

Dual-purpose Millet Varieties for Crop and Livestock Integration

Harvest More, Feed Better, Farm Smarter

"Dual-purpose Varieties for Crop and Livestock Integration" involves developing millet and sorghum varieties for both human food and animal fodder in African drylands, addressing challenges like overgrazing and soil degradation worsened by increasing livestock populations.



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✓ This technology is **TAAT1 validated**.

7-8



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

Gender assessment

4

Climate impact

7

Problem

- Growing livestock population exacerbating the demand for animal feed resources.
- Traditional millet and sorghum varieties unable to meet the dual requirements of human food and high-quality animal feed.
- Common millet and sorghum lines have higher lignin content, making them less digestible.

Solution

- Reduced lignin and tannin content for enhanced digestibility and palatability
- Greater fodder availability, especially during the dry season
- Increased manure availability for soil fertility management
- Sweet stover with high sugar concentration (around 15%)
- Suitable for syrup or bioethanol production

Cost: **204 USD**

ROI: **31 %**

Production cost for seed, fertilizer, and labor per Ha

increase in yield

204 USD

2.5—4 tons

10—15 tons

15 %



Per hectare for seed, fertilizer, and labor

Sorghum grain yield per Ha

Sorghum stover yield per Ha

Sugar concentration

No formal IP rights

Sustainable Development Goals



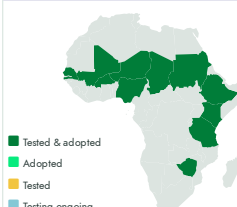
Categories

Production, Improved varieties, Quality improvement

Best used with

- [Proactive Management of Striga Infestation >](#)
- [Precision Fertilizer Micro-Dosing for Millet and Sorghum Yield Enhancement >](#)
- [Motorized Crop Residue Processing for Animal Feed >](#)

Tested/adopted in



Where it can be used



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<https://e-catalogs.taatafrica.org/org/technologies/dual-purpose-millet-varieties-for-crop-and-livestock-integration>

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