

If Africa adopts biotech crops, will anti-GMO Europe retaliate against the continent's most important trading partner?

As the nations of Africa grapple with the regulation and commercialization of GMO crops, there is an underlying issue influencing the debate: Europe is a valuable trading partner, but one that is known for anti-GMO sentiments. How would it react if GMO crops became commonplace in Africa?

At present, South Africa and Sudan are leading the way in terms of GMO crops. South Africa approved GMO corn in 1996, followed by cotton and soybeans over the next five years. Sudan grows BT cotton. According to an [article](#) in Cornell Alliance for Science, 11 other African nations are involved in substantial research in GMO crops. According to the article:

But indecision by political leaders in these countries, due partly to a rise in anti-GMO activism, is threatening to ruin these strides. The leaders know the benefits but don't know whether to press ahead with the technology, said Humphrey Mutaasa, director of partnerships at Uganda National Farmers Association.

While anti-GMO activism plays a major role in [Africa's](#) reluctance to embrace new agricultural technologies, that European trade element certainly has an impact, according to Jennifer Ann Thomson, emeritus professor in molecular biology at the University of Cape Town. She covered that angle in a 2015 [article](#), written for the World Economic Forum:

The negative attitude to GM crops found in Europe, where they import GM crops such as soybeans for animal feed but do not allow their own farmers to plant it, has had a strong influence on African politicians.

The reluctance of so many African countries to GMOs is also attributed to fears about the impact it would have on trade with other countries, particularly Europe where a number of countries have banned GM imports.

[vacuum sealed banana](#)

Vacuum-sealed bananas. Image: Lominda Afedraru

But are these fears realistic? There are reasons to think they are likely overblown. Consider a 2008 [report](#) (GMOs and Exports: Demystifying Concerns in Africa) for the International Service for the Acquisition of Agri-biotech Applications (ISAAA), written by Dr Margaret Karembu and team of scientists. Karembu noted that many African nations worry that import destinations in the European Union would react harshly if more GMO crops were commercialized:

As such some countries have taken precautionary stances with the conviction that they are

preserving their trade interests and niche markets.

The report suggested these convictions are based more on hypotheticals and perception – rather than actual economics. As a result, the nations risk denying farmers the opportunity to take advantage of newer breeding technologies, which can increase yields, enhance sustainability and reduce pesticide and fertilizer costs.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other ‘disruptive’ innovations. Subscribe to our newsletter.

[SIGN UP](#)

The report also points to a study commissioned by the Common Market for Eastern and Southern Africa (COMESA) which analyzed the value and volume of agricultural food and feed exports by African countries to various regions of the world including the EU. The study attempted to measure the potential impact – in terms of crop exports that might be rejected by European nations.

Looking at total export value, it estimated that Kenya could lose 1.1 percent, Uganda 6.5 percent and Tanzania, 6.2 percent. But a more realistic and scenario – in which Europe would reject only those exports that “may contain GMOs”, the decline in exports from the three countries would be less than 1 percent, according to the study.

So, while there is the possibility of trading losses, they would largely be negligible. That’s because many of the crops currently being consider for GMO commercialization aren’t among the larger export products.

Karembu’s team noted that most African countries have traditionally exported commodities such as tea, coffee, cocoa, pyrethrum, bananas, fresh-water lake fish and a wide range of horticultural products to the EU. GM varieties of these commodities have not been developed and commercialized anywhere.

In that respect, adoption of Bt cotton, Bt maize and GM cassava would not affect any of the above crops or jeopardize exports because they are mainly traded within Africa. So, African countries would be able to continue growing and exporting these traditional commodities to the current markets in the probable future without fears of any drastic reduction in foreign exchange earnings.

South Africa

The findings of the COMESA study are supported by South Africa’s experiences. The nation has been able to maintain its exports through segregation arrangements for specific products and markets. According to the ISAAA report:

Europe still remains South Africa’s primary trading partner accounting for almost half of the country’s agricultural exports and the value and volume of non-GM commodities such as horticultural commodities has not declined over the years.

Further, the report suggests that GMO regulations aimed at preserving existing trade relationships with

Europe will cost African farmers more, in terms of the lost benefits that come with GMO crops.

coffee

Image not found or type unknown

Coffee beans. Image: Lominda Afedraru

Regulating international trade

There also are legal guidelines governing trade between members of the World Trade Organization, said *Sunday Akile* Igu, program officer for legal policy on biosafety issues at the African Biosafety Network of Expertise (ABNE).

“Once a country is a member of WTO it is required that such a country must minimize technical aspects such as presence of GMO food in a product when trading the same. But in case a country is blocked from trading such a commodity, it is privileged to petition WTO for arbitration,” Akile said.

According to Akile, processed products that contain GMO food will not be blocked entry. And in cases where the product is in form of seed, EU regulations allow 0.9% threshold. According to Akile:

The Cartagena Protocol on Biosafety guidelines on finished products states clearly that such a product must not be blocked entry into a country even if it contains a percentage of GMO. I am quite certain that South African Cornflakes made from GMO corn are in supermarkets in EU countries as a result of international trade.

Take, for example, Uganda, where a number of certified traders are exporting packaged vacuum sealed East African Highland cooking bananas to EU countries. In the event that a GMO banana becomes available, that 0.9% threshold would allow minor “contamination” by GMO bananas.

He also expects trade between African countries to grow. Uganda, for example, exports fresh Tilapia and Nile Perch fillets to EU countries. Another key commodity is non-GMO Robusta coffee.

He said most African countries are conducting research on [GMO](#) crops which are consumed locally by Africans and so this will not affect trade relations with EU countries except for BT cotton whose market is in China

Europe and GMOs

There is also the prospect of, at least, modest changes in perceptions of [GMOs](#) in Europe. Studies commissioned by the EU Directorate of Research demonstrated that GMOs currently available in the market pose no adverse risks to human health or the environment.

In 2004, the EU lifted a six-year moratorium on GMOs and three years later, eight European countries were on record as having approved GM crops for commercial planting. Still, actual cultivation of GMO crops in Europe is extremely limited, with a few nations, including Spain, growing small amounts of GM maize.

See the GLP's FAQ: [Where are GMO crops and animals approved and banned?](#)

The EU Food Safety Authority (EFSA) provides the scientific advice that underpins [EU](#) decisions on GMOs but it is the EU member states and the European Commission who decide on market approvals. Since 1994, more than 30 GMO derived food and feed products have been approved for marketing based on rigorous risk assessment conducted by EFSA. They include soy, maize and oilseed rape varieties.

And it should be noted that the EU is one of the leading consumers of GMOs, with its members importing 30 million tons of biotech corn and soy for livestock feed each year.

Lominda Afedraru is a freelance science journalist in Uganda who specializes in agriculture, health, environment, climate change and marine science. Follow her on the Daily Monitor web site www.monitor.co.ug, [Facebook](#) or Twitter [@lominda25](#)