

SAGE

GE Bulletin

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South Against Genetic Engineering

U.S. Engineered grass now growing in the wild

Grass that was genetically engineered for golf courses is growing in the wild, posing one of the first threats of agricultural biotechnology escaping from the farm in the United States, a recent study says.

Creeping bentgrass was engineered to resist the popular herbicide Roundup to allow more efficient weed control on golf courses. But the modified grass could spread that resistance to the wild, becoming a nuisance itself, scientists say.

"This is not a killer tomato, this is not the asparagus that ate Cleveland," said Norman Ellstrand, a geneticist and plant expert at the University of California, Riverside.

But Ellstrand noted the engineered bentgrass has the potential to affect more than a dozen other plant species that could also acquire resistance to Roundup, or glyphosate, which he considers a relatively benign herbicide.

Such resistance could force land managers and government agencies like the U.S. Forest Service, which relies heavily on Roundup, to switch to "nastier" herbicides to control grasses and weeds, Ellstrand said.

The bentgrass variety is being developed by Scotts Miracle-Gro Co. in cooperation with Roundup's manufacturer, Monsanto Co.

Jim King, spokesman for Ohio-based Scotts, said seed from a test plot escaped several years ago while it was drying following harvest in the Willamette Valley, home to most of the U.S. grass seed industry and the world's largest producer of commercial grass varieties.

The study was completed by U.S. Environmental Protection Agency scientists based at Oregon State University. Spokesmen for both companies said they had been expecting the results, to be published in the journal *Molecular Ecology*.

"We've been working to mitigate it," said King. "Now we're down to maybe a couple dozen plants."

The engineered bentgrass is under review by the U.S. Department of Agriculture, which published a paper in June that assessed the threat but did not reach any conclusions - leaving that for an environmental impact statement being prepared by the department's Animal and Plant Health Inspection Service.

But the USDA review paper noted that glyphosate is "the most extensively used herbicide worldwide," and that creeping bentgrass and several of the species that can form hybrids with it "can be weedy or invasive in some situations."

In 2003, the International Center for Technology Assessment in Washington, D.C., filed a federal lawsuit seeking to halt development of genetically engineered bentgrass. The lawsuit is still pending, a USDA spokeswoman said.

Source: <http://www.thestate.com/mld/thestate/business/15406104.htm>

USA - long-grain rice contaminated with unapproved GM variety

On 18th August, the US Secretary for Agriculture announced that Bayer CropScience had reported that rice from the 2005 crop being sold commercially in the USA had been found to be contaminated with a GM variety, LLRICE601, that is not approved for growing and consumption. The rice is genetically modified to be tolerant to the herbicide, glufosinate (trade name: Liberty), but development of the LL601 variety was ended in 2001. Two other varieties of glufosinate tolerant rice, LLRICE62 and LLRICE06, are approved in the USA but are not being grown commercially.

Japan suspended imports of long-grain rice from the USA on August 20th. On August 23, the European Commission announced that imports of rice would only be allowed if they were accompanied by a certificate demonstrating they did not contain the unauthorised GM rice. Rice futures prices fell by more than 5% at the Chicago Board of Trade on August 22 as a result of the GM contamination. This was reported to be the largest fall in years.

The USDA have made a statement that they consider the LLRICE601 to be safe based on assessments of the two other GM rice varieties. However, there does not appear to be any information in the public domain about the exact nature of the LLRICE601 variety. Each individual line of a GM crop has to be individually assessed for safety because the genes will be inserted randomly into the genome and may cause unintended effects. The LLRICE 601 must be different in some ways from other GM rice varieties or Bayer would not have been able to detect its presence.

The USDA's Animal and Plant Health Inspection Service (APHIS), is conducting an inquiry into how the contamination incident took place and whether laws were broken. A test for LLRICE601 is being validated by the USDA and Bayer has arranged for several private laboratories to conduct tests for the presence of LL601.

Bayer will submit a dossier to the US authorities applying for deregulation (equivalent to marketing consent) of LLRICE601. This would give post hoc authorisation for the contamination but its presence in rice exports to Europe and Japan, where LLRICE601 is not approved, would remain illegal.

