

SAGE

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South Against Genetic Engineering

Consumer group urges USDA not to approve GMO rice

A controversial genetically modified rice strain found in commercial supplies last month should not be approved by the U.S. Agriculture Department, which a consumer group said on Thursday has failed to adequately protect farmers and consumers.

The Center for Food Safety filed a petition with USDA asking it to instead regulate the rice as a "plant pest" under the Plant Protection Act. The center said the rice, known as LLRICE 601, could further contaminate commercial rice, damage trade, create herbicide resistant weeds and increase chemical residue on rice.

"USDA's stamp of approval to genetically engineered rice after it has illegally contaminated the food supply would set a dangerous precedent, rewarding the biotech industry's negligence and thereby making similar contamination episodes more likely in the future," said Miyoko Sakashita, an attorney at Center for Food Safety and lead author of the petition.

The Food and Drug Administration and USDA notified the public on August 18 that testing by Bayer CropScience, a division of Bayer AG, found the genetically modified rice in bins in Arkansas and Missouri.

USDA has said there are no environmental or health concerns with the genetically modified rice and it does not plan to recall or destroy the contaminated commercial product.

In order for a product to be sold commercially, the genetically modified crop must be tested extensively by the manufacturer before the application is reviewed by USDA. The department is collecting public comments on LLRICE 601 until October 10.

"The purpose of this process is to invite public comment and we welcome any science-based information that might be relevant to the final assessment of the product," said Kristin Scuderi, USDA's deputy press secretary. "We will carefully review all comments submitted during this process before making a final determination."

The genetically engineered rice has a protein known as Liberty Link, which allows the crop to withstand applications of an herbicide used to kill weeds. There are two other Bayer CropScience genetically modified rice lines with Liberty Link that have been confirmed safe for use in food and the environment, but they have not been commercialized.

After the discovery in August, Japan banned imports of U.S. long grain rice. The European Union, which confirmed the unauthorized strain earlier this week, requires certification that long grain rice from the United States is free of the unapproved crop.

Source: <http://abcnews.go.com/US/wireStory?id=2435001&page=1>

Define 'Precautionary Principle' To Avoid Clashes Over Biotechnology Under World Trade Rules

Need for common approach to assessing risk of biotech-derived products, authors say

Biotechnology-altered foods are the focus of a World Trade Organization ruling scheduled for release this month, a landmark event expected to have a major impact on trade in agricultural products, one of the largest sectors governed by the WTO.

The final report of the WTO Panel in *European Communities – Measures Affecting the Approval and Marketing of Biotechnology Products* – rules on a dispute founded on differing perceptions about what constitutes legitimate precaution when regulating biotechnology.

Should a country have the unfettered right to refuse trade in such products as genetically-modified grain or hormone-injected beef based on doubts about their safety? Or is such "precautionary" action trumped by World Trade Organization membership obligations?

In other words: when can a nation's interpretation and invocation of "the precautionary principle" be ruled trade protectionism in disguise? And which party should shoulder the burden of scientific proof when the safety of a product is disagreed?

These concerns are prompting a growing number of international trade clashes over the perceived safety of products derived from cutting edge biotechnology and other sciences. Most recently, Japan banned imports of US long-grain rice in August amid reports that traces of a genetically-modified variety had been found in American crops; European Union officials likewise imposed a temporary import ban pending more information. In earlier clashes, Zambia refused a US-AID offer of GM corn over concerns that acceptance would imperil the GM-free status of their exports to the EU. The collapse of the Doha Round means that more of these types of clashes are likely to end up in the WTO.

Averting such conflicts requires a better, common definition and understanding of the "precautionary principle," among other measures, according to the Japan-based Institute for Advanced Studies of the United Nations University. In a report, it calls for international agreement on common approaches to risk assessment and suggests the WTO dispute settlement system is not the "best way in which to resolve disputes in these important areas of policy making."

