



Organic Food Quality & Health

Organic Food Quality News

This monthly newsletter, edited by nutritionist and independent organic researcher Shane Heaton, is provided by the FQH association to keep researchers, the industry and other interested parties abreast of the latest news in organic food quality, research, health, diet and other relevant issues. Thank you to those who've completed the feedback questionnaire. If you haven't, please visit www.organicfqhresearch.org for a copy. Comments and contributions are welcome, or if you find an item of news that you think should be included, please email shane@dontjustsurvive.com

Quote of the month:

“No food has higher amounts of beneficial minerals, essential amino acids and vitamins than organic food”

Just one of 22 statements approved by the UK Committee on Advertising Practice in what is a huge coup for the organic movement and a step towards official recognition of the benefits of organics. See the full story below

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1. PESTICIDES

Australia: Breast Cancer Cluster linked to Crop Chemicals

Monash University PhD student Dr Narges Khanjani has revealed a possible link between the use of organochlorine pesticides and breast cancer in Victoria's north-east. Her study shows up to 48,000 women in the Ovens and Murray Shire could have been exposed to the chemicals which were mainly used in the production of tobacco crops. "Because this is the only region in Victoria to grow tobacco, the number of women possibly exposed is much higher here than anywhere else in the state," Dr Khanjani said. "Although women traditionally don't work in the fields, they have been exposed to the chemicals which have contaminated the food chain and have been unknowingly consumed in produce such as meat, milk and eggs. Once organochlorines are absorbed into the body they are not easily secreted or broken down and are stored in fat tissue such as breast fat."

The study was based on samples of contaminated breast milk collected in the 1990s by Associate Professor Malcolm Sim from Monash University's Department of Epidemiology and Preventive Medicine and data provided by the Cancer Council of Victoria. "We used the 800 milk samples to identify areas of high contamination in Victoria and compared it to the cancer data. We found that the Ovens and Murray Shire was the most highly contaminated region as it showed the highest incidences of breast cancer compared with any other area in Victoria," Dr Khanjani said. Most organochlorines were phased out in the late 1980s and early 1990s but some chemicals in this group including Atrazine and Triazine are still used today. "Chemicals like DDT have a half life of about 10 years so we would expect to see a reduction in the levels of exposure in the north-east over time and young people won't have the same degree of exposure to these organochlorines," Dr Khanjani said. For further information contact Ms Ingrid Sanders in Media Communications on +61 3 9905 9201.

Similar reports have come from another region of Australia, Tasmania, and the Australian Medical Association's (AMA) public health committee is currently considering a report from its Tasmanian branch detailing a possible link between chemical exposure and cancer rates. The report reveals a six-fold increase in endocrine cancer since 1995 and a sharp increase in cancer of the digestive tract over the past five years. (ABC News).

Australia: The myths of safe pesticides

Andre Leu, Chair of the peak body Organic Federation of Australia, has written a useful article deconstructing the arguments defending pesticide use, entitled, "The Myths of Safe Pesticides". He discusses:

The Residue Myth - most modern agricultural chemicals leave few residues.

The Breakdown Myth - once a chemical degrades, it disappears and is harmless

The Rigorously Tested Myth - all agricultural poisons are scientifically tested to ensure their safe use.

The Very Small Amount Myth - any residue levels below the ADI are too low to cause health problems.

The Regulatory Authorities Myth - government regulatory authorities ensure agricultural poisons are used safely and cause no adverse health or environmental problems.

He writes "It is time to dispense with the myths that food from conventional farming is safe to eat. The lack of rigorous testing and blatant disregard of current scientific evidence confirm there is a lack of credible science to back claims that the poison residues in food are safe to consume. The only way to avoid these poisons is to eat certified organically grown food—produced without these toxic compounds."

The full article is available at www.ofa.org.au/papers/Mythpesticidesv2.html

UK: Retailers call for pesticide reductions

Retailers are becoming increasingly responsive to consumer concerns about chemical residues in food. The Co-op supermarket has told its suppliers worldwide to discontinue or phase out the use of almost 100 pesticides. The Co-op has involved experts, some of them members of the government's Advisory Committee on Pesticides, to develop a pesticide assessment test. It categorises chemicals according to their toxicity and the potential health hazard they represent.

US: Breastmilk bio-monitoring proposed

In the USA activists are calling for biomonitoring of breast milk to check for pesticide traces or metabolites. In California a bill for official biomonitoring was narrowly defeated recently and 11 similar bills are being contested in other states. Two hundred organisations are pursuing the issue, so to counter the threat 40 industry bodies have united to create the Pesticide Policy Coalition to lobby in Washington.

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2. ADDITIVES

UK: Foods to dye for

Around 500 food products were removed from UK supermarket shelves in February in the biggest safety scare since the BSE crisis. Fresh and canned foods, ready meals and cooking sauces were removed from sale on the orders of government food watchdogs after the chance discovery in Italy 11 days ago of an illegal, potentially cancer-causing dye ingredient in a bottle of Worcester sauce. The alert relates to products with Worcester sauce flavouring, and the figure may rise, and the manufacturer involved, Premier Foods, says it has been advised by the Food Standards Agency that the levels of the dye Sudan 1 that had been detected "present no immediate risk to health".

