



• Fortnightly Bulletin on Genetic Engineering **South Against Genetic Engineering (SAGE)**

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News: Panchayats to have say in GM crop trials

The government has decided that no trials of genetically modified crops will be allowed without the consent of the panchayat or the gram sabha where the tests are to be conducted. The decision, taken last week and communicated to the state governments this week, comes after recent revolts by farmers against GM trails.

In November, the Chhattisgarh government had alleged that a multi-national GM seeds manufacturing company had conducted trials near Raipur without informing it. Government officials destroyed the field in the presence of the state agriculture minister. There were similar protests in Haryana and Uttar Pradesh.

The Genetic Engineering Approval Committee (GEAC) of the ministry also decided that no approval for field trials would be issued unless companies specify the location where they plan to conduct the trials.

The GEAC also decided to issue show-cause notices to companies under the Environment Protection Act for violating field trial regulations. Members of the committee said that seed companies had failed to provide 'satisfactory information' to the locals before conducting the trials.

The GEAC has also asked the companies to isolate trial fields to prevent any contamination and plant non-transgenic rice around the experimental crop to act as pollen trapper to nullify chances of contamination.

http://www.hindustantimes.com/news/181_1876132.0008.htm

Update: DBT contemplates changes to GM crop field trial regulations

Faced with the problem of maintaining the country's image as an exporter of GM-free rice, the department of biotechnology (DBT) is now contemplating changes in its guidelines for regulation of field trials for genetically modified (GM) crops.

DBT secretary, MK Bhan, DBT advisor KK Tripathi and advisor in the science and technology ministry, SR Rao have suggested that no field trials of GM rice should be allowed in Basmati rice producing states—Haryana, Uttar Pradesh and Punjab.

India has a competitive advantage in the export of its premium aromatic rice—Basmati—worth in millions of dollars. The recent contamination of US and Chinese rice with GM traces and the consequent refusal of the contaminated shipments by major importing countries

http://www.financialexpress.com/fe_full_story.php?content_id=150084

sent shock waves across the global trade. The US rice industry incurred a loss in millions of dollars and suggested "a clean up exercise" to the US administration.

With the uprooting and burning of GM rice crops under field trials by farmers in the country and NGOs reporting cases of violation of biosafety norms, Indian rice exporters woke up to the reality and began asking for strict implementation of biosafety norms to prevent any possible contamination of exportable rice with GM traces.

The exporters even went to the extent of filing an impleadment application in the on-going writ petition filed by Aruna Rodrigues and others in the Supreme Court. Aruna Rodrigues and others have urged for a moratorium on GM crops. The DBT, in this

context, called for a consultation with major stakeholders last week to trash out the issue. In the consultation it was decided that the directorate of agriculture and agriculture universities in the states concerned would be informed about the permission for field trials of GM crops.

The village panchayats would also be informed about the field trials. The letter of permission should specifically say "confined trial" and not "contained trial."

It was also decided that all information about the field would be shared with the public through relevant websites. DBT would take steps to educate farmers and other stakeholders on biotechnology and GM crops using the services of BCIL and AgBios.

****Rasi Seeds likely to launch GM bajra hybrids in kharif '07***

COIMBATORE: For the kharif 2007 season (July-October), Salem-based private seed major Rasi Seeds (RSPL) is planning to launch a range of genetically-modified (GM) bajra or pearl millet hybrids covering all the major bajra-growing states in the country.

RSPL's MD M Ramasami told ET that after a successful trial marketing in kharif 2006 season, the company is launching hybrid bajra in collaboration with Icrisat, Hyderabad. The two hybrids, Rasi 4461 and Rasi 3051, will target markets in Haryana, Rajasthan, Gujarat and Maharashtra. "Farmers' reports are in favour of the product and the next season will be dominated by GM versions," he added.

Biotechnology apart, gene manipulation technique also appears to be catching up with the company. RSPL is in talks

with the Tamil Nadu Agricultural University (TNAU), Madurai Kamaraj University (MKU) and US-based Danforth Foundation to explore the possibility of improving and developing disease-free Bendi and Kesava planting material.

"The MoU basically is for transfer of technology. It is still in the conceptual stage. This is not a commercial venture, but a social initiative to help the Kesava growers in this belt," he said.

