic Agriculture Organisations (KFSA), Republic of Korea

Kosovo
Source
› Initiative for agricultural development of Kosovo (IADK), Mitrovica, Republic of Kosovo. Data is from 2015.
Contact
› Syle Sylanaj, Faculty of Agriculture & Veterinary-Department of Pomology, University of Prishtina, Republic of Kosovo

Kuwait
Source
› Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com
Contact
› Tovohery Ramahaimandimbisoa, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Kyrgyzstan
Source
› Agricultural Commodity and Service Cooperative "Bio Farmer", Kyrgyzstan. To this data, the data of one international certifier was added.
Contact
› Gulzaada Aleshova, Helvetas, Jalalabad, Kyrgyzstan

Lao People's Democratic Republic
Source
› Department of Agriculture (DOA), PO BOX 811, Vientiane, Laos.
Contact
› Thavisith Bounyasouk, Department of Agriculture (DOA), PO BOX 811, Vientiane, Laos

Latvia
Source
› Area and Operators: Eurostat database, Eurostat, Luxembourg
› Market data (from 2011): Ekoconnect, Dresden, Germany and AMI, Bonn, Germany
Contact
› Livija Zarina, State Priekuli Plant Breeding Institute SPPBI, Priekuli, Cesis distr, Latvia

Lebanon
Source
› Source: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Lesotho
› Certifier data

Liechtenstein
Source
› Klaus Büchel Anstalt, Institute of Agriculture and Environment, 9493 Mauren, Liechtenstein, www.kba.li.
Contact
› Florian Bernardi and Klaus Büchel, Institute of Agriculture and Environment, 9493 Mauren, Liechtenstein, www.kba.li.

Lithuania
Source
› Land area, production volume, operators: Eurostat database, Eurostat, Luxembourg
› Domestic Market data (from 2011): Ekoconnect, Dresden, Germany and AMI, Bonn, Germany
Contact
› Virgilijus Skulskis, Lithuanian Institute of Agri Economics, Vilnius, Lithuania

Luxembourg
Source
› Land area and operator data Eurostat database, Eurostat, Luxembourg
› Market data: Oekopolis estimate based on turnover data of the specialized shops and supermarkets, Oikopolis, Munsbach, Luxembourg
Contact
› Claudine Gengler, Ministère de l'Agriculture, de la Viticulture et de la Protection des consommateurs, Luxembourg, www.asta.etat.lu
› Aender Schanck, Biogros, 13 Parc d'Activité Syrdall, L-5365 Munsbach, www.biogros.lu

Macedonia, the Former Yugoslav Republic
Source
› Area and operators Eurostat database, Eurostat, Luxembourg
› Wild collection: Certifier data

Madagascar
› Certifier data.

Malawi
Source
› Certifier data

Malaysia
Source
› Department of Agriculture, Malaysia. The data is from 2013.

Contact
› Ong Kung Wai, Humus Consultancy, Penang, Malaysia

Mali
› Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com. The data is from 2014.

Contact
› Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Malta
› Source: Eurostat, Luxemburg

Martinique (France)
Source
› Agence Bio, Montreuil sous Bois, France. Available at: http://www.agencebio.org/la-bio-dans-les-regions

Contact
› Nathalie Rison, Agence Bio, Montreuil sous Bois, France, www.agencebio.fr

Mauritius
Source
› Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com.

Contact
› Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com

Mexico
Source
› Universidad Autónoma Chapingo, based on data of the certifiers.

Contact
› Rita Schwentesius, Universidad Autónoma Chapingo, Carretera México - Texcoco Km. 38.5. Chapingo, México

Moldova
Source
› Ministry of Agriculture, Regional Development and Environment of Moldova, Department for Organic Production and Products of Origin, Chişinău, Moldova. Data are based on information from control bodies.

Contact
› Marcela Stahil, Chief of the Department for Organic Production and Products of Origin, Ministry of Agriculture, Regional Development and Environment of Moldova, Chişinău, Moldova

Comment
It should be noted that not all international control bodies that are active in the country provide data. Therefore, it may be assumed that the organic farmland is actually larger.

Monaco
› Certifier data.

Mongolia
The certifier who provided data in the past did not report any activities any more. Any information on certified organic farming in Mongolia should be sent to Julia Lernoud or Helga Willer at julia.lernoud@fibl.org and helga.willer@fibl.org.

