

Fighting striga: Resistance genes deployed to boost sorghum productivity



Researchers under the regional body ASARECA (Association for strengthening agricultural research in Eastern and central Africa) have developed a high yielding striga resistant sorghum that will boost sorghum productivity in the region. This comes as a relief to sorghum farmers in the east and central Africa who for a long time have had to battle with the striga parasitic weed that has constrained production of this crop leading to the yield loss. According to Dr. Charles Mugoya who heads ASARECA's Agro-Biodiversity and Biotechnology Programme (Agrobio) the striga weed is affecting almost 17 million hectares of farms in the East and central Africa region.

"The future sorghum production is affected by this weed which sometimes leads to 100 per cent losses on farmer's yields," he added. Sorghum is ranked second after maize as the most important cereal in the East and central Africa region with about 300 million people in Africa depending on it as food grain. The weed therefore poses a great danger to food security to these huge numbers of people who depend on the crop to attain food security. Striga attacks roots of young crops starving them of nutrients leading to low grain yields. The weed is a prolific seed-producer, a single plant producing more than 50,000 dust-like seeds that are readily spread by wind, water or contact, and which survive in soil for up to 20 years. It not only damages crops from below, but also emerges from the ground after farmers have finished weeding, making crop management a hard task for farmers. The weed is also said to affect other crops like rice and wheat. Already 50 striga resistant sorghum lines capable of giving up to 3.6 tonnes grains per hectare have been developed by the regional agricultural body and other partners like Eritrea, Sudan, Kenya and the International Crops Research Institute for the Semi-Arid- Tropics (ICRISAT).

"This breakthrough will enable 300 million people in Africa who depend on sorghum as their food grain to get out of hunger, attain food security, walk out of hunger bracket and live better lives." Dr Mugoya said. According to agricultural researchers the practice of breeding sorghum using conventional methods is a big challenge in fighting the weed as most farmers still have limited knowledge on the resistant genes. "Utilization of these varieties by farmers will bring about positive change in the lives of farmers in the East and Central Africa." He added. Most people in these regions struggle to eke a meager living through subsistence farming of exhausted soils with diminishing food yields. ASARECA is an organization of the regional agricultural research systems of ten countries: Burundi, D. R. Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda. It aims at boosting agricultural research in eastern and central Africa to facilitate economic growth, food security and export

competitiveness through sustainable agriculture.

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