Continuing hostility to genetically modified crops

European farmers are likely to fall behind in the competitive world grain market as EU consumer hostility to genetically modified organisms (GMOs) drives away research and prevents cultivation of high-yield and pest-resistant crops.

The European Union has approved only one GMO grain for cultivation - Monsanto's insect-resistant MON810 maize (corn). Fierce opposition has led Germany, Austria, Greece, Hungary, Luxembourg and Bulgaria to ban it.

A moratorium in France, Europe's largest grain exporter, was annulled for legal reasons in November, but the government has said it aims to reinstate the ban before spring sowing starts in some regions at the end of this month.

Farmers and scientists say, however, that GMO maize has shown it can improve output and cut costs. "It's clear that in continents where they have access to these GMO techniques, they will go faster than in Europe," Fabien Lagarde, director at French oilseeds technical institute Cetiom, said. "So Europe will lose in terms of competitiveness compared with the rest of the world, notably for maize," he added.

French farm group AGPM provided data on the results of using MON810 maize on over 22,000 hectares in 2007, the year before France imposed its moratorium. The GMO strain prevented an average loss in yields from pests of 0.5 metric tons per hectare, an advantage worth about 100 euros per hectare, it found.

This included the additional cost of 35 to 40 euros per hectare for GMO seeds over conventional ones, AGPM Deputy Director Cedric Poeydomenge said. MON810 helped farmers save 8,800 liters of pesticide and 30,000 liters of fuel to spread it, AGPM said.

WHEAT EXPORTS NOT AT ISSUE

The damage to Europe's competitiveness in global markets will be limited, however, by the fact its main export crop is wheat, a grain with little GMO research and development to date. Europe's maize output is about half of its

wheat production. A study by biotech lobby International Service for the Acquisition of Agri-Biotech Applications (ISAAA) found that the global area planted with GMO crops rose 8 percent last year to a record 160 million hectares.

The main biotech crops were cotton, with 82 percent of all crops now GMOs, soybeans at 75 percent and maize at 32 percent. European farmers sowed GMO maize on 114,490 hectares last year, or just over 1 percent of the total EU maize area, the ISAAA said. That compared with 88 percent in the United States, U.S. government data showed.

Spain had 85 percent of the total EU area sown with MON810 last year, amounting to about one quarter of all maize planted in the country. Poeydomenge said Europe could find a market for increased maize output in North Africa and the Middle East to feed growing poultry populations.

"These markets are now mainly supplied by Argentina, Brazil, the United States, Ukraine and sometimes France, like this year (after good weather boosted crops)," he said. "Farmers must be allowed to have access to it (GMOs) because we are in a world market. And if tomorrow we are not competitive, we'll disappear from it."

By increasing maize output, the EU also could reduce its current annual imports of about 30 million tons of GMO crops such as corn gluten feed and soybean meal to feed livestock. "We import GMOs because otherwise we can't survive. It's another absurdity," said Marc Van Montagu, president of the European Federation of Biotechnology.

RESEARCH FLEES

Some of the world's top seed makers have given up on developing GMOs for the European market, including BASF Plant Science [ID:nL2E8CRIME], Syngenta and BayerCropScience. Biotech companies such as Monsanto, Limagrain and KWS SAAT have cut research on small-scale projects in the few EU countries that allow GMO cultivation.

Farmers in France, by far the largest EU grains producer and exporter, fear the flight of researchers will have major consequences in the long run. "All researchers are now abroad. This is an intolerable situation that does not allow us to prepare for the future," Guy Vasseur, chairman of the French Chambers of Agriculture, said. "Some say we have to wait for second-

generation GMOs. But when you miss the first step, you miss the second, and you have far less chances to be in the following ones," he added.

Not all European farmers agree that access to GMOs would be beneficial, however. "Cultivation of GMO plants brings up not only food security problems but also environmental and biodiversity ones, especially in a country like Italy where, due to the land peculiarities and size of farms, it would not be possible to avoid environmental contamination," said Carlo Franciosi, an official of Italy's biggest farmers association, Coldiretti.

And some scientists say it is hard to see much difference between the rise in yields due to genetic modification from the rise in conventional crops. French farm ministry data shows that the country's maize yields were multiplied by five between 1950 and 2010 to nearly 10 tons per hectare, just by conventional means.

European research in conventional crops continues. "I'm dubious of the attitude that says there is no salvation outside GMOs," said Herve Guyomard, scientific director for agriculture at Europe's largest farm research centre, France's National Institute for Agronomical Research (INRA).

INRA's conventional research program, called "Amaizing," aims to boost maize yields at a time when grain yields are stabilizing in Europe and avoid a widening competitive gap between the bloc and its competitors. "If we also drop the effort to continue conventional research, which includes genetics but not GMOs, it's certain that we will be unable to keep up with countries that develop GMOs with the aim of boosting yields," Guyomard said (Reuters 18-2-12).