

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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COMMISSION RELEASES FINAL REPORT FOR AFRICA

The Commission for Africa's final report calls on all nations to act on their "moral duty to assist Africa." It asks, in particular, for an additional US\$25 billion per year in aid, to be implemented by 2010, and for nations of the first world to commit to a timetable for giving 0.7 per cent of their annual income in aid for the African continent.

The Commission also listed the prime pointers by which Africa could progress. These were through better governance and capacity building, better peace and security, an investment in people and manpower, poverty reduction, and greater, fairer trade. All these could be achieved, the Commission said, if donors would "make a major investment to improve Africa's capacity, starting with its system of higher education, particularly in science and technology." The Commission called for, among other things, an emphasis of investment on agriculture and small enterprises, with particular focus on women and young people.

The Commission also recommended that changes in governance be undertaken, by improving the accountability of African leaders and "broadening participation of ordinary people in government processes." "Investing in development," the report stated "is investing in peace."

The Commission is a 17-member international commission set up by British Prime Minister Tony Blair. Download the complete report at <http://213.225.140.43/english/about/pressroom/promomaterial.htm>.

EC FUNDS PROJECT FOR FOOD QUALITY IN ASIA

The European Commission (EC) is funding a four-year project to help Asia adopt European Union Standards of food quality, in order to meet the demands of the European Market. The project, named SELAMAT (or "Safety" in Malay) will bring together scientists and regulators in Europe and Asia in a network to share methodology and policy developments related to food quality.

SELAMAT aims, among other things, to ensure that food safety does not become used as a trade barrier, stimulate food trade with Asia in a setting of international cooperation, improve transparency on food laws in an international perspective, exchange knowledge on testing methodologies and harmonize where appropriate, and work towards building capacity to aid in meeting the above goals.

The network has identified three research topics linked to ensuring liberal trade: the impact of food on health, the traceability of food along the whole food chain, and methods of detecting contaminants. A series of annual, three-day workshops will address each of the areas in turn, and a final workshop will consider the agenda for joint Asia-Europe research on food safety.

For more information, read <http://www.eubusiness.com/topics/Food/asia.2005-03-15>, or visit the network at <http://www.selamat.net>

IFPRI SCENARIO ANALYSES PUBLISHED

The International Food Policy Research Institute (IFPRI) recently published a new policy brief and paper, on New Risks and Opportunities for Food Security: Scenario Analyses for 2015 and 2050, by Dr. Joachim von Braun, Director General of IFPRI, and colleagues.

Using IFPRI's International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT), the researchers explored three possible future scenarios and the agricultural situations that could arise should they occur. In the Progressive Policy Actions Scenario, malnutrition and world hunger could be eliminated due to increased investments in agricultural research and

development, and the bulk of the growth in production is driven by yield increases rather than by expanding land area. In the Policy Failure Scenario, political-economic forces disable agricultural economy and trade, investments in agriculture and development are foregone or displaced, and crop area expands to meet the needs of a rapidly growing population. Finally, in the Technology and Natural Resource Management Failure Scenario, water mismanagement, declining irrigation efficiency, lack of adaptation to climate change, and pest problems in agriculture abound.

IFPRI recognizes the Progressive Policy Actions Scenario as the most ideal, and outlines steps to reach it. These include increasing focus by governments and of policies on agricultural growth and rural development. “Only if policy actions include sustained investment in social safety nets,” the policy brief states, “Will food and nutrition security be achieved in the foreseeable future.”

Download the complete paper at <http://www.ifpri.org/2020/dp/dp39/2020dp39.pdf> and the policy brief at <http://www.ifpri.org/2020/briefs/vb73.pdf>

TRANSFORMATION OF FRUIT TREES

In most woody fruit species, transformation and regeneration of commercial cultivars are not routine and are generally limited to a few genotypes or to seedlings. This makes it a problem in the use of biotechnology on fruit trees. The future of genetic transformation in fruit trees thus requires the development of genotype-independent procedures, based on the transformation of meristematic cells with high regeneration potential and or the use of regeneration-promoting genes. This was the view of Cesar Petri and Lorenzo Burgos of the Departamento de Mejora y Patología Vegetal, CEBAS-CSIC, in Murcia, Spain in their article “Transformation of fruit trees: Useful breeding tool or continued future prospect?” published in Transgenic Research.

