

IN brief

Puerto Rico GM crop haven

Puerto Rico has passed a new law designed to position the island as an agricultural biotech Mecca. Legislators passed the Law for the Promotion and Development of Agricultural Biotechnological Businesses, signed in August by Governor Luis Fortuño. The new law introduces financing incentives and a series of measures designed to ease the process by which biotech corporations obtain trade rights and licenses on the island. As long as they comply with all the legal requirements, firms will receive assistance for projects that include the development and mass production of novel transgenic plants, the use of genetically modified plants to produce pharmaceuticals and nutraceuticals or to act as catalysts in environmental cleaning processes. Since 1987 Puerto Rico has registered 2,177 official field tests for genetically modified (GM) crops, placing the island as the third preferred place for planting experimental or commercial GM crops, after Hawaii and the US state of Indiana. Currently, several US universities and 11 biotech firms are located in Puerto Rico. The island's excellent weather, which enables winter nurseries and year-round growing cycles, accounts for this preference, says Santiago Arauca, Public Affairs Manager for Monsanto Puerto Rico. The new law, he adds, could help biotech corporations expand, boosting the island's economic activity. Critics such as Puerto Rico's Pro-Ecological Agriculture Coalition argue that the new law favors corporations but fails to evaluate the negative impacts. *Veronica Guerrero*

Kick-start for Canada's agbio

A CAD\$120 million (\$116.9 million) venture fund aimed at shoring up agricultural biotech in Canada has been launched, providing a positive response in a difficult investment climate. Bioenterprise Capital will be run by experienced entrepreneurs and investors rather than bankers, says Dave Smardon, president and CEO of BioEnterprise Corp of Guelph, Ontario, Canada, one of the entrepreneurs involved. "There were 173 venture capital and angel investor groups active in Canada in 2001," he says, "but there are now only 30." Furthermore, virtually all the capital has migrated towards investment in late-stage, lower-risk companies, in information technology, telecommunications and medical applications. The fund managers will take an extremely hands-on approach to their investments, a form of "quasi-incubation" according to Smardon. To date, over 40 industry and investment mentors have joined the cause. "The presence of people who know how to make companies succeed means that we're not picking winners, we are building winners," says Smardon. The fund is expected to close in September 2010, with money coming from private investors, government agencies and institutions. Approximately half will come from within Canada, and half from international sources. Government participation is expected to be below 20% of the fund's total. One private investment group has already stepped up with a CAD\$25 million (\$24.3 million) cornerstone. *John Hodgson*

Courts upbraid USDA for 'lax review' of GM crops

A federal judge has ruled that the US Department of Agriculture (USDA) failed to adequately assess the environmental impact of Monsanto's Roundup Ready sugar beets. Judge Jeffrey White of the Federal District Court for the Northern District of California ruled in September that the USDA should have better assessed the potential impact of genetically modified (GM) sugar beets on closely related crops, such as red table beets and Swiss chard. The court has ordered the agency to conduct the impact study, and at press time, had not announced whether it would halt in the interim planting of the beets, developed by St. Louis-based Monsanto. The case was brought by the Center for Food Safety in Washington, DC, representing a coalition of farmers and consumers.



Commercial planting of GM sugar beets is suspended.

Sugar beet is the third biotech crop US courts have ordered the USDA to reexamine for lack of a full environmental review. In the first instance on February 5, 2007, the US District Court for the District of Columbia ruled that the USDA allowed field trial planting of Monsanto's genetically engineered creeping bentgrass—used for lawns, golf course tees and greens—without adequately examining the environmental impacts. A week later, the US District Court for the Northern District of California delivered a similar ruling for Monsanto's GM alfalfa, which the agency had allowed to be commercially planted or deregulated. In both cases the courts ordered the USDA to conduct impact studies, and planting has been halted until the environmental reviews are ready. Monsanto's appeal to the courts to reconsider the ban on planting alfalfa was denied in June.

In each of the sugar beet, alfalfa and bentgrass cases, the courts found that the USDA violated a federal law known as the National Environmental Policy Act. The law requires the USDA to prepare an 'environmental impact statement' if deregulating the crop would significantly affect the "quality of the human environment." To decide whether a crop warrants such a review, the USDA, through its biotech regulatory arm, the Animal and Plant Health Inspection Service (APHIS), conducts a preliminary 'environmental assessment'. For instance, in its assessment of sugar beets, APHIS concluded that the possibility of gene flow to wild beet relatives posed no more threat than that of conventional beets, and required no further environmental review. All the assessments the agency has ever prepared on biotech crops have always concluded that an environmental impact statement is not warranted.

The court, however, found USDA's beet review " cursory" and lacking consideration of the effects of gene transmission on conventional and organic beet growers. "I hope [the USDA] gets the message that going forward they have to do an environmental impact statement," says Greg Loarie, an attorney for EarthJustice, of Oakland, California, which represented the plaintiffs in the sugar beet case. Roger McEowen, an agricultural policy researcher at Iowa State University in Ames, adds "APHIS just needs to follow the rules to avoid these court situations." But the court rulings raise questions about the scope of USDA's responsibility. The agency has interpreted its authority as limited to reviewing environmental impacts like gene flow and weed resistance. "To enter into a discussion of the socio-political and economic impacts" on conventional and organic farmers "goes beyond the intent of an [environmental assessment] and the authority of APHIS," the agency wrote in its assessment of biotech sugar beets.

But the courts say USDA must consider these effects. For example, in the alfalfa decision the court declared "[a] federal action that eliminates a farmer's choice to grow nongenetically engineered crops...is an undesirable consequence," and "has a significant effect on the human environment." Similarly, for sugar beets, "Economic effects are relevant and must be addressed in the environmental review when they are interrelated with natural or physical environmental effects."

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