Forschungsinstitut für biologischen Landbau Institut de recherche de l'agriculture biologique Research Institute of Organic Agriculture

Press release

Organic farming saves resources and the climate – Promoting organic farming means mitigating climate change!

(Frick, 15.2.2007) Organic is good for the climate: At BioFach 2007 in Nuremberg, the world's largest trade fair for organic farming and food, a workshop tackles the issue of Climate Change and Organic Farming. The Research Institute of Organic Agriculture (FiBL) presents the latest findings (17 February 2007).

The lighter our farming systems tread on the Earth, the less severely climate change will develop. Organic farming has a leading role to play here, as a workshop at BioFach 2007 now shows. Urs Niggli of the Research Institute of Organic Agriculture (FiBL) therefore calls for increased support to be given to organic farming, both in the tropics and subtropics and in the temperate zones of the northern hemisphere. This is the way forward to ensure that the farming and food production sectors conserve and make efficient use of natural resources, work on closed-loop principles and achieve enhanced self-sufficiency and independence from fossil fuels.

Organic farming for greenhouse gas reduction

Organic agriculture achieves high plant yields by making efficient use of organic residues: To fertilize soils, it uses composted harvest residues and animal manure. This saves 50 to 150 kg, depending upon the crop, in synthetic nitrogen fertilizer per hectare which would otherwise need to be produced using non-renewable fuels.

Studies have shown that conventional arable farming operations in England consume some 17,000 litres of fossil fuels embodied in fertilizers per 100 hectare of land each year. Worldwide, 90 million tonnes of mineral oil or natural gas are processed to nitrogen fertilizer every year. This generates 250 million tonnes of CO₂ emissions.

With their low-impact methods, organic farmers boost soil fertility and the humus content of soils. The result is that the greenhouse gas CO_2

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is returned to the biomass of the soil. Long-term field trials conducted over many years in Switzerland have shown that compared to other methods of farming (conventional, integrated production) organic farming enriches 12 to 15 percent more carbon dioxide in the soil, as FiBL soil researcher Andreas Fliessbach explains. This means that organic farms return 575 to 700 kg CO₂ to the soil per hectare and year more than other farmers. Scientists in Austria and Germany have confirmed this figure. Organic farming thus reduces CO_2 emissions by eliminating synthetic fertilizers, and at the same time reduces atmospheric concentrations of this gas by storing it in the soil – a true win-win strategy.

A further valuable outcome of the organic farming method is that soils with higher humus content can adapt better to the adverse effects of climate change. Soils rich in humus store more water and longer, which is particularly effective in ensuring higher yields during lengthier dry periods in the summer. The improved water retention potential of soils also protects against sudden and strong rainfall, as rivers rise less rapidly and runoff erosion is slowed.

Newly industrializing and developing countries particularly affected

Manuel Amador of Corporación Educativa para el Desarollo Costarricense (CEDECO) presents case studies showing how effectively organic farming in Costa Rica, Cuba and Brazil is helping to reduce greenhouse gases.

Ana Meirelles of the Centro Ecológico in Brazil reports on her practical work in the south of the country: Organic smallholders are supported there through various strategies, one being the development of local markets. This is helping to protect the climate, while awareness-raising work at schools and in communication with consumers is creating an understanding of the specific climate impacts of people's buying behaviour.

Othmar Schwank of the Infras consultancy explains that the impacts of climate change will affect farmers in the developing world very greatly. This makes effective adaptation strategies, such as are used in organic farming, particularly important. To promote organic farming, national agricultural policies are just as important as international trade agreements.



Climate credit for organic farming

Jan Verhagen of Wageningen University in the Netherlands is researching ways to integrate farming within a post-Kyoto agreement at international level. An effective climate policy regime would need to contain a credit-and-penalty system designed to promote organic agriculture.

The Research Institute of Organic Agriculture (FiBL) is working together with a range of partner organizations in the developing world to set up a Global CO₂ Project. Salvador Garibay of FiBL explains how this project shall research the contribution of organic farming to climate change mitigation, will generate a broader understanding of these linkages and will seek to integrate organic farming within the Clean Development Mechanism.

The workshop on "Climate Change and Organic Farming" held on 17 February at BioFach 2007 in Nuremberg, Germany, is made possible by financial support provided by the Swiss Agency for Development and Cooperation (SDC) and the Humanist Institute for Cooperation with Developing Countries (HIVOS, the Netherlands).

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Workshop at BioFach 2007

The Workshop on Climate Change and Organic Farming will take place on 17 February 2007, 1 – 3 p.m., at BioFach in Nuremberg (Germany), Room Shanghai.

This press release and further information on the web

You can find this press release together with further background information on the web at <u>http://www.fibl.org/aktuell/pm/2007/0215-klimaschutz.php</u> and <u>http://www.fibl.org/english/news/press-releases/2007/0215-climate.php</u> (English version). Details about the workshop are available at <u>http://www.fibl.org/english/news/events/2007/biofach-climate.php</u>