The Kesava crop suffered a huge setback in yield levels due to the mosaic virus. Both the area and yield in TN has dwindled considerably in the past couple of years — from over 1 lakh hectares and yield potential of 35 tonne per hectare to less than 15 tonne per hectare at present.

On the Bt cotton front, Mr Ramasami said that in the next season starting October, the acreage under GM crop is likely to go up to 140-150 lakh hectares, a 75% jump from the present 86 lakh hectare.

The continued improvement in the per acre yield and the moderation achieved in the seed price, now settled at Rs 750 for a packet of 450 gm this season, are cited as the reasons for this acreage hike.

During the 2006-07 cotton year, RSPL has distributed commercial Bt cottons in north, central and southern cotton zones. Of the country's total Bt cotton production, RSPL's share works out to 27% (or 26 lakh tonnes). With this, Rasi Seeds has become the largest vendor of Bt cotton seeds in the country in the last kharif season

<http://economictimes.indiatimes.com/articleshow/808949.cms>

*****As can be seen by this story, now the biotech industry does not even want to leave aside one of the most important and nutritious crops that the poor farmers in dryland India eat. SAGE should start a big campaign against this. Please suggest what we can do.**

Note: below is the note circulated by SAGE to the participants at *NINSA's symposium- Agriculture biotechnology-food and nutrition security held on 22nd December 2006.

Dear Participants

Greetings from South Against Genetic Engineering, a South Indian coalition of over 50

farmers organisations, civil society groups, agricultural

scientists, consumer activists, lawyers and media people.

The location you are assembling, National Institute of Nutrition, NIN is a historic place. It has been at the forefront of India's scientific thinking on nutrition and has scripted some seminal studies. Scientists such as Dr Gopalan have strode on the global nutrition scene like colossus and have left their imprint on history. NIN has been a radical centre that has combined scientific enquiry with social concerns and has never hesitated to look at the traditional practices of the poor and discover fascinating vistas of deep, underlying science in it.

This phenomenal *independent science* has been possible for NIN because of its structural quality as a **Public Science and Policy centre. And therefore it is held in the highest esteem by scientists, social scientists and development thinkers all over the world.**

It is this fact that prompts us to write this short note to you, the assemblage of nutrition scientists to discuss Agricultural Biotechnology – Food and Nutrition Security.

Many of you, being enquiring, curious scientific minds must have read various scientific papers, studies and publications by independent scientists who are not corrupted by corporate control, corporate salaries and corporate agendas. If some of you have missed on that we urge you to visit the website of

Science and Society of UK which has built a formidable knowledge questioning the validity of agrobiotechnology to answer the human nutrition needs. It has also switched the spotlight on the scandals of corporate sponsored biotech research. [Please obtain the copies of **Risk Underestimated**, which interviews nine eminent scientists from all over the world on the subject of genetically modified plants We also urge you to please read **Playing with our food** by Pat Howard and lastly the report of the **National Consultation** titled **Is Biotechnology the Farming Answer to India's Food and Nutritional Security?** Which was organised by the SAGE in Bangalore early last year.

All these readings will surely give you some clues why transnational agrochemical conglomerations backed aggressively by the USAID are trying to capture the scientific minds of the Global South to voraciously expand markets for their biotech products and monopolise the food and seed supply of the globe. A decade ago, they had started this operation by trying to argue that genetic engineering will boost the economy of the small farmers in the developing world. But the ignominious crash of the farmers who took the route of Bt Cotton, Bt Corn, Bt Soya to their economic prosperity has forced the biotech industry to change the track. Instead of being remorseful for their

economic terrorism through which they scripted the suicides and economic death of hundreds of thousands of farmers in the South, they have coined a new deceptive and deceitful slogan called **Biotechnology for Nutritional Security.**

We urge you friends in the nutrition scientific community not to fall into this trap. This slogan will surely swell the coffers of the industry. But it can be disastrous to scientific integrity of the proud, pro people, patriotic community of Indian Science. All of you have always believed that science is the societal tool to end misery and poverty. But if you unknowingly pick up the biotech tool to solve our hunger and malnutrition, you will be reversing the historical path that science has taken in this country. Moreover, for the first time in your lives, you might be accused of being lured by corporate money and turning against the poor of this country.