Prepared by Sabrina Shaw and Risa Schwartz, both professional alumnae of the WTO Secretariat in Geneva, the report warns that disputes over biotechnology products, founded in part on cultural differences, are creating a "trans-Atlantic divide." It highlights similarities and differences between agreements and organizations with respect to precaution – and the consequences of those differences.

According to Gary Sampson, Professor of International Economic Governance at UNU-IAS and author of the recent book, *The WTO and Global Governance: "Precaution – not science – lies at the heart of much of the public concern about the regulation of biotechnology products.* In the absence of scientific justification for trade restrictive measures, the WTO will increasingly find itself

passing judgment on which regulations are 'legitimate' and which are 'unnecessary barriers to trade.' This will put the WTO increasingly between a rock and a hard place to say the least.

"The relative weight assigned to science and societal choice in the determination of standards – or how "precautionary" regulations should be – underpins much of the possible future disagreement over the legitimacy of standards relating to genetically modified products within the context of dispute settlement in the WTO," he adds.

"The seriousness of these disputes and the importance of the technology threaten great damage to international cooperation and law," says UNU-IAS Director A.H. Zakri. "More and more commentators are beginning to openly wonder whether the World Trade Organization will be able to survive the full effects of the European Commission -Biotechnology panel, for example."

"How a society chooses to manage the risks of biotechnology will be affected by such factors as confidence in the regulators, acceptance of new technologies, the need for the new benefits and general levels of awareness," says Dr. Zakri.

He notes that several international organizations, often pursuing different objectives, are rushing to regulate biotech, creating "a complex policy and regulatory environment."

The precautionary principle is a central element of several multilateral environmental agreements, a reflection of past instances of underestimated and unanticipated impacts of new technologies – perhaps most famously the industrial release of POPs, a family of organic pollutants subsequently shown to persist stubbornly in the environment – and the use for refrigeration of chemicals later found to destroy atmospheric ozone.

So far, however, the precautionary principle has not been adopted authoritatively beyond international environmental law.

The UNU-IAS report notes differences between Europe and North America are highly pronounced with respect to genetically modified organisms and labeling of GM products, with European concerns about the risks manifested in trade restrictions on biotech goods deemed "acceptable or even desirable in the United States."

Differing perceptions about appropriate levels of precaution for biotechnology was the underlying cause of the WTO dispute where the US and EU disagreed about the safety of beef produced from cattle injected with hormones to bolster their growth. This fundamental difference will drive the US and the EU to the WTO Dispute Settlement mechanism again. US industry has already started lobbying the US Government for a WTO challenge to the EU GM labeling and traceability requirements.

Other earlier disagreements have prevented foods such as unpasteurized European cheeses from entering US markets and past WTO decisions have established that the lack of "absolute certainty" with respect to science cannot be used to justify trade restrictions.

The UNU-IAS report says nations need to determine a common threshold of risk "or, at a minimum, a common practice of risk assessment".

"What is lacking is a uniform description of the precautionary principle in these agreements, leading some critics to argue that the principle is overused without a clear understanding of its meaning and consideration of its implementation," the paper says.

"The flexible definition of the precautionary principle may be its strength, but also one of its greatest weaknesses. Several WTO Members have noted in the Committee on Trade and Environment (CTE) that the difficulty of further integrating precaution in the WTO lies in the lack of an internationally-agreed definition of the precautionary principle."

Says Dr. Zakri: "A clearer understanding of the various uses of the precautionary principle or approach will contribute to a more cohesive and harmonious approach to the regulation of biotechnology at the international level and mitigate some of the damage that is threatened by the current state of affairs."

Says UN Under Secretary-General Hans van Ginkel, Rector of UNU: "There is an important need now to take stock, reassess basic positions, principles and areas of agreement about the precautionary approach before countries initiate a new wave of disputes about biotechnology and the precautionary approach.

"Such a discussion could not be more timely given the recent controversy about genetically-modified contamination of US rice exports, the suspension of the Doha round and the prospect of countries re-examining disputes and grievances in the wake of the upcoming WTO ruling."

