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AFRICA

AFRICAN SCIENTISTS TO PLAY IN PART ON NEW MONSANTO 'MAIZE' VENTURE

Full story: <http://www.truthabouttrade.org/content/view/11890/54/>

African researchers are to be among a team of scientists to be engaged by the Monsanto, global biotechnology pioneer, initiated collaborative research on drought-resistant maize.

The Water Efficient Maize for Africa (WEMA) project is worth \$ 47-million and is hoped to provide benefit to farmers in more arid areas in Africa.

The drought-resistant maize project, funded by the Bill and Melinda Gates Foundation and the

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Howard G. Buffett Foundation, involves the development through genetic modification (GM) of a maize variety that can withstand extreme absence of moisture over maybe three to four weeks. The drought-resistant gene may come from a wild plant.

UGANDA: ORGANIC FARMING BACKFIRES IN NORTH

Full story: <http://allafrica.com/stories/200806230863.html>

The army and bollworms have spread to Ogur sub-county in Lira, threatening to attack the whole northern region, farmers have warned. The green and dark-brown worms are thriving in the area because the farmers no longer spray their gardens in a bid to produce pure organic cotton. The New Vision last week reported the outbreak of the pests in Ogur village, a situation that is threatening to lead to low cotton yields and famine.

In various agreements with individual farmers, Dunavant, a major cotton dealer in the region, instructed non-use of insecticides, promising high prices for the organic cotton. Under the agreements, cotton, simsim and other food crops are supposed to be sold to only Dunavant. Experts predicted that the worms would spread to Pader, Kitgum, Apac, Oyam and Dokolo, hitting hard the economic livelihood of the cotton-producing areas. To make matters worse, the bollworms have come during the planting season.

AFRICAN CONFERENCE FOR BIOTECHNOLOGY KICKS OFF 2008-6-23

2008-06-23 The African Conference for Biotechnology kicked off this week in Tripoli to promote cooperation among the African institutions interested in this field.

A number of specialists and researchers from 20 countries; namely, Ghana, Chad, Sudan, Mali, Cote d'Ivoire, Mozambique, Zimbabwe, South Africa, Rwanda, Guinea, The Gambian, Congo, Niger, Liberia, Uganda, Morocco, Tunisia, Egypt and Great Jamahiriya are taking part in the conference.

The conference is organized by the Biotechnology Research Center in collaboration with the United Nations Educational, Scientific and Cultural Organization (UNESCO).

The opening session of the conference was attended by the secretary of the National Planning Council (NPC), the secretaries of the General People's Committees for Workforce, Training & Employment; Higher Education, UNESCO's deputy secretary general and the secretaries of the research centers in Great Jamahiriya.

MARI, ASARECA SIGN USD94,000 PACT TO CONTROL CASSAVA DISEASES

Full story: <http://ippmedia.com/ipp/guardian/2008/06/24/117086.html>

The Dar es Salaam based Mikocheni Agricultural Research Institute (MARI) and the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA) have signed a USD94,000 (over 100m/-) research project agreement on cassava mosaic disease (CMD) and Cassava Brown Streak Virus (CBSD).

Under the project, MARI will conduct a research on developing genetic modified cassava species that will be resistant to the diseases.

DOUBLED HAPLOID APPROACH TO DEVELOP DROUGHT TOLERANT MAIZE FOR AFRICA

<http://www.cimmyt.org/english/wps/news/2008/may/amnet.htm>

The International Maize and Wheat Improvement Center (CIMMYT) is using an advance technology called the doubled haploid approach to develop inbred lines of tropical maize for sub-Saharan Africa. Maize lines from this work will be used initially in the Drought Tolerant Maize for Africa and the Water Efficient Maize for Africa projects.

"Maize breeders working on hybrids—the most productive type of maize variety and the one marketed by most seed companies—must at some point create genetically-stable and pure lines of desirable, individual plants, for use as parents of hybrids," says CIMMYT maize physiologist Jose Luis Araus. Conventional breeding to get the desired lines requires a longer process – as much as seven or more generations which represents three years and requires expensive field space, labor and time. When perfected, the process using the modern approach will only take two generations or one year.