We are sure that your scientific and human conscience is very strong to stay away from this historical wrong. We hope that this consultation will turn the searchlight on the perils of genetic engineering in agriculture, particularly with respect to human, livestock and soil health and question the wisdom of allowing corporate greed to overrun human wellbeing

At SAGE, based on our own action research, global consultations and independent [non-corporate funded] scientific research have come to the following conclusions:

- *Genetic Engineering in agriculture is incapable of increasing food production even by a small margin*
- *The risks of GE is highly underestimated and by following that path we will be inviting grave dangers to our health and environment.*
- *The agricultural and food practices of the poor, based as many are in the ecological food culture, have great reservoirs of strength and it is this that the nutrition scientists' community needs to explore*
- *The current public policy does not allow such modes of scientific enquiry because it is steeped in the greed of inviting foreign investments. Consequently one after another our public scientific institutions are on sale to private sector, which is too happy to buy them over and force the biotech agenda on them*
- *This is an area in which scientists and development activists should come together and produce a common ground to fight the new scientific apartheid.*

Let us collectively wish that we will make this possible.

In Solidarity

[p v satheesh]

Convenor, South Against Genetic Engineering

**NINSA- National Institute of Nutrition- Scientists Association*

News: ROMANIA: GM Soy to Be Banned

Environmentalists in Romania have secured a victory in getting genetically modified (GM) soy finally banned.

"Romania was the biggest producer of GM (genetically modified) soy in Europe after it began growing it without any control a decade ago," Greenpeace coordinator Gabriel Paun told IPS on phone from Bucharest. "This is to be stopped by January, which is another victory for us."

Romania, together with neighbouring Bulgaria, is joining the European Union (EU) Jan. 1. It had therefore to

comply with strict regulation dealing with GM organisms, unwelcome by most environmentally conscious nations.

GM crops crept into the country a decade ago, bringing at least 130,000 hectares under modified soybean cultivation. Environmentalists rank Romania 11th among producers of GM crops.

Unrestrained production of GM crops has endangered prospects of agriculture exports. Such agricultural produce, often described as "contaminated", cannot reach

strictly regulated markets.

"This victory (on ban on GM soy planting) represents a great challenge for us," Paun said. "We plan to broaden the action to other EU countries such as Austria, Greece and Poland."

Cultivation of GM soy in Romania included 25,000 hectares in the area of the Danube Delta, one of the largest wetlands on the planet. This area is home to at least 1,689 plant species and 3,448 species of fauna, in a unique "natural museum" of biodiversity.

GM crops, or "genetically modified organisms (GMOs)" as many experts like to call them, went into mass cultivation about ten years ago. They were at first regarded as a salvation to feed the poor. Due to laboratory-implemented characteristics at the genetic level, they gave unexpectedly high yields, were immune to the usual plant diseases, and needed little care in general.

What was little known at first was that GMOs tend to make land infertile, and cannot reproduce.

"It's unclear if GM crops are a danger by themselves, but they release certain substances that stimulate growth of undesired micro-organisms," expert on GM crops Mirjana Nikolic told IPS. "Due to the presence of those micro-organisms, the land can become infertile after one season in some cases."

Nikolic took part in a large operation two years ago to discover fields in Serbia where smuggled GM soybeans had been planted.

The operation involved police action and led to the burning down of plants on 1,000 hectares in the northern province Vojvodina. It was established then that the GM

seeds had been smuggled from neighbouring Romania.

Romanian environmentalists say the most popular GM crops in the region for some time have been soybeans and maize, and also genetically modified plum trees. In August this year Greenpeace uncovered illegal experiments in plantation of such plum trees at a research and development centre in Bistri in Romania.

"These new findings once more revealed that genetically modified organisms (GMOs) are totally out of control in Romania and that the research stations in Romania are playing grounds for the industry," Paun said.

The plantations were destroyed, and no licence for further work was approved to project leaders, he said.

GM plum trees pose a serious risk to human health because they contain a gene that is resistant to antibiotics.

Romania began some action against GM soy in February this year. It ordered cuts in the production of GM herbicide resistant soybeans, of which the EU does not approve, and introduced a monitoring and control system for GM crops.