The presence of an unapproved GM variety in rice seed that was not even intended for commercialisation, is an almost identical situation to that seen with the contamination of maize with Syngenta's Bt10 GM variety.

Source:

http://www.gmcontaminationregister.org/index.php?content=re_detail&qw_id=135®=0&inc=0&con=0&cof=7&year=2006&handle2_page=

US Oversight of Biotech Crops Seen Lacking

Criticism is mounting over the US government's efforts to control experimental genetically modified crops in the wake of admissions that a discarded biotech rice has contaminated US commercial supplies.

The disclosure of the contamination of experimental biotech rice owned by Bayer CropScience, a unit of Bayer AG, coupled with statements by USDA officials that they have no idea how the contamination occurred or how extensive it may be, has outraged players up and down the food chain.

Farmers, food and beverage makers and exporters all are positioning themselves for a long, and likely costly, ordeal.

Already, Japan has suspended imports of US long grain rice because of the contamination, and Europe, a major export market for US rice, has insisted rice imports be tested and any contaminated rice excluded from shipments to the 25-member European Union.

Other US rice customers are also reportedly reviewing their planned purchases even as US rice prices have dropped sharply.

For full report kindly visit: <http://www.planetark.com/avantgo/dailynewsstory.cfm?newsid=37866>

Monsanto Acquires Delta & Pine Land and Terminator

In a quest to expand its corporate seed empire - Monsanto, the world's largest seed enterprise - announced yesterday that it will buy the world's leading cotton seed company, Mississippi-based (USA) Delta & Pine Land, for US\$1.5 billion. Monsanto and Delta & Pine Land (D&PL) together account for over 57% of the US cotton seed market. With D&PL subsidiaries in 13 countries - including major markets such as China, India, Brazil, Mexico, Turkey and Pakistan - the takeover means that Monsanto will command a dominant position in one of the world's most important agricultural trade commodities and that millions of cotton farmers will be under increased pressure to accept genetically modified (GM) cottonseed.

For full report visit: <http://www.etcgroup.org/article.asp?newsid=572>

Experts and consumers convene on nano risks

The most inclusive assessment of the potential dangers of nanotechnology in the food industry is underway and could impact the technology's wider integration into the common market.

The collection of data is being undertaken by the German Federal Institute for Risk Assessment (BfR) and will evaluate the opportunities and risks of nanotechnology as voiced by experts and consumers.

Nanotechnology deals with controlling the properties of matter at lengths between 1 and 100 nanometres. This opens up a whole universe of new possibilities for the food packaging industry, but also fears that the technology could adversely affect human health. A major concern is that there is too little information on the properties of nanoparticles and, in particular, on how their very small size might influence toxicity.

"The key question is whether and, if so, on what scale consumers come into contact with nanomaterials and the impact of these materials on the organism," said a BfR statement. *"Timely communication about the possible use and potential risks of nanotechnologies in foods and consumer products will be of decisive importance when it comes to society's acceptance of nanotechnology."*

BfR has already begun meticulous interview processes with 100 experts from research, industry, public agencies, consumer associations and non-governmental organizations. The multi-phase interviewing system will recognize all of the potential risks that have been identified worldwide across different industries.

Experts will then be given the answers of their colleagues and will be asked to comment on all of the potential risks indicated. The objective is to identify already used or potentially usable nanomaterials, assign them to concrete applications and then draw conclusions on consumer exposure. Based on the available knowledge about exposure and hazard potential, the applications will then be classified according to the level of probable risk and risk reduction strategies developed.

BfR will then be conducting similar public interviews with panels of representative consumers. This way, consumers will be a part of the public and political debate about consumer protection issues.

The opportunities and risks linked to the use of nanotechnology from the consumers' perspective will be important for manufacturers to follow if they are to implement the technology in public applications.

Currently, there are no requirements to label foods containing nanoparticles and consumers are unlikely to be aware of such applications in foods. However, consumer attitudes and lobbying groups pressing for action could soon change regulations after scientists come to consensus on potential dangers.

