

HIB varieties Biofortified Beans for Improved Nutrition

Fueling Health with Iron-Rich Beans



Some common bean varieties cultivated in Uganda

"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.

IP
Open source / open access

Alliance

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

Technology originally documented by
ProPAS

Commodities
Common bean

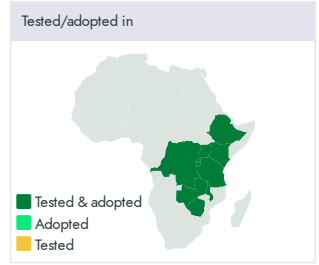
Sustainable Development Goals

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 >](#)



Where it can be used

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



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