



# Partnership for Reducing *Striga* Damage in Maize Fields in Sub-Saharan Africa



*"Striga has a beautiful flower, but you can't admire that beauty on an empty stomach."*

– Jennifer Chumo, Senior Maize Breeder, Kenya Seed Company

## The solution

Seed of herbicide-resistant maize coated with a herbicide for control of *Striga*.

The technology uses:

**IR maize:** A natural, imidazolinone herbicide-resistant maize genotype.

**Imazapyr:** A systemic imidazolinone herbicide, kills any *Striga* weeds that attach to the maize plants carrying the herbicide. The maize crop is unharmed by the herbicide.

The IR seed-coat technology thus combines herbicide resistance in maize varieties with low-dose application of a systemic herbicide for the control of *Striga*. The dose of herbicide used, 30g imazapyr per hectare, is 20 times lower than 'normal' rates.



## Benefits

IR maize is an effective technology that is compatible with traditional farming systems.

Sensitive crops can be safely sown as close as 15cm from treated maize, allowing the technology to be used in traditional smallholders' intercropping systems.

## The problem

*Striga* (witchweed), a parasitic weed, is a serious constraint in the production of maize, sorghum and millet in Sub-Saharan Africa. The weed infests an estimated 20–40 million hectares of smallholder farmland in Sub-Saharan Africa and causes average yield losses ranging from 20–80% and up to 100% in severe infestation. Before emerging from the soil, it produces phototoxins which are harmful to maize, and drains photosynthates, minerals and water from its host. *Striga* seeds can remain dormant and viable in the soil for up to 20 years. With every planting season, some of the dormant *Striga* seeds (stimulated by host exudates) grow, stunting the host while producing more seeds which re-infest the field.

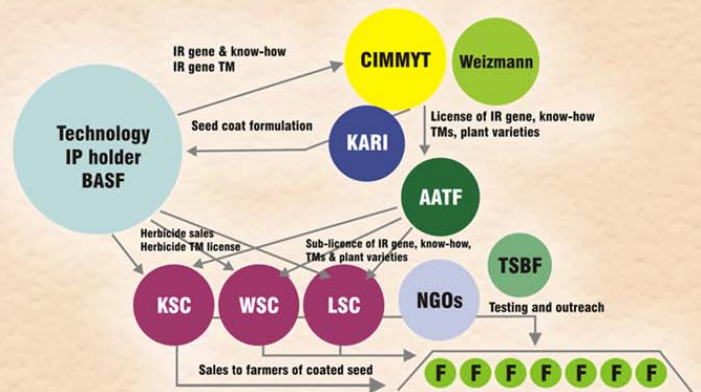
## Project goal

To reduce the impact of *Striga* on maize production in Sub-Saharan Africa.

## AATF's role

To facilitate partnerships that will ensure the IR maize technology reaches smallholder maize producers.

## How the partnership works



## Partner institutions

- International Maize and Wheat Improvement Centre
- Kenya Agricultural Research Institute
- BASF
- Weizmann Institute of Science, Israel
- The Western Regional Alliance for Technology Evaluation: A consortium of NGOs, community-based organisations and farmers' organisations
- Seed companies – Lagrotech, Kenya Seed and Western Seed

## African Agricultural Technology Foundation

P. O. Box 30709–00100, Nairobi, Kenya. Tel: 254-(0)20 422 3700, Fax: 254-(0)20 422 3701. Email: [aatf@aatf-africa.org](mailto:aatf@aatf-africa.org)  
[www.aatf-africa.org](http://www.aatf-africa.org)