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Pakistan Biotechnology Information Center

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National News

In this issue

National News

University of Agriculture Faisalabad (UAF) and Ali Akbar Group of Industries sign MoU for Agriculture biotechnology research in Pakistan.

Budget Allocation for biotech research and development in Pakistan 2009-2010.

Pakistan: Bt cotton cultivation will start officially next year.

PARC launches projects to cultivate bio-fuel crops and minimum water utilizing rice in Pakistan.

International Biotechnology News

Dialogue between islamic scholars and scientists on Agribiotechnology

ARS releases corky root-resistant lettuce lines

Vietnam sets up first bio-fuel plant in PhuTho

France Rejects EFSA's Opinion on GM Maize

Scientist develop rust-proof soybean for Africa

PABIC Activities

PABIC Achivement

University of Agriculture Faisalabad (UAF) and Ali Akbar Group of Industries Sign MoU for Agriculture Biotech Research in Pakistan

University of Agriculture Faisalabad (UAF) and Ali Akbar Group have inked MoU to develop an agricultural information management system, and to work for development of transgenic and conventional hybrids and varieties in agronomics and horticultural crops, tissue culture, micropogagation, pesticide formulations, evaluation, efficacy testing and resistance management, drip irrigation and other water management systems. The signing ceremony was held in the office of Vice Chancellor Professor Dr. Iqrar A. Khan, University of Agriculture Faisalabad (UAF) and Saad Akbar Khan put their signature on the document. According to details, both parties agreed upon that Ali Akbar Group would support UAF in the organization of Kisan Melas, farmer gatherings, exhibitions, workshops, seminars and other such activities of mutual interest like internship programme.

http://www.uaf.edu.pk/new_site/prp/events/090525.html

<http://www.pabic.com.pk/26%20May,%202009%20UAF%20and%20Ali%20Akber.html>

Budget Allocation for Biotechnology Research and Development in Pakistan of 2009-2010

Advisor to Prime Minister on Finance Shaukat Tarin along with Minister of State for Finance and Economic Affairs Hina Rabbani Khar said that the government is focusing on research and development by upgrading existing R&D facilities and initiating the establishment of two world class institutes of research for wheat and cotton. Establishment of ten model agricultural union councils for each major crop across the

country will be undertaken, besides promoting the model organic farming. The policy measures undertaken by the government have led to an estimated transfer of resources of about Rs. 294 million into the rural economy. Government has signed an agreement with Ms Monsanto of United States to formally introduce Generally Modified cotton into Pakistan on fast track basis. It has been planned that the farmers will be offered BT cotton hybrids varieties during Fiscal Year 2009-10. Minister said that it is the vision of the government to treat livestock, agriculture and fisheries as an industry. In this context, the nil customs duty regime on tractors, poultry inputs and cattle feed would be continued in future.

<http://www.pabac.com.pk/25June,%2009%20Allocation%20of%20Biotech%20budget%202009-2010.html>

Pakistan: Bt Cotton Cultivation will Start Officially Next Year

Pakistan is set to officially start cultivation of Bt cotton next year, according to Mohammad Farooq Saeed Khan, the country's Federal Minister for Textile Industry. "This decision would not only increase cotton production but would also play an instrumental role in getting rid of rural poverty," Khan said addressing a conference organized by the Ministry of Textile Industry. Farmers in Pakistan have started sowing Bt cotton on their own this year. Pakistan is the fourth largest cotton producer in the world, after the United States and neighboring China and India. The top three countries are all biotech cotton producers. "India switched to Bt cotton and doubled its yield," said Khan. "But we failed to avail the potential of Bt cotton." He also said that cultivation of Bt cotton would also have positive impact on the socio-economic condition by involving female workers in the national mainstream.

For more information, visit

<http://www.pabac.com.pk/15%20July,%202009%20Bt%20cotton%20cultivation%20to.html>

PARC Launches Projects to Cultivate Bio-fuel Crops and Minimum Water Utilizing Rice in Pakistan

Pakistan Agriculture Research Council (PARC) has launched a number of projects aimed at cultivating bio-fuel crops for the production of fuel products to enable the country save huge amounts spent on fuel imports. "We have identified three salt-tolerant plants including Jatropha, Salicornia and Castor, which would grow in salt marshes on sea beaches and could even sustain for five years without water," said a senior official of the PARC. The council has already completed research work for production of bio-fuel crops and has been working on cultivating pilot crops in coastal areas of Balochistan. The council has also started two rice cultivation projects in Punjab and Sindh provinces aimed at cultivating rice by utilizing minimum water. Under the project, only the roots of the rice plants would be kept wet instead of keeping them under water. This would not only help preserve water, but also enhance crop yield. The practice would be very much useful in the areas facing water storage. The government has been focusing on research and development by upgrading research and development facilities and would set up two world class research institutes for wheat and cotton.