The BfR research began in July and is expected to finish at the end of the year. BfR will then inform the general public of the results

Source: <http://www.foodqualitynews.com/news/ng.asp?n=70058&m=2fq824&c=cjtqktfrgndoeov>

India: All packaged food must be labeled

The consumer may not be king in India yet but a new set of labelling guidelines on prepackaged food is ready to protect their interests better than ever before. Prepared by the Ministry of Health and Family Welfare, the rules imply that manufacturers of all prepackaged food - including soft drinks - will now, by law, have to mention the ingredients used.

For the first time, manufacturers have been directed to give the weight (or volume) of each ingredient of the product. The only exception: when the ingredient is less than 2 per cent of the product's total weight. Till now, manufacturers only had to mention the ingredients in descending order of weight. Prepackaged food is defined as "packaged or made up in advance in a container, ready for offer to customer".

Manufacturers will also have to mention the nutritional value of the ingredients. Labels will need to carry information "on the amounts of protein, carbohydrate and fat", says last week's notification on the Prevention of Food Adulteration (7th Amendment) Rules 2006. Numerical information on vitamins and minerals will also have to be listed. Sources said the ministry took a year and half to formulate the new rules.

"An expert committee - comprising industry representatives, health experts, bureaucrats and doctors - was formed to study the old rules and introduce new ones," said a source. "Objections were invited on the draft amendments. Some valid ones were incorporated."

The sources said the amendments emphasised on the health aspect of packaged food. For example, it has been made mandatory to list information on 'trans fat' - which is difficult to digest and considered harmful. For the first time, labels will carry information on "allergenic and hypersensitive" substances. "There are ingredients, like peanuts, eggs and milk, that many are allergic to," said the source.

The new law bans the use of tobacco and nicotine in food products. "The manufacturers of *gutka* and chewing tobacco get licences under the category of proprietary food," said the source. "Proprietary food means a food which has not been standardised under the Prevention of Food Adulteration Rules 1955. Now, these products will be included under tobacco products."

The sources, however, said the ministry did not expect manufacturers to dismantle their current labelling systems overnight and adopt the new rules. "The process of changing the entire inventory is huge," said a source. "Keeping that in mind, prosecutions will start from next year."

Source: http://www.hindustantimes.com/news/181_1780385,000600010001.htm

Ludhiana: Toxins infect food chain

Doctors grapple with lead toxicity, DNA damage, cancer

Eesha Sharma had carried toxic lead in her bloodstream for years. But she had no idea the lethal heavy metal – found in generous quantities in the groundwater around Transport Nagar where she lives – was eroding her health till she landed in the ICU of Dayanand Medical College (DMC).

The symptoms included acute abdominal pain and nausea, pointing towards a gastrointestinal problem. But the findings shocked the investigators. Eesha's blood contained a staggering 70 parts per million (ppm) of poisonous lead – a level much higher than permissible. She was immediately put on drugs – carcinogenic in this case. Though better now, she still suffers recurrent pain. But she doesn't suffer alone.

Dr Ajit Sud of Gastroenterology Department at DMC says: "We are seeing an increasing number of patients with lead poisoning caused by the industrial pollution of groundwater. In extreme cases, lead can affect the nervous system and cause mental retardation. The situation is serious near Budda Nullah and industrial areas where electroplating and battery manufacturing units are contributing to the pollution load."

Lead toxicity is just one of the challenges health experts face. The other is the threat of DNA damage and cancers posed by heavy metal (chromium, nickel, cadmium) pollution of water, soil and plants. Budda Nullah pours this polluted water into the Sutlej. The Sutlej further carries it to Harike from where it is sourced for potable and irrigation purposes. The food chain up to Harike is thus infected.

In 2005, a Guru Nanak Dev University study showed how villagers at Mahel, near Amritsar, suffered DNA damage due to exposure to industrial pollutants. Now the Department of Community Medicine at PGI is studying the health of villagers inhabiting the banks of five major drains of Punjab – Budda Nullah in Ludhiana, East Bein and Kala Singha in Jalandhar, Hudiara and Thung Dhab in Amritsar.

PGI's Dr J.S. Thakur, says: "We are assessing the chemical composition of effluents in these drains, their water quality and health problems they pose. We are also studying the association of pollutants with genetic disorders, congenital diseases, gastroenteritis and heart problems."