Montenegro
Source
› Ministry of Agriculture and Rural Development, Podgorica, Montenegro
› Market data (from 2010): Ecozept - Market research and marketing consulting agency. Freising, Germany

Contact
› Andrijana Rakočević, Advisor for Organic production, Ministry of Agriculture and Rural Development, Podgorica, Montenegro

Morocco
Sources
› Area for agricultural land, production, beehives, total wild collection area: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy
› Breakdown of wild collection area, livestock numbers, operators, production and export data: AMABIO, Casa Blanca, Morocco, www.amabio.org

Contact
› Zaoui Elhousseine, AMABIO/FIMABIO, Casa Blanca, Morocco, www.amabio.org

Mozambique
Sources
› BCS, Nürnberg, Germany
› Control Union, Zwolle, The Netherlands
› Ecocert, South Africa, Capetown, South Africa

Contact
› Tobias Fischer, BCS, Nürnberg, Germany
› Cliflyn McKenzie, Ecocert South Africa, Capetown, South Africa

› Daniel Szalai, Control Union, Zwolle, The Netherlands

Myanmar

Source

› Certifier data

Contact

› San Linn, Myanmar Organic Agriculture Group, Yangon, Myanmar

Namibia

Source

› Namibian Organic Association, PO Box 1504, Okahandja, Namibia, the data of one international certifier was included, and PGS figures were included. Data from 2015.

Contact

› Manjo Smith, Namibian Organic Association (NOA), PO Box 1504, Okahandja, Namibia

Nepal

Source

› The data were provided by Maheswar Ghimire, Kathmandu, Nepal. The data is from 2013.

Contact

› Maheswar Ghimire, Kathmandu, Nepal

Netherlands

Sources

› Land area and operator data: Eurostat database, Eurostat, Luxembourg.

› Retail sales and exports data: Bionext, Zeist, The Netherlands; the Bionext website, available at https://bionext.nl/feiten-cijfers

Contact

› Bavo van der Idsert, Bionext, Utrecht, The Netherlands.

New Caledonia

Source

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int;

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

New Zealand

Source

› The AgriBusiness Group, Christchurch, New Zealand, www.agribusinessgroup.com. The data is from 2015.

Contact

› Jon Manhire, the AgriBusiness Group, Christchurch, New Zealand, www.agribusinessgroup.com

Nicaragua

Source

› Ministerio Agropecuario y Forestal MAGFOR, Managua, Nicaragua, www.magfor.gob.ni
The data was supplemented with data from an international certifier. The data is from 2009.

Contact

› Ministerio Agropecuario y Forestal MAGFOR, Managua, Nicaragua, www.magfor.gob.ni

Niger

› Certifier data.

Nigeria

Source

› Association of Organic Agriculture Practitioners of Nigeria (NOAN), Ibadan, Nigeria, and University of Ibadan, Nigeria The data includes PGS area.

Contact

› Olugbenga O. AdeOluwa, University of Ibadan, Nigeria

Niue

Source

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Norway

Sources

› Land area and operator data: Eurostat database, Eurostat, Luxembourg

› Market data:: Norwegian Agricultural Authority SLF, Oslo, Norway

Contact

› Julie Kilde Mjelva, Statens landbruksforvaltning (SLF), Oslo, Norway

Oman

Source

› Organic Plant Production and Agroecosystems Research in the Tropics and Subtropics, Kassel University, Witzenhausen, Germany, www.uni-

kassel.de/agrar/?language=en. The data is from 2015.

Contact

› Prof. Dr. Andreas Bürkert, Organic Plant Production and Agroecosystems Research in the Tropics and Subtropics Kassel University, Witzenhausen, Germany, www.uni-kassel.de/agrar/?language=en.

Pakistan

› Certifier data.

Palestine, State of

› Area for agricultural land, production, beehives, total wild collection area: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy

Panamá

Source

› Ministerio de Desarrollo Agropecuario, Dirección Nacional de Sanidad Vegetal, Panama, www.mida.gob.pa. The data is from 2013.

Contact

› Fermín Romero, Dirección Nacional de Sanidad Vegetal, Ministerio de Desarrollo Agropecuario, Panama, www.mida.gob.pa

Papua New Guinea

Source

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Paraguay

Source

› Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas, Department of Organic Agriculture, Asuncion, Paraguay, www.senave.gov.py. The data is from 2015.

