FQH Organic Food Quality & Health

Organic Food Quality News

JULY 2004

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. Comments and contributions are welcome, or if you find an item of news that you think should be included, please email shane@dontjustsurvive.com

Quotes of the month:

"It is time we came out and said people do not die from GM and the way in which crops are bred. They die from lack of food. There are no risks from GM." *Professor Mike Gale of the John Innes Centre at the BioScience 2004 conference in Glasgow.*

"People are dying because of the agriculture industry's obsession with hi-tech fixes like GM. Sustainable agricultural techniques and political solutions like land reform are driven off the agenda by the greed and arrogance of the biotechnology industries. What the companies are after is control over the food chain that doesn't actually deliver food for local people. The real issues in global food supply are about distribution of food and the way markets are undermined." *Duncan McLaren, chief executive of Friends of the Earth Scotland*

Contents

1. Pesticides - **Pesticide body burdens above 'safe' levels in US; New UK pesticide residue data available; UK Consumers surveyed about pesticide residues**
2. Additives - **Harmful, illegal colour in UK food products; US Campaign to ban trans fats**
3. Food safety - **US Antibiotic resistance concerns; PCBs in UK baby food**
4. GMOs - **FAO director general defends pro-GM stance; "GM food essential to feed the world" claim; GM wheat still on the menu; Monsanto gets OK to Sell Biotech Corn in Argentina; Summary of Australian GM crop trials underway; German GM liability law passed; Superbug warning; EU Commission approves GM corn product; Indonesian GM Cotton not productive; French Wine Growers Declare War on GM Grapes**
5. BSE - **Possible US mad cow case is found negative; Public comment called for BSE; World-wide BSE cases to 2004**
6. Nutrient content - **Organic food quality study underway in Newcastle**

7. **Health & Diet** - **Mediterranean Diet studied; Junk food one quarter of average US diet; Remember to eat your greens; Carotenoids studied; Nutrient synergy studied; Glycoalkaloids studied**
8. **Research** -
9. **Promotion** - **3 Russian organic food stores open; US Kids grow their own organic school lunch; Tokyo cracks down on organic product claims; Italian schools aim for 100% organic food; EU: Agricultural council adopts organic action plan**
10. **Politics** - **Anti-organic UK FSA head Krebs resigns**

1. PESTICIDES

US: Pesticide body burdens above 'safe' levels
Many U.S. residents carry toxic pesticides in their bodies above government assessed "acceptable" levels, according to a report released by Pesticide Action Network North America (PANNA). 'Chemical Trespass: Pesticides in Our Bodies and Corporate Accountability', makes an analysis of pesticide-related data collected by the Centers for Disease Control and Prevention (CDC). The report found that children, women and Mexican Americans shouldered the heaviest "pesticide body burden." PANNA seeks alternatives to pesticide use and urges people to buy organic products whenever possible. The report can be downloaded from
http://www.panna.org/campaigns/docsTrespass/chemicalTrespass2004.dv.html

UK: New pesticide residue data available
More than four out of ten items of fruit, vegetable and cereals on sale in Britain contain traces of pesticide, according to a new report which reveals the extent of chemical contamination in the food chain. Of a total of 2,087 samples, 889 - or 43 per cent – were found to contain some form of pesticide. Meanwhile 34 items, or 1.6 per cent of the total, exceeded the maximum safety levels laid down by the authorities. The findings for 2002 are the latest in a series of annual tests carried out to monitor the extent of pesticide contamination in food in Europe. Of the British fruit, vegetables and cereals tested, more than one fifth had at least two pesticides. Across Europe, more than 46,000 samples of mostly fresh food were analysed for traces of 170 pesticides. Compared with previous years the percentage with no detectable residues has decreased and those over the maximum threshold has risen as has those with some pesticide traces. (The Independent)

UK: Consumers surveyed about pesticide residues
A poll commissioned by the Organic Milk Suppliers' Co-operative (OMSCO), suggests that most Britons are worried about traces of pesticides in food. Of the 1,000 people questioned in an NOP survey, 77% said people should be concerned about food pesticide levels. Half of those questioned were not convinced that maximum pesticide residue levels set by the government are safe. Dr Ian Brown, of the government's Pesticide Residues Committee (PRC), said only "absolutely minute" traces were ever found and tests were robust but OMSC wants more food to be tested and more money spent on health research. It says the PRC tested 1,372 food samples in 1999, compared with Italy's 8,000 and Germany's 6,000. Scientist Dr Vyvyan Howard, from the University of Liverpool, also says the PRC only tests for single chemicals, rather than potentially dangerous mixtures consumed from different foods throughout the day. *(BBC news website, 26/06, s.v. 'pesticide levels')*