Petri and Burgos also noted that that a possible obstacle would be the European law which neither allows deliberate release of plants carrying antibiotic resistance genes after 2004 nor their commercialization after 2008. Hence, the authors suggested the need for procedures that do not use antibiotic selection or eliminate marker genes from the transformed plant.

Contact Lorenzo Burgos at burgos@cebas.csic.es or see the article in Transgenic Research, No. 14, pages 15-26.

REPORT SHOWS ROOTCROP AS POTENTIAL CAROTENOID SOURCE

In Potentiality of Cassava Cultivars as a Source of Carotenoids, Dr. Nagib Nassar of the University of Brazil and colleagues show that one of foremost food sources of several tropical countries also has the potential to curb malnutrition. Their findings are published in the online journal Gene Conserve for the month of March.

In their experiments, the researchers screened cassava clones and interspecific hybrids, and, through colorimetric methods, found that a clone named UnB-400 contained high levels of lutein and trans-B-carotene. UnB-400 was found to have 236 mg/g of lutein, compared to zero in other cultivars; and 2.2 mg/g of trans-B-carotene, which is considered sufficient for the average daily requirements of adults consuming half a kilogram of cassava daily.

Both lutein and beta-carotene are potential antioxidants. Beta-carotene, in particular, is the precursor of Vitamin A, and has been shown to prevent heart disease and cancer, and lower the incidence of cataracts and macular disorders. Cassava, for its part, is both a cheap and abundant crop, and the Brazilian government is currently seeking ways to incorporate it into local wheat flours for enhanced flavor and nutrition.

Read the complete article at http://www.geneconserve.pro.br/artigo_26.htm.

RIS RELEASES REVIEW

The Research and Information System for Developing Countries (RIS) has released the 7th volume of its Asian Biotechnology and Development Review, currently featuring rice research in Asia. Articles include Some Imperatives and Challenges for Rice Biotechnology: Rice Biotechnology in Asian National Agricultural Research and Extension Systems (by Edilberto Redona and Lou Franz Mula), Biotechnology and Rice: The Challenges Ahead (by Devinder Sharma), and Biosafety Considerations for Genetically Engineered Rice (by Lim Li Ching).

For more information, visit <http://www.ris.org.in>

ANNOUNCEMENTS:

ILSI SCHEDULES NUTRIGENOMICS CONFERENCE

The International Life Sciences Institute (ILSI) has organized the 1st International Conference on Nutrigenomics, with the theme Opportunities in Asia, slated for December 7 - 9, 2005 in Singapore.

The three-day Conference will feature plenary sessions, concurrent symposia with case examples, poster presentations, and workshops. Participants will have multiple opportunities to share perspectives, address challenges, discuss strategies, and design collaborative programs in nutrigenomics research.

Researchers are welcome to submit research abstracts in line with the conference theme and topics, for consideration as poster presentations. For abstract submission details, e-mail: ilsi.nutrigenomicsconf@ilsisea.org.sg before September 15, 2005. For more information, visit <http://www.ilsi.org>.

OECD WORKSHOP IN ROME

The Organization for Economic Cooperation and Development (OECD) recently announced a workshop on Pharmacogenetics, set to take place in Rome on the 17th -20th October, 2005.

The workshop aims, among other things, to analyze and raise awareness on the extent of expected impacts of pharmacogenetics on health care systems; review and address regulatory issues and challenges that may arise in the context of pharmacogenetics; and identify and explore initiatives and frameworks relevant to the development of pharmacogenetics across OECD countries.

For further information, contact stibiotech@oecd.org, or visit http://www.oecd.org/document/63/0,2340,en_2649_37437_34489087_1_1_1_37437,00.html

BIO 2005 IN PHILADELPHIA

The Bio 2005 Annual International Convention will be held on June 19-22, 2005 at the Pennsylvania Convention Center in the USA. It will feature a slate of internationally renowned plenary speakers, more than 150 educational sessions and workshops, a business forum, and more than 1450 exhibits. For more information, view <http://www.bio.org>

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