Contact

› Genaro Coronel, Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas, Department of Organic Agriculture, Asuncion, Paraguay, www.senave.gov.py

Perú

Source

› Area and number of producers: SENASA. Producción Orgánica. Lima, Perú

› Market (2010) and export (2015) data: Promperu, San Isidro - Lima 27 Perú, www.promperu.gob.pe. The total value of domestic market is an estimate, based the data from Promperu that the domestic market is between 13.1 and 23.2 million US dollars (2010).

Contact

› Dr. Jorge Leonardo Jave Nakayo, Director de Producción Orgánica, Ministerio de Agricultura, SENASA, Peru

Philippines

Sources

The data were compiled by FiBL from a number of certifiers, but there are more certifiers active than those listed below.

Certifiers who provided data

› BCS, Nürnberg, Germany, www.bcs-oeko.de;

› Ceres, Happburg, Germany, www.ceres-cert.com;

› Control Union, Zwolle, The Netherlands, www.controlunion.org;

› Ecocert, L'Isle Jourdain, France, www.ecocert.com;

› Organic Certification Center of the Philippines OCCP (2009 data), Barangay Laging Handa, Quezon City, Philippines, www.occpphils.org.

Contact

› Tobias Fischer, BCS, Nürnberg, Germany, www.bcs-oeko.de;

› Simone Groh, Ceres, Happburg, Germany, www.ceres-cert.com;

› Camille Godard, Area Manager, Ecocert, L'Isle Jourdain, France, www.ecocert.com;

› Lani Katimbang-Limpin, OCCP, Quezon City, Philippines, www.occpphils.org

› Daniel Szalai, Control Union, Zwolle, The Netherlands, www.controlunion.org.

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Poland

Source

› Land area and land use, livestock and production: Eurostat database, Luxemburg
› Market data: Fresh Plaza (2016): Poland: Organic market has great potential to grow. The Fresh Plaza website. PKO Bank Polski. The data is from 2015.

Contact

› Naczelnik Wydziału, Organic Farming Division, Ministry of Agriculture and Rural Development, Poland, www.minrol.gov.pl

Portugal

Source

› Organic land and operators: Eurostat database, Luxembourg
› Market data (2011): INTERBIO, http://www.interbio.pt

Contact

› Catarina Crisostomo, Portugal

Puerto Rico

› Certifier data.

Réunion

Source

› Agence Bio, Montreuil sous Bois, France. Available at http://www.agencebio.org/la-bio-dans-les-regions

Contact

› Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

Romania

Sources

› Organic area, land use, livestock and production: Eurostat database, Luxemburg.
› Wild collection: Ministry of Agriculture MADR, Bucharest, Romania, see http://www.madr.ro/ro/agricultura-ecologica/dinamica-operatorilor-si-a-suprafetelor-in-agricultura-ecologica.html. The data is from 2014.
› Market data (from 2011): BCG-Global Advisors (2013) Romanian Organic Sector – Business Insight Booklet. Global Advisors, Bio-Romania Association, University of Bucharest. Bucharest 2012

Contact

› Iulia Grosulescu, Counsellor Organic Farming Office, Ministry of Agriculture and Rural Development, 24,Blvd Carol I, Bucharest Romania
› Marian Cioceanu, Asociatia Bio Romania, Str.Mihai Eminescu, Bucureşti, Romania, http://www.bio-romania.org/contact/

Russian Federation

Source

The data was compiled by FiBL based on the data of the following international.

› BCS, Nürnberg, Germany, www.bcs-oeko.de;
› Bio.Inspecta, Frick, Switzerland, www.bio-inspecta.ch
› Control Union, Zwolle, The Netherlands, www.controlunion.org;
› Ecocert China, Beijing, China
› Ecocert IMO Denetim ve Belgelendirme Ltd. Sti, Izmir, Turkey
› Eco-control Ltd., 141506 Solnechnogorsk, Russia, www.eco-control.ru. Not all certifiers provided updated data.
› Istituto per la Certificazione Etica e Ambientale (ICEA), Bologna. Italy, www.icea.info

Contact

› Mustafa Avci, General manager, ECOCERT IMO Denetim ve Belgelendirme Ltd. Sti, Izmir, Turkey
› Milena Belli, Istituto per la Certificazione Etica e Ambientale (ICEA), Bologna. Italy, www.icea.info
› Tobias Fischer, BCS, Nürnberg, Germany, www.bcs-oeko.de
› Daniel Szalai, Control Union, Zwolle, The Netherlands, www.controlunion.org
› Ulrike Zdralek, Bio.Inspecta, Frick, Switzerland, www.bio-inspecta.ch
› Weimin YU, Project Manager, Ecocert China, Beijing, China

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provide updates every year.

