strides *in Striga management*

A bi-monthly progress update by the African Agricultural Technology Foundation for stakeholders in the Striga Control Project March, 2008

better tools, better harvests, better lives

A section of seed stockists during the training in western Kenya

***Strides* is...**

a quarterly progress update by AATF for stakeholders in the *Striga Control Project.*

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Training stockists to increase StrigAway® maize efficiency

Agro-input dealers or stockists are the retail distributors of agricultural inputs such as seeds, tools, pesticides, and fertilizer. Kenya has a fairly developed network of agro-input dealers with over 3,000 rural stockists serving farmers across the country. These retail outlets are often seen as a credible source of agricultural information especially regarding use of inputs.

Recognising the stockists' crucial role of informing and educating farmers, the African Agricultural Technology Foundation (AATF) teamed up with the International Maize and Wheat Improvement Centre (CIMMYT), Western Seed Company (WSC) and BASF to train stockists in western Kenya and equip them with pertinent information on StrigAway maize technology.

StrigAway maize, also referred to as Imazapyr Resistant (IR) maize, was developed in response to the menace posed by *Striga*, a parasitic weed responsible for over 80% maize crop loss in western Kenya. The weed is common in Nyanza and Western provinces.

The training conducted through the *Striga* Control Project delivered practical lessons on safe handling of the StrigAway maize, now retailing in western Kenya as *Ua Kayongo* hybrid maize. Through the seed stewardship role of AATF, the *Striga* Control Project aims to increase efficiency in the use of the technology in fighting *Striga*. This entails strengthening the technical knowledge of stockists and farmers by giving them access to relevant technology use information.

The stockists learnt that StrigAway maize is coated with a low dose of Imazapyr, a systemic herbicide that is harmful to non-resistant seeds. The herbicide dust from StrigAway maize may reduce viability or cause the death of non-resistant crop seeds. Stockists should therefore ensure that the Imazapyr-coated maize does not come into contact with non-resistant seeds, at any point and especially in storage.

Safety practices, including washing hands after handling the herbicide-coated maize and before handling other non-resistant seeds, were underscored. Similar instructions have been passed on to the farmers through field days, demonstrations, and in users' guides contained in the StrigAway maize pack.

The stockists further learnt that StrigAway maize has a shelf-life of 12 months. Maize seeds that are more than 12 months old should be returned to the appointed dealers for safe disposal. If such seed is planted, the germination rate would be too low since the herbicide seeps through the seed coat, reducing the seed's viability. Stockists were advised to ask farmers to return seed that is not planted within two consecutive seasons since its efficacy is compromised due to long storage.

The training equipped stockists with technical knowledge that would help them in answering farmers' questions and enquiries. One of the frequently asked questions is whether StrigAway maize can be intercropped with other plants. Smallholder farmers prefer mixed cropping for nutritional advantages and maximizing land use. The trainers assured stockists that StrigAway maize can be intercropped with legumes as long as the intercrop is planted 10cm or more away from the maize. The non-resistant intercrop should however not be handled together with the StrigAway maize. Stockists were reminded to emphasize to the farmers the importance of thoroughly washing hands after planting the herbicide-coated maize and before handling other seeds.

Stockists are an important link in agro-inputs supply chain playing the role of retail distributors. They buy inputs from appointed dealers who receive their supplies from the seed companies. Through better informed stockists, the *Striga* Control Project is contributing to the long-term and efficient use of StrigAway maize.

More StrigAway® maize demos in Uganda

Maize is an important cereal crop in Uganda, providing over 40% of the calories consumed in both rural and urban areas. According to Africa 2000 Network-Uganda, small-scale farmers account for the largest share of maize production. However, the yields are dismal, fluctuating between 0.8 and 1.5 t/ha. In eastern Uganda, farmers have rated *Striga* as the number one constraint to maize production.

The African Agricultural Technology Foundation (AATF) is collaborating with various partners in implementing a project that aims at deploying the StrigAway maize technology in the *Striga* infested countries of east, west and southern Africa. In Uganda, AATF has partnered with Africa 2000 Network, the International Wheat and Maize Improvement Centre (CIMMYT), BASF, Farm Inputs Care Centre (Fica) Seeds Ltd, National Agricultural Research Organisation (NARO), National Agricultural Advisory Services (NAADS), and the Ministry of Agriculture in implementing the *Striga* Control Project. The project is operational in Budaka, Namutumba, Tororo and Busia districts in eastern Uganda, the districts that are severely infested by *Striga* weeds.

During the short rains season (October 2007 – January 2008), a total of 662 demos covering 94.5 acres were planted utilizing 945kg of StrigAway maize. This was a sharp increase from the long rains season (February – April 2007) in which 146 trials were established in Budaka and Tororo districts. With the assistance of AATF Fica Seeds, imported 1,000kg of StrigAway maize from Western Seed Company in Kenya for the establishment of trials during the short rains season.

Data collected from the trials indicate that StrigAway maize planted with fertilizer yielded three times more than similar seed without fertilizer. Poor soil fertility coupled with little or no use of fertilizer greatly reduced the yields. StrigAway maize planted in poor soils and without fertilizer yielded less than the local seed varieties.

The 662 trials implemented in the short rains season utilized 2,050kg of DAP + Urea fertilizer and 70kg of Bull dock pesticide. Budaka district recorded the highest number of trials (426) followed by Tororo with 122. In Namutumba, 89 trials were planted and 25 in Busia.

The quality of these trials is said to have improved greatly as a result of experience and lessons learnt from the long rains season. For instance, technical support to farmers was increased through a higher number of field extension staff who had oversight in planting of the demos. In the short rains season, trials were planted on time with the project having overcome the challenge of importing the inputs. However, rodents posed a challenge in some trial sites in Nganzo, Bulange, Budaka, and Busia, where squirrels fed on the germinating maize shoots and seeds.

Africa 2000 Network continued raising awareness to increase the technology adoption among farmers. The Network facilitated three field days in Busia, Budaka, and Tororo districts involving farmers and farmer groups, extension staff, NAADS officials, researchers, NGOs, private sector players, and agro-input dealers.

During the long rains season of 2008 (February to August), the project will install 5,000 trials with a similar number scheduled for the short rains season (October 2008 – January 2009). Africa 2000 Network is also planning a farmers' exchange visit to western Kenya, a region that shares similar climatic and socioeconomic conditions with eastern Uganda.