Patrick Holden comments "The problem is that we have a food culture where the majority of foodstuffs are adulterated with huge colourings and additives. The shock of the Sudan 1 scare reminds us this type of food processing has insidiously crept into food manufacturing. Food companies have assumed that they have the right simply to replace the natural integrity of food that was present before industrial farming denatured it.

"In a way, the Sudan 1 scare is a good thing if it makes people think more about what they are eating. But it was an accident waiting to happen. If the public knew the extent of additives used in certain food it would put them off eating it. There should be clearer labelling of foodstuffs, as well as the amount and type of pesticides used in food."

EU: Trans fats increase CVD risk

In order to clarify the role of trans fatty acids (TFA or "trans fats") in human health, the European Commission asked the European Food Safety Authority (EFSA) for a scientific opinion. The EFSA report "European Food Safety Authority (2004) Opinion of the Scientific Panel on Dietetic Products, Nutrition and Allergies on Trans fatty acids in foods and the effect on human health of the consumption of trans fatty acids" is summarised on www.efsa.eu.int

What are trans fats?

Unsaturated fatty acids are fatty acid molecules containing at least one double bond. They can be classified as cis (bent form) or trans (straight form) according to the structure of the double

bonds within the molecule. Most unsaturated fats in the diet exist in the cis form whilst a small proportion can be found in the trans form. TFA originate in foods from three main sources:

- * bacterial transformation of unsaturated fatty acids in the rumen of ruminant animals such as cows and sheep (passing to the fat, meat and ruminant's milk);
- * industrial hydrogenation or hardening of oils for use in fat spreads, and baking fats;
- * heating and frying of oils at high temperatures.

Thus TFA are present in beef, lamb and mutton fat and products derived from their meat and milk, in some fat spreads and bakery products, such as crackers, pies, cakes and biscuits, and fried foods.

Current intakes

Across the EU intakes of TFA vary widely. In 1995/6 estimated average intakes of TFA were between 1.2-6.7g/day in men and 1.7-4.1g/day in women with the lowest intakes of TFA being recorded in Mediterranean countries. However more recent dietary surveys indicate that intakes of TFA in many EU countries have continued to fall with the increased popularity of low-fat dairy products and the reformulation of fat spreads and shortenings to reduce TFA content.

Heart disease

Evidence from many human studies indicates that TFA, like saturated fatty acids, raise LDL (or bad) cholesterol levels in the blood thereby increasing the risk of coronary heart disease (CHD).

But unlike saturates, TFA also lead to a fall in HDL (or good) cholesterol and raise blood triglyceride levels, both of which are associated with an increased risk of CHD. Furthermore, consumption of diets containing TFA results in increased concentration of fasting triacylglycerol (TAG), which, in epidemiological studies, is positively associated with the risk for cardiovascular disease. So, at equivalent levels (per gram), TFA may increase the risk of CHD more than saturates. However TFA intakes in Europe are about 10 times lower than those of saturated fats and Professor Albert Flynn, Chair of the EFSA scientific panel, said '... given current intake levels of TFA, their potential to significantly increase cardiovascular risk is much lower than that of saturates, which are currently consumed in excess of dietary requirements in many European countries'.

Other health risks

With regard to other health issues, the EFSA panel concluded that human studies revealed no consistent evidence of any effect of TFA on blood pressure or insulin sensitivity associated with diabetes. Epidemiological evidence for a possible relationship of TFA intake with cancer, type 2 diabetes, or allergy is weak and inconsistent. No causal link has been established for the suggested adverse effects of TFA on foetal and infant development although further research is needed in this area.

Animal versus Industrial TFA

Although animal fats and industrially hardened fats contain similar types of TFA, the quantities of each type clearly differ between them. In most human intervention studies carried out so far, TFA from hydrogenated vegetable oils have been used. For this reason EFSA concludes that it is currently not possible to tell if there are different health effects of TFA according to source. Also, there is currently no method of analysis applicable to a wide range of foods capable of distinguishing TFA found in foods like dairy products and beef fat from those formed during the preparation of hydrogenated oils.

Keep them low

The EFSA review highlights that TFA increase the risk of heart disease and for this reason the intake of TFA from all sources should be kept low. The removal or reduction of trans fats from many food products should continue and they should be replaced with cis-unsaturated fats rather than saturated fats where possible.

