WHAT'S NEWS IN

Organic

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INFORMATION FLIER – A PUBLICATION OF THE ORGANIC TRADE ASSOCIATION

Focus: GMOs cause organic industry concern

The pervasiveness of genetically modified organisms (GMOs) in U.S. agriculture is of growing concern to the organic industry. Because of the impact of GMOs on organic production, the Organic Trade Association supports a moratorium on the use of GMOs in all agricultural production.

OTA notes that because genetic engineering works by moving DNA between species in ways that are not possible in nature, this technology has the potential to cause unintended effects on the environment and on human health.

Organic certification organizations already prohibit the use of GMO seeds or other products of GMOs in organic production. The American Organic Standards, adopted by the Organic Trade Association Oct. 20, 1999, state: "Genetically engineered/

modified organisms or products produced by or though the use of such organisms are not compatible with the principles of organic production (either the growing, manufacturing, or processing) and are not permitted under these standards."

Despite organic industry prohibition on the use of GMOs, genetic engineering in agriculture still poses a direct threat to the organic industry. For example, there is evidence pollen from genetically engineered plants can contaminate

nearby organic fields. In one instance, tortilla chips produced organically were rejected for import into Europe because they were found to contain genetically altered ingredients. The source of the gene material was a neighboring field of genetically modified corn.

The widespread use of plants engineered to contain the soil bacteria *Bacillus thuringiensis* (Bt) is of particular concern to organic producers. Looking at Bt as an example can clarify the risks of using GMOs in agriculture.

BT: A case in point

Historically, both conventional and organic farming operations used naturally occurring bacteria Bt as a crop application against insect pests; this use was limited only to a particular time in the growing cycle. By inserting the Bt bacteria into the DNA of certain crops, however, scientists have created synthetic pest-protected plants in which the Bt pesticide can be found in the stalk, leaves and pollen, and which can generate the toxic effects of Bt for their entire life, including during decomposition.

Under normal applications, Bt's crystal protoxin — a precursor to the toxin — simply degrades within one to two days when exposed to sunlight without forming the toxin, according to Sally V. Fox of Vreseis Ltd., a scientist and organic farmer. However, Bt-engineered corn contains the active toxin.

"We have no idea what the long-term activity of this active toxin will be in our soils, to non-targeted animals, within the plants themselves, or in the mammalian gut when the products of these plants are consumed," Fox said.

In fact, researchers at New York University and the Venezuelan Institute of Scientific Investigations have shown that Bt toxin is exuded into the soil by the roots of Bt corn. Their results, published in the Dec. 2, 1999, issue of *Nature*, found the toxin persisted in various soils for at least 234 days.

The organic industry is concerned that genetically altered plants may endanger species and potentially reduce biological diversity. For instance, it is known that Bt is not specific to plant pests but can also

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This newsletter is published by the Organic Trade Association, the North American trade association committed to the promotion of organic products in the marketplace, and the protection of the integrity of organic standards. Its membership includes more than 1,000 producers, processors, distributors and retailers of organic foods, fibers, farm and garden supplies, and health and beauty products. The OTA is your leading resource for information about this industry.

PHONE:
(413) 774-7511

FAX:
(413) 774-6432

E-MAIL:
info@ota.com

WEB SITE:
www.ota.com

OR WRITE:
P.O. Box 547
Greenfield, MA
01302

Organic Trade Association

WHAT'S NEWS IN Organic

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Ask Us About Organic!

By Katherine DiMatteo, Executive Director, Organic Trade Association (OTA)

Q: *Why did the industry create the American Organic Standards (AOS) when federal regulations for organic standards are just around the corner?*

A: OTA has had industry guidelines since 1988. Needing to update them during 1999, OTA saw this as an opportunity to build industry consensus in preparation for USDA's long-awaited release of a proposed rule implementing national organic standards.

The resulting AOS is a detailed document codifying industry practices as they are currently understood and applied.