For full report visit: Source: <http://www.tribuneindia.com/2006/20060830/main2.htm>

Maharashtra: Cotton procurement unlikely next season

MUMBAI: The Maharashtra government has no plans to intervene in the cotton market to mitigate the agrarian crisis in Vidarbha, Mantralaya officials told ET. Populist measures like purchasing cotton from farmers for a competitive price and paying bonus to cotton growers are unlikely to be revived in the next procurement season, officials implementing the suicide relief package said.

"In a market economy, government should not be procuring cotton or for that matter any agriculture commodity from its growers. As a rule, such populist measures defy market logic and must be avoided," a marketing department official told ET.

Umesh Sarangi, principal secretary — government of Maharashtra, who is associated with the implementation of relief measures, said that the government was convinced long-term measures like a boost to irrigation and formal agriculture credit would help it alleviate the crisis than populist measures. "Purchasing cotton from farmers and paying bonus to them have adversely impacted the state and caused huge losses. It makes more sense to invest money in long-term projects like irrigation and establishing a good network of formal lending institutions to contain private money-lenders," Mr Sarangi said.

The government's refusal assumes significance in view of the approaching market season. Farmers' organisations have attributed suicides in Vidarbha, which produces 85% of Maharashtra's aggregate cotton, to the government's withdrawal from the market. "Remunerate price to cotton — around Rs 2,500 per quintal — is one of the key solutions to the suicide crisis," Shetkari Sanghatana leader, Vijay Jawandhiya said.

Around mid-October the crop starts arriving at the market. Cotton purchase stays active till February. NP Hirani, president of Maharashtra government's co-operative cotton growers' marketing federation, told ET that cotton production in Maharashtra in '06-07 could be as high as 250 lakh quintal.

"This estimate is based on the initial data on area under cotton cultivation and an unprecedented emphasis on genetically modified (Bt cotton) seeds this year. It does not factor the impact of heavy rains in August. But given the fact that almost 65% of the total cotton sown this year is Bt, aggregate cotton production could touch 250 lakh quintal if Bt seeds live up to their reputation of giving at least one and half quintal yield more as compared to the local varieties," Dr Hirani said.

Maharashtra is the only state to have a state-sponsored cotton procurement scheme since 1972. Till '02, Maharashtra government, through the marketing federation, was the monopoly purchaser of entire cotton produce in the state. Under the scheme, the government would procure cotton for a minimum support price (MSP) fixed by the centre's national commission on agriculture produce.

As an incentive to cotton growers, the government would pay a certain bonus over and above the MSP for a quintal. For instance, the MSP of cotton was fixed in the range of Rs 1,800-1,950 per quintal in '03 depending upon the quality of the crop. The government paid an advance bonus of Rs 500 per quintal. "But we incurred losses to the tune of Rs 1,500 crore on account of bonus. It is logical to invest this money in long-term measures," Mr Sarangi added.

Since 1972, Maharashtra has lost around Rs 4,500 crore on running the cotton scheme.

In '03, however, Vilasrao Deshmukh, in his first term as the chief minister, took a politically bold decision to discontinue with the bonus bonanza. The government continued the scheme but decided to purchase cotton only for the MSP of around Rs 1,900 per quintal. As a result, the bulk of cotton was purchased by private buyers, thus saving the state a good amount. "Last year, the federation purchased only 18 lakh quintal of the total 250 lakh quintal," Dr Hirani said.

Source:<http://economictimes.indiatimes.com/articleshow/1921108.cms>

Study

The happy planet index: an index of human well-being and environmental impact

The success of economic and social policies is commonly measured by reference to countries' economic performance, using measures such as gross domestic product. In putting forward the Happy Planet Index (HPI) as an alternative measure of success, this report argues for greater attention to environmental and quality of life consequences of government policies.