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3. ANTIBIOTICS/FOOD SAFETY

US: Foodborne diseases, UTIs and cows - new link

Food safety comes to the fore again as new study builds on growing evidence that foods of animal origin, contaminated with *Escherichia coli*, can lead to urinary tract infections in women. The latest research from Penn University in the US found that E.coli strains, isolated from patients with UTIs, were genetically related to E.coli strains from cows in the collection of strains at the Gastroenteric Disease Center. About eight to ten million people are diagnosed with urinary tract infections each year. One of the most common infections in women, they affect one US woman in five during her lifetime. A rise in global food production, processing, distribution and preparation has led to growing pressure on the food chain to minimise outbreaks of food borne diseases. In industrialised countries, the percentage of people suffering from foodborne diseases each year has been reported to be up to 30 per cent. And in the US, for example, around 76 million cases of foodborne diseases, resulting in 325,000 hospitalisations and 5,000 deaths, are estimated to occur each year. Sixty-one deaths and 73,000 illnesses – such as bloody diarrhoea and hemorrhagic colitis - are blamed on eating foods contaminated with E. coli each year, according to the US Centers for Disease Control and Prevention.

"We found out that UTIs may be caused by ingesting food contaminated with E. coli," said Dr. Chobi DebRoy, director of Penn State's Gastroenteric Disease Center. The researchers found that the E.coli causing the UTIs matched genetically with a sample of E.coli obtained from an animal source. They used E.coli samples collected over forty years from the centre to match up the bacteria causing UTIs with bacteria found in animals. The researchers tested E.coli samples from dogs, cows, sheep, water and turkeys. The researchers then compared the samples genetically to the UTI causing bacteria; they found that a sample from a cow matched well with the E.coli found in humans. In addition, opening the door to possible prevention from foodstuffs, the researchers found that the E.coli causing the infections is resistant to antibiotics. Growing evidence suggests the North American cranberry (*vaccinium macrocarpon*) can help combat UTIs by reducing the adhesion of certain E.coli bacteria to the urinary tract walls. So convincing is the evidence, in April 2004 the French food authority AFSSA approved a health claim for cranberry juice and powder and its effect on urinary tract health, the world's first health claim for the fruit. (Guardian, Daily Mail)
15/02/2005 – *FoodNavigator.com*

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4. GMOs

US: Bio-pharming on the menu

Edible vaccines could be produced in genetically-modified fruit and vegetables, researchers in New York have said. The announcement came after they successfully used GM potatoes to provide a vaccine against hepatitis B. (UK Daily Mail; The Times - 15 Feb)

US: GM costs to rise

Seed and technology fees for genetically modified crops are on the up in the USA, as companies continue to invest in next generation traits. Some producers are expecting Monsanto's technology fees to rise 75% this season, as the firm seeks to recoup costs. The main reason for the price rises is the need to fund work on next generation GM varieties. (UK Farmers Weekly)

Australia: Global Responses to GM Food Technology

Genetically modified organisms (GMOs) have great potential for farmers and consumers. However, some consumer and community groups are concerned about their potentially adverse impacts on food safety and the environment. Food exporting countries fear that food importing countries will discount or deny access to their products if even some of their farmers adopt GM technology. See a [report summary at http://www.rirdc.gov.au/reports/GLC/05-016sum.html](http://www.rirdc.gov.au/reports/GLC/05-016sum.html)

UN: FAO calls for more control of GM crops

Joining the heated debate on GM food crops and ingredients, a group of agricultural experts, herded together under the UN-backed FAO, declare an A to Z approach must be the only path for 'responsible deployment' of GM crops. The Food and Agriculture Organisation led group has recommended that control over GM crops needs to comprise the whole technology development process, from the pre-release risk assessment, to biosafety considerations and post release monitoring. For the group, environmental goals must also encompass the maintenance and protection of basic natural resources such as soil, water and biodiversity. The FAO advice comes shortly after a new report that shows the market value of GMOs continues to rise steadily. International Service for the Acquisition of Agri-biotech Applications (ISAAA), the group behind the report, finds that the accumulated global value of biotech crops for the period between 1996 and 2004 stood at €18.4 billion. This year alone, the value of biotech crops is expected to hit €3.8 billion. "The continued adoption of biotechnology, especially among small, resource-poor farmers, signals a strong vote of confidence in the benefits that farmers are around the world are deriving from these crops," Dr Clive James, chairman and founder of the ISAAA, says in the report.

He identified China, India, Argentina, Brazil and South Africa as countries that have significantly increased the proportions of their farms that are under biotech crops. The five countries now account for one-third of the total global acreage under transgenic crops.

But in contrast, Louise O. Fresco, FAO assistant director-general of the agriculture department, warned this week: "The need to monitor both the benefits and potential hazards of released GM crops to the environment is becoming ever more important with the dramatic increase in the range and scale of their commercial cultivation, especially in developing countries." The Rome-based body said the aim of the expert gathering is to eventually design a 'tool', to assist countries in making their own informed choices on the matter, as well as protect the productivity and ecological integrity of farming systems. According to the FAO, the experts underlined that the wide-body of knowledge currently available on GM crops, needs to be brought together to coordinate this volume of 'often scattered information.' They also emphasised that monitoring

the effects of GM crops on the environment is not only necessary, but feasible even with limited resources when it is integrated with the deployment of these crops.