-back to contents-

2. ADDITIVES

UK: Harmful, illegal colour in food products

The list grows of food products containing the illegal carcinogenic red dye sudan I. The UK food watchdog has given two separate food hazard warnings this week about food contaminations. The government-funded Food Standards Agency (FSA) said this week that the harmful dye had been detected in a spice mix as well as tinned chilli beans in chilli sauce. The recall, one of more than 200 to date in the UK, comes after a European clampdown earlier this year that saw Brussels declaring an emergency measure extending rules on the illegal carcinogenic red chemical dyes to include curry powder. The rule extends the paper trail for ingredients, requiring that imports of chilli and chilli products - including curry powder – can only cross the EU border with proof they are free of the illegal chemical dyes - Sudan I, Sudan II, Sudan III or Scarlet Red (Sudan IV), classified as carcinogens by the International Agency for Research on Cancer.

The rulings extended tight measures already in place since June 2003 when France initally alerted the European Commission to traces of Sudan 1 found in chilli and chilli powder. That the rules now include curry powder, found extensively in European food products, means more paperwork and potentially a surge in product recalls for the food industry. The issue started in May 2003 with the discovery of Sudan 1 in chilli and chilli products, and since then, via feedback through Europe's Rapid Alert System, the Commission has identified more related substances. In the UK alone, the food industry has recalled for destruction more than 200 products – ranging from pesto sauce to chicken tikka masala – from the supermarket shelves since July 2003 and enforcement of the new measures. *(FoodNavigator.com 13/07/2004)*

US: Campaign to ban trans fats

In what is likely to be a clear warning to food makers, McDonald's faces a damaging court case after a US public interest group accused the fast food giant of falling short of promises to remove artery clogging trans fats used in the cooking process. BanTransFat.com, a Californian non-profit organisation, said it had filed a lawsuit against McDonald's for false advertising regarding a recent announcement that it would use a new cooking oil with 48 per cent less trans fat, and that the change would be completed by February 2003 for the company's global operations, serving 46 million people a day.

Quoting the Harvard School of Public Health, BTF says 30,000 or more premature heart disease deaths are caused each year by trans fats from partially hydrogenated oils in food supplies. According to the group, in September 2002 McDonald's issued a statement announcing "a significant reduction of trans fatty acids in its fried menu items - french fries, chicken McNuggets, Filet-O-Fish, Hash Browns and crispy chicken sandwiches - with the introduction of improved cooking oil in all of its 13,000 restaurants - a major step toward McDonald's goal of eliminating TFAs from its cooking oil. The new oil will reduce French fry TFA levels by 48 per cent, reduce saturated fat by 16 per cent and dramatically increase polyunsaturated fat by 167 per cent."

McDonald's said it had worked with ingredients supplier and agri-giant Cargill to find the right formula for the oil to be used in US restaurants. But the anti-trans fat group claims that McDonald's has deliberately allowed the public to be misled. "Based on a document that we have received, McDonald's has spent a grand total of $457.50 to get the word out to the public that it has not changed the oil. Meanwhile, it has been reaping millions of dollars in additional profits from customers who believe that they are getting the new healthier oil." In the lawsuit, BTF is asking the court to order that McDonald's take effective steps to inform its customers about its failure to make the change. BTF is also asking that

McDonald's make the change to the new cooking oil as soon as possible, just as it promised and represented to the public.

In Europe and the US, food makers are under growing pressure from consumer groups to cut the trans fat content in food products. Last year Denmark became the first country in the world to ban trans fats from food products over fears these hydrogenated fats could contribute to heart disease. While the EU has yet to reach a position on the labelling of these artery-clogging fats, changes are likely as consumer bodies keep up the pressure for tougher labelling and call on industry to use alternatives. And in the US, incoming rules mean that by 2006 food manufacturers will have to label the trans fat content. "We have taken the decision to reduce trans fats levels to less than 1 per cent of total food energy, the level recommended by the World Health Organisation," a spokesperson for the Swiss food giant Nestlé said recently. (FoodNavigator.com 12/07/2004)

-back to contents-

3. ANTIBIOTICS/FOOD SAFETY

US: Antibiotic resistance concerns
The US government's General Accounting Office claims that more needs to be done to address the problem of antibiotic resistance arising through farm use of antibiotics. In a report just published, it commends efforts by the Food and Drug Administration to ban the use of fluoroqinolones in poultry production, but also says federal agencies are hampered by a lack of important data on antibiotic use on farms. The report also comments on the different approach adopted in Europe and recognises the potential for trade disputes. It says the EU could object to US use of antibiotics for growth promotion as its member countries are phasing out that use. *(www.thepigsite.com)*