SOURCE: United Nations University

<http://www.bioresearchonline.com/content/news/article.asp?docid={95F0A8AC-1BCF-4906-915C-E21631BAB3CD}&VNETCOOKIE=NO>

Gates, Rockefeller charities to aid African farmers

The Bill & Melinda Gates Foundation and the Rockefeller Foundation unveiled on Tuesday a joint \$150 million pledge to fight hunger and poverty in Africa by helping small farmers become more productive.

The two charities linked up to form the Alliance for a Green Revolution with the goal of improving agricultural development in Africa by increasing the productivity and profitability of small scale farms.

The venture said it seeks to replicate the success of the "Green Revolution," an effort by the Rockefeller Foundation that increased food production and reduced famine in Latin America and Asia during the 1940s and 1960s.

"No major region around the world has been able to make sustained economic gains without first making significant improvements in agricultural productivity," Bill Gates, co-chair of the Gates Foundation, said in a statement.

The initial \$150 million pledge -- \$100 million from the Gates Foundation and \$50 million from the Rockefeller Foundation -- will go toward a five-year program that tackles the issue through science, education, financing and policy.

The program seeks to educate and train African crop scientists, improve crop varieties, increase the supply of seeds with new companies and provide financing to boost the number of village retailers who sell seeds, fertilizer and farm tools.

The Bill and Melinda Gates support to African farmers is an effort to promote genetic engineering in the name of charity. That charities are used as a mask to promote biotech interests. Probably Microsoft is teamed up with Monsanto

http://today.reuters.com/news/articlenews.aspx?type=domesticNews&storyID=2006-09-13T015246Z_01_N12366564_RTRUKOC_0_US-LIFE-GATES-AFRICA.xml&archived=False

Illegal GM rice found in UK

Food products illegally contaminated with genetically modified (GM) rice from China have been discovered in the UK, France and Germany, Friends of the Earth and Greenpeace revealed today.

Greenpeace and Friends of the Earth have notified authorities of their discovery and are calling on European governments to take urgent action to protect consumers from any health risks posed by the experimental GM rice, which has not been cleared for human consumption and may cause allergic reactions.

This is the second illegal GM contamination incident involving rice to hit Europe over the past few weeks. Last month the European Commission was forced to introduce emergency measures to prevent US rice, contaminated with a different experimental GM strain, from entering the food chain.

The environmental campaign groups bought samples of rice products such as noodles and rice sticks from Asian specialty stores in London. The foods were tested by an independent laboratory. Three rice noodle samples imported from China tested positive for GM rice. Further contaminated products were found in France and Germany. But, this could be the tip of the iceberg with rice products included in everything from baby food to cosmetics.

The illegal GM rice is an experimental variety genetically engineered to produce an insecticide. It is not approved for human consumption or commercial cultivation anywhere in the world. Scientific

studies raise concerns about the risk to human health of eating the rice, particularly the potential to cause food allergies [3]. No GM rice is approved in Europe, although Bayer has applied to import GM herbicide resistant rice into the EU.

For full report visit:

http://www.foe.co.uk/resource/press_releases/illegal_gm_rice_found_in_u_05092006.html

Consumers warned after green groups 'discover' GM rice in noodles

CONSUMERS were last night warned that traces of genetically modified rice grown in China have been found in products on sale in the UK.

The experimental variety of the rice, modified to resist certain insects, contains a protein that might cause allergic reactions. The rice was only intended to be used in field trials and was not approved for commercial growing.

Three packets of noodles bought from two stores in London's Chinatown tested positive for genetically modified content, Friends of the Earth and Greenpeace said. The groups want the EU to bring in urgent measures to prevent GM products going on sale.

Clare Oxborrow, a Friends of the Earth campaigner, said: "This latest illegal GM contamination scandal shows that the biotech industry cannot be trusted. How many more foods around the world have been contaminated by unlicensed GM crops?"

A spokesman for the European Commission in London said he was aware of the green groups' reports.