A reflection of the EU consumer's poor regard for GM foodstuffs, in total Europe has planted about 58,000 hectares of GM maize in Spain, lagging far behind the US, Canada and Argentina that have planted millions of hectares of GM crops. Last week representatives from the 25 European member states postponed a vote on clearing a herbicide-resistant maize, known as GA21, from biotech giant Monsanto into the European food chain. Designed for use as an ingredient in food processing, not for growing, the members opted to delay the vote, pending further scientific data. Previous votes on clearing a handful of GM ingredients onto the market in Europe have all met with divided opinions.

US: Biotech shareholders call for reporting impacts of biotech products

A shareholder resolution in January asked Monsanto (MON- NYSE) to report on impacts related to its genetically engineered products. "Major market rejection and sudden business strategy reversals raise doubt that Monsanto is properly evaluating the risks of its genetically engineered products," said Michael Passoff, of the As You Sow Foundation. "In the last 14 months Monsanto has had to abandon plans to commercialise its most important future product, its most important future area of research, and the country with its highest level of market penetration." Some of the major business strategy reversals that took investors by surprise include: Monsanto's decision to not commercialize genetically engineered wheat despite spending \$60 million on it in 2004 alone; the cancellation of its plans to develop pharmaceutical crops; forsaking its operations in Argentina despite 90 percent market penetration of genetically engineered soya; and suspending its investment in genetically engineered canola in Australia.

Shareholders see untested and underreported environmental impacts as perhaps the biggest risk. "Contamination of conventional crops by genetically engineered crops is happening," said Sister Susan Jordan, coordinator of the Midwest Coalition for Responsible Investment. "Even Monsanto's annual report recognizes the removal of genetically engineered seed and products may be necessary, yet the company offers no contingency plan to address it. There are a significant number of scientific studies that challenge Monsanto's claims of safety and benefits," added Jordan. "Food is not merely another market commodity; it is essential to life and sacred culturally to all peoples. We believe that agricultural genetic engineering has not demonstrated that it safeguards the common good, human dignity, and the natural and social systems that sustain life for our time and for the future. Monsanto needs to be responsible, accountable, and socially just." Recent reports by the National Academy of Science, Environmental Protection Agency, Union of Concerned Scientists, and the Center for Food Safety, among others, raise warnings about extensive crop contamination, increased pest resistance, increased herbicide use, impacts on non-target populations. Furthermore, the reports identify serious gaps in testing methodologies, the regulatory approval process, and a lack of oversight once products are commercialized.

"The biggest misperception about genetically engineered crops is that the FDA has tested these plants and declared them safe," added Passoff. "What the FDA has done is approved genetically engineered crop commercialisation based on Monsanto's assurance that the products are safe. The FDA does no testing of its own nor does it monitor these products after they are commercialized. Monsanto and its shareholders are responsible for all legal and financial liabilities." "As the world's leading producer of genetically engineered seeds, Monsanto faces unique business risks," said Marc Brammer, Senior Analyst of Innovest Strategic Value Advisors. "These risks require a detailed assessment by management and reporting to shareholders." Innovest has just released the most in-depth look at Monsanto's

financial risk from genetically engineered products. The report warns shareholders about hidden risks to Monsanto's profitability and points out that Monsanto's stock price is likely overvalued compared to its actual earnings.

"A sound balance sheet, bullish marketing of Ag biotech potential, and the perception that many big litigation risks were behind it, has pushed Monsanto's share price to all-time highs," added Brammer, "but Wall Street's bullishness is not reflected in actual earnings as seen in the high PE ratio of over 70. Significant risks to financial performance remain un-examined in Monsanto's business plan and are not properly reflected in current stock market valuations." For more detailed information, the text of the shareholder resolution, and related financial and scientific reports the on this issue, please visit www.proxyinformation.com

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5. BSE

US: FAO advises calm reaction to recent BSE scares

UN-backed food organisation warns food producers and consumers to stay calm, after a few cases of mad cow disease are identified in Canada and the US, and last month the first case of Bovine Spongiform Encephalopathy (BSE) in a goat. But the Food and Agriculture Organisation (FAO) cautioned this week that there is still a need for a 'steady, scientific approach' to ensure that the disease is kept out of unaffected countries. *"These cases were detected because of the testing procedures that are now in place,"* said Andrew Speedy, an FAO animal production expert. More than 176 000 tests out of a total cattle population of almost 95 million have been carried out in the USA, and more than 21 000 out of 14.5 million cattle in Canada during 2004.

