



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:

"If we knew before we introduced modern methods what it was going to do to our environment and countryside we might have done things differently."

Chris Pollock, chairman of the UK committee overseeing GM trials that have ironically shown just how damaging conventional agriculture has been to the environment

If you haven't seen it yet, do check out <http://www.storewars.org>

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1. PESTICIDES

US: Atrazine ban fails despite concerns

This month Minnesota became the first U.S. state to attempt to follow the lead of the European Union and ban the pesticide Atrazine. Atrazine is widely used in food production and has been directly linked to cancer, low sperm counts and widespread deformities in frogs. In response to the proposed ban, chemically-dependent corn farmers and distributors of the pesticide, including Monsanto and Syngenta, convinced lawmakers to reject the bill, claiming that Atrazine is safe, and that a ban would negatively impact profits. See more at

<http://www.organicconsumers.org/toxic/atrazine031705.cfm>

U.S. Organic Consumers Association, 17 March 2005

US: Roundup Highly Lethal to Frogs

Roundup, one of the worlds most common herbicides, is "extremely lethal" to frogs according to a study published in the journal Ecological Applications. The scientific paper titled "The Impact of Insecticides and Herbicides on the Biodiversity and Productivity of Aquatic Communities," is one of the most extensive studies on the effects of pesticides on non target organisms in a natural setting, and the results are relevant to the worldwide decline of amphibians. Lead biologist Rick Relyea found that Roundup caused a 70 percent decline in frog biodiversity and an 86 percent decline in the total mass of tadpoles. Leopard frog tadpoles and gray tree frog tadpoles were completely eliminated and wood frog tadpoles and toad tadpoles were nearly eliminated. Only one species of frog, spring peepers, was unaffected.

"The most shocking insight coming out of this was that Roundup, something designed to kill plants, was extremely lethal to amphibians," said Relyea. "We added Roundup, and the next day we looked in the tanks and there were dead tadpoles all over the bottom." Relyea initially conducted the experiment to see whether the Roundup would have an indirect effect on the frogs by killing their food source, the algae. However, he found that Roundup actually increased the amount of algae in the pond because it killed most of the frogs. Monsanto has responded to the groundbreaking study showing that Roundup is fatally toxic to frogs by stating that the study is irrelevant, because "there are no Roundup brand formulations approved in the US or Canada for application over water." Roundup and other Glyphosate formulations are widely used in drains, creeks, parks, gardens, playgrounds, roadsides, farms and revegetation projects around the world. It has been detected in nearly every waterway in the U.S., due to runoff and leaching.

Sources the Ecological Farming Association www.eco-farm.org and the Organic Consumers Association <http://www.organicconsumers.org/monlink.html>

France: Glyphosate is Toxic to Placental Cells

A recent scientific study published in the peer reviewed journal Environmental Health Perspectives shows that glyphosate is toxic to human placental cells at concentrations lower than those used in agriculture and that this effect increases with concentration and time. Professor Gilles-Eraic Seralini and the researchers at the University of Caen (France) believe that this is the reason why some agricultural workers using Glyphosate have pregnancy problems such as miscarriages and still births. Most significantly the research shows that Roundup and its active ingredient Glyphosate are endocrine disrupters as they effect the hormone systems in animals. The research also found that Roundup was more toxic than its active ingredient Glyphosate

The study raises serious concerns about the levels of the Glyphosate residues that are found in our food and the environment. Glyphosate is a pollutant in most rivers and aquatic systems in areas where it is used. Denmark banned it in 2003 as it had polluted the water table of that country at levels 5 times higher than previous research thought was safe.

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2. ADDITIVES

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3. ANTIBIOTICS/FOOD SAFETY

Australia: Antibiotics flushed down the loo have environmental effects

Antibiotics are making their way into Australian waterways and could pose a threat to human health and the environment, say researchers. Marine biologist, Dr Simon Costanzo of the University of Queensland and team have found antibiotics and antibiotic-resistant bacteria in the sewage and waterways of Brisbane. Their report appears in the latest issue of the *Marine Pollution Bulletin*. Much of the antibiotics humans take as medicine are excreted in their urine and faeces. "We excrete up to 90% of what we ingest in the active form," says Costanzo. "Sewage treatment plants weren't initially designed to target these sort of chemicals so a lot of them actually get through." And up to 60% of antibiotics used in Australia are used in farm animals, such as chicken, pigs and cattle, and can end up in waterways through run-off from farms, he says.

