

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

Gender assessment **4**

Climate impact **7**

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 project

Project activities include raising awareness, providing seeds, linking producers to markets, promoting demand, and establishing incentives.

Costs involve seed estimation, delivery, training, communication support, and collaboration with agricultural institutes and seed companies for implementation.



Open source / open access

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



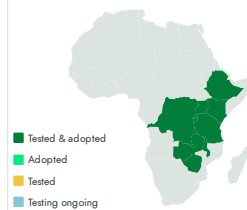
Categories

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



Where it can be used

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



HIB varieties

<https://e-catalogs.taatafrica.org/gov/technologies/hib-varieties-biofortified-beans-for-improved-nutrition>

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