First identified in 1986 in the UK, 180,000 cases of BSE have since been diagnosed there alone and only four out of the 25 EU member states have not yet declared any cases. BSE has affected the entire beef food chain, from producer to consumer. A recent report from the European Association of Animal Production estimates the cost of BSE to EU15 (prior to accession) member states at more than €90 billion. In addition, the BSE crisis has had a significant impact on public trust in government and governmental scientific advice. The FAO said there is a need for a steady, scientific approach to ensure that the disease is kept out of unaffected countries. *"There is still some lack of understanding about BSE and how it can be detected and controlled,"* Speedy said. BSE can only be identified in adult animals; the animals that must be tested are cows that are casualties and fallen stock. The Rome based group appears to be taking its lead for prevention from Switzerland, that had its first case of BSE in 1990 and peaked at 68 cases in 1995. There were just three cases in 2004. The FAO is working with Swiss experts to train veterinary staff in other countries, including Asia, Eastern Europe, Latin America and the Near East, in methods of diagnosis, surveillance and prevention. *"Switzerland has a fool-proof system of cattle identification and registration, a scientific testing programme, preventative measures in the rendering and animal feed industry and complete support throughout the food chain,"* said the FAO. The goat diagnosed with BSE in France was the first food animal other than cattle to contract the disease naturally. Previously, scientists believed that sheep and goats were only affected by scrapie which is distinguishable from BSE and not thought to be transmissible to humans.

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6. NUTRIENT CONTENT

US: Organic farming techniques can increase antioxidant levels

The Organic Center's second State of Science Review (SSR) concludes that organic farming methods have the potential to elevate average antioxidant levels, especially in fresh produce. Charles Benbrook, Ph.D., compiled and analyzed existing scientific information for his report, *Elevating Antioxidant Levels Through Organic Farming and Food Processing*. The report reveals that on average, antioxidant levels were about 30 percent higher in organic food compared to conventional food grown under the same conditions. An executive summary and the entire report can be found at:

<http://www.organic-center.org/science.htm?articleid=54> .

Organically grown produce had higher levels in 13 out of 15 cases. On average, the organic crops contained about one-third higher antioxidant and/or phenolic content than comparable conventional produce. Several studies found levels of specific vitamins, flavonoids or antioxidants in organic foods to be two or three times the level found in matched samples of conventional foods. In general, factors that impose stress on plants tend to trigger a plants innate defense mechanisms and these mechanisms are driven by and/or entail the synthesis of antioxidants. Studies reviewed in this SSR provide evidence that several core practices on organic fruit and vegetable farms use of compost, cover crops, slow release forms of nitrogen can increase antioxidant and polyphenol content compared to conventional practices that depend on commercial fertilizers and pesticides. The prohibition of pesticides in organic farming practices provides additional benefits to consumers who choose organic. Harvesting fruits and vegetables at optimal ripeness and consuming them in less-processed forms, without removing skins or peels, will preserve a greater portion of their antioxidants, says Benbrook. The outer layers of fruits and vegetables generally contain the highest concentrations of antioxidants, but many consumers peel their conventionally-grown fruits and vegetables to help reduce levels of pesticide residues.

Seeking out organic produce can therefore deliver a dual benefit to consumers by maximizing antioxidant intake and minimizing pesticide dietary exposure. Research on antioxidant levels in organically grown food is among the Organic Centers top research priorities. The Center has initiated and funded three new research projects in 2004 focused on the impact of organic farming methods and food processing technologies on the antioxidant content of food. Detailed information about the Centers antioxidant-related projects can be found at

www.organic-center.org/stateofscience.htm

UK: Carrot phytonutrient lowers cancer risk

Carrots were yesterday revealed to be the latest weapon in the fight against cancer. Scientists say tests on rats showed falcarinol - a phytonutrient found in the vegetables - lowered the chances of them developing cancer by a third. Dr Kirsten Brandt, a senior lecturer with Newcastle University's School of Agriculture, Food and Rural Development, carried out the research with the University of Southern Denmark and the Danish Institute of Agricultural Sciences. She said: "We now need to take it a step further by finding out how much falcarinol is needed to prevent the development of cancer and if certain types of carrot are better than others, as there are many varieties in existence, of different shapes, colours and sizes." The carrots used in the trial were organic.

US: New nutrient/taste study on potatoes

Annette L Wszelaki, Jeannine F Delwiche, Sonia D Walker, Rachel E Liggett, Joseph C Scheerens and Matthew D

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Kleinhenz, Sensory quality and mineral and glykoalkaloid concentrations in organically and conventionally grown redskin potatoes (Solanum tuberosum) Journal of the Science of Food and Agriculture (in press)

Abstract: Triangle tests were used to determine if panellists could distinguish (by tasting) cooked wedges of potatoes grown organically, either with (+) or without (-) compost, and conventionally. Mineral and glykoalkaloid analyses of tuber skin and flesh were also completed. When the skin remained on the potatoes, panellists detected differences between conventional potatoes and organic potatoes, regardless of soil treatment. However, they did not distinguish between any treatments if wedges were peeled prior to preparation and presentation. Glykoalkaloid levels tended to be higher in organic potatoes. In tuber skin and flesh, potassium, magnesium, phosphorus, sulfur and copper concentrations were also significantly higher in the organic treatments, while iron and manganese concentrations were higher in the skin of conventionally grown potatoes.