Rwanda

› Certifier data.

Samoa

Source

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

San Marino

› Certifier data.

Sao Tome and Prince

Source

› Ecocert West Africa, Ougadougou, Burkina Faso. The data is from 2014.

Contact

› Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Saudi Arabia

Source

› Department of Organic Agriculture (DOA), http://moa.gov.sa/organice/portale

Contact

› Eng. Ayman Saad Al-Ghamdi, General Manager of Organic Agriculture Department (DOA), Saudi Arabia
› Mohamed Salih; Abdalla, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Riyadh, Saudi Arabia, www.giz.de

Senegal

Source

› National Federation for Organic Agriculture, AGRECOL BP. 347 Thiès, Sénégal. Data from international certifiers was added.

Contact

› Ibrahima Seck, National Federation for Organic Agriculture, AGRECOL, BP. 347 Thiès, Sénégal
› Famara Diedhioe, National Federation for Organic Agriculture, AGRECOL, BP. 347 Thiès, Sénégal

Serbia

Source

› Area and operator data: Eurostat database, Eurostat, Luxembourg
› Export and import data: National Association Serbia Organica (2016): Organic Agriculture in Serbia at a glance 2017. National Association Serbia Organica, Belgrade, Serbia

Contact

› Ivana Simic, General secretary, National Association "Serbia Organica", Belgrade, Serbia; www.serbiaorganica.org

Sierra Leone

› Certifier data.

Singapore

› Two international certifiers reported a number of processors.

Slovakia

Sources

› Area, operators, livestock, and crop production: Eurostat database, Luxemburg
› Market data (2010): Ecozept, market research and marketing consulting agency. Freising, Germany

Slovenia

Sources

› Area, operators, livestock, crop production: Eurostat database, Luxemburg
› Domestic market data (from 2103): Institute for Sustainable Development, Ljubljana, Slovenia
› Marketing channels (from 2009): Institute for Sustainable Development, Ljubljana, Slovenia
› Exports and imports (from 2009): Institute for Sustainable Development, Ljubljana, Slovenia

Contact

› Anamarija Slabe, Institute for Sustainable Development, Ljubljana, Ljubljana, Slovenia

Solomon Islands

Source

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Somalia

› Certifier data: wild collection only.

South Africa

Source

The data were compiled by FiBL based on the data of the following international certifiers.

› BCS, Nürnberg, Germany, www.bcs-oeko.com
› Control Union, Zwolle, The Netherlands, www.controlunion.org
› Ecocert Southern Africa, Gardens Cape Town, www.ecocert.com

› IMO, Weinfelden, Switzerland, www.imo.ch
› Soil Association, Bristol, United Kingdom, www.soilassociation.org

Please note that not all certifiers provided updated data.

Contact

› Andrew Bayliss, Soil Association, Bristol, United Kingdom
› Ruben Cortes, IMO, Weinfelden, Switzerland
› Tobias Fischer, BCS, Nürnberg, Source, BCS
› Clifyn Mckenzie, Ecocert Southern Africa, Gardens Cape Town
› Daniel Szalai, Control Union, Zwolle, The Netherland

Spain

Sources

› Area and land use, operators: Eurostat database, Luxembourg
› Market and international trade data MAPAMA - Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente (2017): Estrategias de vertebración del sector de la producción ecológica de España – Año 2017. MAPAMA, Madrid

Contact

› Pedro López, Pro-Voc-Association, Madrid, Spain, www.provotec.es
› Victor Gonzálvez Pérez, Spanish Society of Organic Agriculture SEAE, Catarroja (Valencia), Spain, www.agroecologia.net
› Joan Picazos, Biocop Productos Biológicos, S.A. (BIOCOP), Lliçà de vall (Barcelona), Spain, www.biocop.es

Sri Lanka

Source

› Lanka Organic Agriculture Movement (LOAM), Nawinna, Maharagama, Sri Lanka, survey among the international certifiers.

