

Summary - Organic products and health - Results of milk research 2005

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At the 2004 Eco Congress, Triodos Bank director Peter Blom called for further research to reinforce the healthy image of organic food and production. This prompted the current research.

Researchers at the Louis Bolk Institute subsequently carried out scientific literature research into differences in health-promoting properties between products of conventional and organic agriculture. They also carried out two research projects in collaboration with various institutes in Europe and the Netherlands including the Universities of Wageningen and Maastricht into differences between conventional and organic milk and the impact of conventional and organic dairy products on breast milk.

Organic production methods have in the past already been shown to have social benefits in areas such as the environment, biodiversity, soil quality, animal welfare and pesticide residues. These qualities also contribute indirectly to human health. Now increasing numbers of research findings show that organic methods also produce food that contains more health-promoting substances.

Organic products contain more health-promoting substances

Past research has shown that much organically grown food will contain more health-promoting substances than conventionally grown food. Organic products also equal or surpass conventional products in terms of levels of health-promoting substances such as vitamin C, minerals, anti-oxidants and protein quality. Furthermore organic products contain the same amount or fewer unhealthy substances such as nitrates, pesticide residues and contaminants.

Organic cows may produce healthier milk

Exploratory research into differences in raw (bulk) cow's milk in February 2005 compared milk from 5 organic and 5 conventional farms in replicated trials. One clear difference in farm management was that organic cows eat less concentrate and forage maize, and more grass/clover and hay. The levels of CLA (conjugated linoleic acid) and omega 3 fatty acids were significantly higher in the organic milk. No unequivocal difference in taste was observed: the organic milk was generally creamier and tended to taste more of hay and grass than conventional milk. The state of health of the cows was determined by immunological research. This showed that organic cows are better equipped to fight off infections, and are therefore more robust than conventional cows. This evaluation of bovine health ties in with the hypothesis that a healthy soil produces a healthy crop, which leads to healthy animals and in turn to a healthy food product for healthy human beings.

In addition to the milk analysis two new analytical methods were used: biophotons and food crystallisations. These methods showed that organic milk is systematically more 'ordered': it has a more 'ordered structure' and better 'integration and coordination'.

Milk of mothers who eat organic food contains more CLAs

If organic dairy products contain higher levels of polyunsaturated fatty acids than humans can synthesise for themselves, this is good news for human health. Omega-3 fatty acids in particular can be beneficial in strengthening the immune system, helping to prevent asthma, allergy and cardiovascular disease. Clearly the substances in the cow's food ration are passed on to the infant via the mother's milk. The final and most exciting question has yet to be answered: do these higher levels of polyunsaturated fatty acids in the mother's milk produce demonstrable benefits for the infant?

Milk was chosen because the fatty acids in milk are currently a 'hot item'. We tend to denigrate fat because we eat too much of the wrong kind of fat, but milk fats also have healthy properties.

Is organic always healthier?

Although many consumers are confident that organically grown products are healthier than conventionally grown ones, there is as yet insufficient scientific evidence to prove it. A number of evidential steps have been covered, but evidence has not been systematically gathered (step by step) in relation to a single product. Full scientific proof cannot be delivered until we have investigated the effects on human health of products grown under controlled organic conditions. In so doing it is important to consider health at the level of the substance and in terms of the degree of order.

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