GM BANANA IN UGANDA: SOCIAL BENEFITS, COSTS, AND CONSUMER PERCEPTIONS

<http://www.ifpri.org/pubs/dp/ifpridp00767.asp>

Banana is a staple crop in Uganda. The Uganda National Agricultural Research Organization has implemented conventional and biotechnology programs to improve bananas and address the crop's most important pest and disease problems. A major thrust is the development of genetically modified (GM) bananas. A paper published by the International Food Policy Research Institute (IFPRI) examines the potential social welfare impacts of adopting GM banana in the country.

Results of MISTICs estimation (maximum incremental social tolerable irreversible costs) indicate that in delaying the approval of a GM banana, Uganda foregoes potential annual benefits ranging approximately from US\$179 million to US\$365 million. Although GM bananas promise vast benefits, realization of those benefits, however, depends on consumers' perceptions and attitudes and the willingness to pay for the GM technology.

GLOBAL NEWS

GLOBAL IMPACT OF BIOTECH CROPS

<http://www.pgeconomics.co.uk>.

A comprehensive study on the global impact of biotech crops by PG Economics says that "biotech crop commercialization has resulted in significant global economic and environmental benefits and is making important contributions to global security". PG Economics Limited, based in the United Kingdom, is a specialist provider of advisory and consultancy services to agriculture and other natural resource-based industries.

"Since 1996, biotech crop adoption has contributed to reducing the release of greenhouse gas emissions from agriculture, decreased pesticide spraying and significantly boosted farmers' incomes," said Graham Brookes, director of PG Economics and co-author of the report. "The technology has also made important contributions to increasing the yields of many farmers, raising global production and trading volumes of key crops. World price levels of crops like maize and soybeans would also probably be higher than the current (record high) levels if this technology had not been widely adopted by farmers. These economic and environmental gains have also been greatest in developing countries".

FAO SEES STRONG SIGNS OF RECORD RICE PRODUCTION

<http://www.fao.org/newsroom/en/news/2008/1000835/index.html>

The Food and Agriculture Organization of the United Nations (FAO) expects a new record high in rice production in Asia, Africa and Latin America this year. Concepcion Calpe, FAO rice expert, predicts about 2.3% growth in the world paddy production reaching a new record level of 666 million tonnes this year. "For the first time, paddy production in Asia may surpass the 600 million tonne benchmark this year," Calpe said. Countries predicted to register the major gains were Bangladesh, China, the Philippines, Thailand and Vietnam. Moreover, the Rice Market Monitor supports this claim and foresees the potential of recent appeals and incentives to grow more rice which could lead to larger expansion of plantings thus increasing the production growth.

However, FAO warned that the world rice prices could remain high in short term since the 2008 crops will only be harvested by the end of the year. Calpe mentioned about the possibility of the cyclone disaster in Myanmar to affect their forecast.

CONFERENCE DISCUSSES LIABILITY RULES AND REDRESS

<http://www.iisd.ca/biodiv/bs-copmop4/12may.html> and <http://www.gmo-safety.eu/en/news/641.docu.html>

The 4th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD), serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety (COP/MOP 4), was held recently in Bonn, Germany. The main aim of the meeting was to expand the scope of the protocol to include binding rules on liability and redress.

Ursula Heinen, Parliamentary State Secretary at the German Ministry of Consumer Protection, presided as the chairman of the conference. Heinen said that biotechnology was opening up new possibilities for better food. Like all new technologies, however, it also held risks for biodiversity. She further stressed that the issue of liability was of central importance for public acceptance of agricultural biotechnology.

In 2004, parties to the Cartagena Protocol set for themselves the objective of reaching an agreement by MOP 4.