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4. GMOs

UK: New GM feeding trial reveals health problems

Rats fed on a diet rich in genetically modified corn developed abnormalities to internal organs and changes to their blood, raising fears that human health could be affected by eating GM food. The Independent on Sunday revealed details of secret research carried out by Monsanto, the GM food giant, which shows that rats fed the modified corn had smaller kidneys and variations in the composition of their blood. According to the confidential 1,139-page report, these health problems were absent from another batch of rodents fed non-GM food as part of the research project. The disclosures come as European countries, including Britain, prepare to vote on whether the GM-modified corn should go on sale to the public. A vote last week by the European Union failed to secure agreement over whether the product should be sold here, after Britain and nine other countries voted in favour. However, the disclosure of the health effects on the Monsanto rats has intensified the row over whether the corn is safe to eat without further research. Doctors said the changes in the blood of the rodents could indicate that the rat's immune system had been damaged or that a disorder such as a tumour had grown and the system was mobilising to fight it. Dr Vyvyan Howard, a senior lecturer on human anatomy and cell biology at Liverpool University, called for the publication of the full study, saying the summary gave "prima facie cause for concern".

Dr Michael Antoniu, an expert in molecular genetics at Guy's Hospital Medical School, described the findings as "very worrying from a medical point of view", adding: "I have been amazed at the number of significant differences they found [in the rat experiment]." Although Monsanto last night dismissed the abnormalities in rats as meaningless and due to chance, reflecting normal variations between rats, a senior British government source said ministers were so worried by the findings that they had called for further information. 'Imagine that a leading scientist in his field carried out official, government-funded research that gave reason to believe that 60 per cent of our processed foods might threaten human health. In any civilised country, research would be organised while precautionary action would be taken to inform the public in a non-alarmist way and to minimise any risk'. (Independent on Sunday leader)

UK: GM trial results released

The long-awaited final results of the GM trials for Britain's biggest crop, winter oil seed rape, show that wildlife and the environment would suffer if the crop was grown in the UK, in effect ending the biotech industry's hopes of introducing GM varieties in the foreseeable future. The government, which has been keen to introduce GM crops, now has the results of the world's most comprehensive crop study, demonstrating that the GM varieties currently on offer would be detrimental to the countryside. Bayer CropScience, the company that owns the patent on the GM oil seed rape being tested, said afterwards that it was not going ahead with its application to grow the crop in Europe. Yesterday's results were particularly significant because winter-grown oil seed rape occupies 330,000 hectares (815,000 acres) of British fields and is the largest single crop, and the one from which farmers make most money. After three years of studying more than 190 crops of canola, sugar beet and maize, the final results of the three-year British study found butterfly numbers dropped by 75 per cent and bee populations by 50 per cent in crops of GM canola, engineered to resist spraying of glufosinate herbicide. Another finding was that broadleaf weeds, such as chickweed, on which birds rely heavily for food, were far less numerous in GM fields than conventional fields. The scientific results made it clear that it is not the GM crops that harm wildlife but the herbicide sprayed on them. Fields containing conventional crops are sprayed with a herbicide which usually kills weeds before the crops emerge but herbicide-tolerant GM crops can be sprayed later. (SA: The Guardian; Daily Mail; The Independent)

EU: GM showdowns looming

The European Commission is to come down hard on member states continuing to ban GM crops approved by EU scientists. They must rescind these bans or be overruled by Brussels. The Commission is also struggling to introduce GM labelling regulations and to agree coexistence rules to separate GM and non-GM crops.

China: Rice Contaminated with Unregulated GE

A research paper published in the journal Science magazine on April 29, 2005 describes trials of GE rice that Greenpeace researchers found are being illegally sold in the open market. Greenpeace China GE Campaigner Sze Pang Cheung said; 'The Science paper states that farmers cultivated the GE rice without the assistance of technicians, and that quite a number of the randomly selected participants grew both GE and conventional varieties on their small family farms.' Sze continued. 'The Chinese system of regulating GE field trials is failing. It looks like GE rice has grown out of control under the very noses of the scientists that were trusted to control it.' Up to 13,500 tonnes of untested and unapproved GE rice may enter the food chain this year. This is likely to increase international concern over contamination of Chinese rice exports. The Japanese Health ministry has begun testing of Chinese rice imports. The

European Union has requested testing information while governments in the UK, Slovakia and Korea are all conducting investigations into the contamination.