UK: PCBs in baby food
Organic baby foods carry higher toxin levels than conventional products, according to a damning new report by the UK Food Standards Agency. While many parents are prepared to pay a premium of up to an extra 20p, or 30%, for a jar of organic food, the survey found that three of the top four products with the highest levels of toxins were organic, while none of the 10 baby foods with the lowest toxin levels had the organic label. Consumers' groups last night demanded clearer information on food to allow shoppers to make the best choices, while organic producers called for more research to allow them to avoid contaminated ingredients. The food watchdog bought 124 samples of different brands of baby food. They were then tested for PCBs (polychlorinated biphenyls) and dioxins, which are man-made pollutants present in the environment as a result of industrial processes… The Soil Association disagreed with the emphasis on the story and stated: 'While the Soil Association welcomes the Food Standard Agency's investigation into the levels of dioxins and PCBs in organic and non-organic baby food, some inaccuracies in your report will have misled readers. The survey did not generally find a significant difference in levels of PCBs or dioxins between organic and non-organic products of the same type. PCBs and dioxins, mainly released by industry over a decade ago, are now found everywhere in the environment: in all food, in food packaging, and in the bodies of people around the world.

They are therefore impossible to avoid, which is why the FSA's survey found PCBs and dioxins in every sample that they tested, as they would in any food, organic or non-organic… Many scientists recommend organic baby food as a sensible way for parents to avoid pesticide residues when feeding their babies.' The full response is available from www.soilassociation.org

-back to contents-

4. GMOs

UN: FAO director general defends pro-GM stance
The director general of the UN Food and Agriculture Organisation (FAO) has defended his institution's pro-biotechnology stance in a recent State of Food and Agriculture report, roundly criticised by environmentalists. Jacques Diouf said although he "always maintained" GMOs are "not needed to achieve the World Food Summit objective" of halving hunger by 2015, they would be needed to cope with a projected world population increase from six to nine billion by 2050, requiring 60% more food. "We will have to use the scientific tools of molecular biology […] the identification of molecular markers, genetic mapping and gene transfer for more effective plant enhancement, beyond phenotype-based methods." *(Source: Keith Nuthall 24 Jun 2004)*

UK: "GM food essential to feed the world" claim
Genetic modification and other biotechnologies are essential to increase food production and meet huge projected rises in the world's population, according to Professor Mike Gale of the John Innes Centre, one of Europe's largest centres for research into plant and microbial science. If the advances made in creating genetically modified foods are not used to increase food output the world could find itself in the grip of a food crisis in as little as 15 years, perhaps even ten, he said. The current annual production of 1.8 billion tons of cereals must be increased to three billion tons a year, Prof Gale told the BioScience 2004 conference at Glasgow's SECC. Although Prof Gale acknowledges that genetic modification is not the only solution to breeding new varieties of crops, he is adamant that the potential benefits can be realised. He said: "It is time we came out and said people do not die from GM and the way in which crops are bred. They die from lack of food. There are no risks from GM." Despite GM trials in Britain concluding that two of the three crops tested had a damaging effect on wildlife, Prof Gale went on: "The results of the field trials carried out in this country are of absolutely no concern."

Duncan McLaren, chief executive of Friends of the Earth Scotland, said: "People are dying because of the agriculture industry's obsession with hi-tech fixes like GM. Sustainable agricultural techniques and political solutions like land reform are driven off the agenda by the greed and arrogance of the biotechnology industries. "What the companies are after is control over the food chain that doesn't actually deliver food for local people. The real issues in global food supply are about distribution of food and the way markets are undermined." *(The Scotsman)*

EU: GM wheat still on the menu
Syngenta will continue with plans to develop genetically modified wheat, the agrochemicals group said on Tuesday, despite a decision by rival Monsanto to suspend its own program after protests. Syngenta has field trials currently in Germany and Spain for genetically modified wheat, and it will likely take several years for the development of its own product.

Argentina: Monsanto gets OK to Sell Biotech Corn
Monsanto has received approval to sell in Argentina its NK603 corn genetically modified to survive applications of the company's Roundup weedkiller. Roundup Ready soybeans and cotton - as well as corn and cotton varieties genetically modified to resist insects – are already approved for planting in Argentina. See more at
http://www.gmwatch.org/archive2.asp?arcid=4136

Australia: Summary of GM crop trials underway
NSW: The original 5000 hectare trial proposal was reduced first to 3500 hectares, then 95 then 40 – the figure that was finally approved by the Agriculture Minister, Ian Macdonald. Bayer has decided not to proceed with trials in NSW claiming bad weather conditions. Still no comparative trial data has been made public.
Victoria and South Australia: Trial approvals have been announced with no public process whatsoever. 2x40 hectare trials have been approved in Victoria, with few restrictions. Unlimited trials have been approved in SA with stringent provisions intended to prevent contamination, but neither state has addressed liability, nor required neighbour notification, nor required that the trials be for a legitimate scientific purpose. *Source: Greenpeace GE News update July 2004*

