



## Media release

### Clear differences between organic and non-organic milk and meat

**A team of experts led by Newcastle University, UK, has shown that both organic milk and meat contain around 50% more beneficial omega-3 fatty acids than conventionally produced products. FiBL participated in the research.**

(Frick, 16.02.2016) Analysing data from around the world, the team reviewed 196 papers on milk and 67 papers on meat and found clear differences between organic and conventional milk and meat, especially in terms of fatty acid composition and the concentrations of certain essential minerals and antioxidants.

Some of the key findings include:

- > Both organic milk and meat contain around 50% more beneficial omega-3 fatty acids than conventionally produced products;
- > Organic milk contains 40% more conjugated linoleic acid (CLA), which is beneficial to human health;
- > Organic milk contains slightly higher concentrations of iron, vitamin E and some carotenoids;
- > Conventional milk contained on average 74% more of the essential mineral iodine.

The findings were published on 16 February 2016 in the British Journal of Nutrition. The team says the data show that a switch to organic meat and milk would go some way towards increasing our intake of nutritionally important fatty acids.

The differences mainly stem from the different feed composition for conventionally and organically farmed animals. Organic standards heavily restrict the content of concentrated feed (maize, grains, soy) in fodder for ruminants (beef, sheep, goats). The standards also require poultry and pigs to have access to open grazing areas, which lead them to eat more grass and herbs.

The studies build on a previous publication by the team, involving experts from the UK, US, France, Italy, Switzerland, Norway and Poland, investigating the composition of organic and conventionally grown crops. This previous study – also published in the British Journal

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of Nutrition – showed that organic crops and crop-based foods are up to 60% higher in a number of key antioxidants than conventionally-grown crops.

FiBL director Urs Niggli concludes: “We have shown that there are composition differences between organic and conventional food. Taken together, the three studies on crops, meat and milk suggest that a switch to organic fruit, vegetables, meat and dairy products would provide significantly higher amounts of dietary antioxidants and omega-3 fatty acids.”

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### Source information

The findings mentioned in the media release were published in the British Journal of Nutrition:

- > Średnicka-Tober, Dominika, Marcin Barański, Chris Seal, Roy Sanderson, Charles Benbrook, Håvard Steinshamn, Joanna Gromadzka-Ostrowska, Ewa Rembiałkowska, Krystyna Skwarło-Sońta, Mick Eyre, Giulio Cozzi, Mette Krogh Larsen, Teresa Jordon, Urs Niggli, Tomasz Sakowski, Philip C. Calder, Graham C. Burdge, Smaragda Sotiraki, Alexandros Stefanakis, Halil Yolcu, Sokratis Stergiadis, Eleni Chatzidimitriou, Gillian Butler, Gavin Stewart and Carlo Leifert (2016): Composition differences between organic and conventional meat: a systematic literature review and meta-analysis. British Journal of Nutrition, page 1 of 18 doi:10.1017/S0007114515005073
- > Średnicka-Tober, Dominika, Marcin Barański, Chris Seal, Roy Sanderson, Charles Benbrook, Håvard Steinshamn, Joanna Gromadzka-Ostrowska, Ewa Rembiałkowska, Krystyna Skwarło-Sońta, Mick Eyre, Giulio Cozzi, Mette Krogh Larsen, Teresa Jordon, Urs Niggli, Tomasz Sakowski, Philip C. Calder, Graham C. Burdge, Smaragda Sotiraki, Alexandros Stefanakis, Halil Yolcu, Sokratis Stergiadis, Eleni Chatzidimitriou, Gillian Butler, Gavin Stewart and Carlo Leifert (2016): Higher PUFA and n-3 PUFA, CLA, α-tocopherol and iron, but lower iodine and selenium concentrations in organic milk: a systematic literature review and meta- and redundancy analyses. British Journal of Nutrition, page 1 of 18 doi:10.1017/S0007114516000349

### Weblinks

- > Extensive media material: <http://research.ncl.ac.uk/nefg/QOF/page.php?page=1>
- > Organic milk quality: <http://research.ncl.ac.uk/nefg/QOF/dairy/page.php?LAN=EN>
- > Organic meat quality: <http://research.ncl.ac.uk/nefg/QOF/meat/page.php?LAN=EN>



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