

# The “missing middle”- linking decentralized vine multipliers to early generation seed producers in Uganda

In Uganda, CIP is testing seed business enterprise models for medium-scale multiplication to provide the link between upstream sources of clean planting materials (pre-basic seed) and new varieties and down-stream community-based vine multipliers (DVMs). After undertaking business skills training, 9 (8 male, 1 female) medium scale seed and root enterprises are operating small to medium seed businesses on a 40% cost share basis. In the past one year, the entrepreneurs have collectively sold a total of 1,403 bags of vines and 40 bags of roots earning about USD 9,600.



Fig. 1 Charles Lakima (one of the seed entrepreneurs) with his wife (Center) discusses vine multiplication with other seed entrepreneurs during the practical session of the agronomy training (Credit G. Kyalo)

## ➤ What is the problem?

There have been considerable investments by different players in the sweetpotato seed value chain to ensure that farmers can access seed at the right time. However, institutional linkages for the flow of seed along the value chains remain undeveloped. For example, when projects end, decentralized vine multipliers have challenges accessing seed replacement stock as they may be hundreds of kilometers from the source of new varieties or cleaned up material at agricultural research stations. Creating a sustainable linkage between up-stream pre-basic seed producers like National Agricultural Research Institutes (NARIs) and/or private laboratories, and DVMs producing certified 2 or quality declared seed (QDS) will contribute towards the smooth flow of seed along the chain and enable farmers easier access to quality seed.

## ➤ What do we want to achieve?

We want to test business models for medium-scale sweetpotato seed (and root) enterprises to determine if they can be commercially viable and act as an interface between the “formal” and decentralized seed systems.

## ➤ Where and with whom are we working?

We are working in the Pader, Kitgum and Lamwo districts of northern Uganda with seed entrepreneurs. The seed entrepreneurs are linked to private tissue culture laboratories and NARIs as the sources of pre-basic seed. The entrepreneurs are also linked to NGOs promoting sweetpotato who act as down-stream markets for seed. The district local government extension workers offer technical backstopping to the multipliers and in some cases help in sourcing for seed markets.

## ➤ How are we making it happen?

A CIP Rapid Market Assessment survey conducted in May 2016 showed that there is high demand for sweetpotato planting material in the target districts, as farmers source for vines as far as Gulu and Lira districts, greater than 100 kilometers away. Responding to this demand, seed and root entrepreneurs were selected in the target districts in collaboration with the district extension workers. Fifteen seed entrepreneurs were identified in Lamwo, Kitgum and Pader districts to start seed multiplication businesses to act as an interface between the “formal” and “informal” seed systems. The criteria used to select seed entrepreneurs were: availability of a permanent water source, availability of land (> two acres), willingness and ability to cost share, success in adopting new technologies, reputation in the community and access to the market. Having conducted a needs assessment, the seed entrepreneurs were trained in entrepreneur skills, marketing, preparation of business plans, sweetpotato agronomy and seed inspection.

## Partners

- Biocrops (U) Ltd
- HarvestPlus Uganda



Fig. 2 Seed entrepreneurs participate in a practical session during the sweetpotato field inspection training (Credit: G. Kyalo)

### ➤ What have we achieved?

In 2018, the entrepreneurs have revised their 2016 business plans, expanded their multiplication gardens and registered their umbrella Association, named the East Acholi Sweet Potato Vine Multipliers Association. To support marketing and as part of the cost-share agreement, promotional materials like branded tents and chairs were availed to the seed entrepreneurs. In addition, entrepreneurs held radio talk shows in the respective districts to create awareness on availability of vines and roots. The promotional materials carry messages like “Orange-fleshed sweetpotato vines and other sweetpotato vines available for sale”, “Come and buy quality vines from here”. The East Acholi Sweet Potato Growers Association is informing the people from the mentioned district and beyond that there are vines available for sale in different packaging for individuals, farmer groups and organizations. As a result of promotions, entrepreneurs have registered increased numbers of telephone calls enquiring about availability of vines and as a result have increased their sales. Between July 2017 and July 2018 in their umbrella organization, they collectively sold a total of 1,403 bags of vines at 25,000 UGX each, earning a total of 35,000,000 UGX (approximately 9,000 USD). The entrepreneurs have also individually sold 40 bags of roots at 60,000 UGX per bag, earning a total of 2,400,000 UGX (about 600 USD). The vines were sold to NGOs and farmers. The multipliers share the proceeds from vine and root sales depending on bags each has contributed to the amount sold. They also hold annual quarterly review meetings. To maintain high quality of sweetpotato planting material, the seed entrepreneurs together with District Agricultural Officers and extension workers participated in the sweetpotato vine inspection training held at Little Palace Hotel in Kitgum, 20-23rd March 2018. The training was conducted by technocrats from CIP, HarvestPlus- Uganda, BioCrops Uganda Ltd and the Ministry of

Agriculture Animal Industry and Fisheries (MAAIF). It covered technical guidance on inspection procedures, agronomic skills, qualifications for seed vine multipliers, quality production and inspection parameters for seed vines, identification of pests and diseases (including virus detection) and guidelines for inspection. After the training, seed entrepreneurs are required to apply for inspection. The upstream linkages are operating well as the seed entrepreneurs order for replacement stocks directly from the private tissue culture laboratory Biocrops.

### Challenges

- Heavy rains received between March and June 2018 washed away the vine multiplication gardens of Mr. Lapat Ernest and Mr. Peter Kilama, both very progressive entrepreneurs. In addition, some roads in Pader were impassible due to flooding in the area, which limited access to markets.
- The marketing and promotion so far done has generated more demand than the few farmers trained could deliver to the market.
- Having started the business of sweetpotato vine and root production and experienced its business potential, the entrepreneurs noted that they will require additional business skills to better manage their businesses, e.g. practical skills in record/book keeping, following up orders and financial management. For example, the majority of farmers claimed they had made vine sales within the month, but none of them had recorded the specific quantities sold and value of sales, nor the number of orders received.
- As the number of sweetpotato vine and root entrepreneurs increases, the quantity of roots will increase, probably above the market uptake potential. There is, therefore, need to support them to identify and link to new markets for their roots as well as train them further on sweetpotato processing and value addition technologies.

### ➤ What's next?

As part of strengthening the capacity of farmers active in the business, we need to conduct further training in the areas of marketing, book keeping/record keeping and financial management. We need to conduct a cost-benefit analysis among these seed entrepreneurs and carefully document successes and challenges of the seed production models, especially as sweetpotato seed inspection protocols are rolled out in Uganda.



Fig. 3 Decentralized seed multiplier attends to his farm in Kitgum, Uganda

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