"What we are saying to Greenpeace and Friends of the Earth is to send the samples to the relevant authorities for verification," he said.

"We are going to write to the Chinese authorities asking for further information about these reported cases."

<http://news.scotsman.com/uk.cfm?id=1315532006>

Genetically modified rice hits Switzerland

The country's largest retailer Migros has confirmed finding traces of genetically modified rice, supplied from the United States that is banned in Switzerland. Migros says the storage silos containing the LL 601 rice have now been sealed but it is unclear whether any of the rice actually went on sale. Both Migros and rival Coop have suspended sales of long-grain rice from the US.

Migros spokesman Monica Glisenti said that traces of the unapproved rice were found after laboratory tests, adding that the concentration level was 0.01 per cent.

No genetically modified rice is permitted in Switzerland.

For full report visit: [www. Swissinfo.org](http://www.Swissinfo.org)

GE rice found in major German supermarket

The scandal around illegal genetically engineered (GE) rice entering European food outlets has grown today as Greenpeace tests reveal illegal rice from the US has contaminated rice on supermarket shelves in Germany. Last week Greenpeace revealed illegal GE rice from China, which poses a potential health risk, had ended up in rice products on European shelves. (1) The European Food Safety Committee meets today to determine the EU response to the potentially widespread contamination of rice and rice products and Greenpeace is calling on the EU to implement strong measures to stop further contamination.

Tests conducted by an independent laboratory have confirmed the presence of Bayer's Liberty Link rice in US parboiled long grain rice sold in Aldi Nord a major German supermarket chain which also has 700 outlets throughout France. Bayer's LL GE rice is not approved for food or cultivation anywhere in the world except for the United States and Canada. . "The first question we are asking to both US and European authorities is how widespread is this contamination in products already on grocery store shelves?" said Doreen Stabinsky, Greenpeace GE campaigner. "The second question is what are they doing to protect consumers?" Greenpeace is demanding global testing of consumer products by the rice products industry and a European recall of contaminated US rice products.

<http://www.scoop.co.nz/stories/PO0609/S00122.htm>

What will second generation Bt cotton contribute?

Cotton producers who plant second generation Bt cottons like Bollgard II, WideStrike and VipCot may not spray less or yield more cotton in the short term. But they should see improved control of worm pests and will have set the bar for resistance management at a very high level.

Two new, two-gene products — Bollgard II, which has been in cotton fields since 2003, and Wide Strike, which has been commercially available since 2005 — have the gene that expresses the Cry1Ac protein. Bollgard II's second protein is Cry2Ab; WideStrike has Cry1f.

A third product, VipCot, the result of a cooperative effort between Syngenta and Delta Pine Land Co., is not yet commercially available.

The new technologies have improved the spectrum of worm control, according to Stewart. "There are also some subtle differences in these technologies. It's not going to show up in most environments, most years. But when you have a big bollworm year or a big fall armyworm year you might be able to tease apart the technology."

As with Bollgard, WideStrike and Bollgard II will provide great control of tobacco budworm, according to Stewart.

“Original Bollgard was fair on bollworm and less than that on some other pests, like fall armyworm. Bollgard II is excellent on bollworm. We think WideStrike is somewhere between the two based on all the data we’ve collected.

“But the big thing that the additional gene will bring, hopefully, is to prevent resistance from developing to these technologies as quickly. The idea is that if you have one gene, that’s good, but resistance can develop. If you have two genes and the mode of action is different enough, it’s unlikely that any one insect will be resistant to both at the same time.

“The newer technologies also have a large advantage over original Bollgard for fall armyworm and loopers. That’s where you’re going to really see improvement. With fall armyworm, we think WideStrike might be a bit better than Bollgard II.

“If I were to choose a Bt technology based on the pure efficacy of that product for west Tennessee, I would probably pick Bollgard II because we think it’s a little better on bollworms than the WideStrike technology and that is the primary pest in this environment.

“If I were in another environment where I had a lot of fall armyworms or a mixture of fall armyworms and bollworms, it may be a tougher decision.

