

A FARMER'S SAY >
By Michael J. Ssali

Price we pay for rejecting biotechnology

We are stuck in a paradoxical situation where the government is urging farmers to work hard when it is not doing much on its part to overcome the challenging national agricultural production constraints that could be reduced by the use of biotechnology.

An online newsletter, Genetic Literacy Project, dated August 31 2017, carried an article titled "Uganda: From scorching drought to ravaging worms, poor pay, the price for missing out on a biotech solution."

It credits Uganda for having one of the leading biotechnology research teams in Africa under Naro but points out that after years of successful research work the country's subsistence farmers are losing their crops to pests and drought.

This year the country lost several of its maize fields to the dreaded armyworm, following a prolonged drought much of last year. Chronic crop diseases are wiping out the country's staples including cassava, banana, and rice.

Uganda annually loses an estimated US\$ 299.6 million worth of banana output due to Banana Bacterial Disease according to Uganda Biotechnology Information Centre (UBIC). The country also makes an estimated annual loss of US\$ 24.2 million due to Cassava Brown Streak Disease (UBIC).

Drought causes annual maize loss worth an estimated US\$ 19.4 million and up to 30 per cent maize yield loss is attributed to stem borers (UBIC). We are yet to ascertain the loss attributed to the armyworm.

In the last 15 years the government and its development partners have devoted over Shs20billion to train scientists and to set up infrastructure for biotech research.

Considerable success has been achieved. This includes preparation of banana plants resistant to Banana Bacterial Disease, cassava variety resistant to Cassava Brown Streak Disease and worm resistant maize variety that is also tolerant to drought. They have even come up with Vitamin A bio-fortified banana varieties to reduce malnutrition.

However, the farmers cannot grow the crops because the government keeps postponing the passing of the Biotechnology and Bio-safety Bill which is required to regulate all biotechnology activities.

Both President Museveni and Prime Minister Ruhakana Rugunda have urged parliament to pass the bill to no avail.

Agricultural scientists are determined to develop more high yielding crops to address most of the challenges such as low yields and pests.

Ugandan scientists have intensified research on key crops such as maize and biotechnology in a bid for farm yielding crops resistant to pests. Scientists from the National Agricultural Research Organisation (NARO) have been developing varieties of crops such as cassava, rice, sweet potatoes, among others in the growing country. The products of the research have not been released because of lack of funding, which is a requirement for the same.

The Biotechnology Bill which the government introduced in parliament for debate. But farmers in the growing cassava and hybrid cassava are not getting the tolerance to the virus.

They attribute the problem to scientists at the Agricultural Research Institute (ARI) who are not releasing the new varieties. Farmers get the old varieties. The director, Sadik Kassim, says the people of the country are not getting the mandate to ensure farmers get the variety bred by the technologies for good yield.

"We have technologies like NASE14, NARO Cas2, which are aromatic, strong, withstand pests and are rich in food."

Agronomist
Sisto Moja, majoring in Agronomy. He says for farmers to get a good yield, they need to prepare the soil well.

trends

Brassica crops such as cabbages, cauliflower, and other important vegetables are grown for local consumption and processing (extraction).

While most of the smallholder production is for local consumption, especially for