Germany: GM liability law passed
The protection for GMO-free agriculture is being increased. Farmers who use GM seed must accept full liability for possible damage. This applies jointly and severally and is irrespective of the fault of an individual. A public location register is to be set up to record the locations of areas used for GMO cultivation. This is provided for by a law passed by the German Parliament on 18 June. "The law is a success for consumer protection and for farmers who wish to continue growing GMO-free crops," declared Minister Renate Künast. "This means Germany is one of the first EU countries to create a legal framework for protecting GMO-free cultivation." The organic associations also welcomed the law unanimously.
http://www.bio-markt.info/index.php?action=23d2712beaf97c23d991eb9dbb5aeb30,42,,31,33,,44,,_n191_

US: Superbug warning
Scientists have warned that GM farming could create a new generation of 'superbugs' that are resistant to pesticides. They say such indestructible insects would devastate both GM and conventional crops. Their study – led by Professor Bruce Tabashnik, who helped draw upU.S. guidelines on GM crops – is likely to lead to a worldwide review of GM farming. His study, at the University of Arizona, investigated a variety of corn which has been genetically modified to contain a pesticide – known as Bt – in its leaves and stem, because GM firms believed farmers would find it easier and cheaper than spraying. However,

Professor Tabashnik now believes that the way the crop is grown may mean the insects become resistant to its lethal effects. *(Sean Poulter in the Daily Mail)*

Here's the study abstract:

Chilcutt CF, Tabashnik BE, 2004, Contamination of refuges by Bacillus thuringiensis toxin genes from transgenic maize, Proc Natl Acad Sci 101(20): p7526-9.
(Department of Entomology, Texas A&M University, 10345 Agnes Street, Corpus Christi, TX 78406, USA. c-chilcutt@tamu.edu)

Transgenic crops producing insecticidal toxins from Bacillus thuringiensis (Bt) are widely used to control pests, but their benefits will be lost if pests evolve resistance. The mandated high-dose/refuge strategy for delaying pest resistance requires planting refuges of toxin-free crops near Bt crops to promote survival of susceptible pests. We report that pollen-mediated gene flow up to 31 m from Bt maize caused low to moderate Bt toxin levels in kernels of non-Bt maize refuge plants. Immunoassays of non-Bt maize sampled from the field showed that the mean concentration of Bt toxin Cry1Ab in kernels and the percentage of kernels with Cry1Ab decreased with distance from Bt maize. The highest Bt toxin concentration in pooled kernels of non-Bt maize plants was 45% of the mean concentration in kernels from adjacent Bt maize plants. Most previous work on gene flow from transgenic crops has emphasized potential effects of transgene movement on wild relatives of crops, landraces, and organic plantings, whereas implications for pest resistance have been largely ignored. Variable Bt toxin production in seeds of refuge plants undermines the high-dose/refuge strategy and could accelerate pest resistance to Bt crops. Thus, guidelines should be revised to reduce gene flow between Bt crops and refuge plants.

EU: Commission approves GM corn product
The European Commission has approved an application by US biotech giant Monsanto to market a type of genetically modified corn and has recommended that the EU's member states follow suit. The Commission said the corn, known as NK603, has "undergone a thorough safety assessment for any adverse impact on public health," reported Dow Jones International News. The Commission added that the appropriate steps have been taken to allow labelling and traceability of the product. Governments of member states now have three months to decide on whether or not to approve the corn, which has been engineered to resist Monsanto's Roundup herbicide. The application refers to the use of the corn in food products, rather than the cultivation of the corn on EU soil. *(Source: just-food.com 28 Jun 2004)*

Indonesian: GM Cotton not productive
Farmers in South Sulawesi had to destroy five hectares of cotton plantations in September 2001 after discovering that the GM cotton was not as productive as scientists and businesspeople had claimed. PT Monsanto, supplier of the transgenic cottonseeds, had assured the farmers that each hectare would produce about four tons of cotton per hectare at every harvest. But farmers reported that they reaped less than half a ton. "We were duped," said a farmer, Muhammad Amir. The company's claim that the seeds were highly resistant to pests and diseases also fell short of farmers' expectations.
http://www.gmwatch.org/archive2.asp?arcid=4117

France: Wine Growers Declare War on GM Grapes
French vintners are up in arms about a threat to their centuries-old winegrowing traditions - GM grapes. Earth and Wine of the World, an association that includes nearly 400 French winegrowers, is worried about a government research project to tinker with grape genes. "It is of utmost importance that the future of our profession is not determined solely under the influence of scientists, industrialists and technocrats," the group said.