The HPI seeks to measure the ecological efficiency with which human well-being is delivered. It compares countries based on three different indicators: life expectancy; ecological footprint; and people's subjective well-being or "life satisfaction". By this score, the report concludes that:

- it is possible to live long, happy lives with a much smaller environmental impact
- countries with the same ecological footprint can produce lives of greatly differing length and quality
- countries similar in other ways - for example, with a similar human development index - can differ enormously in life satisfaction
- island nations have higher life expectancy, life satisfaction, and a smaller ecological footprint, yet have only average GDP per capita
- life satisfaction and life expectancy both vary wildly between countries
- countries classed by the UN as a medium-human development fare better on the HPI than either low- or high-human development countries
- well-being does not rely on high levels of consumption
- countries recently adopting market economies, and those with high levels of HIV and AIDS do worst on the index
- despite wide variation, most western countries do poorly
- island nations do well
- social, cultural and political structures, such as strong community life and democratic political systems, are strongly associated with life satisfaction across nations.

Overall, the report concludes that all countries can do much better in the way that they use natural resources to achieve the ultimate ends of human happiness and long life.

The report outlines the areas where countries that performed poorly on life expectancy, life satisfaction and ecological imprint should focus. These include:

- eradicating extreme poverty and hunger
- improving healthcare
- relieving debt
- shifting values away from individualism and material consumption and towards social interaction
- supporting meaningful lives by ensuring a healthy work-life balance and recognising the value of social, cultural and civic life
- empowering citizens and promoting open governance
- working towards one-planet living by consuming within our environmental limits
- designing systems for sustainable consumption and production
- working to tackle climate change.

Finally, the paper calls for efforts to encourage the use of alternative measures such as the HPI and properly adjusted measures of GDP.

Article by Dionne Bunsha, Frontline.

Harvest of Death- Mounting debt, rising cost of inputs and falling prices of their produce are driving farmers of the region to suicide.

CHANDRAKANT GURNULE, 35, had always been the prankster in his family. He would sneak up behind people and scare them and always had a wisecrack at hand to entertain the children. But, on April 1 he was not kidding when he told his wife that he wanted to commit suicide. He had said it before. No one took him seriously.

"When are you going to do it?" Chandrakant's wife laughed. That afternoon, he doused himself with kerosene and lit a match. In flames, he ran out of the house where the children were playing. They screamed for help. His brother Prahlad put out the fire and took him to hospital. He died there of severe burns.

In the past year, Chandrakant's sense of humour had dimmed as he sank deeper into debt and depression. "Over the years, the farm was making losses. The loans kept increasing. He used to say, 'There's no option but to die'. We didn't take it seriously," said Prahlad. "We even planned to sell four acres [1.6 hectares] of our 16-acre [6.4 hectare] farm and use the money to start some small business. No one expected him to do this."

Chandrakant had a bank loan of Rs.1.05 lakh. He had pawned jewellery worth Rs.30,000. His family has no idea how much he owed moneylenders. "He spent Rs.60,000 to Rs.70,000 on the farm. He got only Rs.40,000 by selling the cotton crop, of which he gave Rs.15,000 to the bank. The jowar crop failed. There was no grain in the house. Everyone in our house was ill with the chikungunya disease. He had no money to sow the next crop," said Prahlad. "He had sold his buffalos, his motorcycle, his thresher machines. Finally, he finished himself."

There have been 728 suicides from August 1, 2005, to August 20, 2006, in Vidarbha, the north-eastern region in Maharashtra, comprising 11 districts. The number since 2001 is 2,279. In recent months, around three suicides have been reported every day. To make matters worse, the recent heavy rains washed away the crop and flooded several villages in eastern Vidarbha.

Around 20 years back, farmers in Vidarbha were prosperous. The rich, black soil is ideal for cotton. However, for a decade now, Vidarbha has been caught in a desperate farm crisis. Cotton is no longer profitable. In 1970, one quintal of cotton - once called 'white gold' - had the same value as 12 grams of gold. Now it is a harvest of death.

Suicides are the most extreme manifestation of the agrarian distress in the region. "There is not much difference between those who killed themselves and those of us who are still living. Everyone is in the same distress," said Jitendra Tatte, a cotton and orange farmer who owns 60 acres (24 hectares) of land at Lehegaon village in Amravati district.