“The reality of the situation is that even original Bollgard is pretty good most of the time. And growers are probably going to choose technology by what variety they want to grow.”

Stewart noted that there is still a refuge requirement for the second generation of Bt cotton — planting some amount of Bt cotton and managing it according to specific guidelines. But there is a proposal to go to a so-called natural refuge for Bollgard II.

“Essentially Monsanto is trying to convince EPA that the technology is good enough and there are enough other sources of tobacco budworm and bollworm in the environment that we don’t need the structured, non-Bt cotton refuge in Bollgard II. They’ve made a good case, so we’ll see what the EPA decides.”

Walt Mullins, Monsanto’s technical manager for Bollgard and Bollgard II, hopes a decision will come from EPA in late September, “but certainly enough in time for growers to know something before the 2007 season.”

Mullins said that two-gene products like Bollgard II have significantly improved inherent resistance management potential in Bt cotton, one reason why original Bollgard technology, which contains a single gene, will be available only through the 2009 season.

“In Australia, they have already outlawed the use of a single gene product because of their concern for resistance management.

"We know that it will take a while to get the Bollgard II varieties up to the performance level we need. We've made great strides and by 2009, we should be there."

<http://deltafarmpress.com/news/060901-bt-cotton/index.html>

A glimpse at Monsanto's future crops technology

"What the heck do they have in there?" I asked myself as I eyed a walled enclosure laced with three strands of barbed wire to the west of the Monsanto tent at the Farm Progress Show.

Fortunately, it was worth the stop I made when Robb Fraley, chief technology officer for Monsanto, showed what was behind those walls. He hosted a walking tour that featured 25 plots highlighting the technology Monsanto will offer to farmers in the next few years.

"This is just the beginning of what will be a remarkable time for agriculture," says Fraley.

Highlights of the tour included:

- **Mavera high-value corn with lysine.** This product combines a triple stack of resistance to corn rootworm, European corn borer, and Roundup with a high lysine trait.

Benefits include reduced feed costs and total energy in animal feed and a built-in lysine supplement. Renessen, a joint venture between Cargill and Monsanto, developed it.

A limited launch without the lysine trait will be on 30,000 acres in Iowa and Illinois in 2007. In 2008, the triple stack with the lysine trait will be launched in Illinois and Iowa.

- **YieldGard VT.** This is an update of Monsanto's YieldGard technology that controls European corn borer and corn rootworm through resistant corn hybrids.

The VT component stands for VecTran technology, which combines multiple genes in a single gene insertion site. This results in a cleaner and more natural transformation process, says John Goette, a Monsanto corn technology team member. The VecTran technology also improves the system's promoter, which is the genetic switch that keys the gene insertion, says Goette.

"It also increases insect control and gives higher yield potential," adds Goette. He adds it will enable products to be brought to market sooner. One version of this product is YieldGard VT Rootworm/RR2. This version uses VecTran technology in a double stack of second generation YieldGard Rootworm with Roundup Ready technology. YieldGard VT Triple Pro builds upon the second-generation YieldGard VT Rootworm/RR2 stack with a YieldGard Corn Borer. It also offers a dual mode of action that will enhance durability and insect resistance management, say Monsanto officials.

Both products are targeted for a limited introduction in 2007.

Drought tolerant corn. Drought-tolerant corn doesn't mean Death Valley will become the new Corn Belt. However, yields will be significantly higher under drought than those of today's hybrids. Monsanto scientists say increased yields of 9% to 14% with the company's best-performing event compared to conventional ones under drought stress have occurred across three seasons

- **Vistive low-linolenic soybeans.** These soybeans tap a market for healthier foods. Low-linolenic soybeans can reduce or eliminate transfatty acids in foods by replacing hydrogenated oils. Transfatty acids have been linked to obesity and heart disease.

Monsanto is increasing Vistive soybean production with growers as demand grows. "There were 100,000 acres planted in 2005, 500,000 in 2006, and there will be between 1 to 2 million acres planted in 2007," says Fraley.

