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)

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VIETNAM TO BOOST BIOTECHNOLOGY EFFORTS

The Secretariat of the Communist Party Central Committee of Vietnam issued a directive to enhance biotechnology development and application in the country. The Vietnam News Agency reported that the directive outlined the following goals:

* Create quality and high-yield crops and domestic animals to improve the competitiveness of local farm produce, and increase the proportion of processed farm, forest and aquatic products.

* Reduce drug imports through the production of essential drugs.

* Expand biotechnological application in protecting the environment.

* Promote the application of biotechnology in agricultural production and rural areas.

The directive called for more efforts to build up scientific and technological capability and provide additional investment to build a network of biotechnological laboratories in the regions.

The article on the directive is available at http://www.vnagency.com.vn/newsa.asp?LANGUAGE_ID=2&CATEGORY_ID=32&NEWS_ID=141594

BANGLADESH GOV'T KEEN TO SUPPORT BIOTECH- AGRI MINISTER

In the inaugural session of a week-long training workshop on Gene transfer and Biosafety, Mr M K Anwar, Agriculture Minister of Bangladesh said that the Bangladesh Government is keen to support biotechnology as it has the potential to fight hunger, poverty and, malnutrition. Quoting the GM crop activities of North and South America, China, the Philippines, India, Indonesia, Malaysia, Japan, and Thailand, he emphasized that Bangladesh has to adopt supportive policy and regulatory environment on this new way of agriculture.

Prof Dr S M A Faiz, Vice Chancellor of Dhaka University; Dr M Nurul Alam, Executive Chairman of the Bangladesh Agriculture Research Council; and Dr Shoaib Ahmed, Secretary of Ministry of Environment and Forests as Special Guests also reiterated their favorable attitude towards the field's importance and the possible adoption of biotechnological techniques and products in Bangladesh.

The workshop was organized by the Department of Botany, Dhaka University, and the Bangladesh Association for Plant Tissue Culture & Biotechnology (BAPTC&B), and was cosponsored by AvH Foundation (Germany) and SABP/AGBIOS. It was attended by around 120 scientists, journalists, and NGO/private personnel.

For more information, please contact SABP Country Coordinator BD, Prof Dr Imdadul Hoque at imdadul@agbios.com

EFSA OKS BIOTECH CORN BUT MEMBER STATES FAIL TO DECIDE ON ITS APPROVAL

The European Food Safety Authority's (EFSA) Scientific Panel on Genetically Modified Organisms (GMO Panel) has released two official opinions on genetically modified (GM) maize 1507, relating to its use for food, as well as for import, feed, and industrial processing and cultivation. GM 1507 maize has been developed for protection against the European corn borer, and for tolerance to the herbicide glufosinate.

The GMO Panel says that the GM maize will not have an adverse effect on human and animal health or the environment in the context of its proposed use. No data have emerged, the opinion states, to indicate that 1507 maize is any less safe than its conventional counterpart.

Despite a favorable assessment for its cultivation however, the European Union (EU) Regulatory Committee was unable to make a decision for its import and processing including animal feed use in the EU. “1507 maize has met all the safety and other EU regulatory requirements and we are disappointed that even with the positive safety assessments of 1507, including from the EFSA, we still see delays from the EU’s Regulatory Committee”, said Simon Barber, Director of the Plant Biotechnology Unit at EuropaBio, the EU Association for bioindustries.

The EFSA panel undertook comparative analyses of 1507's agronomic traits and composition, in order to evaluate both the nutritional quality and safety of the corn as food and feed. A complete environmental assessment was also carried out, as well as an assessment of the post-market monitoring plan.

This is the first application reviewed by the EFSA GMO Panel under the GM Food and Feed Regulation. It is also the first time that EFSA's GMO Panel has published an opinion on GM plant cultivation.

Read the press release by the EFSA at http://www.efsa.eu.int/press_room/press_release/828_en.html.