The crux of Chandrakant's problem was something beyond his control - high cost of production and low prices for the produce. The minimum support price for cotton (Rs.1,750 a quintal) is far less than the cost of cultivation. "In the last 10 years, the prices of farm inputs rose dramatically. Urea was Rs.80 a bag, now it is

Rs.280. A bottle of pesticide was Rs.40, but now it is Rs.240. But the State government lowered the procurement price from Rs.2,250 last year to Rs.1,750 a quintal. How can we survive?" asked Prahlad.

Why has the price not kept up with increasing costs? The international price of cotton lint fell from \$1.10 a pound in 1994 to 38 cents in 1998. There was a gush of imports into India. "Between 1997 and 2003, we imported 110 lakh bales, which is more than the total volume of imports since Independence," says Vijay Jawandhia, an activist of the Shetkari Sanghatana, the farmers' association. So, farmers found no market for their produce.

The import tariff for cotton is only 10 per cent, whereas it is 60 per cent for sugar and 80 per cent for paddy. International rules allow the government to increase the cotton tariff up to 150 per cent, but it chooses not to. China has protected its farmers by imposing a 90 per cent import tariff.

Farmers in countries such as the United States and China can sell at a low price because they receive direct subsidies. Our farmers cannot afford to sell at this artificially low price and so keel over. For instance, in the U.S., it costs \$1.70 (Rs.79.90) to produce 1 kg of cotton lint, but it is sold for \$1.18 (Rs.55.46). To offset the losses, around 20,000 cotton farmers in the U.S. get more than \$4 billion in subsidies - approximately Rs.1 crore per farmer per annum, according to the Centre for Science and Environment's (CSE) report on the cotton industry. Farmers in the U.S. get a subsidy of \$1 for every kilo of cotton produced, roughly the rate of cotton in the world market. Indian farmers get no subsidy. Vidarbha's 30 lakh-odd cotton cultivators spend Rs.3,000 a quintal, but they get only Rs.1,750.

On the rare occasion that the retail price of tomatoes or tur dal goes up [as they did just before the monsoon], the media flash it on TV all day, and people in the cities complain. But they are quiet when the prices fall soon after. Do they bother to come here and talk to us when prices crash and we are in a crisis?" asked Prahlad.

If prices are low, can farmers try and reduce costs? Each year, the prices of inputs go up. And the chemical-intensive method that farmers use depletes the fertility of the soil. So every year there are more doses of fertilizers and pesticides needed. It is a vicious cycle. Maharashtra has the highest area under cotton cultivation in the country, but the lowest yield. The cost of production is Rs.70 a kg, double the national average, says the CSE report. The State government is supposed to send extension workers to guide farmers on effective farming techniques. But extension officers are rarely seen in the fields. Farmers rely on pesticide dealers and other farmers for advice, besides advertisements.

If cotton is unprofitable, why not shift to other crops? Farmers in Vidarbha (and most of India) still practise dryland farming - totally dependent on the monsoon. Besides cotton, farmers here grow mainly soyabean, wheat, coarse grains, tur dal, groundnut and oranges (in some areas). Vidarbha has only 10 per cent of its cultivable land under irrigation. "That leaves us with very few options. Besides, prices are low not only for cotton but for most other crops and vegetables. Whatever you choose, there are losses," said Prahlad.

There is not enough water for fodder, so dairy, which could provide a regular income, is also not possible. "Earlier, when we grew jowar, there was a steady source of fodder. But people have stopped growing jowar because it is not profitable, and neither is the dairy business. Now, there are distress sales of our only assets - cattle and land," said Sanjay Tigaonkar, a farmer of Wardha.

The interest waiver on loans and the grant of fresh loans to defaulting farmers, which Prime Minister Manmohan Singh announced on his tour of Vidarbha on July 1, may at best offer temporary relief. What happens at the end of the season when the farmer is left with no money to pay back the loan?

And what happens to farmers' debts with moneylenders? When the State government suddenly arrested moneylenders in November 2005, farmers were in a financial crunch. Moneylenders are their main source of funds since banks do not lend enough.

