CROP BIOTECH UPDATE

A weekly summary of world developments in agri-biotech for developing countries, produced by the Global Knowledge Center on Crop Biotechnology, International Service for the Acquisition of Agri-biotech Applications SEAsiaCenter (ISAAA), and AgBiotechNet

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APPROACHES TO ASSESSING GE FOODS

Unintended compositional changes resulting from alteration, particularly genetic engineering (GE), should be assessed on a case-to-case basis. Modified foods should be assessed only when warranted, based on the presence of novel compounds or altered levels of naturally occurring compounds above those found in the unmodified counterpart. This is a major recommendation of a report prepared by the US-based National Research Council's Board on Agriculture and Natural Resources and Board on Life Studies on the Division of Earth and Life Studies and the Institute of Medicine's Food and Nutrition Board. The report was based on recommendations of the Committee on Identifying and Assessing Unintended Effects of Genetically Engineered Foods on Human Health.

Other recommendations include:

* Appropriate federal agencies determine whether evaluation for potential health effects of genetically altered foods, including those that are GE is warranted.

* Standardized sampling methodologies, validation procedures and performance-based techniques for targeted analyses and profiling of all altered food, including genetically engineered should be developed and used.

* For those foods warranting further evaluation, a safety assessment should be conducted prior to commercialization.

* Post-commercialization validation of pre-market testing should occur where safety concerns are present.

* Improved tracing and tracking methods should be implemented for GE foods, when warranted by changes such as significant compositional difference with non-GE counterparts.

The report in brief is available online at
http://www.nap.edu/html/ge_foods/ge-foods-reportbrief.pdf

IFST SUPPORTS RESPONSIBLE USE OF GM

Genetic modification (GM) has the potential to offer very significant improvements in the quantity, quality and acceptability of the world's food supply. Food scientists and technologists can support the responsible introduction of GM techniques provided that issues of product safety, environmental concerns, information and ethics are satisfactorily addressed. This was the official statement of the United Kingdom's Institute of Food Science and Technology, through its Public Affairs and Technical and Legislative Committees.

IFST, an independent professional qualifying body for food scientists and technologists, said that different sectors from scientists to consumer organizations need to play an active role in communicating both the benefits and concerns about GM foods to the public.

See the full article at http://www.ifst.org/hottop10.htm

FDA APPROVES GM WHEAT

The U.S. Food and Drug Administration (FDA) said that genetically modified (GM) wheat made by Monsanto Co. was safe for human and livestock consumption. Reuters reported FDA spokesman Mike Herndon as saying that the agency had completed its food safety assessment and that all safety and regulatory issues had been adequately addressed.

Monsanto had earlier announced that it would shelve plans to introduce the world's first GM wheat. It withdrew submissions for its biotech wheat from all regulatory agencies except the FDA.

The full story is available online at
http://www.reuters.com/newsArticle.jhtml?type=scienceNews&storyID=5760900

BIOTECH TRAINING FOR HI SCHOOL TEACHERS IN KENYA

Tuskegee University, USA and African Biotechnology Stakeholders Forum held a pioneering training workshop for 30 high school science teachers in Kenya on biotechnology. The practical workshops, held at Lukenya Academy on the outskirts

of Nairobi, introduced the teachers to simple experiments using locally available materials and equipment to introduce traditional and modern biotechnology.

The teachers who came from 16 schools from Nairobi and Eastern provinces of Kenya also visited various biotechnology facilities in Nairobi, including the newly built biosafety greenhouse at the Kenya Agricultural Research Institute and Genetic Technologies Limited, a local private laboratory.

The workshops got the support of the country's Ministry of Education, Science and Technology, through the permanent secretary, Prof Karega Mutahi. Another round of workshops for tutors of teachers as a means of making the project sustainable is being planned./ Kenya Biotechnology Center

For more updates, visit Kenya Biotechnology Center at http://www.isaaa-africenter.org.