- **Omega-3 soybeans.** Monsanto is incorporating omega-3 fatty acids into soybeans. The darling of dieticians, omega-3 fatty acids are a heart-healthy food component typically associated with fish oil. Fraley says 25-30% of the oil contained in Monsanto's omega-3 soybeans are functioning omega-3 fatty acids.

"The food industry is excited," Fraley says. "It hasn't had a chance to incorporate omega-3 in food like this before." He adds the oil extracted from the omega-3 soybeans doesn't have a fishy taste and works well in salad dressings.

"The reason food producers like it is because it's stable," he says. "Because it's a vegetable oil, it doesn't break down. And they yield 60 to 70 bushels an acre under low conditions." Monsanto officials say omega-3 soybeans are four to six years away from a full commercial launch.

- **Mavera high value soybeans.** These protein-packed varieties aim at yielding 5% more protein compared to conventional varieties when processed into soybean meal. This is another product developed by Monsanto's Renessen joint venture with Cargill. These soybeans also have an oil content and grain yield equivalent to comparable commodity soybeans.

Monsanto officials say these soybeans provide a new market opportunity for U.S. farmers to supply Chinese poultry and swine markets. These soybeans are four to six years away from a full commercial launch.

- **Dicamba tolerant soybeans.** The tour had a graphic comparison of the end result of dicamba tolerant soybeans. Soybeans with no dicamba tolerance were shredded by a dicamba application. Meanwhile, dicamba-tolerant soybeans were vibrant and healthy. Dicamba, a common component of weed control in corn, will also be able to be used in soybeans when these soybeans are marketed to farmers sometime after the turn of the next decade.

- **Roundup RReady2Yield soybeans.** Slated for a commercial launch in 2009, these soybeans have up to a 5-bushel per acre yield advantage compared to first-generation Roundup Ready soybeans in similar elite germplasm.

Source:<http://www.agriculture.com/ag/story.jhtml?storyid=/templatedata/ag/story/data/1157465498761.xml>

'Green' consumers push for organic cocoa

The burgeoning organic chocolate market is taking off thanks to an increase in ethical consumerism and the willingness of confectionery makers worldwide to exploit the trend.

According to the Pesticide Action Network, cocoa is second only to cotton in its high use of pesticides. However organic production of the beans entails natural methods of pest control and has been praised for its contribution to sustainable farming.

A general drive towards conscience-led eating has resulted in the confectionery market scrambling to keep up with ethical consumers, particularly in the chocolate sector where customers are becoming increasingly aware of the economic and environmental concerns surrounding cocoa production.

For full report visit: <http://www.foodnavigator.com/news/printNewsBis.asp?id=70560>

Decline in Winter Arctic Ice Linked to Greenhouse Gases

The amount of ice being formed in the Arctic winter has declined sharply in the past two years, a finding that NASA climate researchers say significantly increases their confidence that greenhouse gases created by autos and industry are warming the Arctic and the globe.

For years, scientists have reported a steady decrease in summertime Arctic ice, but they had never before found a similar reduction in the amount of ice being created during the frigid and dark Arctic winter. This lack of effect on the Arctic winter was one flaw in the scientific models of global warming, which predicted a steady decrease in ice formation

But a new paper by Josefino Comiso, a senior research scientist at NASA's Goddard Space Flight Center in Greenbelt, found precisely the reduction in wintertime ice over the past two years that the model had predicted. The past two winters each produced 6 percent less ice than the average amount measured for almost three decades.

"This amount of Arctic sea ice reduction the past two consecutive winters has not taken place before during the 27 years satellite data has been available," Comiso said. "In the past, sea ice reduction in winter was significantly lower per decade compared to summer sea ice retreat. What's remarkable is that we've witnessed sea ice reduction at 6 percent per year over just the last two winters, most likely a result of warming due to greenhouse gases."

For full report visit: <http://www.washingtonpost.com/wp-dyn/content/article/2006/09/13/AR2006091301817.html>