Contact

› Thilak Kariyawasam Lanka Organic Agriculture Movement (LOAM), Nawinna, Maharagama, Sri Lanka.

Sudan (former)

Sources

› Federal Ministry of Agriculture & Irrigation Export Development& Quality Control Unit, Republic of the Sudan. Data on wild collection from one international certifier were included. Data from 2014

Contact

› Afaf Abdelrahim Elgzouly, Federal Ministry of Agriculture & Irrigation Export Development & Quality Control Unit, Sudan

Suriname

› Certifier data.

Swaziland

› Certifier data.

Sweden

Sources

› Area, livestock and operators: Eurostat database, Luxembourg
› Market data: Statistics Sweden SCB, Orebro, Sweden

Contact

› Lisa Allemo, Statistics Sweden SCB, Orebro, Sweden

Switzerland

Sources

› Land area and crop data, producers: Federal Agency for Statistics (BfS), Neufchatel, Switzerland. Operators and market data: Bio Suisse, Basel, Switzerland, www.biosuisse.ch/de/bioinzahlen.php.

Contact

› Helga Willer, FiBL, Frick, Switzerland

Syria

› Source for all data: Mediterranean Organic Agriculture Network (MOAN), MOAN Secretariat Istituto Agronomico Mediterraneo di Bari (CIHEAM Bari), Bari, Italy
› No separate figure for the number of producers was available; the figure communicated is that for all operators in the country.

All data is from 2010.

Taiwan

Source

› Taiwan Organic Agriculture Information Centre. Statistics 1996-2015 at http://info.organic.org.tw/supergood/front/bin/ptlist.phtml?Category=104854, Agricultural and Food Agency, Council of Agriculture, Taiwan. The data is from 2015.

Tajikistan

Source

› SAS - SUGDAGROSERV, 2 Baraka Boboeva, Khujand 735700, Tajikistan. (Data 2012). To these data, the data of one international certifier were added (2012).

Contact

› Javohir Eshmatov, SAS - Sugdagroserv, 2 Baraka Boboeva, Khujand 735700, Tajikistan.

Tanzania

Source

› Tanzania Organic Agriculture Movement (TOAM), PO Box 70089, Dar es Salaam, Tanzania, www.kilimohai.net. Survey among the organic operators in the country. The data is from 2015.

Contact

› Jordan Gama, Tanzania Organic Agriculture Movement (TOAM), PO Box 70089, Dar es Salaam, Tanzania, www.kilimohai.net.

Thailand

Source

› Green Net Survey among the international and domestic certifiers; Green Net, 10330 Bangkok, Thailand. Domestic market and international trade data is from 2014.

Contact

› Vitoon Panyakul, Green Net, 10330 Bangkok, Thailand, www.greennet.or.th.

Timor-Leste

› Certifier data.

Togo

Sources

The data was compiled by FiBL based on the data of the following international certifiers. Not all certifiers provided updated information.

› CERTISYS, Brussels, Belgium, www.certisys.eu
› Ecocert, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com
› LACON GmbH, Moltkestraße 4, 77654 Offenburg, Germany (2012 data)

Contact

› Nathalie Boes, CERTISYS, Brussels, Belgium
› Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Tonga

Sources

› Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

› Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Tunisia

Source

› Direction Générale de L'Agriculture Biologique (DGAB), Tunis, Tunisia.

Contact

› Samia Maamer Belkhiria, Direction Générale de L'Agriculture Biologique (DGAB), Ministry of Agriculture and Hydraulic Resources, Tunis, Tunisia

Turkey

Source

› Ministry of Food, Agriculture and Livestock (MoFAL), Ankara, Turkey
› Market data (2009): Estimate by Erdal Süngü, MoFAL, Ankara, Turkey

Notes

› Some areas contain crops that can be harvested from the same parcel. Therefore, the total of the land use/crop data exceeds the actual area surface cultivated for organic farming. A correction value was used in order to calculate the correct total.
› Data on the organic domestic market value are roughly estimated (2009 data).

Uganda

Source

› National Organic Agricultural Movement of Uganda (NOGAMU), PO Box 70071, Clock Tower, Kampala, Uganda, www.nogamu.org.ug.

