

Motorized Crop Residue Processing for Animal Feed

Powered Crop Residue Processing for Livestock Feed Enhancement

This technology is a motorized equipment for processing millet and sorghum residues into animal feed. It's self-powered, cost-effective, and easily transportable, requiring only two operators. By efficiently processing crop residues, it integrates crop and livestock enterprises, enhancing resource efficiency. The machine can process 1 to 1.5 tons of stover per hour.



Use of motorized stover cutter (left) and mobile chopper (right)



International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
Dougbedji Fatondji

Technology from

[ProPAS](#)

Commodities

Sorghum/Millet

Sustainable Development Goals



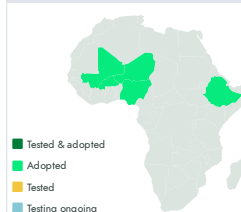
Categories

Pre-production, Equipment,
Animal feed production

Best used with

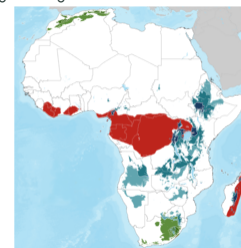
- [Dual-purpose Millet Varieties for Crop and Livestock Integration](#)

Tested/adopted in



Where it can be used

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



✓ This technology is **TAAT1 validated**.

8-8



Scaling readiness: idea maturity 8/9; level of use 8/9

Gender assessment

4

Climate impact

6

Problem

- Manual processing of millet and sorghum stem residues is time-consuming.
- Unutilized residues are often burned, leading to soil carbon depletion and air pollution.
- Traditional feeding methods result in sub-optimal animal diets and digestion.
- Storage and preservation of feed face challenges.
- Dryland areas in Sub-Saharan Africa lack sufficient feed biomass due to low rainfall.

Solution

- Efficiently processes crop residues into feed or mulch
- Reduces wastage and maximizes livestock nutrition
- Enhances animal health and productivity
- Improves soil health and agricultural sustainability
- Compacts feed materials effectively, enhancing flavor and nutritive value
- Particularly beneficial for low rainfall regions in Sub-Saharan Africa

Key points to design your project

To integrate this technology into your project:

- Conduct community-level demonstration sessions to promote the stover chopper/crusher.
- Provide operators with training on machine maintenance and usage.
- Facilitate connections between community-based organizations, youth groups, and animal feed producers.

During implementation, consider:

- Determining the size and quantity of units needed.
- Budgeting for equipment purchase: USD 1,250 to USD 1,700 for self-contained stover choppers and USD 1,000 to USD 1,500 for alternative motorized cutters.
- Accounting for delivery costs and potential import duties based on the technology's source country.

Cost: \$\$\$ **1250–1700 USD/unit**

Self-contained stover chopping and crushing machine

10 years

Lifespan

22,000 USD

Production value in 6 months

1,000–1,500 USD

Alternative motorized cutters for cereals

IP

Unknown



Motorized Crop Residue Processing for Animal Feed

<https://taat.africa/lvo>

Last updated on 10 April 2025, printed on 15 May 2025

Enquiries e-catalogs@taat.africa