FOOD PRICES LIKELY TO REMAIN HIGH

<http://www.fao.org/newsroom/en/news/2008/1000849/index.html>

Agricultural commodity prices will remain high over the next decade, according to a new report by the Organization for Economic Cooperation and Development (OECD) and the Food and Agriculture Organization (FAO). In addition to mobilizing humanitarian aids to face the situation, the report suggested boosting agricultural productivity and rethinking of biofuel policies. The report pointed out that it is not clear whether the energy security, environmental and economic objectives of biofuel policies will be achieved with current production technologies. The growth in biofuel production, which tripled between 2000 and 2007, adds to demand for grains, oilseeds and sugar.

Other factors that contribute to sharp rise of commodity prices include high oil prices, changing diets, urbanization, economic growth and expanding populations. The recent drought in grain producing regions has contributed to low stocks. Climate change is also expected to affect crop production and supply.

FAO Director General Jacques Diouf said that coherent action is urgently needed by the international community to deal with the impact of higher prices on the hungry and poor. "It should be clear now that agriculture needs to be put back onto the development agenda."

SCIENCE INNOVATION CAN HELP OVERCOME SOARING FOOD PRICES

<http://www.icrisat.org/Media/2008/media7.htm>

Scientific innovations in crop cultivation techniques can help poor farmers cope with soaring food prices, say experts from the India-based International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). William D. Dar, Director General of ICRISAT, in a press release enumerated the innovations that have been found in lowering food prices. These include:

- Use of improved crop varieties and hybrids that are more fertilizer efficient, and resistant to abiotic stresses;
- Tree-crop integration, since trees can collect additional nutrients from the soil. In addition to preventing soil erosion, trees can also provide higher-value products;
- Gravity-fed drip irrigation, wherein water is introduced to plants drop-by-drop through a plastic tube, providing just the amount the plant needs for optimal growth;
- Integrated pest management;
- And cultivating sweet sorghum as a biofuel crop and as a source of animal feedstock.

Other ways include planting-basin cultivation, fertilizer microdosing and improved seed systems. Dr. Dar warned that "unless agriculture is reinvigorated and lifted to a new level of proficiency and efficiency, the world will face more hunger, more poverty, more despair, and more anger".

IT'S NOW TIME FOR AN AGRICULTURAL RENAISSANCE

<http://www.un.org/apps/news/story.asp?NewsID=26736&Cr=food&Cr1=crisis>

The President of the United Nations Economic and Social Council (ECOSOC) Léo Mérorès calls for action within the international community to turn a threatening situation in food into an agricultural

renaissance as he concluded the special meeting on the global food crisis, held at the United Nations (UN) Headquarters in New York. He pointed out that agriculture has to be put back in the center of the development agenda in order to solve the food crisis. He emphasized the necessity to meet the needs of man through longer-term increased agricultural production.

Moreover, Ambassador Mérorès highlighted the need to make efforts concerning the environment by minimizing greenhouse emissions, deforestation and global warming. He also saw the potential of agro-science and technology in reducing production cost and increasing productivity and output for every hectare of arable land. Furthermore, he challenged the international community to find ways to promote investments in agriculture.

NO DELETERIOUS EFFECT OF MAIZE BT PROTEIN ON NON TARGET ARTHROPODS

<http://www.springerlink.com/content/a7wv68173353627g/>

Transgenic Bt maize varieties derived from the events Bt176 and MON810 were found to have no deleterious effect on the beneficial insect predator (*Stethorus punctillum*). The study which investigated prey-mediated effects of two maize varieties expressing a truncated Cry1Ab protein was conducted by the group of Fernando Alvarez-Alfageme at the Centre of Biological Research in Spain. Spain is a major Bt maize growing country in Europe with more than 75,000 hectares in 2007. Bt maize was first commercially planted in the country in 1998.

The researchers studied the survival of the insect predator, their developmental time to adulthood, and fecundity when exposed to its prey, the red spider mite *T. urticae*, reared on Bt and non Bt maize leaves. Commercial Bt maize varieties Compa CB (Bt176) and DKC7565 (MON810) with corresponding non-transformed near isogenic varieties Brasco and Tietar were used in their experiments. The results from feeding trials showed that neither Bt maize variety caused any negative effects on any of the parameters studied. The group reports that the predator midgut lacks specific receptors for the active Bt toxin to bind to.

