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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In This Issue:

* EU Commission Publishes Biotech Report
* Agri Council Fails to Approve GM Corn for Food
* Asia-Pacific Consortium on Agri-Biotech
* First Biosafety Workshop Held in Macedonia
* Science News Coverage in South Africa
* Crop Drought Tolerance Improved
* US Academies Gets US$20M Grant
* Country Biotech Profiles Available Online
* Announcements:
  - New K-Sheets
  - Online Resource on GM

EU COMMISSION PUBLISHES BIOTECH REPORT

The European Union (EU) Commission has published its second progress report on the EU's life sciences and biotechnology strategy. It tracked developments since the Commission put in place a comprehensive strategy in January 2002 on how to obtain the social and economic benefits from biotechnology. The strategy was subsequently adopted by the Prime Ministers and Heads of State as part of the Lisbon plan to become the most competitive knowledge based economy in the world by 2010.

Feike Sijbesma, Chairman of EuropaBio, the European association for bioindustries, expressed his disappointment on the report saying it "is repeating yet again that Member States have to implement rules they agreed a long time ago."

Europabio reported that seven Member States have not implemented the biotech patent's directive (98/44), eight Member States have not implemented the directive on GMOs (2001/18), the target of 15% of biotech SMEs in the EU research framework program has not been met, and there is still no progress on the Community Patent.

Johan Vanhemelrijck, EuropaBio Secretary General, added that Europe needs real progress in the field of the Community Patent, the moratorium, the patents directive, and the fostering of young enterprises. "This will help national biotech communities across Europe to prosper throughout the new Europe and not only limit its development to confined regions," he said.

For more information, contact Adeline Farrelly of EuropaBio at a.farrelly@europabio.org or visit http://www.europabio.org.

AGRI COUNCIL FAILS TO APPROVE GM CORN FOR FOOD

Europe's Agriculture Council of Ministers did not approve a genetically modified sweet corn (Bt-11) for food use in the European Union which is already approved in 12 other countries. This sweet corn is genetically modified to protect itself from corn borer insect damage.

Johan Vanhemelrijck, Secretary General of EuropaBio, the European association for bioindustries, said that while they were disappointed that the Council failed to approve the sweet corn, it was looking at the European Union Commission to have a more positive stance toward it. He noted that "the file was submitted in 1998 and the EU Scientific Committee on Food has declared Bt-11 as safe as its conventional counterparts."

The application will now be passed back to the EU Commission.

Additional information may be obtained from Adeline Farrelly of EuropaBio at a.farrelly@europabio.org. The full article is available online at http://www.europabio.org.

In related developments, The French government's food safety authority AFSSA (Agence française de sécurité sanitaire des aliments) has concluded that "unforeseen effects cannot be discounted" and stated that further safety tests needed to be conducted before concluding that Bt11 sweet corn is safe for human consumption. The authority suggested that a study of toxicity/tolerance study in chicken be conducted.

Visit the Agence française de sécurité sanitaire des aliments website at http://www.afssa.fr.

ASIA-PACIFIC CONSORTIUM ON AGRI-BIOTECH

The Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) has been formed to involve key stakeholders in the region to "pool their synergies, harness comparative advantages and ensure judicious use of limited resources to promote application of biotechnology for sustainable agricultural development in the region."

According to Dr. Mutsuo Iwamoto, president of the Japan International Research Center for Agricultural Biotechnology and current chair of the Asia Pacific Association of Agricultural Research Institutions (APAARI), the consortium came about from an expert consultation recommendation during a meeting organized by APAARI and the Food and Agriculture Organization.

Iwamoto said that the consortium will facilitate and promote greater public awareness and understanding of issues like intellectual property rights, sus generic systems, biosafety, risk assessment, harmonization of regulatory

procedures, and benefit sharing to address various concerns related to the adoption of agri-biotech.

The consortium will be hosted by the International Crops Research Institute for the Semi-Arid Tropics in Patancheru, Andhra Pradesh, India.

For more information, contact Mutsuo Iwamoto at Iwamoto@jiscas.affrc.go.jp or R.S. Paroda, APAARI Executive Secretary at cac-tashkent@icarda.org.uz.

FIRST BIOSAFETY WORKSHOP HELD IN MACEDONIA

Last April 22 to 23, a workshop on “Risk Assessment and Risk Management for Genetically Modified Organisms (GMOs)” was held in Skopje, Macedonia. Aiming to reach a broader scientific community, this first ever biosafety workshop was organized to help the Republic of Macedonia in developing the National Biosafety Framework (NBF) under the UNEP-GEF biosafety project .

Jasmina Ginovska, National Project Coordinator, Ministry of Environment and Special Planning, discussed the regulatory aspects, provisions and obligations under the Convention on Biological Diversity, and the Cartagena Protocol on Biosafety. The Bulgarian experience in building the regulatory regime for decision making in line with the key components of the UNEP-GEF project for the implementation of the biosafety framework were also presented.

Further, biosafety experts from Bulgaria, K. Georgieva and Dr. Nevena Alexandrova, familiarized the participants on the general issues concerning GMO risk analysis (risk assessment, risk management and risk communication). Public awareness and participation, through the Bulgarian Biotechnology Information Center (BgBIC), a network member of the International Service for the Acquisition of Agri-biotech Applications Global Knowledge Center on Crop Biotechnology (ISAAA-KC) was also introduced.

The workshop was attended by representatives from the different bio-science areas – agronomists, geneticists, physicians (human and animal medicine), as well as representatives from the pharmaceutical industry, non-government organizations (NGOs), consumer protection organizations, and the media.

For more information, contact Dr. Nevena Alexandrova of the Bulgaria Biotechnology Information Center (BgBIC) at bgbic@abi.bg.

