



Office of Agricultural Affairs
U.S. Embassy, Paris

Agricultural Biotechnology in the United States Newsletter - February 2008

To our readers: We in the Office of Agricultural Affairs of the U.S. Embassy in Paris would be happy that you inform us of your visits to the United States, so that we can help you organize your meetings and your administrative procedures. Please do not hesitate to share any questions with us on these issues, as we are here to facilitate these exchanges!

1. U.S. Policy:

- **U.S.-EU Biotech WTO Case ([link](#))**

The Office of the United States Trade Representative commented on the January 11 expiration of the reasonable period of time (RPT) for European Union (EU) compliance with the WTO rulings in the EC-Biotech dispute. In order to normalize trade in biotech products, not to impose trade sanctions on EU goods, the United States has agreed with the EU to suspend for a limited period the proceedings on our WTO request for authority to suspend concessions in order to provide the EU an opportunity to demonstrate meaningful progress on the approval of biotech products. During the coming months, the United States will periodically evaluate EU progress toward normalizing trade against a set of benchmarks and timelines. To a large extent, these performance measures are set out in the EU's own laws. If the United States decides to pursue WTO proceedings on the EU's compliance, the United States would file a formal consultation request with the EU, followed by a request for the establishment of a WTO compliance panel. The United States first turned to the WTO to resolve this dispute over four and one half years ago, and U.S. seed companies, farmers, and exporters continue to experience significant commercial losses as a result of the EU actions.

- **USTR Comments on French Ban on MON 810 ([link](#))**

USTR commented on the recently announced French ban on MON 810 corn "This newly banned variety of corn has been grown safely in the EU, the United States, and around the world for over a decade. The WTO panel in the biotech case previously found that a similar ban imposed by Austria was unsupported by scientific evidence and inconsistent with WTO rules. We expect the European Commission to move promptly to lift this unjustified ban, and would hope that the Government of France would reconsider this unwarranted action."

- **Federal budget bill contains \$8 million for ag-research money ([House link](#)) ([ithaca journal link](#))**

In December, the vice-chairman of the House Appropriations Subcommittee on Agriculture announced congressional approval of \$8.02 million for the construction of a Grape Genetics Research facility at the New York State Agriculture Experiment Station in Geneva (\$1.88 million), ongoing apple and grape research programs at Cornell University (\$629,000 for grape genetics

research and \$371,000 as an apple fire blight special research grant), and other agricultural research projects at the school (including Food Safety Research Consortium, livestock and dairy policy research, National Beef Cattle Genetic Evaluation Consortium, human nutrition research, environmental research, and computational agriculture). The funds are included in the Omnibus Appropriations bill for Fiscal Year 2008.

- **USDA/Risk Management Agency approves insurance break for biotech corn growers in 2008 ([link](#))**

In December 2007, USDA/RMA announced that the pilot Biotech Yield Endorsement ([link](#)), launched as a pilot program in September, will be implemented beginning with the 2008 crop year in the states of Illinois, Indiana, Iowa, and Minnesota. The BYE will provide producers a premium rate reduction if they plant non-irrigated corn for grain containing three specific biotech traits - YieldGard® Corn Borer, YieldGard Rootworm and Roundup Ready® Corn 2, which are only marketed under the trade names of "YieldGard® Plus with Roundup Ready® Corn 2" and "YieldGard VT Triple." Monsanto has demonstrated that its specific triple-stack genetic traits, when used in combination, provide lower yield risk as compared to non-traited hybrids.

Producers with an individual yield or revenue insurance plan at a buy-up level of Federal crop insurance coverage will be eligible for the discount on any unit in which they plant at least 75 percent of their non-irrigated corn for grain acres to a qualifying corn hybrid. RMA will release the BYE, containing the eligibility criteria, and instructions to approved insurance providers in the near future. This endorsement does not waive or otherwise affect the [Environmental Protection Agency's](#) (EPA) existing refuge requirements. Producers will be expected to be in full compliance with all EPA requirements.

2. International Organizations:

Sampling detection methods for products of modern agricultural biotechnology in NAFTA countries (International Life Science Institute, ILSI): ([link](#))

The non-profit, worldwide foundation ILSI recently published a report as a background paper for a workshop organized last October. This report recommends: (1) to create a network for technical capacity building; (2) to have a collaborative agreement between countries to develop guidelines for method performance and validation criteria; (3) to give additional focus to sampling; and (4) to develop reference materials, discussion and guidelines, and opportunity for more research.

3. Research Results Recently published:

Implications of Gene Flow in the Scale-up and Commercial Use of Biotechnology-derived Crops: Economic and Policy Considerations (Council for Agricultural Science and Technology - CAST) ([link](#))

CAST is an international consortium of 38 scientific and professional societies. It assembles, interprets, and communicates credible science-based information regionally, nationally, and

internationally to legislators, regulators, policymakers, the media, the private sector, and the public. The introduction of biotechnology-derived crops has caused an increased interest in understanding and managing gene flow. The Issue Paper describes biological traits being imparted into biotech crops and their gene flow ramifications, explains the phenomenon of adventitious presence and how it relates to gene flow, discusses containment approaches for the mitigation of gene flow, summarizes existing regulatory and risk assessment mechanisms for biotech crops, discusses potential economic implications of biotech crops in the marketplace, and explores future policy and research issues.