GENE FLOW BETWEEN GM AND CONVENTIONAL MAIZE

http://www.coextra.eu/country_reports/news1198_en.html

Field experiments conducted by Plant Research International of the Wageningen University for the Dutch Ministry of Agriculture shows that pollen-mediated gene flow between GM and conventional maize is less likely to occur when farmers consider the agreed isolation distances between the fields. In the Netherlands, the isolation distances are 25 meters (between GM and conventional maize fields) and 250 meters (between GM and organic maize).

Researchers found a sample from the receptor field (field where samples are taken to check the mixing) with significantly high value. The most logical explanation, according to scientists, is that a GM seed was sown in the non-GM field. This is despite the strict protocol of the field experiment. Because of this, Dutch Agriculture Minister Gerda Verburg, suggests that extra measures for commercial planting of GM crops should be established, such as an obligated course for farmers.

The percentage of GM materials in the field, nonetheless, remains far below the EU agreed 0.9% accidental GMO threshold.

NOTICEBOARD

12 – 15 August 2008 - The International Symposium on Induced Mutations in Plants (ISIM) will be held in Vienna, Austria. The event aims to provide a venue to disseminate information on current trends in induced mutagenesis in plants. Among the topics to be discussed include: molecular genetics and biology of induced mutagenesis, new mutation techniques, induced mutations in crop breeding programmes, mutational analysis tolerance to abiotic and biotic stresses, and socio-economic impact of widespread mutant varieties. Interested parties may send completed participation forms to the International Atomic Energy Agency (IAEA). More information at <http://www-pub.iaea.org/mtcd/meetings/Announcements.asp?ConfID=167>

24 – 27 August 2008 - The Agricultural Biotechnology International Conference (ABIC) 2008 will be held in Cork, Ireland. The theme is "Agricultural Biotechnology for a competitive and sustainable future" and the conference will provide a venue for in depth discussion of how agri-biotechnology can influence the sustainability of global agriculture while maintaining competitiveness. The primary sponsor of the event is the Irish Agriculture and Food Development Authority. For more information and to register visit <http://www.abic.ca/abic2008/index.html>.

15 – 17 September 2008 - Bio2Biz SA 2008 will be taking place at the Sandton Convention Centre in September 2008. The Bio2Biz SA Exhibition will take place alongside the conference and will be run in conjunction with INSITE.

For more information regarding the conference, exhibition and sponsorship opportunities, please visit the Bio2Biz website www.bio2biz.org

Registrations are now open and can be done on line through the Bio2Biz website. Register now as early bird rates close 30 June.

22 – 28 September 2008 - The first All Africa Congress on Biotechnology will be held in Nairobi, Kenya. The theme of the Congress will be 'Harnessing the Potential of Agricultural Biotechnology for Food Security and Socio-Economic Development in Africa'. During the event, participants will have an opportunity to listen to experiences of other countries about modern agricultural biotechnology and its applications in their economic transformation processes. Among the topics that will be discussed include: biotechnology concepts, applications in plants and animals, intellectual property rights and biosafety risk assessment. The deadline for submission of papers is on June 30, 2008. For more information and to register: <http://abneta.org/congress/>

29 September – 3 October 2008 - The World Agroforestry Centre (ICRAF) will hold a training workshop on the application of molecular marker methods to characterize genetic variation in tropical trees in Kenya. The course is a regional event for Africa with participants coming from universities, government research institutions and other relevant partners. The training workshop is a specialist event concerned with the application of molecular markers to genetic resource management with emphasis on the steps needed to translate research into practical action. For details, see the announcement at: <http://www.worldagroforestrycentre.org/af1/index.php?id=59&NewsID=A9B36E21-3ECO-4926-B3E2-1451DA45FCEA> or contact the course organizers at the World Agroforestry Centre (either Alice Muchugi at a.muchugi@cgiar.org or Jan Beniast at j.beniast@cgiar.org).

