

what's working in Africa

This article is the final installment of IFA's 2006 series to highlight successful projects in Africa and draw lessons from them.

Small Farmers in Kenya Increase Yields up to Five Times with the "Maxi-Maize Production" Planting String

In many parts of Sub-Saharan Africa, one of the main causes of hunger is that small farmers do not use much fertilizer, despite poor soils. Soils are very deficient in phosphorus and nitrogen, and yields are in the range of 0-500 kg/acre. Farm Input Promotions Africa (FIPS-Africa), with the support of USAID, the Rockefeller Foundation and the United Kingdom's Department for International Development (DFID), and in cooperation with private sector seed and fertilizer companies, is successfully introducing fertilizers to thousands of small farmers in a sustainable way.

In western Kenya, fertilizers are very expensive by the time they arrive at the farm gate. In order for fertilizer use to be profitable, it is essential that farmers are shown how to use them correctly, and that crops are managed according to best practice.

According to official recommendations for the high-potential areas of Kenya, maize seeds are best planted in rows 75 cm apart, and 25 cm apart within the row, to optimize production. As fertilizers may be toxic to the germinating seed, the planting fertilizer is best placed about 5 cm below the seed. However, most farmers conventionally place two to five seeds in a hole and, if fertilizers are used, they are placed directly on top of the seed. The result is poor productivity.

To introduce fertilizers to small farmers in Kenya, FIPS-Africa requests cooperating fertilizer and seed companies to package the appropriate fertilizers and maize varieties in small affordable promotion packs. At village gatherings, the farmers are given the opportunity to purchase a small 1 kg pack of a fertilizer for only USD 0.50. At the same time they receive a small free 100g pack of an improved maize variety. To complement this promotion, FIPS-Africa has developed the "Maxi-Maize Production" Planting String to teach farmers how to space seeds and place fertilizer correctly. It consists of a nylon cord 75 cm long, a small card and four bottle tops clamped to the string at 25 cm intervals. It can be rigged up in less than a minute and only costs about US\$ 0.05.

FIPS-Africa has been using the Planting String to teach farmers how to improve the management of their seed and fertilizer in the Kisii and Nyamira districts of Kenya, within the framework of the USAID-funded Kenya Maize Development Programme (KMDP) and in close cooperation with the Ministry of Agriculture. Because farm size is very small in this region, farmers plant maize on very small plots (0.25 to 0.5 acres).

Many thousands of farmers have increased their yields from 90 kg to 500 kg per quarter acre by improving management of the same seed and fertilizer.

Over the past three years, following this very simple methodology, FIPS-Africa has improved the livelihoods of approximately



A small farmer in the Masaba division of the Kisii district, with a FIPS-Africa extension worker, proudly exhibits her improved maize crop and the Planting String.

250,000 Kenyan farmers. It is about to extend its operations to alleviate hunger and poverty to neighbouring countries.

Lessons for Success from the FIPS-Africa Experience

- The principles of best management practices apply everywhere.
- Tools may need to be adapted to locally available materials, such as a piece of string and bottle tops.
- African farmers can afford agricultural inputs that are sold in appropriate amounts for small land holdings.
- Even on small plots of land, multiplying yields by more than five times can greatly contribute to food security and raise farmers' incomes.

Contact

For more information on FIPS-Africa's methodology:
 Dr Paul Seward
 Farm Input Promotions Africa
 PO. Box 5523, 00200 Nairobi, Kenya
 Tel/Fax: +254 20 2730700
fipsafrica@yahoo.com
www.fipsafrica.com



Conventional maize planting practices in the Kisii district have resulted in poor productivity.



A small farmer showing the value of the Planting String on his crop in Nyamira district.