The National Institute of Agricultural Research is seeking ways to make grapes resistant to disease, and it plans to replant a batch of GM vines after a five-year pause. A small crop of GM grapes was planted in 1996 in eastern France by the champagne manufacturer Moet et Chandon in partnership with the agricultural institute. But consumer pressure forced the company to dig up the plants in 1999. http://www.gmwatch.org/archive2.asp?arcid=4110

-back to contents-

5. BSE

US: Possible mad cow case is found negative
The first possible case of mad cow disease detected through a new nationwide screening program was confirmed negative after further screening, the Agriculture Department announced Wednesday during a press conference. The USDA disclosed June 25 that testing had uncovered an initial positive result in one cow. But additional testing at the government's National Veterinary Services Laboratories in Ames, Iowa, revealed that the brain sample of the cow in question did not contain the abnormal proteins that can cause the fatal disease. The government began an expanded mad cow testing program June 1 and intends to test somewhere between 201,000 and 268,000 older cattle in the next year to 18 months, although it won't set a firm target. It unveiled the program in March, three months after the nation's first case of mad cow disease was found in a Washington state dairy cow. *(Jon Bonné MSNBC)*

US: Public comment called for BSE
In the wake of a mad cow disease-infected cow discovered at the end of 2003 in the US, the government has come up with three new actions to protect the food chain.
US health secretary Tommy Thompson and agriculture secretary Ann Veneman said this week that the new moves would build on existing safeguards to protect consumers against the agent that causes bovine spongiform encephalopathy (BSE). *"This administration is committed to science-based measures to enhance and protect public health,"* Veneman said. Among the actions is a joint USDA Food Safety & Inspection Service (FSIS), USDA Animal and Plant Health Inspection Service (APHIS) and Food and Drug Administration (FDA) notice calling for public comment on additional preventive actions being considered concerning BSE. In addition, there is an interim final FDA rule that prohibits the use of certain cattle-derived materials in human food (including dietary supplements) and cosmetics, and a proposed FDA rule on record keeping requirements for the interim final rule relating to the ban. *"With these additional measures, we will make a strong system even stronger by putting into*

effect the most comprehensive, science-based improvements possible," said acting commissioner for the FDA, Dr Lester Crawford.

In December last year a BSE cow was slaughtered in Washington state, the country's first case. The cow was born on a dairy farm in Alberta, Canada, on 9 April 1997. She then moved to the US in September 2001 along with 80 other cattle from that dairy. A brain sample collected from the cow at slaughter tested positive for BSE on 23 December. In February this year the US Department of Agriculture (USDA) ended its search for additional cases of mad cow disease even though officials had not located all the animals they sought after the first discovery. The end of the investigation leaves US officials not knowing what happened to 11 of the 25 cattle that authorities consider likely to have eaten the same potentially infectious feed given to the Washington state Holstein born from a Canadian herd. *"Of the 17 other cattle from the Canadian birth herd, seven animals have been identified in the United States,"* said the USDA in February. *(FoodNavigator.com 13/07/2004)*

World: BSE cases to 2004

Australia
Tested: 464
Slaughtered: 9,229,000
Total cases: 0

Canada
Tested: 5,500 (to be 30,000 by 2009)
Slaughtered: 3,700,000
Total cases: 2

France
Tested: 2,900,464
Slaughtered: 5,800,000
Total cases: 891

Germany
Tested: 2,588,643
Slaughtered: 4,272,156
Total cases: 305

Great Britain
Tested: 394,685
Slaughtered: 2,300,000
Total cases: 183,803

Ireland
Tested: 700,344
Slaughtered: 1,800,000
Total cases: 1,377

Italy
Tested: 787,540
Slaughtered: 4,300,000
Total cases: 117

Japan
Tested: All (Japan tests every cow intended for human consumption)
Slaughtered: 1,160,000
Total cases: 11

New Zealand
Tested: 2,937

Slaughtered: 2,177,340
Total cases: 0
Switzerland
Tested: 179,455
Slaughtered: 700,000
Total cases: 453
United States
Tested: 20,453 (testing will be expanded in 2004)
Slaughtered: 36,853,000
Total cases: 1
(Sources: MSNBC research, World Organization for Animal Health, U.N. Food and Agriculture Organization.)

