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"Technological Intolerance Threatens Global Food Security"

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Aug. 17, 2010: genetically modified (GM) sugar beets are harvested near East Grand Forks, Minn. GM sugar beets provide 1/2 of the U.S. sugar supply.
AP Photo

Modern biotechnology is an important force in global agriculture. But it continues to be challenged by those wanting to limit its spread under the pretext of preserving the purity of organic farming. This is being done despite worrying evidence of rising food prices and the associated political unrest.

In a historic decision, the U.S. secretary of Agriculture, Tom Vilsack, recently ruled that genetically modified (GM) alfalfa is as safe as traditionally bred alfalfa. USDA has since then allowed farmers to resume cultivation of GM sugar beets. The government is also reviewing other cases that include GM trees and salmon.

The alfalfa decision reverses his earlier proposal to ban the planting of Roundup Ready alfalfa within five miles of any organic seed breeder.

Technology is widely used

Since their introduction in 1995, U.S. farmers have made GM crops the most rapidly adopted agricultural technology in history. GM varieties are grown on more than 150 million acres in this country alone and account for nearly all U.S. corn, soybeans and cotton.

But organic farmers, whose fields make up just one-half of 1 percent of U.S. cropland, have long complained that GM crops jeopardize their own production through cross-pollination. Such cross-pollination could destroy their biotech-free status.

It is recognized that seed breeders should be responsible for protecting the genetic composition of seed. For example, breeders must protect sweet corn from cross-pollination by the unpalatable field corn varieties fed to livestock. Similarly, they must prevent canola from being cross-pollinated by rapeseed, which contains a potent natural toxin.

But there are a number of simple and flexible agronomic techniques, such as isolation distances and buffer zones, which breeders can use to preserve the identity of their seeds.

For alfalfa, the Association of Official Seed Certifying Agencies requires buffer zones of just 165 feet to maintain the genetic integrity of certified seed and 900 feet for so-called foundation seed. That's sufficient to prevent most cross-pollination.

 Conventional farmers further volunteered to extend buffer zones up to one or two miles from non-biotech seed breeders. The organic industry rejected that offer. Ronnie Cummins, director of the Organic Consumers Association, said "there can be no such thing as coexistence" with biotechnology.

Such zero-tolerance runs counter to the organic industry's own rules concerning unwanted inputs, which are based on process not outcomes. As long as organic growers do not intentionally plant biotech seeds or apply synthetic pesticides, the unintentional cross-pollination by GM plants or the drift of a neighbor's pesticide onto their fields does not cause the crops to lose their organic certification.

World is following lead of U.S.

The USDA decision has come at a time when much of the world is warming to biotech. Farming giants like China, Brazil and India have embraced biotech crops. And even the European Commission (EC) is acknowledging that existing GM crops do not carry any unique risks.

In a recent study, the EC has found that GM crops are at least as safe for consumers and the environment as conventionally bred plant varieties, and sometimes safer. It also concluded that GM crops could help developing countries meet their food needs while addressing the challenges of climate change in a sustainable way.

African countries such as South Africa, Burkina Faso and Egypt have adopted GM crops. Other countries such as Kenya and Tanzania are preparing to start field trials.

The United States has been a world leader in biotech because it uses a science-driven regulatory system. The rest of the world needs this demonstrated leadership now more than ever. Caving in to the forces of technological intolerance would erode U.S. leadership in agricultural innovation and undermine global food security.

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