ISNAR HEAD SUPPORTS BIOTECH

Wilberforce Kisamba Mugerwa, Uganda's outgoing Minister for Agriculture, Animal Industry and Fisheries, and recently appointed to head the International Service for National Agricultural Research, a division of the International Food Policy Research Institute, said that Africa needs to adopt new agricultural technologies to produce more food.

In an interview with the Kenya Biotechnology Information Center (KBIC), Mugerwa said that Africa is lagging behind in adopting biotechnology yet there is evidence that it has helped many countries to improve their food security situation. He noted that regulatory frameworks have to be in place so that poor countries can benefit from the technology. "African countries should move fast to embrace aspects of biotechnology to benefit their people", he stressed./ Kenya Biotechnology Center

In related developments, Kikonyogo Ngatya Kivumbi, science and agriculture writer of The New Vision, reported that Minister Kisamba Mugerwa, in a high policy makers' symposium, said that Uganda farmers will have to wait a little bit longer before new farming technologies are introduced. Mugerwa noted that policy developers were too slow to develop legal frameworks for governing biotechnology importation and applications in Uganda. While the country is signatory to various international treaties on biosafety, laws do not exist to allow research on genetically modified crops.

Dr Charles Mugoya, the Assistant Executive Secretary of the Uganda National Council of Science and Technology, clarified that a road map had been developed for the formulation of the necessary biosafety framework, but it was moving very slowly.

For more details, email Kikonyogo Kivumbi at kikonyogon@hotmail.com.

PLANT TRANSPORT GENES DISCOVERED

Scientists at the Boyce Thompson Institute for Plant Research at Cornell University, USA discovered phosphate-transport genes that enable plants to interact with beneficial soil dwelling fungi and to access phosphate delivered to the roots by these fungi. Maria Harrison, senior scientist, announced this development during the American Society of Plant Biologists' annual meeting in Lake Buena Vista, Florida.

Scientists say this is a first step in enhancing beneficial relationship for crop plants while reducing fertilizer use and phosphate pollution in the environment. The identification of the phosphorus uptake protein in the plasma membrane of the plant has significant implications to understanding how symbiotic fungi work with plants to assist the uptake of phosphorus and other nutrients from the soil.

Harrison's team will continue their research on discovering which genes in the plant play a role in establishing the symbiotic relationship and of those that regulate the transfer of phosphorus into the plant.

For more information, email Brian Hyps of the American Society of Plant Biologists at bhyps@aspb.org.

ANNOUNCEMENTS

ISAAA DEVELOPS VIDEOS ON BT CORN EXPERIENCE

The International Service for the Acquisition of Agri-biotech Applications has just released two videos in one DVD format on the Bt corn story in the Philippines. The country is the first Asian country to approve the commercial planting of a genetically modified feed/food crop. The first 18- minute video traces the seven year process that brought to fruition Bt corn in farmers' fields. The second 5.40- minute video features testimonies of farmers from a small village in Mindanao who planted Bt corn for the first time. Orders can be made by emailing m.navarro@isaaa.org.

CONFERENCE ON GM CROPS AND FOODS

The International Fresenius Conference on "GM Crops and Foods" will be held in Cologne, Germany on October 28-29, 2004. Among the topics will be on the global status of genetically modified crops and economic impacts, European Community policy on GM food and feed, implementation of GM legislation on labeling and traceability in Europe, and farm level impact of Bt corn.

The detailed conference brochure is available on the Akademie Fresenius website at http://www.akademie-fresenius.de/uploads/EM_GMCrops.pdf.

MANAGING BIOTECH ENTERPRISES

The Tennessee Biotechnology Association, the Nashville Health Care Council, the Biotechnology Industry Organization (BIO), and the Owen Graduate School of Management at Vanderbilt University, USA will offer a biotechnology management program designed to help organizational leaders working in the fields of biotechnology, life sciences and related health care to better manage the business. For more information about the program, email hermano.rocha@owen.vanderbilt.edu.

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