But many farmers prefer genetically engineered crops, because they mean no more fighting with weeds or bugs. Cultivation of resistant crops eases the job of combating pests of all kinds.

A black market in GM seeds was flourishing in Romania for years "but things are to be improved now," Paun said. Environmentalist Dragos Dima recently told Romanian media that it will take many years to "put the agricultural house in order." Dima said "the country will have to decontaminate itself from unapproved GM varieties and put in place working systems on the release of GM organisms and on food labelling."

Romania, he said, may become a test case "whether GM crop-plant decontamination is possible at all."

The complete ban now on production of GM crops is a victory for campaigners. This decision follows the victory of Romanian environmentalists, local Greenpeace among them, in securing suspension of construction of the controversial Road 66a earlier this month. The road would gravely endanger the untouched nature reserves of Retezat and Domogled parks.

<http://www.ipsnews.net/news.asp?idnews=35903>

Threats: 20 percent of animal breeds are at risk of extinction

The globalization of livestock markets is the biggest single factor affecting farm animal diversity, FAO says.

Around 20 percent of animal breeds are at risk of extinction, with one breed lost each month, FAO said today.

Of the more than 7 600 breeds in FAO's global database of farm animal genetic resources, 190 have become extinct in the past 15 years and a further 1 500 are considered at risk of extinction.

Some 60 breeds of cattle, goats, pigs, horses and poultry have been lost over the last five years, according to a draft document presented this week in Rome, when over 150 participants from more than 90 countries met at FAO headquarters to review the report's findings and to discuss priorities for action to reverse the loss of animal genetic diversity worldwide.

The report, the *State of the World's Animal Genetic Resources*, is the first-ever global assessment of the status of animal genetic resources and the capacity of countries to manage them in a sustainable manner. It provides a comprehensive overview highlighting the importance of the livestock sector within agriculture.

Comprising information from 169 countries, the final report will be published to mark the first International Technical Conference on Animal Genetic Resources, hosted by the

Government of Switzerland, in Interlaken in September 2007.

The conference is expected to adopt a global action plan to halt the loss of animal genetic resources and improve their sustainable use, development and conservation.

Globalization

Livestock contributes to the livelihoods of 1 billion people worldwide, and approximately 70 percent of the world's rural poor depend on livestock as an important component of their livelihoods. Livestock currently accounts for about 30 percent of agricultural gross domestic product in developing countries, a figure projected to increase to nearly 40 percent by 2030.

The globalization of livestock markets is the biggest single factor affecting farm animal diversity, FAO says.

Traditional production systems require multi-purpose animals, which provide a range of goods and services. Modern agriculture has developed specialized breeds, optimizing specific production traits, which have achieved striking productivity increases but depend on high external input.

Only 14 of the more than 30 domesticated mammalian and bird species provide 90

percent of human food supply from animals.

"Five species: cattle, sheep, goats, pigs and chickens, provide the majority of food production," says Irene Hoffmann, Chief of FAO's Animal Production Service. "Selection in high-output breeds is focussed on production traits and tends to underrate functional and adaptive traits. This process leads to a narrowing genetic base both within the commercially successful breeds and as other breeds, and indeed species, are discarded in response to market forces."

But the existing animal gene pool contains valuable resources for future food security and agricultural development, particularly in harsh environments.

"Maintaining animal genetic diversity will allow future generations to select stocks or develop new breeds to cope with emerging issues, such as climate change, diseases and changing socio-economic factors," says José Esquinas-Alcázar, Secretary of FAO's Commission on Genetic Resources for Food and Agriculture.

Because of countries' interdependence on animal genetic resources, there is a

need to facilitate the continued exchange and further development of these resources, without unnecessary barriers and to ensure that benefits reach farmers, pastoralists,

breeders, consumers and society as a whole, Esquinas says.

"The Conference in Interlaken next year will provide countries a historic opportunity to

formulate a common strategy to address the ongoing erosion of animal genetic resources and to better use them for food security and sustainable development," he adds.