It is still unclear how long it will take before there is a federal rule in place to implement national organic standards. AOS, however, already has been adopted by OTA and is in the process of being implemented.

As a result, consumers can buy certified organic products with the confidence that they are produced using strict industry practices. ✣

If you have a question about any aspect of the organic industry, please call the Organic Trade Associations headquarters, (413) 774-7511.

The Organic Trade Association adopted the American Organic Standards (AOS) on Oct. 20, 1999. To read AOS, visit the OTA web site at www.ota.com.

GMOs cause concern

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kill beneficial insects, including monarch butterflies. A Cornell University study showed that pollen from Bt-engineered corn killed monarch larvae in lab experiments. Subsequently, entomologists John Obrycki and Laura Hansen at Iowa State University have reported similar effects with genetically engineered corn in the field. Although a one-time, high-level dose of Bt may kill a few non-target insects, a Bt-engineered plant containing the toxin in all of its parts and exuding it into the soil can poison non-target insects over an entire growing season. It is this new pattern of use which makes genetically engineered Bt plants environmentally dangerous.

The environmental impact may include loss of diversity, poisoning of the soil, risk of resistance to Bt, and pervasive uncontrolled spread of GMOs. These effects, in turn, threaten the livelihood of organic farmers.

The organic industry has warned that if insects become resistant to Bt, organic growers will lose natural Bt as a pest control. Without Bt, organic farmers will be left with far fewer effective strategies, while conventional farmers, who also have relied on Bt sprays, will have to turn to pesticides that are more toxic.

Labeling issue

Organic industry representatives are among those seeking mandatory labeling for GMO products. At recent public hearings held by the U.S. Food and Drug Administration (FDA) on genetically engineered foods, numerous organic industry spokespersons asked FDA to change its current policy.

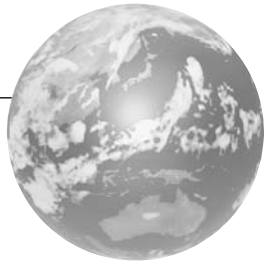
OTA pointed out that organic producers take great care to offer customers a quality product with only the limited use of synthetic processing materials or ingredients."Now, producers are faced with not only the problem of contamination in the field but, more fundamentally, even the inability to be sure they are choosing non-genetically engineered minor ingredients — because they are not labeled."

OTA added: "Until a full, independent testing program is completed, the public interest is not served by denying the public the choice of eating non-genetically engineered food."

OTA also rebutted the argument that products not made with GMOS can be voluntarily labeled." The burden of labeling should not be on the producers of conventional or organic food — they are not the ones introducing this new technology. The burden should be on the companies seeking to market the new products," OTA said.✣

For access to OTA's "GMO Fact Sheet" or January 14 news release detailing OTA's position on GMO's, visit: www.ota.com/news.htm, or call Communications Director Holly Givens at (413) 774-7511 ext. 18.

A World of News



Fiber Briefs

➢ Four of California's largest zoos now carry organic cotton clothing in their gift stores. The clothes, carried by the San Francisco, San Diego, Santa Barbara and Los Angeles zoos, are made by OTA Fiber Council member company Wildlife Works, which uses the proceeds to fund its wildlife conservation in Kenya.

➢ Twenty environmental, health and farm organizations have pledged to purchase 100 percent organic cotton for promotional T-shirts, tote bags and hats. Collectively, these groups have committed to purchase 19,000 pounds of organic cotton products. The Pesticide Action Network estimates this will reduce the amount of synthetic pesticides and fertilizers released into the environment by at least 5,300 pounds.

International Briefs

➢ Reuters in November 1999 cited data from market analysts Mintel showing U.K. sales of organic food had risen 40 percent in the past year, driven by consumer concerns about genetically modified produce and the effects of Bovine Spongiform Encephalopathy.

➢ The European Union has given preliminary approval to labeling standards for genetically engineered foods requiring all products with at least one ingredient containing 1 percent or more of genetically engineered (GE) material to be labeled as containing GE food.

