

# willing to pay for quality sweetpotato vines

Results of an innovative study amongst small farmers in Zambezia, Mozambique showed that the farmers were willing to pay for sweetpotato vines for planting, if they were sure they were good quality and would produce a good yield. This is encouraging progress towards meeting food security challenges in a country where sustainability of seed systems is constantly undermined by



natural and manmade disasters.

Sub-Saharan Africa (SSA) food security relies heavily on seed systems dominated by an informal sector supplying between 85 and 90 percent of the required seed, with a low availability of clean, healthy planting material. Mozambique is one of the poorest countries in the region, with subsistence farmers generating very low crop yields that on average can satisfy only 80 percent of the minimum daily calorie requirements. The distribution of planting materials has traditionally largely been limited to short term emergency programs with no real view to long term production and sustainability access.

Extension programs in the country run by World Vision International and CIP's national partner the Instituto de Investigaçao

**Sweetpotato is an important food crop in Sub-Saharan Africa**

PHOTO BY S. TUMWEGAMIRE

Agrária de Moçambique (IIAM) have therefore focused on disseminating and enhancing orange-fleshed sweetpotato (OFSP) production, while promoting awareness of its properties as a vitamin A-rich food, targeted to combat nutritional deficiency among children under five, women and the elderly.

The projects are working towards expanding the beneficiary population by establishing a viable network of decentralized vine multipliers that produce high quality OFSP vines and create new income-generating opportunities for small farmers in the region. There is a need to promote private enterprise in the multiplication of healthy planting material. In the region, farmers would normally get free material from their neighbors or from NGOs or on the limited occasions when vines were sold, at prices set well below production costs. A question remained as to whether small-scale farmers, the main market for sweetpotato vines, would be able or willing to pay for such material.

Reaching End Users (REU) is the most recent multi-institutional scaling up project, funded by Harvest Plus, run by CIP partners with CIP support, permanent monitoring and feedback. It expects to reach more than 10 000 households in the Zambezia province and had already started to sell vines to the target farmers. "The first task of this present study was to assess farmer's willingness to pay for clean OFSP vines and determine the existence of a sustained demand for OFSP planting material," said Ricardo

Labarta, agricultural economist and CIP seed systems specialist in Mozambique. "We also aimed in other trials to assess whether multiplying OFSP vines under small farmers' conditions could become a sustainable and profitable enterprise."

Until now most willingness-to-pay studies had been based on stated preferences and hypothetical experiments. Following a model originally used in Norway, REU developed a real choice experiment involving 121 sweetpotato growers in Zambezia province, specifically designed to fit Mozambique's particular rural conditions. This approach replicates a real market experience aimed at determining the real purchase decisions of the respondent. "It is an excellent look at how to assess willingness to pay in a community setting," said Jan Low, CIP's Regional Leader for Sub-Saharan Africa.

"For the sampling we randomly selected six villages with previous experience of OFSP," said Labarta. "Our experiment consisted of ten different choice scenarios. In each, the respondent farmer had to express which, if any, of the two they would buy at the displayed prices. We included the four most preferred OFSP varieties (Resisto, MGCL01, Jonathan and Lo323) and compared them with the most used local variety. There was also always a 'none of these' option, if they did not like any of the varieties or if they found the prices unaffordable."

Interviews took place immediately before the sweetpotato planting season. Participation was voluntary, each participant receiving

some money at the beginning of the study to buy the vines or alternatively keep for other purchases. "We stressed to the farmers that at the end of the experiment, the respondent would randomly draw one of the ten scenarios and they would have to buy the variety they had chosen in that scenario. This was an important incentive to really express whether they would buy or chose to keep the cash," said Labarta.

Results were very encouraging. Only 6 percent of the participants decided not to buy whereas more than 65 percent bought more than the required one kilogram of vines at the end of the experiment, revealing the farmers' willingness to pay for OFSP varieties (costing US\$ 0.07-0.12/kg) over non-orange planting material (US\$ 0.03) and compared to the traditional subsidized price of clean sweetpotato vines (US\$ 0.06).

Labarta sees the outcome of the study as extremely encouraging, providing valuable feedback for sweetpotato breeders all over Sub-Saharan Africa. "Given that in corresponding on-farm and on-station trials we verified that vine multiplication under small farmer conditions is feasible at a cost of US\$ 0.02 per kilo, this demonstrates a real prospect for the future creation and consolidation of private vine multipliers in Mozambique."