To read the complete documents, visit http://www.efsa.eu.int/science/gmo/gmo_opinions/827_en.html and http://www.efsa.eu.int/science/gmo/gmo_opinions/catindex_en.html

See EuropaBio’s statement at http://www.europabio.org.

BT COTTON GAINS GROUND IN INDIA

Bt cotton continues to grow in India, as the country's Genetic Engineering Approval Committee (GEAC) recently approved six varieties of Bt cotton for commercial cultivation in the northern states of Haryana, Punjab, and Rajasthan. These varieties are Mayhco's MRC 6301 and MRC6304; Rasi's RCH 134 and RCH 138; and Ankur's Ankur 651 and Ankur 2534.

India is the world's third largest cotton producer and has adopted the technology of genetic modification (GM) for other crops since 2002. Current estimates by government officials and traders for local cotton production for the October 2004-

September 2005 season stand at more than 21 million bales, from 17.7 million a year ago.

The GEAC is India's main regulatory body for the use of GM products and is comprised of scientists, government officials, environmentalists and seed developers. GEAC has also recently approved large scale trials of eight new varieties of Bt cotton for the northern states.

With reports from http://www.planetark.com/dailynewsstory.cfm/newsid/29830/story.htm, http://www.usatoday.com/tech/news/biotech/2005-03-04-india-gmo-cotton_x.htm?POE=TECISVA, and http://www.reuters.com/newsArticle.jhtml?storyID=7815149&type=topNews.

ABSP EXPERIENCE HIGHLIGHTS NEED FOR NEW APPROACHES

The Agricultural Biotechnology Support Project (ABSP), a pioneering project to develop and make transgenic crops available to developing country partners, had several, positive outcomes. "It played a key role in raising awareness in developing countries not only of scientific developments in agricultural biotechnology, but also of the need for appropriate biosafety and intellectual property protection policies and institutions to underpin the development and application of biotechnology innovations in their particular country contexts," said Carliene Brenner, biotechnology advisor and consultant.

Brenner noted that despite many ground-breaking achievements, insights from ABSP and other publicly-funded projects highlight the need for new approaches to narrow the gap between research and the farmer's field. These would need to take some issues into account, a few of which are:

* developing country policies and regulations
* changing roles of public research institutions in developing countries
* changing role of the scientific community in developing countries
* the scope for public/private sector collaboration
* project approach, design and management

Brenner gave an analysis of the United States Agency for International Development-funded project in a Brief entitled "Telling Transgenic Technology Tales: Lessons form the Agricultural Biotechnology Support Project Experience" published by the International Service for the Acquisition of Agri-biotech Applications.

The full Brief may be downloaded from http://www.isaaa.org/kc.

MILLENNIUM PROJECT RELEASES RECOMMENDATIONS TO MEET GOALS

In "Investing in Development: A practical plant to achieve the millennium development goals (MDG)," the United Nations (UN) Millennium Project outlines ten recommendations for developing countries to follow as they work on meeting the MDG deadline in 2015.

The report calls for a major overhaul of the international development system, which it broadly found to be too often unfocused and inefficient. A few recommendations state that (1) governments should adopt bold development strategies to meet the MDG targets, all of which should be in line with current Poverty Reduction Strategy papers, (2) these strategies should, among other things, detail national investments, policies, and budgets for the coming three to five years, while focusing on rural productivity, women, and reproductive health, (3) international donors should identify MDG "fast-track" countries for a rapid scale up of official development assistance (ODA), (5) high income countries should open their markets to developing country exports, and (6) international donors should mobilize support for global scientific research and development to address special needs of the poor in the areas of health, agriculture, natural resource and environmental management, energy, and climate.

What is crucial, the report emphasizes, is a concerted effort to provide such support on sufficient scale to have a national level and even global impact.
To read all the recommendations in greater detail, download the complete report at the ISAAA-KC website (http://www.isaaa.org/kc).

