10 things everyone should know about GMOs in Africa

1. Biotechnology, genetic modification, genetic engineering and GMOs are terms for essentially the same process: breeding crops and livestock to have certain desirable traits.

2. GMOs are safe. Every major scientific body in the world agrees that GMO foods are just as safe as non-GMO foods. They are safe to grow and eat. Livestock and humans all around the world have consumed them for decades with no problem. Number of cases of people or animals getting sick from GMOs = 0.

3. Biotech in Africa is homegrown. Public scientists are working independently to help their own countries by developing genetically modified crops that address issues specific to local agriculture and meet the needs of their nation's farmers.

4. GMOS reduce pesticide use. GM crops are bred to resist pests and diseases, such as fall armyworm, potato blight and banana bacterial wilt. Growing a resistant variety helps farmers get a good yield while reducing their use of pesticides.

5. GMOs are developed in collaboration with farmers, who participate in field trials to test the effectiveness of genetically engineered traits in a farm environment.

6. Each nation exercises sovereign control over GMOs. They decide which GMOs can be developed and released to farmers. Every country has its own regulatory agency overseeing GMOs and its own set of laws that govern their use.

7. Europe has not banned GMOs. Four countries in the European Union currently grow insect resistant GM maize. All the other European countries import GMO livestock feed, as well as processed foods for people that contain GMO ingredients.

8. Organic and GM agriculture can and do co-exist. Many farmers choose to grow both, for different markets and different purposes.

9. GMOs are natural. Bacteria have been engaged in genetic engineering for millennium. Humans got involved about 25 years ago, and our techniques continue to improve and evolve.

10. Each country will manage its own GMO seed production and distribution, using local seed companies. Some crops are patented, so farmers will pay for those seeds, just as they now pay for hybrid varieties. Other crops developed by the public sector will be royalty free and available to farmers for free or low cost. Some GMO seeds can be effectively saved. Others should be obtained new each year, like hybrids, to ensure the vigor of their traits. In any case, farmers choose what they want to plant.

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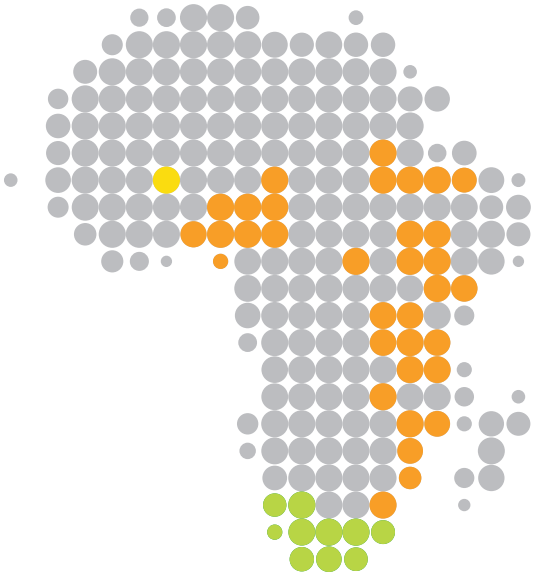

GMOs Growing in Africa

Under development in Ghana, Nigeria, Kenya, Tanzania, Ethiopia, Mozambique, Uganda, Malawi

- Insect resistant (Bt) cowpea
- Cassava resistant to mosaic virus and brown streak virus
- Virus Resistant Cassava for Africa (VIRCA)
- Vitamin fortified cassava
- Vitamin A fortified and bacterial wilt resistant banana
- Potato resistant to late blight disease
- Drought tolerant maize
- Drought tolerant and insect resistant maize
- Water Efficient Maize for Africa (Drought tolerant and insect resistant GE varieties, as well as drought tolerant conventional hybrids)
- Nitrogen Efficient, Water Efficient & Salt Tolerant (NEWEST) rice
- Vitamin A fortified sorghum
- Vitamin A fortified sweet potatoes
- Virus resistant sweet potatoes

Approved in South Africa

- Insect resistant maize
- Insect resistant and herbicide tolerant maize
- Drought tolerant maize
- Herbicide tolerant canola
- Herbicide tolerant soybeans
- Herbicide tolerant rice
- Insect resistant cotton
- Insect resistant and herbicide tolerant cotton

Under development in South Africa

- Insect resistant and herbicide tolerant sugar cane

Approved in Burkina Faso* and Nigeria

- Insect resistant (Bt) cotton

*Cultivation currently suspended

In 2016, **18 million farmers in 26 countries chose to grow GM crops.** Developing nations accounted for 54 percent of the hectares planted in biotech crops globally. **GM crops helped to reduce poverty and hunger, benefitting 18 million small-holder farmers and their families totaling 65 million people**. GM crops also provide real environmental benefits. Between 1996-2015, the productivity gained through biotechnology saved 174 million hectares of land from plowing and cultivation. GM crops decreased the environmental impact from herbicide and insecticide use by 19 percent. And GM crops reduced CO^2 emissions equivalent to taking 12 million cars off the road for a year.

(Source: ISAA 2016)

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