Silage production from sweet potato vines and tubers

Fodder Enrichment for Thriving Livestock

Sweet potato silage production is an agricultural innovation that efficiently turns underutilized resources into high-quality animal fodder. The fermentation process preserves nutrients, making it a valuable addition to traditional feeds. Sweet potato silage promotes rapid livestock growth and maintains good health.

This technology is TAAT1 validated.

7·8 Scaling readiness: idea maturity 7/9; level of use8/9

Inclusion assessment 4

Climate impact 7

Problem

- **Resource Wastage**: Leftover sweet potato parts perish in hot, moist conditions.
- **Fodder Availability**: Persistent gaps exist in fodder availability.
- **Digestibility and Nutrition**: Fresh vines have poor digestibility and nutritional value.
- **Resource Collection**: Harvesting leftover sweet potato parts is labor-intensive.

Solution

- **High-Quality Fodder**: Converts leftovers into nutritious animal feed.
- **Bridging Fodder Gaps**: Ensures consistent fodder availability.
- **Enhanced Digestibility and Nutrition**: Improves digestibility and conserves nutrients through fermentation.
- **Efficient Resource Utilization**: Reduces labor and effort in resource collection by providing a sustainable and cost-effective solution.

Key points to design your program

Sweet Potato Silage converts sweet potato vines and non-marketable tubers into high-quality livestock feed, helping farmers overcome seasonal feed shortages while reducing feed costs and improving livestock productivity. Suitable for livestock development, integrated crop–livestock systems, climate-smart agriculture, and circular bioeconomy programmes, the technology contributes to SDGs 1 (No Poverty), 2 (Zero Hunger), 8 (Decent Work and Economic Growth), and 12 (Responsible Consumption and Production), while creating profitable business opportunities for women and youth. To successfully integrate this technology, consider the following key actions :

- Identify production areas where sweet potato residues are underutilized and seasonal feed shortages affect livestock production.
- Establish partnerships with CIP and national partners to support quality silage production.
- Invest in silage processing equipment and strengthen producer capacity on residue management, fermentation, storage, and livestock feeding.
- Support commercial silage enterprises and monitor feed availability, livestock productivity, feed cost savings, and programme outcomes.

International Potato Center (CIP)
Norman KWIKIRIZA

Technology from

ProPAS

Commodities

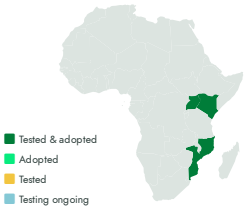
Sweet Potato

Sustainable Development Goals

Categories

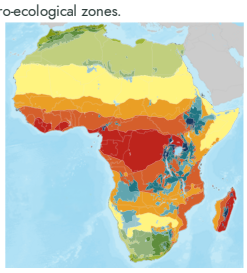
Postharvest, Practices, Post-harvest management

Tested/adopted in



Where it can be used

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



Target groups

Breeders, Farmers