HIB varieties: Biofortified Beans for Improved Nutrition

Fueling Health with Iron-Rich Beans

"Biofortified Beans for Improved Nutrition" technology develops high-iron bean varieties via biofortification to combat deficiencies in Sub-Saharan Africa. With 31 released varieties, it enhances regional food security and nutrition.

This technology is TAAT1 validated.

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

IP

Open source / open access

Problem

- Iron and zinc deficiencies leading to: Anemia, Impaired motor and cognitive development, Increased risk of maternal death and premature births, Low birth weight
- Weakened immune systems
- Increased susceptibility to infections
- Stunted growth

Solution

- Development of high-iron bean varieties through biofortification.
- Crossbreeding local elite lines with American bean varieties naturally rich in iron.
- Resulting in High-Iron Beans (HIB) with traits including: High productivity, Drought and disease tolerance, Preferred culinary characteristics, Quick cooking.
- Release of 31 HIB varieties in key production areas across Sub-Saharan Africa.
- Enhanced food security and nutrition in the region.

Key points to design your business plan

For Manufacturer:

- Stock up on Foundation or Registered Seed, no license needed.
- Target customers include wholesale distributors, government agencies, NGOs.
- Strong partnerships with distributors are vital.

For Users:

- Available in various countries, consider import duties.
- Partner with HIB sellers, estimate cost structure and potential profits.

Gender assessment 4

Climate impact 7

Alliance

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

Justin Mabeya Machini

Technology from

ProPAS

Commodities

Common bean

Sustainable Development Goals

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

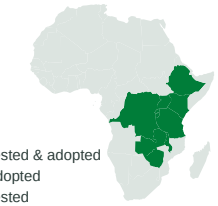
Categories

Production, Improved varieties, Quality improvement

Best used with

- Seed dressing of Seed with Fungicide and Insecticide ›
- Seed Inoculation with Rhizobia ›
- Specialty Fertilizer Blends for Common Bean ›

Tested/adopted in



Tested & adopted
Adopted
Tested

Where it can be used

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