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Pakistan

Biotechnology

Agricultural Biotechnology Report

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Report Highlights:
Pakistan at present is not producing any biotech crops. Biosafety guidelines and rules were enacted in April 2005 and the preparation of a national policy and action plan is in process. Eight strains of locally developed in-vitro GM cotton are being developed that may be commercially released in 2-3 years. GM soybeans and soybean oil is imported to Pakistan and Imported GM corn seed and BT cottonseed may find a market in Pakistan in light of the recently passed biosafety guidelines. Pakistan has signed the Biosafety Protocol but it is not yet ratified. There are no biotechnology related trade barriers between U.S. and Pakistan and trade should continue without any hindrances for the foreseeable future.

Includes PSD Changes: No
Includes Trade Matrix: No
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Executive Summary

The Government of Pakistan views developments in the field of Agricultural Biotechnology as being critical to addressing Pakistan's food security in the face of a growing population. At present there are 27 Government institutes, universities or other organizations engaged in Biotechnology research and development. Biosafety guidelines and rules were approved and enacted in April 21, 2005, and the National Commission on Biotechnology (NCB) has submitted a draft national policy for biotechnology, and a corresponding action plan, to the Ministry of Science & Technology for approval.

Transgenic corn seed and BT cottonseed provided by multinational companies may find markets in Pakistan in a relatively short time - after presentation of their case and subsequent approval by the Biosafety Committees. Likewise, field evaluation of in-vitro locally developed GM cotton is possible, though it may take 2-3 years for their release in the country.

Biotechnology Trade and Production

Pakistan is presently not producing any biotechnology crops. Bio-safety guidelines and rules were enacted on April 21, 2005. Eight in-vitro strains of locally developed cotton (six for insect resistance and two for virus resistance) are pending NBC approval for field-testing under the guidance of the recently established Bio-safety guidelines. It is anticipated it will take another 2-3 years to complete small acreage planting of GM cotton. Work on GM rice has been undertaken through the auspices of the Rockefeller Foundation, although the Government does not encourage this as Non GM rice has strong markets in the European Union. Biotech research on indigenous crops that are used locally, like tomato, potato, chilies and melons is also underway.

Pakistan is importing GM soybeans and soybean oil from United States and other countries. It is not producing any biotechnology crops but it may soon use imported GMO corn seed coming from the U.S. through multinational seed companies like Pioneer, Dupont and Monsanto.

Biotechnology policy:

The National Biotechnology Policy is envisioned to harness the vast potential of agricultural biotechnology as a key contributor to the development of Pakistan. The monitoring and implementation mechanism of the proposed guidelines is built on a three-tier system compose of the National Biosafety committee (NBC); a Technical Advisory Committee (TAC); and the Institutional Biosafety Committees (IBC) at institutional level. The Secretary, Ministry of Environment, heads the NBC, and will be responsible to oversee all laboratory work, field trials and authorization of the commercial release of GM products. The three monitoring and implementing bodies will administer enforcement of various clauses of the National Biosafety Guidelines. The IBC may make recommendations to NBC regarding the awarding of exemptions for laboratory and fieldwork with genetically modified organisms. These recommendations will be made, and formal approval granted, if there is sufficient information and grounds to consider the work as having minimal or no risk. After permission for deregulation is granted by the NBC, approval can still be withdrawn if sufficient technical data and other evidence becomes available which warrants a review.

The responsible government ministries are Ministry of Environment, Ministry of Food, Agriculture and Livestock, Ministry of Science & Technology, Ministry of Health and Ministry of Education.

Agricultural biotechnology decisions in Pakistan are followed closely by multinational firms as well as local pesticide and seed marketing companies. They monitor the structure of the regulatory framework, the formation of biotechnology policy and the implementation of the action plans.

To date in Pakistan, no biotechnology crop has been approved, as the government is focused first on putting the system in place. Ministerial level bio-safety committees are currently being structured following the approval of the Biosafety rules in April, 2005. It is commonly accepted that it will take 2-3 years before one sees the beginning of commercial agricultural biotechnology activity in Pakistan.

The National Commission on Bio-safety (NCB) was established on November 30th 2001, with the purpose of undertaking research in the field of biotechnology. Its mandate is to coordinate and to act as a focal point for exchange of information with other ministries and agencies, and all international initiatives in agricultural biotechnology. This includes intellectual property rights, plant breeder's rights and bio-safety laws. Recently NCB has drafted a national policy & action plan and has submitted it to the Ministry of Science & Technology for approval

The public and private sector is waiting for the approval of the policy and the action plan. When launched, it will take some time for the commercialization of biotechnology products and the simultaneous enforcement of labeling and packaging rules. Since Pakistan's cotton production does not fall with the food chain system, it is presumed there will be no issue associated with their labeling and packaging.

Pakistan has signed the Biosafety Protocol but it has not yet been ratified.

There are no biotechnology-related trade barriers between the U.S. and Pakistan. Soybeans and soybean oil from U.S. is currently imported into Pakistan. Post does not anticipate any pending legislation will affect U.S. exports to Pakistan.

Marketing issues:

The Pakistani market will accept the sale of biotechnology products for all segments of society, and post does not perceive product rejection as being an issue. Industry and consumers are using GMO soybeans and oil without any opposition, and the only voices against agricultural biotechnology have been raised by NGO's with minimal impact on the public debate.

Capacity Building and Outreach:

U.S. Government has funded capacity building and outreach projects in Pakistan that relate to agricultural biotechnology.

1) USAID helped fund a Tripartite Meeting on Agricultural Biotechnology (USA, India and Pakistan) held on 24-25 May 2005 at Lahore, Pakistan.

2) Under a 2003 PL-480 Food for Progress grant with USDA, the University of Agriculture Faisalabad will provide $50,000 per year to fund Borlaug Fellows to do research on issues of agricultural biotechnology.

3) Post-Doctoral research on biotechnology and related agricultural issues will be funded under A Young Scientists Program, part of the USDA-funded

sustainable endowment to support the Agriculture Linkage Program at the Pakistan Agricultural Research Council.

4) USAID funded the biotechnology training of fifteen scientists under the Management of Agricultural Research and Training (MART) program.

Pakistan needs to build the capacity of its young scientists to offer guidance on legislative, regulatory, and issues policy issues related to Agricultural Biotechnology. To the limits of its resources, the FAS office in Pakistan will continue to promote this type of capacity building.

Reference material:

Biosafety guidelines and the rules approved by the Government of Pakistan in April 2005. T download websites are:

Biosafety Guidelines:

www.environment.gov.pk/act-rules/BiosafetyGlines2005.pdf

Biosafety Rules:

www.environment.gov.pk/act-rules/Biosafetyrules.pdf