<http://www.fao.org/newsroom/en/news/2006/1000464/index.html>

Threats: Female Troubles for Wildlife Raise Human Worries

Across the U.S., female animals exposed to toxic chemicals are suffering from a flurry of health problems. As scientists examine the impact of environmental pollution, some are pondering what the results may mean to female humans.

In California, female sea lions are spontaneously aborting their fetuses.

In the Great Lakes area, mother gulls are sharing nests and raising eggs together because their male partners have forgotten how to parent.

In upstate New York, female frogs have as much testosterone in their bodies as males.

Scientists say these aberrations all share a common link: exposure to toxic chemicals called "endocrine disruptors," which pollute the air, soil and water.

"At the rate this pollution is going, we will likely have population decreases in many wildlife species, especially amphibians and fish that are more susceptible to toxins because their skin is constantly exposed to these chemicals in an aquatic environment," says Sarah Janssen, a science fellow at the New York-based Natural Resources Defense Council. "These animals serve as canaries in the coal mine for human females, teaching us how

synthetic chemicals might affect our nervous system development, immune function, fertility and other health outcomes."

In the past six decades, U.S. manufacturers have unleashed an estimated 100,000 synthetic compounds into the environment.

When animals come into contact with these pollutants, which have been detected in rainwater and in the rivers and soil of even the most remote areas, they absorb synthetic chemicals into their bloodstreams and their bodies. Researchers are finding that the female halves of many species are displaying biological reactions.

Earthworms Dosed With Prozac

Synthetic compounds have been detected in even the simplest life forms. According to a 2006 study by the U.S. Geological Survey (USGS), earthworms now have an average 31 pollutants in their bodies, including perfumes, household disinfectants and the antidepressant Prozac.

"As you go up the food chain, the numbers or relative amounts of synthetic chemicals can be even higher," says Diana Papoulias, a USGS biologist in Columbia, Mo. "Mammals, in particular females, have more fat in their bodies than other animals and therefore can have more toxins in their fat."

Years after they were created and put into common use, many synthetic chemicals were found to be endocrine disruptors, which means they interfere with the action of hormones that regulate animals' growth, development and fertility. These chemicals are of particular concern to female animals, since their hormones, like those of human females, fluctuate more than those of males.

Common endocrine disruptors include pesticides, phthalates (which make plastic flexible and make cosmetics adhere to the skin) and polychlorinated biphenyls (PCBs, industrial cooling agents banned in the United States in 1979 but still present in the environment.) Individual chemicals such as these--or groups of them working

together--are making animals' hormones go haywire.

In Washington state, endocrine disruptors have been tied to the deaths of mother orcas, whose orphans have been adopted by other female whales.

In Alaska, they have caused female polar bears' ovaries to shrink.

In Massachusetts, they have lowered the over-winter survival rates of female tree swallows.

In Florida, they have accumulated in the milk of mother dolphins, poisoning and killing their calves.

In addition to harming female animals, endocrine disruptors can cause the "feminization" of males. In Arizona, these chemicals have shrunk the gonads of largemouth bass and common carp. In the Midwest, they have spurred male waterfowl to grow female organs. In Washington, D.C., they have caused male fish to produce eggs.

Small Amounts, Big Impact

Just as alarming as these problems is the low level of exposure at which they are occurring. When Tyrone Hayes, an assistant professor of biology at the University of California, Berkeley, studied the endocrine-disrupting properties of atrazine, a common weed killer, he discovered reproductive abnormalities in affected leopard frogs at 0.1 parts per billion parts water, 30 times less than the Environmental Protection Agency's limit for atrazine in drinking water.

Though proof that endocrine disruptors can harm female wildlife is mounting, scientists say it is difficult to assess the total damage.

"In the wild, subtle outcomes such as length of gestation, litter size and the age of onset of puberty are difficult to ascertain," says Janssen. "You would have to know exactly when these females became pregnant and gave birth. You would have to anesthetize them to take blood samples. You would have to carefully observe and measure life events that are difficult to track in the field.

Measuring these effects would ideally involve more controlled studies."

In laboratory settings, studies have repeatedly shown the adverse effects of some of the most prevalent endocrine disruptors.

Consider phthalates, those chemicals that help prevent makeup from smudging. In 2003, an Environmental Protection Agency study found these substances could reduce fertility in rodents, causing female rats to bear 50 to 90 percent fewer offspring.