Contact

› Hedwig Tushemerirwe, National Organic Agricultural Movement of Uganda (NOGAMU), PO Box 70071, Clock Tower, Kampala, Uganda, www.nogamu.org.ug.

Ukraine

Sources

- Area and operator data: Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine
- Export data: Organic Standard, Kyiv, Ukraine
- Crop data: Estimate of FiBL Switzerland and Agricultural Information Company AMI based on data of the Organic Federation of Ukraine, Agricultural Information Company AMI and Ministry of Agrarian Policy and Food of Ukraine
- Retail sales and wild collection: Organic Federation of Ukraine (OFU), Kyiv, Ukraine, www.organic.com.ua

Contact

- Olena Berezovska, Reform Support Team at the Ministry of Agrarian Policy and Food of Ukraine, Kyiv, Ukraine, www.minagro.gov.ua/en
- Sergiy Galashevskyy, Organic Standard certification body, General Manager, Kyiv, Ukraine, sg@organicstandard.com.ua, www.organicstandard.com.ua
- Eugene Milovanov, Organic Federation of Ukraine, Kyiv, Ukraine, www.organic.com.ua

United Arab Emirates

Source

- Ministry of Environment and Water (MOEW), United Arab Emirates. The data is from 2014.

Contact

- Eng. Saif Mohamed Alshara, Ministry of Environment and Water, UAE
- Fatima Obaid Saeed, Ministry of Environment and Water, UAE
- Mohammad Al-Oun (PhD), Organic Farming, Plant Health and Development Department, Dubai, UAE

United Kingdom

Sources

- Land use details/crops/operators: Eurostat database, Eurostat, Luxembourg
- Market data: Soil Association 2017: Organic Market Report 2017. Bristol, UK

Contacts

- Dr. Susanne Padel, The Organic Research Centre Elm Farm, Newbury, UK, www.organicresearchcentre.com
- Finn Cottle, Soil Association, Bristol, UK

United States of America

Source

- Land area and producers: United States Department of Agriculture, Washington, USA. Available at http://usda.mannlib.cornell.edu/usda/current/OrganicProduction/OrganicProduction-09-20-2017_correction.pdf
- Market data: Organic Trade Association 2017: Organic Industry Survey, Brattleboro VT 05301, USA, www.ota.com
- Export data: USDA provided by Barbara Haumann, OTA, Brattleboro VT 05301, www.ota.com.

Contact

- Catherine Greene, United States Department of Agriculture, Washington, USA, www.ers.usda.gov/briefing/organic/.
- Barbara Haumann, OTA, Brattleboro VT 05301, www.ota.com

United States Virgin Islands

- Certifier data.

Uruguay

Source

- Certifier data.

Contact

- Betty Mandl, Ministerio de Ganadería, Agricultura y Pesca (MGAP), Montevideo, Uruguay, www.mgap.gub.uy

Uzbekistan

Source

- Certifier data (wild collection only). The data is from 2010.

Vanuatu

Source

- Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact

- Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Venezuela

› United States Department of Agriculture (USDA) Organic Integrity Database. USDA, Washington

Viet Nam

Source

› Vietnam Organic Agriculture Association, Hanoi, Vietnam. Please note that PGS figures were included

Contact

› Nhung Tu Thi Tuyet, Vietnam Organic Agriculture Association, Hanoi, Vietnam

Zambia

› Certifier data.

Zimbabwe

Source

› Zimbabwe Organic Producers and Promoters Association, Zimbabwe.

Contact

› Tichaona T. Charova, Zimbabwe Organic Producers and Promoters Association ZOPPA, Harare, Zimbabwe

ORGANIC IN EUROPE

EXPLORE THE INTERACTIVE MAP

PRODUCTION & RETAIL DATA BY COUNTRY

ifoam-eu.org/en/organic-europe

Produced by

IFOAM EU GROUP MAKING EUROPE MORE ORGANIC

Data compiled by

FiBL

Supported by

wessanen

Green Organics

The IFOAM Family of Standards

ORGANIC IFOAM FAMILY of STANDARDS

draws the line between organic and non-organic standards.

ORGANIC IFOAM FAMILY of STANDARDS

That's Organic - Worldwide.

