

# Drought and Virus Tolerant Orange-Fleshed Sweet Potato

Resilient and Nutrient-Rich OFSP for Better Agriculture



**International Potato Center (CIP)**  
Norman KWIKIRIZA

Drought and Virus Tolerant Orange-Fleshed Sweet Potato (OFSP) is a variety that withstands drought, heat stress, and common viruses. It matures in 90 days, reducing the risk of incomplete tuber filling during uncertain rainfall. This technology addresses climate, pest, and virus challenges.



This technology is **TAAT1 validated**.



Scaling readiness: idea maturity 7/9; level of use 7/9

Gender assessment



Climate impact



## Problem

Drought and Heat Stresses negatively impacting sweet potato cultivation.

Common viruses affect sweet potato crops, causing reduced yields and crop damage.

Short Growing Seasons with Uncertain Rainfall.

Sweet potato crops are vulnerable to pests and insects causing damage to both field crops and stored tubers.

## Solution

OFSP cultivars with traits like early maturation, deep roots, and high vine survival for resilience in drier and warmer climates.

OFSP varieties are resistant to common viruses, including stunt virus (SPCSV) and mottle virus (SPFMV), achieved through mass selection and genetic marker techniques.

OFSP varieties are resistant to pests like weevils, aphids, and whiteflies, safeguarding field crops and stored tubers.

Technology from

ProPAS

Commodities

Sweet Potato

Sustainable Development Goals



Categories

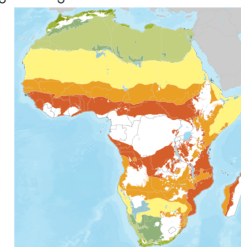
Production, Improved varieties,  
Disease resistance, Drought tolerance

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Farmers, Seed companies

## Key points to design your program

The Drought and Virus Tolerant Orange-Fleshed Sweet Potato (OFSP) thrives in dry conditions, boosting yields and nutritional value.

- In Malawi, following the 2016 drought, 300,000 households benefited from its high yields, improving food security and economic resilience.
- This technology supports SDGs by enhancing food security (SDG 2), empowering women farmers (SDG 5), and reducing reliance on water-intensive crops (SDG 13).
- Ideal for development programs focused on sustainability, it offers a reliable, climate-resilient crop with strong support from the International Potato Center.

Cost: \$\$\$ **2 USD**

per kg of vines

ROI: \$\$\$ **30 %**

increase in wealth



Open source / open access



Drought and Virus Tolerant Orange-Fleshed Sweet Potato

<https://taat.africa/ypd>

Last updated on 11 December 2024, printed on 15 May 2025

Enquiries [e-catalogs@taat.africa](mailto:e-catalogs@taat.africa)