4. Research Perspectives :

Heat-tolerant beans (Agricultural Research Service – ARS) ([link](#))

Climatic change could affect common bean (*Phaseolus vulgaris* L.) production in both temperate and tropical zones of the world. Common beans are sensitive to high temperatures and under heat stress, bean yield and quality decrease significantly. In this study, farmers in Honduras avoiding climatic constraints to common bean production by planting at different altitudes during different seasons, were interviewed. A cost benefit analysis was conducted to determine if the development of a new heat tolerant bean variety would be worth the economic investment. The rate of return for the investment in a heat tolerant variety in Atlántida, discounting plant breeding costs, was therefore between 28 and 38%.

Genetically modifying rice to improve its resistance to reduced water supply ([link](#)):

By genetically modifying rice, a group of researchers in various research centers including the Virginia Tech Institute may have found one solution for a sustainable use of global water resources. The authors identified and cloned the *HARDY (HRD)* gene from the mustard-related plant *Arabidopsis*. The gene codes for an AP2/ERF-like transcription factor and plays a critical role in regulating gene expression during desiccation-sensitive plant developmental stages. When overexpressed in rice plants in well watered or drought-like conditions, *HRD* greatly improved water use efficiency by >50% and enhanced photosynthesis, increased the plant's leaf canopy, and imbued leaves with a deeper green color. This transcription factor, the authors suggest, could be used in a variety of crops to help better conserve increasingly limited global freshwater resources.

5. Biotech Industry Perspectives:

Pioneer releases new genetic corn varieties for 2008 planting ([link](#))

Pioneer Hi-Bred, a DuPont business, announced in January the release of 23 new genetic families matched with technology from the Herculex® family of insect protection traits and the Roundup Ready® Corn 2 trait. These consist of 15 Pioneer double-stack hybrids containing the Herculex I gene and the Roundup Ready Corn 2 trait, and 22 new triple stack hybrids offering Herculex XTRA insect protection and the Roundup Ready Corn 2 trait. Herculex XTRA offers a combination of the Herculex I trait (protecting the corn plant against European and southwestern corn borer, western bean cutworm, black cutworm, fall armyworm, corn earworm, sugarcane borer, southern cornstalk borer and lesser cornstalk borer) and Herculex RW rootworm protection gene to guard against a broader range of insects in corn than any other product on the market.

Monsanto's biotech products expected in the next decade

[\(link\)](#)

In January, Monsanto listed a number of biotech crops currently under R&D and expected to be available for farmers by 2012. These include YieldGard VT PRO, one of the primary components of SmartStax technology (broader spectrum of insect control than the first generation of corn borer resistant products), YieldGard Rootworm III (two modes of action against the corn rootworm pest), omega-3 enriched soybeans, and drought-tolerant cotton.

6. U.S. Biotech Production:

More Roundup Ready sugarbeets in 2008 ?

According to the sugar company American Crystal ([link](#)), production of biotech sugarbeet in the U.S. is expected to increase in 2008 ([link](#)). According to the Sugar Industry Biotech Council ([link](#)), the sugar is the same, whether from sugarbeets or sugarcane, or from biotechnology-enhanced or conventionally improved sugar crops, sugar is pure and natural and has the same nutritional value, composition and wholesomeness. Biotechnology-enhanced sugarbeets are an important tool that can be used by growers to maintain the availability of the domestic sugar supply for North American consumers. Roundup Ready sugarbeets have been approved for production in the United States and Canada since 2005. Only three percent of U.S.-produced sugar and sugar-containing products are exported to other countries. In fact, 97 percent of sugar produced in the United States is sold in the United States, mainly to Japan, Canada, and Mexico, which have granted regulatory approval to Roundup Ready® sugarbeets for food and feed uses.

NCGA urges growers to include refuge planning in seed purchase decisions

[\(link\)](#)

Last November, the National Corn Growers Association (NCGA) reminded U.S. biotech corn growers that the development of an Insect Resistance Management (IRM) plan is an essential and required part of their 2008 planning process. Planting a biotech corn refuge helps decrease the natural selection pressures that can lead to insect resistance. To prevent or delay resistance development to biotech crops, Environmental Protection Agency (EPA) registrations require at least a 20 percent refuge for current biotech corn borer and corn rootworm traits in northern states. In southern states, where both biotech cotton and corn are planted, the EPA requires at least a 50 percent refuge for corn borers. Under the EPA program, growers who do not comply with refuge requirements can lose access to the technology. Similarly, seed dealers who do not follow through on their commitments stand to lose their ability to sell the products. NCGA and trait providers have established a number of resources for growers developing IRM plans and a refuge strategy for their farm. Seed companies provide information about refuge requirements, and the NCGA offers the IRM Learning Center, an interactive tutorial available on its website ([link](#)).

7. Background information:

- U.S. regulatory framework: <http://usbiotechreg.nbii.gov>

- List of regulated and deregulated products:
http://www.aphis.usda.gov/biotechnology/brs_main.shtml
http://www.aphis.usda.gov/brs/not_reg.html
- Adoption of biotechnology and its production impacts:
<http://www.ers.usda.gov/Briefing/Biotechnology/chapter1.htm>

Contact: U.S. Embassy: <http://www.amb-usa.fr>
Office of Agricultural Affairs: <http://www.usda-france.fr>
Contact: Marie-Cécile Hénard, agricultural economist
Marie-cecile.henard@usda.gov
Tel: (33-1) 43 12 23 68
Fax: (33-1) 43 12 26 62