-back to contents-

6. NUTRIENT CONTENT

UK: Organic food quality study underway
Scientists are spending £12m looking at why our food tastes so bad. Experts from Newcastle University are leading the project, which also examines how organic farming can solve the problem and boost the nutritional value of basic foods.
Test crops of cabbages, lettuces, wheat and potatoes are being grown at a research centre in Northumberland. They are being grown under a variety of conditions so that the research team can compare factors such as taste and nutritional quality between the vegetables grown organically and those grown using synthetic pesticides and fertilisers. Project leader, Professor Carlo Leifert of the Nafferton Ecological Farming Group at the University of Newcastle, said: "We need to find out what is behind reports which have proved that the taste and nutritional value of our foods is deteriorating. "There are more and more indications that moving to natural production systems, such as organic farming, can improve food quality. "This project will attempt to find out why this is the case, and how we can further improve on these production systems." The first set of results from the project will be presented at a conference at Newcastle University in January 2005. (http://news.bbc.co.uk/1/hi/england/tyne/3848425.stm)

-back to contents-

7. HEALTH & DIET

EU: Mediterranean Diet studied
A recent study has once again confirmed that people who closely follow 'the Mediterranean Diet' live longer than other Europeans. So what exactly is the Mediterranean diet and how does it exert this positive effect? The Mediterranean diet is not a specific diet plan or diet program but a collection of eating habits that are traditionally followed by the people of the Mediterranean region. There are at least 16 countries

bordering the Mediterranean Sea and food habits vary between these countries according to culture, ethnic background and religion. Since mortality statistics first identified that Mediterranean populations were living longer than other Europeans, scientists have been trying to deduce which components of the Mediterranean diet are responsible for its considerable benefits. To read more: http://www.eufic.org/gb/food/pag/food43/food434.htm

US: Junk food one quarter of average diet

A new report on American eating habits reveals that almost a quarter of the calories we consume come from nutrient-poor selections – better known as "junk food." This surprising fact clashes with the advice of many nutrition experts on how to eat more healthfully and control weight. To counteract the effect of escalating portion sizes, many experts recommend decreasing the amounts of the foods we eat. But if one-fourth of what we eat is junk food, weight reduction campaigns should emphasize eating differently, not just eating less. The new report is based on surveys of about 4,700 people. According to the responses, soft drinks are the number one source of calories. They accounted for 7.1 percent of the calories these people consumed in 1999–2000. Altogether, the categories of soft drinks, sweets and desserts, and alcoholic beverages contributed 23.8 percent of the calories that these survey respondents consumed. Salty snacks and fruit-flavored drinks added another five percent of calories. Since these foods are relatively concentrated in calories, you don't have to eat a lot of them to increase your daily calorie total. Another study looking only at youths aged 8 to 18 reports similar findings. Candy, table sugar, sweetened drinks, baked and dairy desserts, salty snacks, fatty foods like butter and gravy, along with some other nutrient-poor foods made up more than 30 percent of the calories these youths consumed.

In fact, desserts and table sweeteners alone comprised almost 25 percent of the total calories. Furthermore, those who ate the most junk food tended to eat the least amount of nutrient-dense, healthful foods. They took in less vitamins A, B-6 and folate, as well as calcium, magnesium, iron and zinc. Although both of these studies are based on large national surveys, they included larger than representative proportions of blacks, Hispanics and low-income individuals. Consequently, the results may poorly characterize the eating habits of the average U.S. population.

However, a third study, which used a randomly selected group, confirms that people who eat a lot of junk food suffer nutritionally. This study looked at the impact of salty snack foods, like potato chips, corn chips, crackers, pretzels and cheese curls. Those who ate the most of these high-fat salty snack foods had diets high in total and saturated fat and low in fruits and vegetables. These people scored poorly for dietary healthfulness. Other people who ate more fat-free versions of these snacks tended to eat more fruits, vegetables and fiber. But even fat-free snacks, when heavily consumed, can be detrimental to your health because of too many calories. The amount of sodium consumed by heavy users of both regular and fat-free snack foods also went well beyond recommended limits. These three studies of nutrient-poor food consumption highlight several important messages.

Between-meal snacks and drinks may be the best place to start substituting healthy choices and cutting back. Second, people who are overweight can still be undernourished. Eating more healthful foods may be an important goal for these people, too. Finally, these studies and others like them refute the commonly heard idea that as long as someone maintains an appropriate weight, junk food is OK. Eating substantial amounts of high-

calorie, low-nutrient foods tends to be part of an eating pattern that ignores nutrient-rich vegetables, fruits, whole grains and beans. Even if you don't gain weight with this eating pattern, it could increase your health risks, like the risk of cancer, by depriving you of protective nutrients and phytochemicals.
(Source: Karen Collins, R.D., American Institute for Cancer Research in Washington, D.C./ MSNBC Interactive)

US: Remember to eat your greens
New USA research suggests that eating green vegetables helps women retain their memory. A study performed at Harvard's Brigham and Women's Hospital found that women in their 60s who ate more cruciferous and green leafy vegetables containing B vitamins and antioxidants such as broccoli, cauliflower and spinach went on to show less overall memory loss in their 70s*. (Just-food.com)*

