Drought-resilient Urochloa forage for year-round livestock feeding

Better grass. Better livestock.

Urochloa forages are a cost-effective feed crop. Each hectare yields up to 15 tonnes of dry forage with high protein content, giving excellent hay and silage. With only a few weedings, the grass establishes quickly and can be cut every 8–12 weeks. Basilisk and MG-4 are ideal for hay, Piatá suits high altitudes and Xaraes provides biomass and erosion control.

This technology is pre-validated.

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

Project adoption 2

Technology integrated in the P2-RSP2, and BREFOL -M projects, in Gambia.

2616 USD	20400 USD	17783 USD	680 %
Cost Per hectare over 10 years	Revenue Per hectare over 10 years	Net income Per hectare over 10 years	ROI Over 10 years

IP

Open source / open access

Problem

- **Low livestock output:** Native pasture feed is low, so milk and meat stay low.
- **Dry-season feed gaps:** When rains stop, grass stops—farmers buy costly feed or reduce herds.
- **Land degradation:** Thin pasture leaves soil exposed to erosion.
- **Weak fodder markets:** Poor pasture limits hay and silage quantity and quality for sale.

Solution

- **Deep roots:** Roots reach ~2 m, so the grass stays green longer in dry periods.
- **High yield + quality:** 8–15 t/ha of dried forage with 8–15% protein.
- **Better livestock results:** Milk and meat output can rise by 15–30%.
- **Soil protection:** Dense cover reduces erosion and improves soil health.
- **Regular harvests:** Cut every 8–12 weeks once established for year-round feed.

Key points to design your business plan

Urochloa (Brachiaria) forage grasses offer a clear business opportunity because livestock farmers need reliable feed. You can earn income through two simple models: seed sales before the rainy season and hay sales mainly during the dry season.

To design your business, plan activities around

- **Seed business model:** Produce or distribute quality seed ahead of the rains, with proper drying, safe storage, clear labeling, and compliant sales through agro-dealers, cooperatives, and projects.
- **Hay business model:** Produce hay in the rainy season and sell it in the dry season, using good drying, clean storage, and reliable links to dairy hubs, fattening groups, and feed traders.
- **A minimum success package:** Combine your product with simple farmer guidance (short leaflet/coaching + demo/field day) to reduce failures and increase repeat buyers.
- **Early market agreements:** Secure buyers before you produce (pre-orders or seasonal contracts) to reduce risk and stabilize cash flow.
- **Simple business tracking:** Monitor costs, output (kg/bales), losses, selling price, and margin to decide when to scale seed, hay, or both.

Alliance

The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)

Solomon Mwendia

Commodities

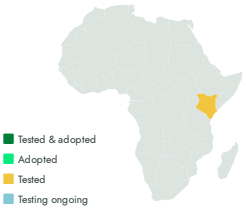
Forage grasses

Sustainable Development Goals

Categories

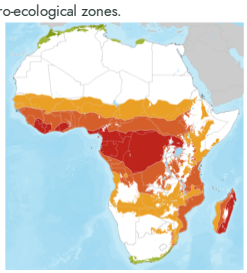
Production, Improved varieties, Yield improvement, Drought tolerance

Tested/adopted in



Where it can be used

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



Target groups

Breeders, Development institutions, Farmers, Seed companies,

For best results, run both models: **seed sales before rains** plus **hay sales in the dry season**, while keeping strong quality control.

Implementing partners could collaborate with **Alliance Bioversity International & CIAT**, seed regulators, seed companies, agro-dealers, dairy hubs/cooperatives, feed traders, and farmer groups to build stable supply chains and markets.

Inclusion assessment 8 8 8

Climate impact