

Advanced equipment for Bean processing Bean Flour and Flour Products

Bean Flour Made Easy

The "Bean flour and flour-based products" technology processes common beans into flour, enhancing their nutrition and shelf life. It offers economic opportunities for farmers and businesses, with scalable equipment suitable for various production scales in both rural and urban settings.



Alliance



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

This technology is **TAAT1 validated**.

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

Gender assessment **4**

Climate impact **5**

Problem

- Whole beans require significant time and energy for preparation, reducing appeal to urban consumers.
- Traditional bean preparation methods remain unattractive despite pre-cooked options due to time and energy constraints.
- Common beans contain substances that hinder protein, starch, and mineral absorption in the gut, affecting nutrition and digestibility.
- Processing newly harvested and tough-to-cook beans presents challenges in both palatability and preparation efficiency.

Solution

- Technology produces popular bean products in Sub-Saharan Africa.
- Begins with high-quality flour, reducing cooking time and costs.
- Processing boosts vitamin and nutrient availability.
- Methods like soaking and pressure cooking enhance bean digestibility.
- Bean flour prolongs product freshness.
- Provides lucrative markets for farmers and entrepreneurs.
- Opens new markets, reduces transportation costs, and enables new products.

Technology originally documented by

[ProPAS](#)

Commodities

Common bean

Sustainable Development Goals



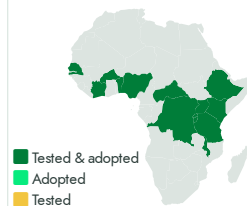
Categories

Transformation, Practices,
Agri-food processing

Best used with

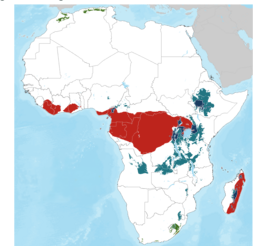
- [Biofortified Beans for Improved Nutrition >](#)

Tested/adopted in



Where it can be used

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



Cost: **\$\$\$ 370 USD**

Small motorized bean dehullers that can process 50 kg hour-1

4 USD

Bean flour per kg

370 USD

Small motorized bean dehullers that can process 50 kg hour-1

1,500 USD

Soaking tanks of 500 liter

2,000 USD

Mills with a capacity of 300 kg hour-1



Open source / open access



Advanced equipment for Bean processing

<https://e-catalogs.taatafrica.org/technologies/advanced-equipmentfor-bean-processing-bean-flour-and-flour-products>

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