US: Carotenoids studied
Researchers at the University of Hawaii have produced further evidence to show how pigments in yellow, red and green vegetables, known as carotenoids, may work to prevent cancer. According to Dr John Bertram, carotenoids stop tumour growth by restoring communication between cells. And by keeping cells 'talking' to each other, they may also prevent cancer from developing in the first place. The findings are further evidence of the potential value of carotenoids to the food industry, which so far has been slow to push the health benefits of the ingredient. Mostly used as a natural colouring, carotenoids have been 'under-utilised' by Europe's health food industry, according to a recent Frost & Sullivan report, and consumers are still unaware of their health benefits. Speaking at BioScience2004 in Glasgow today, Dr John Bertram reported that dietary carotenoids increased the activity of a molecule called connexin 43. This molecule forms small channels between cells and, by doing so, connects virtually all cells in the body. Through these channels, cells exchange nutrients and many vital signals that ensure normal cellular growth.

Most tumour cells have lost this ability to communicate and, as a result, have isolated themselves from their normal neighbours. But when Bertram's team treated normal mouse cells with isolated carotenoids, they prevented the formation of cancer by cancer-causing chemicals and increased communication in these cells, he said. Then they treated three different types of human tumours with carotenoids. Communication between cells was restored and the tumour cells behaved more normally, both in culture and when grown in laboratory animals. *" We've looked at five or six carotenoids and they all appear to have this ability to restore communication between cells,"* Dr Bertram said.
(FoodNavigator.com 20/07/2004)

US: Nutrient synergy studied
Eating broccoli and tomatoes in combination could maximize the amount of cancer protection both foods afford, suggests a new study on rats. Both vegetables contain chemicals that have been shown to fight cancer – broccoli's glucosinolates and the lycopene found in tomatos have been hailed as powerful anti-cancer agents on their own. But speaking at a diet and cancer conference in the US last week, an American researcher said that it was important to measure the complex interactions that take place in the overall diet. His study underlines a new but increasingly used approach to nutrition science. "We

decided to look at these foods in combination because we believed it was a way to learn more about real diets eaten by real people," said John Erdman, professor of Food Science and Human Nutrition at the University of Illinois at Urbana. "People don't eat nutrients, they eat food. And they don't eat one food, they eat many foods in combination." The study, scheduled for publication in the December 2004 issue of the Journal of Nutrition, showed that rats fed a combination of tomatoes and broccoli had markedly less prostate tumour growth than rats who ate diets containing either food alone – and also less tumour growth than rats who ate diets containing specific cancer-fighting substances isolated from tomatoes and broccoli.

The findings are not the first to demonstrate the benefits of food interactions. Last year the UK-based Institute of Food Research revealed that eating broccoli in combination with selenium-rich chicken could double the protection against cancer, making the anti-cancer components up to 13 times more powerful when put to work together. Erdman's team compared the impact of lycopene alone to the tumour-suppressing activity of tomato powder in rats. In the same animal model, they tested diets containing broccoli powder, and in another group, a diet containing a combination of broccoli and tomato powder. A final group of rats was fed a normal diet supplemented with finasteride, a drug commonly prescribed to men who suffer from benign prostatic hyperplasia. Surprisingly, each type of diet was better able to suppress prostate tumour growth than the drug. But in the group that ate the combination tomato-broccoli diets, the average tumour weight was significantly lower than the control group and also lower than the broccoli, tomato and lycopene groups. Jeff Prince, vice-president for education at the American Institute for Cancer Research (AICR) told reporters at the two-day International Research Conference on Food, Nutrition and Cance in Washington, DC that Erdman's study is one of several new papers mapping the interactivity of different substances and foods being presented at the conference. "By addressing themselves to studying and measuring the complex interactions that take place in the overall diet, these studies represent a new approach that is gaining momentum in the scientific community – a movement that is no longer content to ascribe anti-cancer benefits to a single substance or pill,"he said.

Erdman is further exploring the synergy between tomato and broccoli powders in a new trial. "The fact that some kind of food synergy exists is something most nutrition researchers have simply taken on faith," Erdman said. "This new experimental approach provides us with an opportunity to measure the synergy between foods." He added that the interactivity is likely taking place in any diet high in a variety of plant foods.
(FoodNavigator.com 19/07/2004)

Korea: Glycoalkaloids studied
A new study by researchers at Yeungnam University in Korea has examined the anti-cancer properties of Glycoalkaloids in potatoes, tomatoes and eggplant, finding some compounds had greater efficacy in than common anti-cancer drugs.
Paper abstract:
Lee KR et al. 2004, Glycoalkaloids and metabolites inhibit the growth of human colon (HT29) and liver (HepG2) cancer cells; J Agric Food Chem 52(10): p2832-9.