<http://www.pabac.com.pk/22%20june,%202009%20PARC%20launches%20projects%20to%20cultivate%20bio-fuel%20crops.html>

International News

Malaysia: Dialogue between Islamic Scholars and Scientists on Agribiotechnology

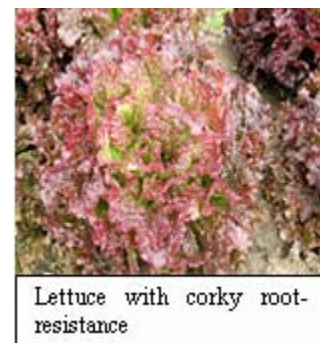
An international workshop for Islamic scholars on Islam and Agribiotechnology: Finding a Common Language between Ulama and Scientists was held at University Malaya from 14-15 July 2009. The workshop was organized by Malaysian Biotechnology Information Centre (MABIC), International Service for the Acquisition of Agri-biotech Applications (ISAAA), Yayasan Ilmuwan, University Malaya, and COMSTTECH. The workshop was attended by ulama and scientists from Malaysia, Indonesia, Philippines, India, Pakistan, Bangladesh, Iran, and Egypt. The workshop served as a platform to discuss Islam and agribiotechnology. Prominent ulama presented the views of Islam on GM food, the principles of Islam, and making decisions based on Quran, hadith and fundamentals of Ijtihad. Dr. Anwar Nasim (PABIC) and Dr. Anees Ahmad, Rector of International Islamic University of Pakistan, have participated in this event from Pakistan. The ulama too had an opportunity to learn about GM technology and food. Country reports were also presented on the status and acceptance of GM crops, the regulations and agencies in place to monitor the halal-ness of GM food. All delegates agreed that more dialogues of this nature should be organized, especially for ulama to understand the principles of molecular biology to enable them to make informed decisions on GM food. A set of recommendations on the way forward was drafted and is expected to be finalized and circulated to COMSTTECH and national agencies in the Muslim world.

For more on the workshop email Mahaletchumy Arujan of the Malaysian Biotechnology Centre at maha@bic.my.org.

ARS Releases Corky Root-Resistant Lettuce Lines

The US Department of Agriculture's Agricultural Research Service (ARS) has released three new lettuce breeding lines with resistance to corky root, a serious lettuce disease caused by the bacterium *Sphingomonas suberifaciens*. Infection of the bacterium causes lettuce roots to expand and develop yellow to brown lesions and longitudinal cracks, taking on a cork-like appearance. This results to severe yield loss since the roots are unable to effectively absorb water and nutrients. The corky root-resistant lettuce lines, developed by ARS scientist Beiquan MoU, also showed little to no tipburn in test trials. Tipburn is caused by calcium deficiency in young, growing leaves. This defect severely limits the appearance and shelflife of lettuce.

<http://www.ars.usda.gov/is/pr/2009/090707.htm>



Vietnam Sets up First Biofuel Plant in Phu Tho

Vietnam's National Assembly Vice Chairwoman Tong Thi Phong led the ground-breaking ceremony to build northern Vietnam's first bio-ethanol plant in the midland province of Phu Tho. The US \$80 million project is scheduled to become operational by December 2010 and will produce 100,000 cu. m of ethanol a year from cassava and sugarcane. The project investor, Bio-Petroleum and Petrochemical Joint Stock Company (PVB), will sign direct contracts with farmers to buy their products at prices equivalent to those available at northern border gates, said director Vu Thanh Ha

at the ceremony. The country produces between 15,000 and 30,000 liters of ethanol a day by small-scale factories using out-of-date technology in southern and central regions.
http://www.nhandan.com.vn/english/business/220609/business_n.htm

France Rejects EFSA's Opinion on GM Maize

The European Food Safety Authority's (EFSA) GMO Panel has recently released a scientific opinion on the safety and renewal of authorization for continued marketing of the GM maize MON810 in Europe. EFSA concluded that the insect-resistant maize, the only genetically modified crop approved for cultivation in the European Union, "is as safe as its conventional counterpart with respect to potential effects on human and animal health." However, France has rejected EFSA's opinion, according to a report by the Agence France-Presse (AFP). The country's ecology and agriculture ministries said EFSA had failed to "take into account requests to change the way it evaluated the risk. In a joint statement, the French ministries pointed out that "the conclusions of the European Council of Environment Ministers must be respected." The Council of Environment Ministers had called on EFSA to change its assessment methods. "EFSA's opinion could not take these assessment methods into account, since they are still being reviewed," the ministries said. France, together with Greece, Hungary, Luxembourg, Austria and recently Germany, has banned the cultivation of MON810, saying the GM maize poses danger to the environment.
<http://agriculture.gouv.fr/sections/presse5022/communiqués/avis-8217-aesa-sur>