Take bisphenol-A, a compound used to make everything from computer keyboards to dental sealants to food-can lining. A 2005 study by the National Institute of Environmental Health Sciences in Research Triangle Park, N.C., found that exposure to this chemical can spur obesity in female rats. In August 2006, researchers at Tufts University in Boston found it can also cause breast cancer in female rodents.

There's also dioxin, a byproduct of paper manufacture and waste incineration. In 1998, researchers at the Washington-based Environmental Protection Agency found this chemical could trigger spontaneous abortions in rhesus monkeys. In 2003, a University of Ottawa study found it could also cause female primates to develop endometriosis, a disease that causes endometrial tissue normally found in the uterus to grow outside the womb.

More Questions Than Answers

As lab studies on endocrine disruptors continue, questions about what's happening in the wild persist. Why are mother sea ducks in Alaska producing fewer offspring? What's causing female dolphins in the Southeast to develop tumors in their reproductive tracts? Why are loon hatchlings in Wisconsin emerging deformed from their eggs?

Since only 10 percent of the synthetic chemicals in our environment have been tested on animals, scientists have yet to offer answers to these questions.

While research continues, some environmental advocates recommend that women avoid consuming fish and meat from the wild (such as carp caught in rivers or deer or pheasant shot by hunters) to avoid ingesting endocrine disruptors found in these animals' bodies.

Others recommend political action: calling for reduced emissions of synthetic chemicals, and calling on the Environmental Protection Agency to beef up its study of endocrine disruptors, a step Congress mandated in 1996 but one that the EPA has yet to

take because it says setting up the research is proving more difficult than expected.

Because these chemicals also surround people, concern is

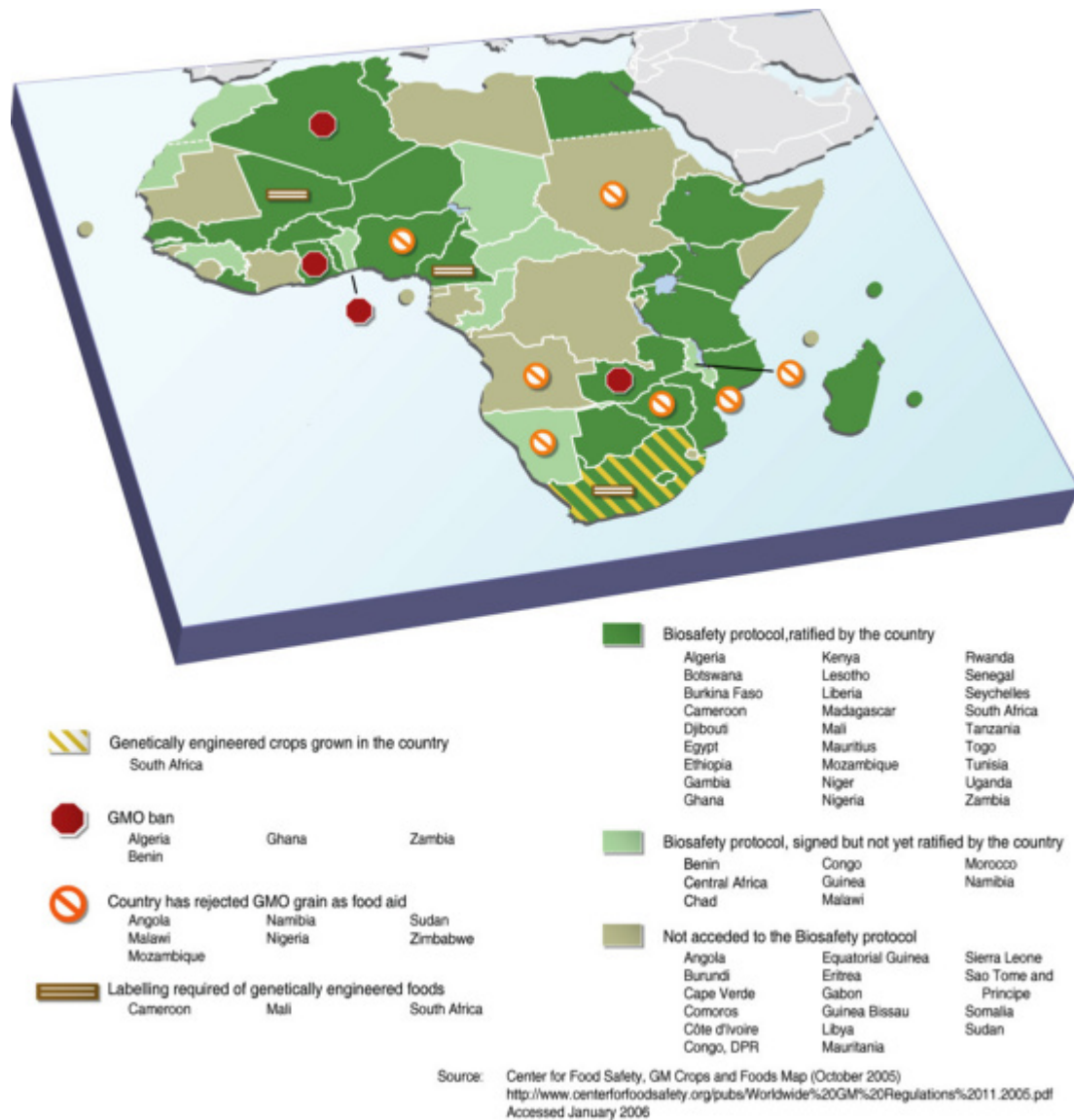
building about their effect on humans.