As part of an effort to improve plant-derived foods such as potatoes, eggplants, and tomatoes, the antiproliferative activities against human colon (HT29) and liver (HepG2) cancer cells of a series of structurally related individual compounds were examined using a microculture tetrazolium (MTT) assay. The objective was to assess the roles of the

carbohydrate side chain and aglycon part of Solanum glycosides in influencing inhibitory activities of these compounds. Evaluations were carried out with four concentrations each (0.1, 1, 10, and 100 microg/mL) of the the potato trisaccharide glycoalkaloids alpha-chaconine and alpha-solanine; the disaccharides beta(1)-chaconine, beta(2)-chaconine, and beta(2)-solanine; the monosaccharide gamma-chaconine and their common aglycon solanidine; the tetrasaccharide potato glycoalkaloid dehydrocommersonine; the potato aglycon demissidine; the tetrasaccharide tomato glycoalkaloid alpha-tomatine, the trisaccharide beta(1)-tomatine, the disaccharide gamma-tomatine, the monosaccharide delta-tomatine, and their common aglycon tomatidine; the eggplant glycoalkaloids solamargine and solasonine and their common aglycon solasodine; and the nonsteroidal alkaloid jervine. All compounds were active in the assay, with the glycoalkaloids being the most active and the hydrolysis products less so. The effectiveness against the liver cells was greater than against the colon cells. Potencies of alpha-tomatine and alpha-chaconine at a concentration of 1 microg/mL against the liver carcinoma cells were higher than those observed with the anticancer drugs doxorubicin and camptothecin. Because alpha-chaconine, alpha-solanine, and alpha-tomatine also inhibited normal human liver HeLa (Chang) cells, safety considerations should guide the use of these compounds as preventative or therapeutic treatments against carcinomas.

-back to contents-

8. RESEARCH

-back to contents-

9. PROMOTION

Russia: 3 organic food stores open
Three organic food stores were opened in Moscow this spring, reports the Organic Market Forum. A wealthy social class is increasingly interested in brand products, but also in organic food. The company Bio Market opened two stores under the name of Greenwood in March, which also stock cosmetics and furniture as well as food. The Ecomarket store Orange Pumpkin was officially opened in April, reports the Moscow Times. On sale are 520 organic products and "ecologically clean" products: from juices and ice cream to bread and fruit. Many of the organic products are from the West.

US: Kids grow their own organic school lunch
Schools in California are coming up with ingenious ways of bringing organic food to young students in an affordable and educational manner. At Berkeley Unified School, a new program teaches kids how to grow and harvest their own organic food, which is then served in the school's cafeteria. Although the school must currently raise funds to pay for the program, educators hope that after demonstrating that organic school gardens result in improved childhood health, they will be entitled to government funding. The U.S. spent $75

billion treating obesity related health problems in 2003, according to the Center for Disease Control.
http://www.organicconsumers.org/school/school-lunch.cfm

Japan: Tokyo cracks down on organic product claims
Organic and near-organic food retailers and producers are being targeted in government inspections to determine the accuracy of product label claims in Japan. Since April, Tokyo has banned the use of labels indicating 'no or limited use of agricultural chemicals' without proper grounds. The farm ministry launched on-site inspection at farms and over 3,000 retailers selling agricultural products earlier this week including supermarkets and grocery stores specialising in natural foods. Analysis to detect residual agricultural chemicals will be made and logs of cultivation history and growing sites will all be inspected. Last year it was reported that 6% of Japanese supermarkets and retailers were breaking organic product labelling rules. *(Source: Just Food 07 Jul 2004)*

Italy: Schools aim for 100% organic food
Italian school food laws passed in 2002 are now coming into effect. Before 2005, 100% of foods served in schools to children age 3-10 must be organic. For students in advanced schools, 35% of cafeteria foods must be organic. Eventually 100% of the nation's school fare will be organic. http://www.organicconsumers.org/organic/italy062804.cfm

EU: Agricultural council adopts organic action plan
The reform of the Common Agricultural Policy, and in particular decoupling of support, presents great opportunities for farmers to reorient their production toward organics, concluded the EU's Agriculture Council at its meeting on 21 June. Commissioners Franz Fischler and Sandra Kalniete appealed to EU Member States, especially the new Member States, to make full use of measures already available to support organic farming, and in particular measures to expand and develop the market.

-back to contents-

10. POLITICS

UK: Anti-organic FSA head Krebs resigns
Food Standards Agency Chair Sir John Krebs has told the Agency's Board of his resignation. This move follows the announcement by Jesus College Oxford that he will take up the post of Principal in October 2005. Sir John will
remain as FSA Chair until April 2005.
http://www.food.gov.uk/news/newsarchive/2004/jul/krebsdown

-back to contents-

-end-