EFSA's scientific opinion is available for download at
http://www.efsa.europa.eu/cs/BlobServer/Scientific_Opinion/gmo_op_ej1149_maizeMON810_final_opinion_en.pdf?ssbinary=true

Scientists Develop Rust-Proof Soybean for Africa

Good news for soybean farmers in West and Central Africa. The Nigeria-based International Institute for Tropical Agriculture (IITA) has developed a new variety resistant to the deadly Asian soybean rust, a disease that could wipe out as much as 80% of infested crops. Caused by the fungus *Phakopsora pachyrhizi*, the plant disease has wreaked havoc in Africa and South America. According to the IITA, Brazil lost an estimated US\$2 billion in yields despite spending US\$400 million on fungicides to control the disease in 2003 alone. For most African farmers, using resistant varieties is the most viable method to control the dreaded rust as applying fungicides proves very costly.

The new variety, named TGx 1835-10E, is also high-yielding, averaging 1655 kg/ha grain and 2210 kg/ha fodder. TGx 1835-10E was released for cultivation in Nigeria. Trials are also underway in other parts of Africa. Hailu Tefera, IITA soybean breeder, noted: "The variety can be used for direct cultivation in tropical Africa or as a source of resistance genes in soybean breeding programs. It was previously released in Uganda, and has already shown excellent performance in trials carried out in Southern Africa."

Read the original story at

http://www.iita.org/cms/details/news_feature_details.aspx?articleid=2517&zoneid=342



The new rust-resistant TGx 1835-10E (right) compared with a local susceptible soybean variety (left).

PABIC Activities

Series of Biotech Lectures Intitaded from 27th June, 2009

To enhance sound understanding of the processes and procedures employed in biotechnology and other related issues PABIC has initiated a popular lecture series, delivered by well known Biotechnologists and other scholars on every third Saturday of every month. The first lecture of the series entitled, “Biotechnology; Gateway to Economic Prosperity of Pakistan”, was delivered by Prof. Dr. Nuzhat Hussain, Director, Centre for Molecular Genetics, University of Karachi, at Video Conferencing Hall, Latif Ebrahim Jamal National Science Information Center, H. E. J. Research Institute of Chemistry, International Center for Chemical and Biological Sciences, University of Karachi.



Prof. Dr. Nuzhat Hussain delivering the lecture



Prof. Dr. Nuzhat Hussain (Speaker) with Prof. Dr. M. Iqbal Choudhary (Director, PABIC)



Participant of the lectures

PABIC Achievements

The project entitled, “Promotion of Applications of Agriculture Biotechnology in OIC Member Countries by the Establishment of Biotechnology Information Centers (BICS)”, has been approved by COMSTECH (OIC’s Standing Committee for Science and Technology). The project is designed to promote agrobiotechnology in OIC member countries by creating an institutional mechanism for dissemination of information and training of stakeholders. To achieve this, five new biotechnology centers (BICs) in OIC member countries (Iran, Turkey, Kazakhstan, Qatar and Uganda) will be established through training of staff and some logistic support. The venue of the training will PABIC.

What is PABIC?

The Pakistan Biotechnology Information Center (PABIC), at Latif Ebrahim Jamal National Science Information Center, University of Karachi, is a national non-profitable organization under the patronage of International Service for Acquisition of Agri-Biotech Applications (ISAAA) and National Commission on Biotechnology. The initiative of the establishment of Pakistan Biotechnology Information Center is an attempt to promote the multidisciplinary research and enhance the awareness and appreciation of biotechnology at the local and international levels. PABIC also works for the development of industries, educational approaches designed to train interdisciplinary scientist in emerging area of health, agriculture, bioinformatics and environmental biotechnology.



Pakistan has several good institutions currently working on various aspects of biotechnology. There are a number of universities which offer various degrees in this discipline. However there is a serious lack of appreciation of biotechnology at the public and industrial levels. Coordination and exchange of information among Institution and practitioners of biotechnology is less than adequate. Therefore there is a need of a resource center in Pakistan which can serve as a hub to disseminate information, to support the collaborative efforts and to develop a network of institutions and Individuals working in this field.

Aims and Objective

- Launching of Biotechnology based information program.
- Create awareness in public sector, education sector, and industrial sector.
- Provide first time learning services using the latest learning technologies that can be emulated by educational institute.
- Dissemination of information.
- Exchange of ideas.
- Education & awareness.
- Focus on presenting / discussing key issues affecting the industry.

