

Can Bt cotton be a solution for Zimbabwean cotton growers?

A talk with Maria Siwela, 60, a cotton farmer from Gokwe who had come to visit a relative in Harare is a journey that offers huge insights into the burden and struggle embedded in cotton farming.

She says she first got her first lessons about life from labour in the cotton fields. Her life and survival depended on the cotton crop for the past four decades.

"History is what hurts when you talk about my experience in cotton farming," says Siwela, referring to how the liberalization policies brought about by the 1990s economic reforms imposed inexorable limits on most cotton growers in the country.

She remembers very well something about cotton growing that hurts her even up today.

"In the past you would toil in the field and get something, but now things are different," she says. "I'm no longer motivated to grow cotton anymore. Those that still grow cotton, it's just to break even and pay for food, clothes and inputs."

She bemoans that cotton growing now is a new form of slavery and 'hardens' hardships they face everyday.

"From six in the morning until six at night, you chop and pick cotton. It's not easy in the fields," Siwela says. "I could work one row by myself and hire someone to do the next but it was quite involving and tiresome."

In the past she could pick cotton and get good earnings but after 1990 things started getting worse.

Even when she picked enough cotton to come out ahead, she had to contend with the discretionary powers wielded by the people who control the markets.

It became increasingly difficult to make decisions to grow cotton, to obtain credit, to hire labor as well as all productive activities, harvesting, delivery, and stalk removal.

Siwela could no longer afford to hire labor to spray insecticides in her field crop.

The manipulation of liberalized cotton trade and the scales meant poor prices, poverty and dependency for her.

"I like farming and working with my hands in the soil. Cotton was my chosen crop but now if you grow cotton you labor for nothing," she says. "You just work for the benefit of others."

Most other cotton growers have accused ginneries, who contract them to produce cotton, for being insensitive and buyers for offering poor prices.

As a result, cotton output declined to 125,000 tonnes in 2013, from 283,000 in 2012, as farmers shifted to tobacco production, which offers better prices.

Zimbabwe is not alone in this predicament. Zambia's output plunged to 86,000 metric tonnes during the period, from 275,000 metric tonnes over the same period.

Other African countries also experienced a decline in cotton production.

In 2013, cotton prices rose marginally from gazetted minimums of U.S. \$.35 per kg and as the season progressed, price inched to between U.S. \$.45 and U.S. \$.55 by July 2013 ending at U.S. \$.63.

Cotton is no longer the 'white gold' that farmers once sought after due to poor market prices, high production costs, migration of young able bodied people to neighbouring countries and high labour costs.

In 1991, when the government liberalized the economy and began introducing reforms, thousands of cotton farmers were placed at the mercy of international commodity markets.

Government subsidies were scrapped and small-scale cotton producers who could once depend on a meagre but stable rate of return found themselves unable to viably grow the crop.

This necessarily forced many into debt, triggering uncertainty, destabilising lives and undermining development from the cotton growing region in Gokwe and Sanyati, to ginners in Kadoma and Chegutu and clothing factories in Harare.

But some say history can also be what helps, a resource from the past that addresses present hurts and eases current pains.

Could the use of Bt cotton offer hope and put the country's cotton growing capacity on a recovery path?

Zimbabwe National Farmers Union President Monica Chinamasa, who was leading a delegation of farmer representatives on study tour at Chitala Agricultural Research Station in Salima where Malawian scientists were conducting confined Bt cotton field trials, said the country needed to be open to new agricultural technologies.

"I'm very impressed with the Bt cotton trials being done here in Malawi. As farmers we are looking for new technological innovations which can improve our yields, crop disease resistance, cut costs and improve our earnings," she says.

"Honestly, after this study tour, I don't see why Zimbabwe should not embrace GMO crops such as cotton. We must allow our scientists to conduct field trials for Bt cotton so that we can see the advantages and disadvantages on our own."

Salima is about 65 km east of Lilongwe.

Zimbabwe, Chinamasa says, needs to be open to new agricultural technologies that have a potential to

enhance the competitiveness of its agricultural products and improve the livelihoods of farmers in the country.

“We must not resist new technologies that have a potential to transform our livelihoods and our economy in line with the ZimAsset agenda,” she said.

“We need to focus more on correcting misconceptions about GMO crops. We need to educate and inform our farmers about the pros and cons of biotech crops so that they can make informed choices.”

Malawi is conducting confined Bt cotton field trials to explore ways to effectively reduce input costs and control damage from bollworms and other insects that frequently damage cotton.

Agricultural experts say cotton farmers in Africa suffer huge losses due to pest problems. The most destructive of pests is the African bollworm (*Helicoverpa armigera*) which biotech experts say in severe cases can cause a 100 percent loss while in unprotected fields pest damage can be as high as 90 percent.

Using Bt cotton developed using bacterium [Bacillus thuringiensis](#) (Bt) which naturally produces a chemical harmful only to a small fraction of insects such as the bollworm, they say reduction in pest infestations can increase yields and improve the livelihoods of cotton growers.

Chinamasa and other farmer representatives urge caution.

They say before Zimbabwe dives into producing GM cotton, it needs to conduct its own Bt cotton field trials in order to independently verify the merits and demerits of genetically modified crop varieties suitable to the country's local conditions, a farmer group representative says.

“Farmers want solutions that work,” says Wonder Chabikwa, president of the Zimbabwe Commercial Farmers Union. “We have to do our own field trials before we can adopt the technology. Farmers want results, they want crops that give them better returns at low cost.”

The road to adoption of biotech crops is not easy.

And, Monsanto regulatory affairs officer Alison Levesley says farmers will be the final arbiter.

“Farmers have a big role to play in the approval and adoption of GMO crops,” she says. “Malawi is ready to approve this technology but we have to finish trials first. We want farmers to be positive about this technology.”

Monsanto lead technology development advisor Andrew Bennet acknowledged that his company had made mistakes in the past as it pushed for the adoption of the technology in Africa.

“We have made our mistakes in the past and we need to get it right this time,” he says. “It takes time and we want to develop a technology that is acceptable to farmers that suits their local conditions.”

After the Malawi Bt cotton trials, he says, his company needs to come up with better varieties that can produce cotton that is acceptable to farmers, buyers and technology development experts.

And, it seems, 'seeing-is-believing' GM crop field tours for farmers like Siwela can give them some reassurance that Bt cotton can be part of an answer to their cotton growing woes.

Additional Resources:

- [“Third-generation Indian cotton farmer relates first-hand experience with non-Bt and Bt cotton,”](#)
Skepti-Forum
- [“Breaking research: GM cotton in India has probably reduced farmer suicides not caused them,”](#)
Genetic Literacy Project