SCIENCE NEWS COVERAGE IN SOUTH AFRICA

“The coverage of science and technology in the South African press is insufficient. Less than 2% of editorial space in some of the country's top publications is awarded to these topics,” says Carine van Rooyen from the Department of Journalism, University of Stellenbosch (US), in South Africa. Sponsored by the South Africa Foundation for Education Science and Technology (FEST), van Rooyen and colleagues studied 15 daily and weekly national newspapers, namely: Die Burger, Beeld, Cape Argus, The Star, Sowetan, City Press, Mail & Guardian, Sunday Independent, Sunday Times, Rapport, and Business Day. Non-science magazines and community newspapers like the Financial Mail,

Finance Week, Eikestadnuus, and Sasolburg Bulletin were also included in the study.

Data gathering for the research was done from March 18 to June 17, 2002. The study only included articles and news reports that were either directly linked to a science issue or those that dealt with a subject that are being discussed by scientists. Articles were classified using 19 categories.
The highlights of the study are as follows:

* Science and technology was allotted a 1,8% of editorial space. Thirty-eight percent (38%) of published reports originated from news agencies. Most of the articles (74%) appeared as news reports or snippets, while in-depth articles were few.

* Majority (70%) of the published science reports were written with an angle that emphasized the positive aspects of science and technology. The benefits of science were also highlighted in 42% of the articles.

* Biomedicine was the category covered most (18%), with astronomy in second place (14%). Other popular categories included HIV/Aids (12%) and technology (12%). Other topics were pseudo science, mathematics, and physics.

* Physics, food science, nutrition, palaeobiology, and the human behavioral sciences were the topics mostly covered by foreign reporters.

* Photos and sketches more often accompanied certain categories like astronomy, technology, and botany. The use of infographics (8%) to accompany science articles was observed to be limited.

See the news release at http://www.scienceinafrica.co.za/2004/april/pressscience.htm. The FEST website is at http://www.saasta.ac.za.

CROP DROUGHT TOLERANCE IMPROVED

Crop drought tolerance in plants is increased by lowering the amount of an enzyme that is responsible for recycling vitamin C. This was according to Daniel R. Gallie, a professor of biochemistry, and Zhong Chen, researcher, at the University of California, Riverside, in the United States. Gallie added that by decreasing the amount of the enzyme dehydroascorbate reductase or DHAR, this would reduce the ability of plants to recycle vitamin C, making them more drought tolerant through improved water conservation.

Vitamin C serves as an important antioxidant in plants – similar to its function in humans. It also destroys reactive oxygen species that can otherwise damage or even kill cells. Once used, vitamin C must be regenerated before it is entirely lost. The enzyme DHAR plays a critical role in this recycling process.

"This reduction in vitamin C recycling causes plants to be highly responsive to dry growth conditions by reducing the rate of water that escapes from their leaves. Thus, they are better able to grow with less water and survive a drought. Our discovery should be applicable to most if not all crop species as the role of vitamin C is highly conserved among plants," said Gallie.
Read the full article at http://www.africabiotech.com/news2/article.php?uid=72.

US ACADEMIES GETS US$20M GRANT

The Bill & Melinda Gates Foundation awarded the United States (US) National Academies a US$20 million grant to help African academies of science, and other scientific, engineering, and medical communities in the continent.

The grant is envisioned to help organizations in Africa to play a more effective role in the political arena, and enhance their capability to influence governments and the public in making informed and science-based decisions. This initiative is coordinated by the US National Academies and will be carried out over the next 10 years.

Before the year ends, the U.S. National Academies will select three science academies in Africa as partners for the initiative. These academies will be the focus of these capacity-building efforts.

For more details, visit http://www.gatesfoundation.org/GlobalHealth/Announcements/Announce-040419.htm.

COUNTRY BIOTECH PROFILES AVAILABLE ONLINE

The Food and Agriculture Organization (FAO) launched "Developing Country Biotechnology Profiles", a searchable database on biotechnology-related policies, regulations and activities of individual developing countries. Information for each country may be obtained on the following 11 subjects: biotechnology research policy; research capacity (key institutions; summary of major research programmes); biotechnology regulatory framework (biosafety; food safety; patents; plant variety protection; plant genetic resources; animal genetic resources); biotechnology applications and, finally, publications and links.

The database is accessed by clicking the "Country Profiles" button on the left hand menu of the FAO-BioDeC webpage (http://www.fao.org/biotech/inventory_admin/dep/default.asp). Contact FAO-BioDeC@fao.org for more information.

ANNOUNCEMENTS

NEW K-SHEETS

Two new Knowledge (K) Sheets have been released by the Global Knowledge Center on Crop Biotechnology of the International Service for the Acquisition of Agri-biotech Applications (ISAAA-KC). These are summaries of individual reports released by Richard Phipps and Richard Bennett of the University of Reading in the United Kingdom, and the Australian Bureau of Agriculture and Resource Economics (ABARE). Downloadable at http://www.isaaa.org/kc, the titles of these new K-Sheets are “Potential Impact of GM Sugar Beet on the Environment and Human

Health," (Phipps and Bennett), and "High Potential Use of GM Crops in Developing Countries," (ABARE).

ONLINE RESOURCE ON GM

Cornell University Cooperative Extension's Genetically Engineered Organisms Public Issues Education Project (GEO-PIE) aims to develop materials for effective public issues education (PIE) capacity related to genetically engineered organisms among agricultural and nutrition educators. Check their website for resources on genetic engineering, GM products, risks and benefits, US regulations, media and opinion, and links. For more information contact T. Clint Nessbitt of Cornell University at tcn4@cornell.edu or visit their website at http://www.geo-pie.cornell.edu/educators/who.html.

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