

## the power of small seed packs for reaching 100,000s of Kenyan bean farmers

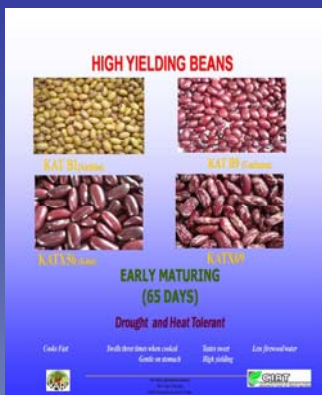
J.C. Rubyogo (CIAT/PABRA), L. Sperling (CIAT), D.R.Karanja (KARI), P. Seward (FIPS-Africa) and Janey Leakey (Leldet Ltd)

### High importance of beans to people: low priority for seed companies

Beans are a key food crop in Kenya covering an estimated area of 800,000 ha/year. Per capita annual consumption is 22/kg/year overall, and rises to world highs of 65/kg/year in select regions.

Kenya is also one of the few countries in sub Saharan Africa with a relatively well developed commercial seed sector. However, while about 40 seed companies operate countrywide, only four market bean seed—and these concentrate on old varieties, released before the 1980s. Because farmers recycle bean seed for as many as 5-7 seasons (!), seed companies see little profit in focusing on beans, as compared to trade in crops such as maize or garden vegetables.

The Kenya Agricultural Research Institute (KARI) has recently released four varieties which are greatly appreciated by farmers and consumers due to their outstanding food and market traits and their ability to produce well in high stress, even drought prone zones. The issue is how to reach 100,000s of farmers with desired seed of new varieties.



### Seed systems for impact: key features

- Variety has to be REALLY good
- Seed has to be available- in proximity, in time for planting
- Seed has to be 'accessible'
  - "low" cost
  - or via exchange/barter networks
- Quality: has to be acceptable to end-users (from trusted sources)
- Information has to be sufficient for farmers to make informed decisions
- There have to be ongoing supplies (responding to demand)



### How to get new bean varieties and high quality seed to farmers: a new approach

Commercial company standard practice is to package certified seed in minimum units of 2kg packs and to sell in specialized agro-input shops, mainly concentrated in medium and higher potential areas, where more commercial farmers congregate. Smallholder farmers have been reluctant to buy such seed, which may cost 200% to 400% the price of local seed.

The small pack approach (100 g or less) had been successfully pioneered in Rwanda by CIAT in the early 1990s. Farmers were unusually interested in the new varieties, and were ready to pay for small, risk-free amounts of certified seed. The action research solved a number of challenges: how to make new varieties, and high quality seed available to farmers; how to make them affordable, and how to make them geographically accessible. The concept was not taken up by commercial sector due to lack of active seed companies in Rwanda.

In 2008, in Kenya, novel public-private sector partnerships again agreed to test the new marketing approach—geared to smallholder farmers, and those particularly living in high stress drought-prone areas. The Kenya Agricultural Research Seed Unit (KSU) and Leldet Ltd supplied certified seeds in small packs while Farm Input Promotions Africa (FIPS-A) ran the local level promotional campaigns, selling seed from the back of a truck, in open markets—where farmers routinely buy food and, often, local seed supplies. Several local country stores also put the small packs on offer.

- ❖ Make high quality seed, from trusted sources available to small holder farmers;
- ❖ Pack in 'risk free' sizes. The 75g bean seed pack is equal in price to a 'cup of tea';
- ❖ Sell where farmers usually buy: in open markets and small 'mom and pop' stores.

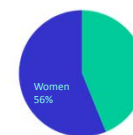
### Where are small packs sold?



The small seed packs were marketed across drought prone bean growing areas of Kenya

### Who buys small packs?

Select market days: sales in Central Kenya, Oct 2008 (n=1009)



Women of varied ages are the major buyers of bean seed packs

### What size did farmers prefer?

Small pack sale in several sites, Central Kenya: Oct 2008

Gender of buyers	Bean pack size (g)			
	75	400	2000	Total
Female	469	89	7	565
Male	349	71	21	441
Total	819	160	28	1006

Overwhelmingly, farmers prefer the small 75g packs. However, The Leldet Ltd seed company reports that a good number come back to buy the much larger 400g sizes, after the initial trial. So demand is being created for certified seed per se, as well as for new varieties.

### Results: thousands of farmers with great production gains

28,000 farmers bought small packs in the first season of sales. Despite the ravaging drought, the majority of farmers who bought seeds, had a excellent harvest. The next season, we are aiming for 72,000 customers.



Kikivi Muia family (E-Kenya), after harvesting seeds from the small packs, in Jan. 2009.

Small amounts of seed can be scaled up quickly. One farmer in Kirinyaga started with 30 seeds (a promotional sample) in 2007, planted 10 kgs 2 seasons later—and will harvested over 100 kgs, 'a full sack'.

Example of the production in kg from small packs in E-Kenya, Oct-Dec 08 crop season

Variety	Amount of seed planted (kg)	Amount of grain produced (kg)	Multiplication ratio (seeds vs. harvest)
Kat 89	0.480	16.0	33.3
Katx 56	1.000	32.0	32.0

### Partners

- Kenya Agricultural Research Institute (KARI)
- Leldet Ltd
- Farm Input Promotions Africa Ltd
- Pan-African Bean Research Alliance (PABRA)

IMPROVED BEANS FOR THE DEVELOPING WORLD

### Take home messages :

- Small seed packs provide a lucrative business opportunity for seed companies. Leldet Seed Co and KARI Seed Unit have started extensive small pack marketing, with critical FIPS outreach support.
- Small packs help broaden and scale up the certified seed client base. One ton of bean seed can potentially reach more than 10,000 customers.
- Poor farmers, including women, are ready to purchase certified bean seed if: the seed comes from a trusted source; the pack sizes are small enough to be 'risk free'; and the seed is made accessible in neighborhood venues.