

Bean Flour and Flour Products: Bean processing process

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.

This technology is **TAAT1 validated**.

7-7

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

Cost: **\$370 USD**

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

4 USD	370 USD	1,500 USD	2,000 USD	IP
Bean flour per kg	Small motorized bean dehullers that can process 50 kg hour ⁻¹	Soaking tanks of 500 liter	Mills with a capacity of 300 kg hour ⁻¹	Open source / open access

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.

Key points to design your business plan

For Manufacturers: Find reliable suppliers, simplify market entry with minimal licensing, and target small farmers and development projects. Collaborate with local farmers for sustainable sourcing. Equipment costs range from small dehullers (USD370) to larger automated systems (USD3,000+).

For Resellers: Promote versatility, secure steady supply, and ease licensing. Focus on health-conscious urbanites and rural communities. Partner with local processors and farmers, and use flexible procurement for higher profits.

For Users: Cater to health-conscious individuals seeking gluten-free options. Emphasize time and cost savings for busy urbanites. Source products from local businesses.

Alliance



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

Technology from

ProPAS

Commodities

Common bean

Sustainable Development Goals



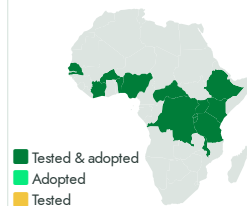
Categories

Transformation, Practices, Agri-food processing

Best used with

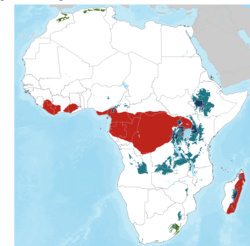
- [Biofortified Beans for Improved Nutrition >](#)

Tested/adopted in



Where it can be used

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



Gender assessment

Climate impact



Bean Flour and Flour Products

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

Last updated on 9 September 2024, printed on 9 September 2024

Enquiries techs@taatafrica.org