WWW: New database on revolving door and biotech

The Edmonds Institute has announced its "New Revolving Door", a searchable database about people who have worked in/for both government and industry, with emphasis on those connected to the biotechnology industry. [e.g. try Sue Meek]

<http://www.edmonds-institute.org/newdoor.html>

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5. BSE

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6. NUTRIENT CONTENT

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7. HEALTH & DIET

US: Junk Food Diets Promote Youth Violence and Aggression

The American Journal of Psychiatry has published a new study connecting nutrient deficiencies to aggressive behavior in children. Children who suffered deficiencies of zinc, iron, B vitamins and protein demonstrated a surprising 41% increase in aggression at age eight, and by age 17, they demonstrated a 51% increase in violent and antisocial behaviors. The study noted that 80% of the U.S. population now has deficiencies in one or more of these nutrients, due in major part to increasing consumption of junk foods and beverages.

The Organic Consumers Association's "Breaking the Chains" campaign is bringing positive change to the U.S. Schools around the U.S. are finding that offering healthy and organic foods reduces obesity and increases academic abilities. The salad bars and healthier lunch items are proving more affordable than junk food.

<http://www.organicconsumers.org/school/aggression040405.cfm>

EU: Why we eat what we eat: the Stages of Change model.

Many factors involved in dietary choice have been examined. Consideration of these many influences helps in the development of nutrition programmes and the implementation of health education messages. Understanding how people make decisions about their health can also help in planning health promotion strategies. This is where the influence of social psychology and its associated theory-based models play a role. These models help to explain human behaviour and can be used to predict the likelihood that behaviour such as dietary change will occur. To read more see <http://www.eufic.org/gb/food/pag/food47/food474.htm>

UK: Fat chickens

The fat in a typical British chicken now outweighs its protein, according to a London University study, and a single serving has up to 50% more calories than it did in the 1970s. The idleness imposed by factory methods is being blamed for soaring obesity levels, and even organic chickens are not immune. (The Sunday Times - <http://www.timesonline.co.uk/printFriendly/0,,1-523-1552131,00.html>; Daily Telegraph; Daily Mail - 4 April).

US: Do Immune System Diseases Have an Environmental Cause?

Researchers are uncovering a definite link between environmental pollutants and a growing number of autoimmune diseases. Disorders like lupus, multiple sclerosis (MS) and Type I diabetes are on the rise, says Glinda Cooper, an epidemiologist with the National Institute of Environmental Health Sciences (NIEHS). "It's very likely that environmental factors play a role in the development of these diseases," Cooper says. About eight percent of the U.S. population, or 22 million people, have one of the 24 most common forms of autoimmune disease, National Institutes of Health officials estimate. "You have to look at these diseases together to really get the magnitude of the problem," says Virginia Ladd, president of the Detroit-based American Autoimmune Related Disorders Association (AARDA). Few people have heard of these disorders because, individually, they are rare, Ladd says. Since AARDA lobbied to classify them as a group, government officials are providing more research dollars.

Recent studies show many of the same chemicals that cause cancer and reproductive problems in both humans and wildlife can also aggravate autoimmune disease. In some cases, toxics set the disease in motion even before an infant is born. Other scientists say it may take a combination of factors. Since many pesticides act like hormones, they appear to play a role in autoimmune disease. For example, Dr. Eric Sobel, a University of Florida rheumatologist, exposed lab mice to chlordecone (a pesticide in ant and roach traps). The mice came down with lupus. MELISSA KNOPPER is a Colorado-based freelance writer. See the full article at www.emagazine.com/view/?2484

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8. RESEARCH

UK: Crop variability investigated

The great variability in the performance of cereals on organic farms, highlighted by Elm Farm Research Centre in its past research trials, has been confirmed in a new and more widely based trial. Participation from twenty producers gives the results a robust character and has enabled the identification of factors not previously noted. The major finding of the trials was that environmental variation (climate, soil and system) was probably far more important as a determinant of wheat yield and plant form than was either farming system or plant variety. The fifteen sites divided into two major clusters either with "short" straw or "tall" straw. These clusters were related to geographical position ("short" in the West, "tall" in the East). This major

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effect common to crops of all three varieties used may have been due therefore to interactions among crops, systems, soil types and climatic factors. The research summarises data from the first year of field trials (2003-4) but as this is the first year they should be treated with caution. The trial is being repeated and has already been planted by essentially the same group of participating farmers.

If you have any questions, please contact: Lawrence Woodward at elmfarm@efrc.com or call on 01488 658298.

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@inet.net.au

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9. PROMOTION

World: More organic market growth expected

According to the study "The World of Organic Agriculture – Statistics and Emerging Trends 2005", currently more than 26 million hectares of farmland are under organic management worldwide. This is over two million hectares more than in the previous year. Helga Willer of FiBL explained at BioFach that this is an increase of almost ten per cent. In terms of organic land, Australia leads the pack with 11.3 million hectares, followed by Argentina (2.8 million hectares) and Italy with more than one million hectares. In terms of the share of organic farmland in comparison with the total agricultural area, Austria, Switzerland and Scandinavian countries lead the way. In Switzerland, for example, more than ten per cent of the agricultural land is managed organically. In 2003, the market value of organic products worldwide reached 25 billion USD. In the coming years, Bernward Geier of IFOAM expects ongoing growth of the market and organic land area, also due to increased support from governments and development organisations.