GLOBAL

IFOAM Standard

International Standard for Forest Garden Products (FGP)

Biocyclic-Vegan Standard

AFRICA

Tunisia Organic Regulation

East African Organic Products Standard

The SAOSO Standard, South Africa

Zimbabwe Standard for Organic Farming, Zimbabwe

ASIA

Asian Regional Organic Standard

Saudi Arabia Organic Regulation

China Organic Regulation

India Organic Regulation

Israel Organic Regulation

Japan Organic Regulation

Korea Organic Regulation

Diaoyutai Private Organic Standard, China

OFDC Organic Certification Standard, China

Sunshine Earth Organic Standard, China

HKORC Organic Standard, Hong Kong

Biocert International Standards, India

Japan Organic & Natural Foods Association Organic Standard, Japan

MASIPAG Organic Standards, The Philippines

DCOK, LLC International Standards, South Korea

ACT Basic Standard, Thailand

Vietnam PGS Standards, Vietnam

OCEANIA

National Standard for Organic and Bio-Dynamic Produce, Australia

New Zealand Organic Export Regulation

Pacific Organic Standard, Pacific Community

Australian Certified Organic Standard, Australia

NASAA Organic Standard, Australia

AsureQuality Organic Standard, New Zealand

EUROPE

EU Organic Regulation

Switzerland Organic Regulation

Turkey Organic Regulation

Bio Suisse Standards, Switzerland

Nature & Progrès Standards, France

The EcoWellness Standard, Germany

CCPB Global Standard, Italy

Krav Standards, Sweden

THE AMERICAS

Argentina Organic Regulation

Canada Organic Regulation

Costa Rica Organic Regulation

Ecuador Organic Regulation

USA Organic Regulation

Argencert Organic Standard, Argentina

OIA Organic Standards, Argentina

Bolicert Private Standards, Bolivia

IBD Organic Guidelines, Brazil

CCOF International Standard, USA

THE FAMILY OF STANDARDS
contains all standards officially endorsed as organic by the Organic Movement, based on their equivalence with the Common Objectives and Requirements of Organic Standards. Both private standards and government regulations are admissible.

www.ifoam.bio/ogs

Note: Applicant standards are marked in grey.

Family Standards Frame: January 03, 2018.

Click on each standard to see more details.

Best viewed with Adobe Reader

Be organic. Join the IFOAM Family of Standards today.

Visit **www.ifoam.bio/ogs** or contact **ogs@ifoam.bio**

Save the date

13 – 16.2.2019

Nuremberg, Germany

BIOFACH2019

into organic

World's Leading Trade Fair for Organic Food

biofach.com

Admission for trade visitors only

Organizer
NürnbergMesse
T +49 9 11 86 06-0
F +49 9 11 86 06-82 28
info@nuernbergmesse.de

International patron

IFOAM ORGANICS INTERNATIONAL

National supporting organization

BOLW
Bund Ökologische Lebensmittelwirtschaft

Organic agriculture is practiced in 178 countries, and 57.8 million hectares of agricultural land are managed organically by approximately 2.7 million farmers. The global sales of organic food and drink reached almost 90 billion US dollars in 2016, according to Ecovia Intelligence.

The 19th edition of The World of Organic Agriculture, published by the Research Institute of Organic Agriculture (FiBL) and IFOAM – Organics International, provides a comprehensive review of recent developments in global organic agriculture. It includes contributions from representatives of the organic sector around the world and provides comprehensive organic farming statistics that cover the area under organic management, specific information about land use in organic systems, the number of farms and other operator types, and selected market data.

The book also contains information about the global market for organic food, information on standards and regulations, organic policy, and insights into current and emerging trends in organic agriculture in Africa, Asia, Europe, the Mediterranean, Latin America and the Caribbean, North America, and Oceania. In addition, the volume contains reports about the organic sector in Australia, Canada, Ukraine, the Pacific Islands, and the United States of America and brief updates for various countries in Asia as well as Latin America and the Caribbean.

The book also includes an article about organic cotton and a chapter reviewing key commodities certified by selected Voluntary Sustainability Standards (VSS).

The latest data are presented annually at BIOFACH in Nuremberg, Germany 2019: 13 - 16 February.

Supported by

International Trade Centre

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Economic Affairs SECO

BIOFACH
into organic

In cooperation with

Hivos people unlimited

SÖL

ISBN Printed version 978-3-03736-067-5
ISBN PDF version 978-3-03736-068-2