TRIPLE S TECHNOLOGY

WHY implement Triple S?

In sub-Saharan Africa majority of farmers experience difficulty in getting quality sweetpotato planting material after a long dry season.

IN SITU

People suffering from hunger is estimated at
239 MILLION

In sub-Saharan Africa

95%
MORE THAN

of farmers source their vines from the informal seed systems but fail to plant on time due to lack of material.

SWEETPOTATO

Is a climate resilient crop, fast maturing, water efficient, nutritious (Pro-Vitamin A rich orange-fleshed varieties) and drought tolerant.

Can be harvested during hunger months for household consumption and animal fodder.

Sweetpotato Triple S: Storage in Sand and Sprouting

Is a sustainable method of conserving sweetpotato roots during long dry seasons and using the sprouts to multiply vines for timely availability of healthy planting material at the onset of the rains.

TRIPLE S

Storage Sand Sprouting

Increases availability of planting material by at least 60% compared to traditional methods.

Increases root yields by up to 30% and provides early food to reduce the hunger period.

Using Triple S, farmers can earn at least 14% more from the sale of vines and roots compared to if they planted later using conventional seed sources.

Use of a root-based system limits exposure to insect vectors and reduces the need for irrigation through a long dry season.

CALL TO ACTION

Demonstrate political will through investment in climate change adaptation policies and support for gender responsive seed technologies.

Validate Triple S for country specific conditions and varieties.

Partner with research and extension systems, non-governmental organizations, multi-media communication experts and champion households to implement Triple S at scale.

Use innovative training materials and methods: training of trainers, radio and video-based extension.

Integrate Triple S into courses in agricultural training institutions.

Sweetpotato Triple S: Storage in Sand and Sprouting

STEPS

I Root selection and loading of Triple S container

II Advanced preparations and pegging of healthy plants in field

III Monitoring, de-sprouting and preparation of seed root bed

IV Planting out in seed root bed and vine harvesting preparations

Selection and loading of undamaged roots into container with layers of sand

Planting out roots 6 to 8 weeks before rains are expected

Monthly monitoring and if dry season is >4 months long de-sprout roots

Watering of seed roots every 3-4 days

Harvesting sites

Plants roots 6 to 8 weeks before rains are expected

Selection and loading of undamaged roots into container with layers of sand

Planting out of cuttings

Growth of young roots

Storage roots begin, and fast growth of vines

Drought tolerant. Can be harvested during hunger months for household consumption and animal fodder.

Male and female farmers have proved that 100 seed roots provide sufficient vines for 0.21 ha - 0.27 ha, assuming 2 ratoons, to produce 5 tons of OFSP; enough to meet a family’s annual vitamin A requirement.

CIP thanks all donors and organizations which globally support its work through their contributions to the CGIAR Trust Fund. https://www.cgiar.org/funders/

© July 2019. International Potato Center. All rights reserved. This work by the International Potato Center is licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0).

To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/. Permissions beyond the scope of this license may be available at: http://www.cipotato.org/contact/