Chief Minister Vilasrao Deshmukh admitted that the State had not been able to curb the crisis. "We are doing our best, both the Centre and the State are doing what they can. It's true the suicides are not reducing. Whatever help we are giving, we have not been able to solve the problem or fully control it. We are looking for suggestions," he said. Several groups in Vidarbha have come forward with suggestions, but the government has ignored the root of the problem - the widening inequalities between urban and rural India.

"Farmers are living only because they are not dying," says Jawandhia.

Source: Vol:23 Iss:17 URL: <http://www.flonnet.com/fl2317/stories/20060908004201200.htm>

Sleep easy between pesticide- free bed sheets

You may have removed pesticides from your diet, but have you expelled them from your bed? Now you can. Thanks to a whole host of companies producing organic cotton bedding, you no longer have to spend one-third of your life snuggling between sheets that pollute the planet.

Conventionally grown cotton uses enormous amounts of pesticides and herbicides, and bedding made from it is usually processed with formaldehyde to make it softer. (These sheets often lose their silky texture when the chemicals wear off. Sheets free of harmful chemicals, on the other hand, get softer the more you wash them.

At the moment, organic bedding isn't cheap (about \$150 for a queen-size set and around \$3,000 for the works: organic mattress, pillow, and duvet). But prices are falling. Producers like Coyuchi) in Northern California, A Natural Home a company in Ohio that works with Amish families, and Indika in Kalispell, Montana, all report a steady increase in sales, so more competition is entering the market.

And every set of sheets that's sold is like a service to the world: According to the Pesticide Action Network, if all cotton were grown organically, global pesticide use would decrease by 10 percent and insecticide use by nearly 25 percent. That might help everyone sleep better.

Source: http://www.yogajournal.com/views/2171_1.cfm

GM potatoes for UK in 10 years

A chemical company has asked for permission to grow the first trial crop of genetically modified (GM) potatoes in the UK. BASF says it hopes GM potatoes could be sold in the UK within 10 years. It says they would be resistant to late blight disease, meaning no need for spraying fields with fungicides, and could save millions in damaged crops.

But environmentalists say consumers do not want GM potatoes even if it means cutting back on chemicals.

Two genes from wild potatoes have been discovered which make them resistant to late blight - the disease which caused the Irish potato famine. The only way to get those genes into new varieties is by genetic modification.

BASF says blight resistance means farmers could avoid losses of up to £50m a year through damaged crops. It says the trials would take place in Cambridgeshire and Derbyshire. BASF spokesman Barry Sticking said the application was about providing choice for farmers.

"Farmers ought to have the choice between growing organic crops the traditional way - using fungicides and herbicides - or crops which are grown from GM varieties," he told BBC Radio 4's Farming Today program.

But Claire Oxborough, from Friends of the Earth, said there was no market for GM goods. She said: "Consumers have already made that choice and that's why all the supermarkets and food companies have stopped using GM ingredients in their foods. "They've recognized that people don't want to eat it." If trials went ahead, crops in future years could be contaminated, she added

<http://www.tehrantimes.com/Description.asp?Da=8/26/2006&Cat=7&Num=1>

Bizarre

Rats Born to Mice in Stem-Cell-Derived Sperm Study

In lab rats, "Who's your daddy?" can now yield a surprising answer. Scientists have generated rats from mice that developed rat sperm

Reproductive biologist Takashi Shinohara at Kyoto University in Japan and his colleagues first began with rats genetically engineered to produce a green fluorescent protein. Their cells and progeny would thus prove easy to recognize. Shinohara and his colleagues then removed the stem cells that sperm arise from in the rats and implanted them into testicles of mice.

The scientists collected fluorescent green rat sperm from the mice and injected them into rat eggs. Successfully fertilized eggs were transferred into surrogate rat mothers.

None of the fluorescent green rat pups born — yes, they are really green — displayed any abnormalities, genetic or otherwise. Moreover, they grew up to become fertile adults.

Breeders use sperm taken from prize livestock to produce offspring that hopefully possess the same valuable traits. Scientists also use sperm to help endangered species generate progeny. The hope is that mice or other lab animals can grow sperm of livestock or endangered species while "saving space, food and in general being easier to take care of," Shinohara told LiveScience.

For full report-<http://www.foxnews.com/story/0,2933,211039,00.html>