

Monitoring Decentralized Vine Multipliers as One Part of Improving Planting Material Access

The Sweetpotato for Profit and Health Initiative (SPHI) recognizes that to meet its target of reaching ten million households with improved varieties of sweetpotato by 2020, there is a need for a strong seed system that ensures multiplication and dissemination of good quality and virus-free vines to root producers. A major strategy has been to identify and train decentralized vine multipliers (DVMs) who can serve their local communities. Potential institutional and individual buyers need to be linked to the multipliers, since they may not be aware where to get vines. Annually, the DVM registration exercise verifies that DVMs are producing vines for sale. Interested parties can find their location and contact information on the Sweetpotato Knowledge Portal's View Progress Dashboard.



Fig. 1 John Kazembe, one of several M&E staff trained to collect data from the DVMs using ODK, interviewing a DVM named Olgha Saidi in Lirangwe, Blantyre district, Malawi. (Credit N. Kwikiriza)

► What is the problem?

Before 2015, records on vine multipliers were not easily accessible to the public domain. Most projects lacked a clear strategy of sharing information about “their” DVMs with other projects or programs. As a result, multipliers were isolated and highly dependent on the projects that supported them to buy the vines. There is a need to do a better job of training DVMs in business skills and linking them to buyers prior to a project closing. Moreover, use of available information technology would facilitate potential new clients to find where they can get quality planting material.

► What do we want to achieve?

We want to ensure that all sweetpotato stakeholders can access information about the vine multipliers in all the sub-Saharan African countries where multipliers have been trained. This implies, a farmer X or an NGO “Y” can access the contact of a vine multiplier in a particular location and buy vines. We seek to ensure that the contact information for each multiplier is

easily accessible, with their permission. We are committed to updating the information concerning multipliers annually, registering new ones and noting multipliers that have stopped. From a research standpoint, we will be able to identify situations where multipliers are dropping out and/or expanding and follow-up to understand why so that improvements can be made.

► Where are we working?

The International Potato Center (CIP) currently is working in 8 of the 17 SPHI target countries¹ and backstopping partners in 5 more.

► How are we making it happen?

The exercise involves the registration of the newly recruited DVMs, registering the old multipliers that had not been registered before, and updating the records of those that are already registered. We are using the Open Data Kit (ODK) technology to register new DVMs. This uses android based data collection forms that enable registration of DVM bio-data and automatically records the geo-location specific information at the DVMs plot. Data on the methods of vine multiplication, general management and sales of the vines are also recorded. For the DVMs already registered, the information was updated during field visits until 2018, when we are testing updating, at least initially, through phone interviews. Most of the CIP Monitoring Learning and Evaluation (M&E) officers in each country and some partner M&E staff have been trained to collect this information (Fig. 1). Then it is processed and the key contact information is loaded on the SPHI dashboard under View Progress (<http://www.sweetpotatoknowledge.org/sphi-dashboard/>).

¹ Kenya, Uganda, Rwanda, Tanzania, Ethiopia, Malawi, Mozambique, Ghana, and Nigeria.



What have we achieved so far?

As of September 2017, we have registered about 1,191 DVMs in 11 out of the 17 SPHI countries since 2015 (Fig. 2). Statistics reveal that about 30% of the DVMs are women and most DVMs are above 40 years of age. Most (over 90%) of the DVMs are individual DVMs, and we observe a higher dropout rate of the group DVMs compared to individual DVMs.

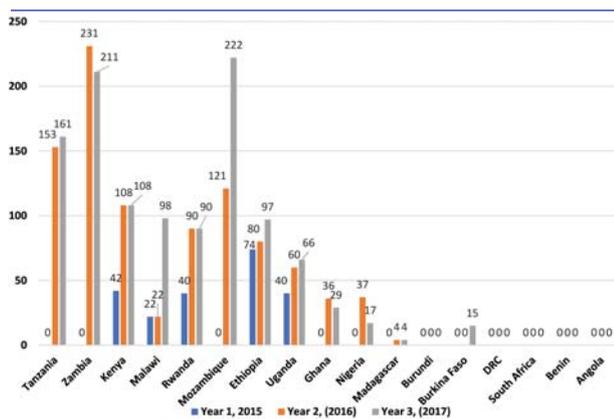


Fig 2 Number of registered DVMs in SPHI countries as of September 2017

The Dashboard on the Sweetpotato Knowledge Portal is running (see Dashboard brief) and any interested stakeholder can access it. The dashboard relays important contact and demographic information of the multipliers. It also shows the type of multipliers by scale of management, i.e., small-scale or large-scale multiplication.

We keep records on the names of varieties being multiplied. Figure 3 shows that Kabode, Awasa-83, Naspot 8, Naspot 9 and Olympia varieties occupy the largest acreage in sub-Saharan Africa.

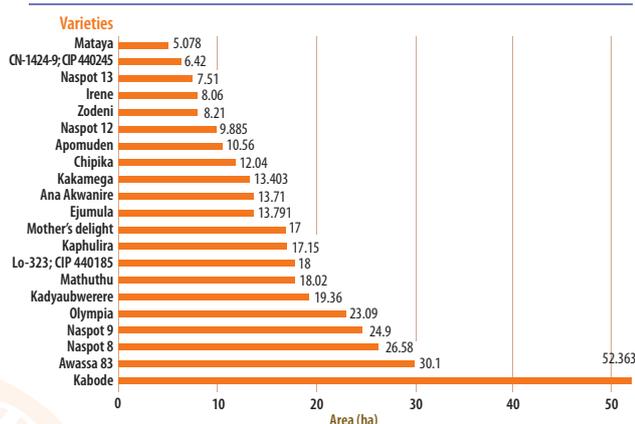


Fig 3 The most popular varieties multiplied by DVMs in SPHI countries by number of hectares planted for multiplication

We record good practices in vine management and the aspects that the multipliers need to improve on. We emphasize labelling of the vines, weeding, pest management, irrigation, etc.



Fig 4 Different vine multiplication fields encountered during registration (Credit N. Kwikiriza)

A. A well fenced field with healthy vines in Northern Uganda, B. Vines struggling under drought and pests, C. DVM conserving vines in a sugar cane plantation in Eastern Zambia, D. Vines conserved in the middle of a stream in Northern Uganda.

We assess progress towards making vine multiplication an annual activity by recording the different vine outlets from the DVMs (Fig. 4). Table 1 shows the proportion of vines sold to different buyers by the newly registered DVMs in 2017.

Table 1 Percent of DVM vines going into different outlets or uses among DVMs who sell at least some vines

Country	Use of vines produced by the vine multipliers					
	NGO that recruited the farmer	Another NGO that did not recruit the farmer	Sold to other farmers	Given to another farmer for free	Own root production	Livestock and Other uses
Southern Malawi (n=10)	70.5	16.5	5.0	4.0	3.0	1.0
Zambia (n=112)	4.5	7.2	17.8	62.9	7.5	0.3
Tanzania (n=8)	62.5	6.9	20.0	0.0	10.6	0.0
Ethiopia (n=24)	4.0	2.8	29.1	6.6	30.4	18.9
Northern Uganda (n=6)	0.0	8.3	51.7	1.7	38.3	0.0

What next?

We will continue to register new multipliers and update information on the existing ones. As the sweetpotato seed system develops, new challenges emerge. We intend to improve on the interaction between the DVMs and their actual and potential buyers. We seek to have greater use of our Dashboard for locating vine multipliers, interact with the DVMs on a regular basis through phone text messages or other interactive apps such as WhatsApp.

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