Standards Update

➢ To assist the organic industry in creating standards and in establishing investigation and prohibition levels, the Organic Materials Review Institute, Eugene, Oregon, is compiling data on detecting genetically modified organisms in organic production and processing.

Regulatory Briefs

➢ USDA on Nov. 9, 1999, sent its latest version of a proposed rule to implement national organic standards to the U.S. Office of Management and Budget (OMB). Once all administrative hurdles are cleared, USDA will publish the proposed rule in the *Federal Register* for public comment.

➢ USDA reached an agreement with the National Academy of Sciences to undertake an independent, ongoing scientific review of USDA's regulatory process for biotechnology-derived products. Secretary Dan Glickman subsequently announced grants totaling $1.3 million for research on the environmental effects and risks associated with agricultural biotechnology.

Agronomic Briefs

➢ More than 100,000 acres were farmed organically in Iowa in 1998 when the Leopold Center for Sustainable Agriculture at Iowa State University began funding the Long-Term Agroecological Initiative. Results from the first test plot showed: weed and insect populations were similar in organic and conventional systems, despite two herbicide applications and one insect application on the conventional plots; comparable yields; and greater aggregate stability and soil fertility on land previously planted to alfalfa when compared with ground that had been used for soybeans. Web site: www.leopold.iastate.edu.

➢ Despite a severe drought this past summer along the Eastern Seaboard, the Rodale Institute's Farming Systems Trial™ in Kutztown reported outstanding yields from its organic soybean crop. Using replicated plots, the trial compares highly productive, intensive soybean systems under both organic and conventional management. Results showed yields of 30 bushels per acre from legume-based organic soybeans compared to only 16 bushels per acre from conventionally grown soybeans. Researchers credited improved soil quality under organic management for the high performance of Rodale's organic crops during the drought. The trial's manure-based organic soybean plots, which achieved 24 bushels per acre, also out-performed the conventional plots.

➢ West Virginia University has announced that its 36-acre horticulture farm will become a completely organic operation. Research will compare various organic methods, rather than compare organic with conventional methods.

What is a genetically engineered organism?

"An organism which has been modified by the insertion of DNA by human intention. It is usually DNA, which has been modified or "engineered" to suit a particular purpose (recombinant DNA is the same thing). The DNA can be from a foreign organism, from the same organism or it may be a sequence synthesized in a laboratory."

Source: Dr. Lynn M. Hartweek, Agronomy Department, Madison, WI, May, 1997

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Organic TRADE ASSOCIATION
P.O. Box 547, Greenfield, MA 01302
74 Fairview St., Greenfield, MA 01301

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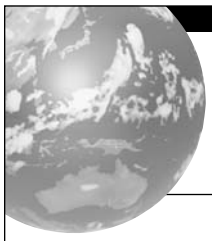

A World of News

Environmental Briefs

➢ An Environmental Working Group Report ("Into the Mouths of Babes: Bottle-fed Infants at Risk from Atrazine in Tap Water") analyzing tap water test results for 1993-1998 from seven Midwestern states showed atrazine residues in tap water delivered to 10.4 million people in 796 towns. In some communities, the lifetime cancer risk from average atrazine concentrations was more than 20 times higher than EPA safety standards.

➢ California EPA's Department of Pesticide Regulation reported pesticide use went up five percent in 1998, to 215 million pounds, compared with 204.8 million pounds in 1997. However, all of the increased use was attributed to sulfur, a natural fungicide favored by organic and conventional growers alike. Use of reduced-risk chemicals increased by more than 350 percent, while use of more toxic pesticides dropped. (www.edpr.ca.gov/docs/pur/purmain.htm.).

➢ OTA is supporting a Sierra Sea Club project to organize organic tasting parties aimed at winning further consumer support of organic agriculture. Sierra Sea Club at Texas A&M University at Galveston will hold the tastings to rally citizens to combat the Gulf of Mexico dead zone which forms when agro-chemical wastes flow down the Mississippi.

Questions about organic? Visit the OTA at www.ota.com.