GM REGULATION EXPERIENCES SHARED IN CONFERENCE

Representatives from the United States and the Philippines came together to share experiences on regulating genetically modified (GM) organisms, highlighting issues regarding food safety. This conference was marked by a talk given by Dr. James Maryanski, who spoke on "The Safety of Foods Derived From Modern Biotechnology: The U.S. Experience." Dr. Maryanski is the Biotechnology Coordinator with the U.S. Food and Drug Administration's (FDA) Center for Food Safety and Applied Nutrition.

Representing the Philippines was Dr. Saturnina Halos, from the Department of Agriculture. Both speakers showed the steps through which GM foods go through safety trials, through what agencies the applications pass, and what the different agencies require for GM crops to be approved for consumption.

"From the perspective of safety," Dr. Maryanski said, "The method of genetically modifying a crop does not matter; it is the result (i.e. the GM food) that should meet current safety standards....the food that we have today should be as safe as the food we have always had."

Dr. Maryanski also stressed that public comment is always sought before any approvals or decisions are made.

DOCUMENT REMINDERS

ASFARNET HIGHLIGHTS

The highlights of the Asian Farmers Network (ASFARNET) Workshop on Technology Promotion and Exchange on Agricultural Biotechnology have been released. The workshop was held at Bogor, Indonesia, on November 28 to December 1, 2004, and was attended by farmers and farming groups representing the Indonesian provinces of North Sumatra, Lampung, West Java, East Java, and South Sulawesi.

The workshop featured discussions and presentations by experts and practitioners in biotechnology, in the areas of research, biosafety, networking, and science communication. It was organized through cooperation between ASFARNET, the United States Department of Agriculture (USDA), and ISAAA.

Download the document at http://www.searca.org/~bic/special/workshophighlights.pdf.

DOSSIER EXPLORES GM FOOD SAFETY

A recent policy brief by SciDev attempts to answer questions regarding the safety of genetically modified (GM) foods. What are the allergenic risks posed by foods produced from GM crops? Could GM technology actually offer a way to prevent food allergies? The brief is written by Dr. Clare Mills of the Physical Biochemistry Group at the Institute of Food Research, Norwich, United Kingdom.

Dr. Mills acknowledges that "the allergenic risks posed by foods produced from GM crops currently being grown are minimal," given current understanding. The challenge, she believes, is for governments to ensure that adequate risk assessment strategies are in place for these biotech crops.

Read more at http://www.scidev.net/dossiers/index.cfm?fuseaction=policybrief&policy=56&dossier=6.

OECD RELEASES NEWSLETTER

The latest version of the Organization for Economic Co-operation and Development's (OECD) Newsletter, "Biotechnology Update," has just been published.

Available on OECD's BioTrack Online Information System, the newsletter details the organization's recently concluded activities, as well as coming workshops and conferences. These include links to draft guidelines for the Licensing of Genetic Inventions, whose need was endorsed by the OECD committee on Scientific and Technological Policy meeting in January 2004; and schedules of workshops and conferences for 2005.

The Information System contains materials important in the field of agricultural biotechnology. These are a Product Database of transgenic products which have been approved for commercial use in OECD member countries, a database of small-scale field trials, and information on major regulatory developments such as laws, regulations, and guidelines.

Download the complete newsletter at http://www.oecd.org/biotrack/

CONFERENCE PROCEEDINGS POSTED

Proceedings from the 2004 round table discussion, "Impacts of Biotech Regulation on Small Business and University Research: Possible Barriers and Potential Solutions," are now available on the Pew Initiative Website.

Major events and findings include discussions by executives from small biotech firms on how regulatory costs could affect business decisions; and suggestions on how to improve regulatory procedures, such as streamlining the regulatory approval process so that transformation events already approved for use in one crop could be used in related crops with reduced government oversight. Participants also suggested that a public-private partnership be created to foster innovation by small businesses and for smaller market products by assisting the collection of field trial data necessary for regulatory approval.

The discussion was conducted in June 2004, and was sponsored by the Pew Initiative on Food and Biotechnology and APHIS.

Download the proceedings at http://pewagbiotech.org/events/0602.

