



AFRICAN DEVELOPMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE
DE DÉVELOPPEMENT

Technologies for African Agricultural Transformation



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Agricultural Transformation

IMAZAPYR RESISTANT MAIZE FOR STRIGA MANAGEMENT (IR MAIZE)

Increased maize yield without suffering from striga

TECHNOLOGY / SOLUTION



IR Maize is an improved maize variety that is modified to be resistant to imazapyr, a herbicide protecting the crop against parasitic Striga weeds. The imidazolinone-resistant (IR) maize varieties are coated with low doses of herbicide imazapyr for early Striga control before or during attachment to the maize roots.

Using IR maize seed coated in the herbicide has widely been proven to enhance maize yields and reduce further dispersal of the parasitic weed on farmlands if combined with appropriate soil and fertilizer management.



PROBLEM / ISSUE SOLVED

- Striga is a parasitic weed, which attaches to the root systems of maize and extracts nutrients and water reducing availability of both to the host plant, thus stunting growth and reducing yield
- Striga causes a loss of maize yields of more than \$1Bn annually and affects the livelihoods of more than 100 million people
- The pest can reduce maize yields by 30-80%, resulting in stunted plants, twisted growth, and decreased ears
- Imazapyr, a herbicide used to protect cereals particular from Striga infestation, also affects maize



GOOD FOR
Small-scale farmers,
Commercial farmers



BENEFITS

- ✓ Controls the spread of weeds and increases yields
- ✓ Using IR maize seeds means using lower quantities of herbicide for Striga control. The coated seed means the imazapyr agent is used right where it is needed
- ✓ IR maize lines are available for several regions in sub-Saharan Africa where production is severely affected by the pest



Weed control
Speciality



Maize
Commodity



\$US1.5 - 2.5 per Kg of seed
Purchase price



\$US200 - 1,100 / ha
Increase in income
Added value

ALREADY IN USE IN



Ethiopia, Kenya, Malawi, Tanzania,
Uganda, Zambia, Zimbabwe

HOW DOES IT WORK?

IR maize seed is planted like any regular maize crop following best soil and fertilizer management practices appropriate to the growing area. The purchased seeds come pre-coated with the herbicide, so care must be taken to wear gloves or wash hands when planting by hand. To ensure that the herbicide reaches the edge of the seed, it is best to pack the soil surface well. On degraded fields inorganic fertilizers and organic resources are needed.

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More information here

