

Voluntary Report – Voluntary - Public Distribution

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Report Name: Ethiopia Becomes the Latest African Country to Approve Biotech Corn for Commercial Production

Country: Ethiopia

Post: Addis Ababa

Report Category: Climate Change/Global Warming/Food Security, Biotechnology - Plants and Animals, Agriculture in the News

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Report Highlights:

In February 2025, Ethiopia's National Variety Release Committee (NVRC) approved the commercial release of three TELA maize hybrid varieties. These newly introduced varieties are genetically engineered for improved insect resistance and drought tolerance, with the potential to yield up to 60 percent more than conventional maize varieties. By adopting this biotech innovation, TELA maize has become Ethiopia's first genetically engineered food crop. With this milestone, Ethiopia joins South Africa, Nigeria, and Kenya as the fourth African country to approve the commercialization of biotech maize (corn).

Ethiopia Commercializes Genetically Engineered Maize and Cotton Varieties

On February 18, 2025, Ethiopia's National Variety Release Committee (NVRC) approved the commercial release of genetically engineered (GE) maize and cotton varieties. The approval includes three TELA maize hybrids¹ (MON 810), which are insect-protected and drought-tolerant. Of these, two TELA² maize hybrid varieties are developed for planting in Ethiopia's lowland areas with low moisture availability, while the remaining variety is specifically developed for mid-altitude regions. According to the TELA maize project country coordinator at the Ethiopian Institute of Agricultural Research (EIAR), these GE maize varieties provide excellent protection against stemborer and partial protection against Fall Armyworm (FAW). The launch of the new GE crop varieties is expected in the second week of April 2025.

The adoption of TELA maize marks Ethiopia's first commercially available genetically engineered food crop. This development has significant implications for Ethiopian agriculture, as maize is the country's most widely grown and consumed grain, playing a crucial role in food security and rural livelihoods. Smallholder farmers dominate maize production, cultivating it across diverse agro-ecological zones. According to USDA estimates, Ethiopia is one of the leading maize producers in Sub-Saharan Africa, with local production projected to reach approximately 10.2 million metric tons in the 2024/25 season.

As reported by a [local press](#) on March 3, 2025, Ethiopia's TELA maize project country coordinator stated that the newly introduced GE maize varieties provide a yield advantage of up to 60 percent over conventional maize varieties. Additionally, the TELA maize hybrids are expected to improve grain quality, significantly reduce reliance on chemical pesticides, lower production costs, and mitigate both environmental and health risks. The project coordinator also confirmed that TELA maize seeds will be made available to Ethiopian smallholder farmers royalty-free through local seed companies. This means farmers will have access to TELA maize at the standard price of regular maize seeds without any additional royalty fees.

TELA maize confined field trials in Ethiopia began in 2018 and passed extensive environmental, health, and safety assessments to ensure its suitability for Ethiopian agriculture. These evaluations reportedly confirmed that TELA maize is safe for human and animal consumption and poses no adverse effects on the environment. The biosafety and variety release approval process for TELA maize spanned about seven years, from 2018 to 2025.

Along with TELA maize, the NVRC also approved the commercial release of a new GE cotton hybrid (Bt-GT), which is resistant to both glyphosate herbicide and bollworm, a major pest affecting cotton production. This marks the second time Ethiopia has approved GE cotton for commercial release. Notably, in May 2018, Ethiopia approved two [Bt cotton](#) hybrids -- the country's first biotech crop for commercial production. Similarly, the new Bt-GT cotton hybrid went through rigorous evaluation to assess its resistance to glyphosate herbicides and bollworm infestations, alongside comprehensive

¹The TELA maize varieties registered in the national variety registry are: WE3106B, WE7210B, and WE8216B.

²The TELA Maize Project, a public-private partnership led by partners like the African Agricultural Technology Foundation (AATF), focuses on developing drought-tolerant and insect-resistant maize varieties to improve food security and agriculture in Sub-Saharan Africa. The project was initially named Water Efficient Maize for Africa (WEMA).

testing of its adaptability, yield potential, and fiber quality to ensure optimal performance under diverse agricultural conditions. Confined field trials conducted at four research centers across the country demonstrated significantly higher yields, ranging from 4.8 to 5.7 metric tons per hectare, compared to the 3.2 metric tons per hectare produced by conventional local varieties.

Potential Opportunities and Challenges

Ethiopian agricultural biotechnology researchers view the approval of TELA maize and Bt-GT cotton as a transformative step toward modernizing the country’s agricultural sector. According to the researchers, the introduction of TELA maize presents an opportunity to enhance food security by increasing yields and reducing losses caused by pests and drought. National performance trials have shown that these GE varieties reduce reliance on chemical pesticides, leading to cost savings for farmers and environmental benefits. Additionally, the researchers anticipate that the commercialization of Bt-GT cotton will revitalize Ethiopia’s textile industry by providing an increased supply of high-quality cotton. The pest-resistant traits of Bt-GT cotton have demonstrated the potential to boost yields and decrease pesticide use, aligning with Ethiopia’s goal of becoming a leader in Africa’s textile and apparel sector. Despite these potential benefits, the researchers acknowledge challenges that may affect the widespread adoption of GE crops in Ethiopia. Public perception of genetically engineered crops, regulatory compliance, and the need for farmer education on best practices remain key considerations.



Picture 1: TELA maize (left) and conventional maize (right) plants at research field in Ethiopia.
Source: TELA Maize Project



Picture 2: Grain quality of TELA maize hybrid (left) as compared to popular conventional hybrids (right)

Source: TELA Maize Project

Attachments:

No Attachments.