20 – 22 November 2008 - Recognizing the importance of biological diversity, the first World Biodiversity Congress will be held in Chiang Mai, Thailand. The four-day event organized by the Century Foundation (India) will provide a forum for formulating and reviewing policies and programs that will result to more productive and sustainable biodiversity utilization and conservation. Among the topics in the technical sessions include: environmental biotechnology, biodiversity information management, management of land resources, and combating desertification. More information is available at <http://www.upm.edu.my/WCB2008Thailand.pdf>

10 – 14 December 2008 - The International Soybean Processing and Utilization Conference will be held at the Soybean Processing and Utilization Centre, Central Institute of Agricultural Engineering (CIAE) at Bhopal, India on December 10 - 14, 2008. Bhopal is regarded as the Soybean State of India. The conference will focus on the emerging technologies in soybean processing and utilization as food for nutritional enhancement and health promotion. For additional details email Dr. S. D. Kulkarni of CIAE at sdk@ciae.res.in or ispuc.v@gmail.com.

bEcon: Economics Literature about the Impacts of Genetically Engineered Crops in Developing Economies

The International Food Policy Research Institute (IFPRI) has compiled a web-based bibliography of peer-reviewed applied economics literature to assess the impact of genetically engineered (GE) crops in developing economies. All 190 articles have been organized under four major themes that address the different areas of impact: advantages to farmers, consumer preferences and willingness to pay, size and distribution of benefits, and international benefits of trade. The literature is searchable by author, year, and keyword. If permission has been granted by publishers, the references include abstracts or links to full text. Whenever available, a permanent link to each article's website is provided, as well as links to full text. As this literature is maintained on a regular basis and is fed by outside contributions, it will provide a valuable, up-to-date tool for researchers in the area, particularly in developing countries.

bEcon is updated every three months, and a CD-ROM is produced on an annual basis for those with limited or no internet access.

For more information on bEcon, visit <http://www.ifpri.org/pubs/becon/becon.asp>.

Risk assessment of crop phyto-pesticides and genetically modified organisms: credible pre-regulatory governance

Ms Wilna Jansen van Rijssen is undertaking a study aimed at proposing for South Africa, a credible pre-regulatory system for assessment of risk of new crop pesticides (with reference to phyto-pesticides) and of new Genetically Modified Organisms (GMOs).

The need for such a study arises from a growing awareness on food safety due to several food scares in Europe (e.g. food contaminants) and resulting in consumer demands for improved governance of the food chain. South Africa did not escape these scares (e.g. Sudan Red episode). The demands from consumers for assurance of food safety have lead to growing pressure for transparency in decision making to such an extent that some consumers insist on compulsory labeling of food such as GM foods, as well as pesticide residues in foods.

The focus of the study is on the Risk Analysis Model recently refined by the Codex Alimentarius Commission which includes risk assessment, risk management and risk communication. Two criteria that are important to the concept of credible governance have been the basis for a recent study in Europe under the Safe Foods programme of the European Union, as well as the restructuring of food control in Australia and other countries. These criteria are:

- Functional separation of risk assessment and risk management in order to maintain scientific integrity, and
- The need for transparency in decision-making.

In addition, the need for a system to assess the toxicity of crop phyto-pesticides exists because of the increase in research into the potential beneficial properties of indigenous plants and the growing interest in organic foods.

The study is conducted under the auspices of the Faculties of Veterinary Sciences, and of Natural & Agricultural Sciences, University of Pretoria. Questionnaires and interviews are the major instruments being used to gather information and your cooperation would much appreciated. More details may be obtained from the following website <http://www.itrresolutions.co.za/Q1B.html>.

The last date for submission of data will be 27 June 2008

Should anybody be unable to access the website, they can contact Ms van Rijssen at wilnajvr@telkomsa.net.