"Animals don't use computers, apply makeup or use chemical solvents in their homes every day," says Theo Colborn, former

director of the Wildlife and Contaminants Program at the Washington-based World Wildlife Fund. "In the end, female humans may be at even greater risk than female animals."

<http://www.womensenews.org/article.cfm/dyn/aid/2999>

Update: GE map of Africa



Cartographer: Hugo Ahlenius

http://maps.grida.no/go/graphic/africa_policy_on_genetically_modified_organisms_gmo_and_genetically_engineered_ge_foods

Risks: Cloned milk and meat expected to go on sale in months after winning US approval

The sale of milk and meat from cloned animals moved a step closer yesterday after the US Government ruled that the products were safe to eat and could be sold in supermarkets without labelling.

The landmark draft decision, taken by the US Food and Drugs Administration, was condemned by consumer groups and food safety experts, who gave warning of the implications for food consumption throughout the world.

FDA officials said that they saw little problem with the controversial technology, which could result in cloned food being sold in the US within months without any labels identifying its origins. They added that cloned food products, if approved, could also be exported.

Authorities in Britain have yet to address the issue of the sale of food from cloned animals, including those approved by the US — cattle, pigs and goats. However, precedents set by the FDA are often followed by UK and European authorities. The Food Standards Agency said last night that it had not received an applications for the marketing of food products from cloned animals in the United Kingdom.

The move would have to be approved by the European Union before such products could be introduced, even if they were only being imported from the US. The UK's Advisory Committee for Novel Foods would also be consulted.

The FDA, which oversees food safety for the US Government, determined after a five-year review that food from cloned livestock was as safe to eat as food from conventionally bred animals. The decision was all the more controversial because the agency declared that special labels were not needed to alert shoppers to its origin.

Decrying the ruling, consumer groups gave warning that cloned food would enter the food chain untested on humans, and from a field of science in which cloned animals are often born sick or with severe abnormalities. "Consumers are going to be having a product that has potential safety issues and a whole load of ethical issues tied to it, without any labelling," said Joseph Mendelson, legal director of the Washington-based Centre for Food Safety.

Some US consumer groups maintain that surrogate mothers, in which the cloned animals are grown, are treated with high levels of hormones.

They claim that clones are often born with severely compromised immune systems and receive massive doses of antibiotics, opening the way for large quantities of pharmaceuticals to enter the food supply.

The US National Academy of Sciences also warned recently that the commercialisation of cloned livestock for food production could increase the incidence of food-borne illness, such as E-coli infections.

Barbara Mikulski, a Democrat senator from Maryland, wrote in an open letter to the FDA: "Just because a scientist can manufacture food in the laboratory, should Americans be required to eat it?" Experts say it would probably take years for sales of cloned food to begin in earnest, because the technology's high cost makes it prohibitive for most farmers. It costs about \$15,000 (£7,500) to clone one dairy cow. But already several hundred cattle among America's nine million have been cloned.