CBT NEWS FEATURE: THE JOHN INNES CENTER

The John Innes Center (JIC) is an international research center of excellence in plant and microbial located in Norwich Research Park in the United Kingdom. Established in 1910, JIC is publicly funded, not-for-profit organization currently supported by nearly 50 different organizations, and is grant-aided by the Biotechnology and Biological Sciences Research Council.

The JIC's mission is to enhance scientific knowledge, the quality of life and economic well being by using cutting-edge science to understand how plants and microorganisms work, and by providing high quality doctoral and post-doctoral research training. JIC has a strong alliance with the University of East Anglia and hosts 150 postgraduate students.

As an integrated bioscience center, the JIC makes use of a wide range of disciplines in the biological and chemical sciences, including cell biology, biochemistry, chemistry, genetics and molecular biology. Its scientists study biological systems at the genetic, molecular, cellular and whole organism levels via multidisciplinary research programs. The scientific research at the Centre JIC science contributes to UK Technology Foresight priority areas and the needs of its sponsors and user communities.

Some of the current research work ongoing at JIC include:

* studying how plant genes control selected aspects of plant growth and development with focus on model systems such as Arabidopsis

* determining protein structure/function information for a range of biological systems

* fundamental research on the biology of cereals, brassicas and legumes to understand the genetic and molecular basis of phenotypic variation

* developing high-yielding, stress and disease resistant varieties

* characterizing newly emerging pathogens, pests and disease complexes and studying their responses to the selection pressures that occur in agriculture and nature

* studying bacterial metabolism, physiology, gene regulation and development, and plant-bacterial interactions

* statistical modeling, data mining and algorithm development
The Center has state-of-the-art facilities, and specialized laboratories and equipment for microbial, cell biological, biochemical, chemical and molecular biological research. The Center has high-end facilities on microscopy, spectroscopy, and advanced robotics and bioinformatics required for genomic, proteomic and metabolomic sciences.

The Center hosts the Sainsbury Laboratory, Genome Laboratory and the Norwich Bio-incubator. The Sainsbury Laboratory is an organization known for its research in molecular plant pathology and genetics. Although an independent laboratory, it is scientifically, physically and administratively linked to JIC. The Genome laboratory on the other hand, offers platform technologies for genomics research to scientists working in the Norwich Research Park, while the Bio-incubator provides an innovative, dynamic and stimulating environment in which entrepreneurs and companies can develop their ideas and technologies.

For more information about JIC, visit http://www.jic.bbsrc.ac.uk/.

ANNOUNCEMENTS:

US BIO CONFERENCE

Each year, the Biotechnology Institute's Education Conference coincides with the Biotechnology Industry Organization (BIO) Annual International Convention. This year's Education Conference will take place on June 16-19 in Philadelphia, Pennsylvania, USA.

Once again, the conference will focus on best practices, competitions, hands-on professional development sessions linked to education and skill standards, mentoring workshops, and career development for students interested in biotechnology.

The deadline for application for the conference itself is on April 15. Other programs include the National Biotechnology Teacher-Leader Program (deadline on March 31); National Biotechnology Teacher-Leader Award (deadline on March 31); Aventis International BioGENEius Challenge; Tri-State Biotechnology Teacher-Leader Day (deadline on April 15); and the BioDreaming Poster Competition (deadline on April 22).

For more information, visit http://www.biotechinstitute.org/events/2005conference/annual_conference.html.

CONFERENCE ON AGRI-FOOD RESEARCH

A Conference on "Challenges and opportunities in Agri-Food research" will be held on the 18th -20th May 2005, in Rome, Italy.

The conference aims to launch the new the Organization for Economic Co-operation and Development's (OECD) Co-operative Research Program. It seeks to accomplish this through a broad-ranging debate on challenges and opportunities in the agri-food sector, thereby ensuring that the new program is relevant to policy-related work in the organization.

The conference is made possible with the support of the Italian Ministry of Agricultural and Forestry Policies, Ministry of the Environment and the Protection of the Territory, and the Italian Council for Agricultural Research. Visit http://www.oecd.org/agr/ for more details.
