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BUSINESS DAY

Acreage for Genetically Modified Crops Declined in 2015

By ANDREW POLLACK APRIL 13, 2016

The world's farmers have increased their use of genetically modified crops steadily and sharply since the technology became broadly commercialized in 1996. Not anymore.

In 2015, for the first time, the acreage used for the crops declined, according to a nonprofit that tracks the plantings of biotech seeds.

The organization said the main cause for the decline, which measured 1 percent from 2014 levels, was low commodity prices, which led farmers to plant less corn, soybeans and canola of all types, both genetically engineered and nonengineered.

But the figures for the last few years show that the existing market for the crops has nearly been saturated.

Only three countries — the United States, Brazil and Argentina — account for more than three-quarters of the total global acreage. And only four crops — corn, soybeans, cotton and canola — account for the majority of biotechnology use in agriculture. In many cases, more than 90 percent of those four crops grown in those three countries, and in other large growers like Canada, India and China, is already genetically modified, leaving little room for expansion.

Efforts to expand use of biotechnology to other crops and to other countries have been hindered by opposition from consumer and environmental groups, regulatory hurdles and in some cases scientific obstacles.

“Onerous regulation for transgenic biotech crops remains the principal constraint to adoption,” said the executive summary of the report by the nonprofit, known as the International Service for the Acquisition of Agri-Biotech Applications.

The organization states its mission as helping small farmers in developing countries take advantage of biotechnology, which it maintains can increase farmer income and reduce use of chemical pesticides. It receives financial support from various foundations, companies, trade groups and governments, including Monsanto and the United States government.

Still, the group’s yearly acreage tallies are widely cited, even sometimes by critics of biotechnology.

The policy conclusions reached by the group are another matter. Bill Freese, science policy analyst at the Center for Food Safety, which generally opposes genetically modified crops, said that the organization’s reports were “just total boosterism.”

The slowing of growth in agricultural biotechnology has contributed to consolidation within the industry, with DuPont and Dow merging and Syngenta being acquired by the China National Chemical Corporation. It is also a factor behind Monsanto’s efforts to diversify, including through an unsuccessful bid to buy Syngenta last year.

Over all, the acreage planted with biotech seeds in 2015 fell 1 percent globally to 444.0 million acres, from 448.5 million acres in 2014. The crops were grown in 28 countries and used by up to 18 million farmers, most of them small ones in developing countries, the report said. Critics say that despite the expansion over the last two decades, biotech crops still account for a small fraction of global farmland and are grown by a small percentage of the world’s farmers.

The value of the seeds was $15.3 billion in 2015, down from $15.7 billion in 2014. That represents 34 percent of the global commercial seed market, the report said.

Most of the genetically modified crops contain genes from bacteria that make the crops resistant to certain insects or tolerant of Roundup or other herbicides.

That tolerance of herbicides can allow farmers to spray those chemicals to kill weeds without harming the crop.

The crops were eagerly adopted from the moment they first became widely commercialized in 1996, particularly in the United States. Global acreage grew year over year, in many years by double digits, until a slowdown in the last two or three years.

The United States remained the largest grower of such crops in 2015, with 175.2 million acres planted, down 5.4 million acres from 2014. That decline was largely offset by an increase of nearly five million acres in Brazil, bringing its total to 109.2 million acres. Acreage in Argentina, the third-largest grower, increased to 1 percent, at about 60.5 million acres.

Plantings in India, whose only genetically engineered crop is cotton, were flat at about 28.7 million acres while cultivation in Canada fell by about 5 percent to 27.2 million acres because of lower overall cultivation of canola, the report said.

L. Val Giddings, a proponent of biotech crops, said the small yearly decline was a sign of a maturing market.

“I’m completely unsurprised to see this slight evidence of cycles, which are normal in agriculture,” said Dr. Giddings, senior fellow at the Information Technology and Innovation Foundation, an organization in Washington that advocates for policies that enable innovation.

Efforts to introduce different traits and different crops have been slow to take hold.

In the United States, two notable new genetically engineered crops were approved since late 2014 — apples that do not turn brown when sliced and potatoes that produce less of a potential cancer-causing chemical when fried. But in response to activists, some food companies like McDonald’s, Wendy’s and Gerber have said they have no intention to use one or both of those products at present.

Development of those markets will be gradual, with only about 400 acres of the potatoes and 15 acres of the apples planted in 2015, according to the report.

With Vermont now set to require labeling of foods containing genetically modified crops, some big food companies like Campbell, General Mills and Mars have said they will start labeling all their foods nationwide. Del Monte Foods went even further, saying it would eliminate ingredients from genetically modified crops in many of its products.

In China and India, growers have widely adopted cotton engineered to be resistant to insects. But efforts to expand the use of biotechnology to food crops have faltered. China has devoted a lot of research into developing its own versions of genetically engineered corn and rice but has not approved them yet for commercial use.

In India, the government in 2010 imposed a moratorium on commercial cultivation of insect-resistant brinjal, a type of eggplant. Recently, the government has said it would reduce the fees that Monsanto and its local partner can charge cotton seed companies for their genes, prompting Monsanto to threaten to re-evaluate its business in that country.

Europe remains the center of opposition to the crops. Cultivation in the European Union fell 18 percent to only about 300,000 acres, almost all of that insect-resistant corn grown in Spain.

The report said the global acreage could expand if genetically modified corn were to be adopted in China and in other parts of Asia and Africa. Vietnam began growing such corn commercially in 2015. The report also said there were 85 potential new products being field tested, including drought-resistant corn and pest-resistant cowpeas for Africa.

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