The FDA pointed out that many consumers confuse cloning with genetic modification. To produce a clone, the nucleus of a donor egg is removed and replaced with the DNA of a cow or other animal. A tiny electric shock

coaxes the egg to grow into a copy of the original animal. Supporters of the technology say that it will be used primarily for breeding good milk and meat producers, and that produce will most likely be drawn from offspring, rather than the cloned animal.

The FDA said yesterday that meat and milk from clones was as safe to consume as products derived from naturally raised animals. Within six to eighteen months, cloned animals were "virtually indistinguishable" from conventionally-bred livestock, it said. "Meat and milk from cattle, swine and goat clones

is as safe to eat as the food we eat every day," said Stephen F. Sundlof, the director of the FDA Centre for Veterinary Medicine.

Final approval for lifting the current ban on cloned food could come early next year. The agency will accept comments from the public for the next three months before announcing a final decision.

The Consumer Federation of America said that it would run a publicity campaign to ask food companies and supermarkets to refuse to sell cloned food. Polls show already that most Americans

do not favour eating such a product, and many food companies are skittish about selling cloned food.

Opponents also maintain that cloning results in high failure rates and distress for the cloned animals. The Centre for Food Safety points to the example of Greg Wiles, whose Maryland farm was the first to have cloned cows. He says he told the FDA that one of his cloned cows was having terrible health problems, but was ignored

<http://www.timesonline.co.uk/article/0,,3-2522437,00.html>

Update

Cloned food: Increased vulnerability-no labelling

"Consumers are going to be having a product that has potential safety issues and has a whole load of ethical issues tied to it, without any labeling," said Joseph Mendelson, legal director of the Center for Food Safety.

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needed to alert shoppers to its origin.

The landmark draft decision, taken by the US Food and Drugs Administration, was condemned by consumer groups and food safety experts, who gave warning of the implications for food consumption throughout the world. *Consumer groups say labels are a must, because surveys have shown people to be uncomfortable with the idea of cloned livestock.* 64 percent said they were uncomfortable in a September poll by the

Pew Initiative on Food and Biotechnology.

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terrible health problems, but was ignored

Carol Tucker Foreman, director of food policy at the Consumer Federation of America, said the FDA is ignoring research that shows cloning results in more deaths and deformed animals than other reproductive technologies. "Meat and milk from cloned animals have no benefit for consumers, and consumers don't want them in their foods," Foreman said. The consumer federation will ask food companies and supermarkets to refuse to sell food from clones, she said.

Source: www.gmwatch.org

News: Industry group gives scientists the go-ahead for genetically engineered peanuts

A leading industry group has given scientists the go-ahead to build genetically engineered peanuts that could be safer, more nutritious and easier to grow than their conventional version.

The work could lead to peanuts that yield more oil for biofuel production, need less rainfall and grow more efficiently, with built-in herbicide and pest resistance – traits that have already been engineered into major crops such as cotton, corn, soybeans and canola.

For consumers, the work could lead to peanuts with enhanced flavor, more vitamins and nutrients, and possibly even nuts that are less likely to trigger allergic reactions, a life-threatening problem for a small percentage of the population and a major food industry concern.

A few researchers have been genetically modifying peanuts for at least a decade, but their discoveries have had little impact because the industry, fearing a

consumer backlash, was reluctant to support the work.

However, with the two leading peanut-producing countries, China and India, working aggressively on transgenic peanuts, the American Peanut Council and its research arm, the Peanut Foundation, this month approved a major policy change. The council represents all segments of the industry – growers, shellers, exporters and manufacturers.

<http://www.signonsandiego.com/news/science/20061226-0111-farmscene-superpeanuts.html>

This fortnightly bulletin is brought out by South Against Genetic Engineering (SAGE), a coalition of civil society activists, farmers, scientists, academicians, and consumer groups of four Southern States of India, viz., Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra. SAGE has been waging a concerted battle against genetic engineering through a series of activities that involve public protests, media actions, seminars, consultations and publication of a series of education materials.