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7. HEALTH & DIET

Denmark: Rats 'healthier' on organic diet

Rats fed on organic food are substantially healthier than those that eat conventional food, scientists have discovered. The rats, fed on organic fruit and vegetables, were slimmer, slept better and had stronger immune systems. Newcastle University's Dr Kirsten Brandt worked with the Danish Institute of Agricultural Sciences. It is thought the findings could re-start the debate over whether organic food is more beneficial.

The experiment was carried out on 36 rats, which were split into three groups. Each group was fed potatoes, carrots, peas, green kale, apples and rapeseed oil. In each case the produce had been grown using different means - one group ate only organic food; the second ate conventionally-grown produce with high levels of pesticide and fertiliser, and the third group's food contained only minimal levels of fertiliser. The scientists found that the rats fed organically-produced food were measurably healthier, in that they slept better, had stronger immune systems and were less obese. Dr Brandt said: "The difference was so big that it is very unlikely to be random. But we don't know if they slept better because they were less stressed and had a better immune system. However, we can say the reason why the rats have different health was clearly due to the fact that there was a different growing method and this was enough for the result." (*Paper not yet published*)

US: The family that eats together...

American researchers have found that kids who eat more meals with the family do better at school and are less likely to try drugs. The take home message: Turn off the TV, share time together, and talk over the day's happenings.

Eisenberg M et al. Correlations between family meals and psychosocial well-being among adolescents. Archives Pead Adol Med 2004:158:792-96.

UK: Students benefit from better diet and exercise

Primary schools which belong to the government's national healthy schools programme, where pupils are better fed and exercised, have outperformed others in national tests in reading, writing, maths and science, according to research. The findings will underline the link between

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healthy life style and educational attainment and put fresh pressure on ministers to spend more money per head on school meals amid a growing public debate about poor nutritional standards.

The research, commissioned by the UK government, analysed the test results of 2,314 schools in 16 local education authorities in inner-city and rural areas. The measure of improvement used was the change in the proportion of 11-year-old pupils achieving level 4 (the expected standard for their age) or higher in English, maths and science at the end of so-called key stage two. Progress was measured over one year (2003-04) and two years (2002-04). It found that all 496 schools which had already achieved healthy status reported a greater rate of progress over two years in all three subjects. The improvement was small - 1.5% across the three subjects - but the fact that it was universal to all 496 schools suggests that it was significant. Under government targets, half of all schools must achieve the healthy schools status by December 2006, reaching minimum standards in healthy eating, physical activity, sex and drug education, emotional health and well-being. Around 14,000 schools are involved so far, of which 7,300 have achieved the status. (The Guardian)

US: Arnold Schwarzenegger plans to ban junk food in California schools and fill vending machines with fresh fruit, vegetables and milk. (UK Evening Standard)

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8. RESEARCH

Australia: 15th IFOAM Organic World Congress

On the 19th to 23rd September the 15th IFOAM Organic World Congress will take place in Adelaide, Australia. With the theme of 'Shaping Sustainable Systems', the Conference will shape, through debate and discussion, the important role that organic systems play in ensuring long term sustainability. Through a series of plenary sessions, lectures, and workshops, the issue of 'sustainability', which is at the heart of organic agriculture, will be revisited, rethought and recaptured; and with consideration to broader social and policy issues of community, gender and social justice. In placing the spotlight on the host nation, there will also be a particular focus on the unique Australian organic systems of permaculture, and rangeland systems management.

In what is shaping up to be a substantial program, the Congress will include the International Scientific Conference on Organic Agriculture (in co-operation with ISOFAR) and the 8th International IFOAM Organic Viticulture and Wine conference. Accompanying events will include pre and post Congress tours, The Organic Exhibition, and International Organic Fair and Festival (open to the general public). For information and details of sponsorship visit the Congress website <http://www.ifoam.org/> <<http://www.nasaa.com.au/ifoam2005>> or contact Jan Denham, Congress Coordinator at 03 5027 9249 or email karra2@iinet.net.au

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9. PROMOTION

UK: Approved promotion statements for organic food

Industry moves toward acceptable label and promotional claims for organic food have taken a giant leap forward this year as a result of work conducted by the UK Soil Association gathering evidence and presenting it to the UK Committee on Advertising Practice. The following statements about the **benefits** of organic food have been approved by the CAP. They can be used by companies in adverts, on leaflets, and as part of on-pack sales promotions. Although these quotes have been approved by the CAP, if a complaint is made, the Advertising Standards Authority (ASA) will review the evidence and may overrule copy approved by the CAP. The ASA's adjudication of complaints examines the use of text in the round, so the context in which this material is used will be considered as well as the robustness of the material itself. These statements do not pertain to claims made on packaging (excluding claims within copy about promotional offers - see above) as label claims are a matter for Trading Standards authorities. If you have any further queries, please contact the Soil Association's Marketing Department on 0117 987 4579.

Approved quotes

Animal welfare

No system of farming has higher levels of animal welfare standards than organic farms working to Soil Association standards.