<http://www.ifoam.org/Organic-Agriculture-Statistics-2005-Chapters1&2.pdf>

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UK: Organic industry urged to modernise message

Too many organic food producers focus on a "sandal-wearing shopper" already committed to buying organic rather than wooing mainstream consumers, claimed Organic Milk Suppliers Cooperative's (OMSCo) marketing director David Whiting, speaking at a Soil Association conference. He pointed to the way that OMSCo's switch from emphasising the environmental benefits of organic milk to its health benefits had boosted sales.

UK: Consumers have tired of been told they should eat healthy food.

Research suggests that the nation is suffering fatigue from campaigns encouraging it to improve its diet. Nearly 70 per cent of people told data analysts Mintel that it was hard to choose a good diet as advice from experts had changed. (The Times)

China: Organics booming

Northeast China's Heilongjiang Province, one of the most important grain production bases in China, is planning to further expand its production of organic food this year. The total organic food area is expected to reach 1.87 million hectares, which accounts for nearly 20 per cent of its total arable land and is an increase of 18 per cent over last year. There has been a rapid expansion of organic food in the province since it began its development of such crops in 1997. A total output of 11.1 million tons of organic food was grown last year, achieving a sales income of 13.2 billion yuan (US\$1.59 billion). The province quickly saw the increased demand for the organic food industry and it already ranks as the country's No. 1 in total area planted, number of brands, output and sales income. This year, the province will continue to accelerate the development of its three key organic foods rice, soybeans and maize and attempt to exploit the demand for organic food in the international markets of Russia, Japan and South Korea. In 2004, Fujian Province produced more than 270 different products and exported 72,478 tons of organic food with an export value of US\$ 63 million, reports the China Daily. *By Melissa Knopper*

China Daily - China: Consumers are being warned to watch out for fake organic food, which could account for about 10 per cent of all sales of "green" food in the capital. Beijing Consumers Association, which has conducted a survey into organic food, discovered much food labelled organic on sale in the city was fake. The association released the report on the eve of this year's International Consumer Rights and Interests Day, which is today. The survey found that, in a random selection of 268 goods labelled organic, including rice, oil, eggs, vegetables and drinks, 25 samples were counterfeit.

http://www.chinadaily.com.cn/english/doc/2005-03/15/content_424824.htm

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10. POLITICS

Germany: Film on GM farming released

"Life Running out of Control" is the name of a new film about genetic technology and agriculture that has won five international awards. In the mid eighties, science finds the key to mastering the earth and especially its creatures with the help of genetic technology. Twenty years later, we embark on a global journey to explore the progressive and continual genetic manipulation of plants, animals and human beings. Due to a disastrous crop with genetically modified cotton, many Indian farmers face ruin, have to sell one of their kidneys or resort to committing suicide. In Canada, genetically modified canola seeds blow onto the fields of neighbouring organic

farms, thus making ecological farming impossible. Worldwide only a handful of idealistic scientists are defying industry, doing independent research – without the financial support of industry – on the effects of transgenic animals and plants on the environment and our health when we consume genetically modified food. The film shows the examples of the Canadian farmer Percy Schmeiser, who was prosecuted by Monsanto, ostensibly because of illegal cultivation of rape varieties. Vandana Shiva is presented as an opponent of genetic technology and dedicated supporter of organic farming. The film is available in German and English. More information: mail@denkmal-film.com

UK: 5yr review confirms food agency's anti-organic bias

Sir John Krebs, departing first head of the Food Standards Agency (FSA), went out of his way to be beastly about organic foods and was a great supporter of GM crops. But did he overstep the mark and undermine the agency in doing so? The Soil Association, for one, always said yes, and now an independent review of the FSA seems to support it. Here is an extract from Baroness Brenda Dean's report: "The vast majority of people consulted felt that the FSA had deviated from its normal stance of making statements based solely on scientific evidence" [when speaking against organic food and for GM food]. "This view was expressed not only by stakeholders representing organic and GM interest groups, but by those who would be regarded as supporters and natural allies of the agency." The Dean review has been tucked away on the FSA website: http://www.food.gov.uk/aboutus/how_we_work/deanreview' (eco sounding - The Guardian)

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