Vitamins and minerals

No food has higher amounts of beneficial minerals, essential amino acids and vitamins than organic food.

The use of synthetic fertilisers, plant breeding, and longer delays between harvesting and consumption have led to reduced trace element and vitamin content in food. 1

Pesticides

"The best method of reducing exposure to potentially harmful pesticides would be to consume organically grown food, where their use is avoided" 2

"Consumers who wish to minimise their dietary pesticide exposure can do so with confidence by buying organically grown foods" (US scientists). 3

"Consumption of organic produce represents a relatively simple means for parents to reduce their children's pesticide exposure" (US scientists). 4

The Rt. Hon Clare Short MP says that "over the last half-century, agriculture has been transformed through the intensive use of agrochemicals. The inputs have helped to increase food production, but the cost has been high - unacceptable health and environmental damage." 5

Looking at the bioaccumulative pesticides used in non-organic farming, the British Medical Association say that due to the manner in which pesticide residues are stored in fatty tissues they may remain in the body for several years, and there is concern regarding possible neurobehavioural and neurotoxic effects, mutagenicity, teratogenicity, carcinogenicity, and allergic and other immuno-regulatory disorders. 6

Under Soil Association standards only four chemicals are allowed in sprays on organic crops - 430 are allowed on non-organic crops. As a result, organic foods contain fewer pesticide residues and fewer 'cocktails' of chemicals than non-organic food, including 'conservation grade' food or food from 'integrated pest management' farming. 3

Some pesticides are endocrine disrupters.1

Additives

Some chemical additives that preserve food, or add colour or flavouring, affect individual well being, for example, tartrazine food colouring is linked with hyperactivity. 1

Only 32 of the 290 food additives approved for use across the EU are permitted in organic food. The controversial additives aspartame, tartrazine and hydrogenated fats are banned in organic food. Therefore a wide range and large quantity of potentially allergenic or harmful additives are avoided on a diet high in organically grown foods. 7

Antibiotics

"Prophylactic and regular use of antibiotics is not permitted in organic standards for animal husbandry. There is growing concern that antibiotic residues in meat and dairy products could result in the development of antibiotic resistance in bacteria that are prevalent in humans, thereby reducing the effectiveness of antibiotics used to treat human disease" (World Health Organisation). 8

Antibiotic additives routinely added to animal food to speed animal growth are linked with bacterial resistance in humans to the same or closely related antibiotics.2

Fats

No hydrogenated fats are allowed in organic food.

Eating organic food allows people to avoid hydrogenated fats completely.

The UK Food Standards Agency says that "trans fats have no known nutritional **benefits** and because of the effect they have on blood cholesterol they increase the risk of coronary heart disease. Evidence suggests that the effects of trans fats are worse than saturated fats". 9

When hydrogenated fats are made, trans fats are created too.

The US National Academy of Science's Institute of Medicine says that there is no safe level of trans fat consumption and that consumers should consume as little as possible of products containing this substance.10

Organic standards require that cattle be fed on predominantly forage-based diets. Research suggests that a diet high in forage rather than grain reduces the saturated fatty acid concentrations and enhances the content of omega-3 polyunsaturated fatty acids in beef. 11, 12

Wildlife, environment, animal welfare and jobs

The Government, their statutory advisors (English Nature, the Environment Agency) and NGOs, including the RSPB, say in the Organic Action Plan that organic farming has environmental

benefits. The government stated that organic farming is better for wildlife, causes lower pollution from sprays, produces less carbon dioxide and less dangerous wastes, has high animal welfare standards and increases jobs in the countryside. 13

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Source: *INFORMATION SHEET "What we can say - the quality and **benefits** of organic food."*
<http://www.soilassociation.org>

Germany: Organic trend report released

"We live in a period of tremendous change acceleration," says Matthias Horx in his trend letter for BioFach 2005. The well-known future institute in Kelkheim has studied the major consumer and lifestyle trends that will mark the organic industry in the coming years. The key finding: In future we will assume more responsibility for ourselves and for the environment. Healthy food, a good balance between work and leisure, a life in harmony with nature - organic has a lot to offer for these present-day desires of people: The organic industry will strongly profit from the forecast "age of trust" in the coming years; after all, it has long represented values like transparency, dependability or consumer proximity. What many BioFach exhibitors already combine in an ideal way becomes a key buying motive: Health and pleasure become inseparable in future - and not just for food! To reach the discriminating customers of the future, tomorrow's markets are breaking down the classic boundaries between industries. Organic already functions as a total work of art for tourism, catering and health promotion.

<http://www.biofach.de/trendreport-bio>

World: Organic food and farming continue strong growth

Organic farming is on the up throughout the world. The growth of 9.9 % in 2004 increases the area from 24 million ha to 26.5 million ha. The market for organic products is estimated by FiBL, SÖL, IFOAM and Organic Monitor as 19.5 billion EUR for all countries. Europe with estimated sales of 10.1 billion EUR still leads ahead of the USA.

UK: Food scientists issue new organic food statement

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The UK Institute of Food scientists has compiled an updated comment on organic food as this sector of the food industry continues to experience double digit growth with consumers spending twice as much on organic food as they did in the late 1990s. The past five years have seen a boom in the organic food market with sales across Europe doubling since 1998. Figures from analysts Mintel reveal that consumers in Italy, Spain, Germany, the UK and France spent a total of €8 billion on organic food. In Germany alone, the organic market has reached €3.2 billion, more than France and the UK combined. According to European law, for a product to be termed 'organic' it must meet the standards of an approved independent control body, which has inspected all aspects of its production.

"The production of organic food requires the same involvement of professional food scientists and technologists and is subject to the same requirements of good manufacturing practice and food safety as the rest of the food industry," says the Institute of Food Science & Technology. It is also subject to specific additional legal requirements regarding cultivation, composition and labelling, the UK body adds. This week the group has issued an updated version of its information statement on organic food, replacing the document from July 2003. The full document can be accessed at <http://www.ifst.org/hotspot24.htm>

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10. POLITICS

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11. 'MY REGION'

This is a new section of the newsletter in which readers are invited to submit summaries of organic development, promotion and growth in their local region. If we're all to 'think global and act local', it may be useful to know what others are doing locally. The first of these submissions comes from Jesús Concepción Cabrera, a Spanish organic consultant (organic_advise@yahoo.com). Thanks Jesus.

Spain: New trends towards Organic Agriculture in Zamora

Zamora is situated in Castile Leon, a region from Spain. It is located in the West of the region, near the border with Portugal and 248 km from the capital Madrid. Zamora is the name of the province and its capital, which has a strong medieval imprint and is known as the City of Romanesque. Nowadays the province is making a strong effort in developing the organic agriculture sector, using own resources and their agricultural tradition. A significant role in the development and promotion of organic agriculture in the region is being played by The Agricultural Department of the Zamora County Council in Spain. An important recent achievement in this sense is the approval of an Interreg III B Atlantic Area project, "Renaissance of Atlantic Food Authenticity and Economic Link" (RAFAEL), in which Zamora County Council participates as the only public partner from Spain.

RAFAEL project is a well established partnership of public and private sector organisations from 9 Atlantic Area regions across 5 countries (UK, France, Spain and Portugal- Republic of Ireland

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also participates with their associated partners), which have reached wide experience in the area of authentic food system developments. The partnership has been working together for 2 years with the main aim of enhancing the identity and economy of the Atlantic Area by the concerted promotion of authentic food. The project addresses the impact of globalisation on Atlantic Area SMEs (small and medium sized enterprises) and the need to promote sustainable polycentric spatial development by enhancing and promoting the cultural identity of the area associated with authentic food systems. It includes aspects like the creation of a network for direct trade among small agro-food enterprises from the different regions involved in the project and the promotion of the green public procurement.

The project defines authentic food as follows:

“The concept of ‘authentic food’ includes distinctive, quality, healthy, sustainable (including organic) and traceable food; non-intensive and human scale” farming systems and farming systems and products that preserve the identity of the Atlantic regions, in terms of landscape, culture, authenticity in flavours and recipes and land management as elements of good quality of life to counter the potentially negative connotations of rural peripherality”

One of the objectives of the Rafael project in Zamora is try to find the way to make possible that more organic, local food can be served in public institutions such as schools and hospitals. All possible obstacles related to organic food distribution such as price, availability, etc. will be addressed. The project also plans the creation of school gardens which will produce food for the schools’ own consumption. This action will involve teachers, parents, other community groups and, of course, children. All of them will become the main actors in the extension of the best results to other regions and schools. Students will learn to grow vegetables and herbs; recycling and composting; to use organic pest control; etc. and what is the most important: why to produce organically. Other successful events hold last autumn by Zamora County Council were the International Conference on Organic Livestock and the organic fair “Ecocultura”, which main objectives were: to increase the awareness of consumers towards organic consumption; to analyse the potential of the organic livestock production and to enable the main organic stakeholders to influence the future of the organic programme in the region. The Conference and the Fair were in line with the objectives of the Spanish national plan for organic agriculture development. The main development objectives in Zamora with regards to organic agriculture are: the maintenance of sustainable and economically viable production systems, the protection of the environment in the rural areas and the creation of new jobs.

One of the crucial factors beyond the organic production and marketing appears to be the complex relation between consumer concerns regarding health, food safety and quality on the one hand, and a sustainable, environmental friendly and affordable supply on the other. The purpose of the Zamora programme is to find a solution with the participation of all the key actors. According to one staff from the Zamora Agricultural Department, “It is just the beginning of a long and sustainable agricultural development in the region. Little by little, the achievement of new and more ambitious targets is supported by the knowledge exchange with other institutions and organisations from Spain and other countries; therefore anyone interested in knowing more about the work undertaken in Zamora and/ or in collaborating in similar projects are invite to contact us”.

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