





HarvestPlus improves nutrition and public health in Rwanda by promoting beans that provide more iron in the diet. We work with more than 30 partners drawn from government, business, and civil society

Better Crops for Better Nutrition

We use a process called biofortification to conventionally breed staple food crops that are richer in essential vitamins and minerals and can be grown by rural communities that are often missed by other interventions, such as supplementation and food fortification. Our food-based approach relies on familiar staple foods that people already eat regularly and that can be part of other efforts to improve nutrition, such as dietary diversification.

The Costs of Iron Deficiency

- Iron deficiency impairs mental development and learning capacity, increases weakness and fatigue and, when accompanied by severe anemia, may increase the risk of women dying during childbirth.
- 38% of Rwandan children under 5 are estimated to be iron deficient (DHS).
- Annually, Rwanda loses nearly \$50 million to vitamin and mineral deficiencies (World Bank).

Crops for Rwanda



Iron Bean

Beans are the predominant staple food in Rwanda.

Rwanda ranks number 1 out of 81 countries suitable for investing in iron beans.

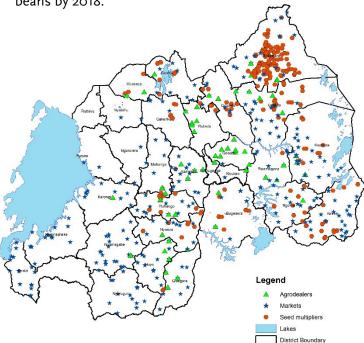
Nutritional Benefits: Provides up to 50% of daily iron needs

Farmer Benefits: High yielding, virus resistant, heat and drought tolerant

Biofortified Varieties: RWR 2245 (bush), RWR 2154 (bush), CAB 2 (climber), MAC 44 (climber), RWV 1129 (climber), RWV 3006 (climber), RWV 3316 (climber), RWV 3317 (climber), MAC 42 (climber), RWV 2887 (climber)

On the Ground

HarvestPlus and its partners work in 25 districts of Rwanda to promote the availability, adoption, and consumption of iron beans. The goal is that more than 1 million Rwandan farming households will be growing iron beans by 2018.



How We Work

HarvestPlus supports the Rwanda Agriculture Board (RAB) to breed, test, and release varieties of iron beans developed through our partnership with the International Center for Tropical Agriculture (CIAT). We work with private farmers, cooperatives, and non-governmental partners to produce and multiply certified seed of released varieties for delivery to farmers. A payback system ensures that poor farmers receive free seed, which they repay in kind upon harvest. In partnership with public and non-governmental organizations, we train farming households in crop management, nutrition, postharvest handling, and marketing. We are also working to facilitate private sector engagement in the value chain for iron beans, which is essential for long term sustainability of the bean seed distribution, and to strengthen markets for biofortified crops. Public awareness campaigns leverage the power of mass media and local icons, including music stars, to educate Rwandans on micronutrient deficiencies and the benefits of iron beans. Our advocacy seeks to strengthen national ownership of biofortification through effective integration into national nutrition and agricultural policies.

"Before, when I was growing the indigenous variety, I could hardly harvest 1 ton, but now I harvest 3 tons of iron-rich beans from the same 2 hectares of land."

Shiragahinda Augustin
Farmer from Northern Province

Partners

CGIAR: International Center for Tropical Agriculture (CIAT) • Local: Development Rural du Nord (DERN) • Development Rural Durable (DRD) • IMBARAGA Rwanda Farmer Federation • Kigali Institute of Science and Technology (KIST) • Ministry of Agriculture (MINAGRI) • Ministry of Education (MINEDUC) • Ministry of Health (MOH) • Ministry of Local Governance (MINALOC) • Rural Sector Support Project (RSSP)/ Land Husbandry, Water Harvesting and Hillside Irrigation (LWH) (RSSP/LWH) • Rwanda Agriculture Board (RAB) • Rwanda Improved Seed Company (RISCO) • University of Rwanda (UR) • Win-Win Agritech • World Food Programme (WFP) • World Vision • Other: Belgian Technical Cooperation (BTC) • Cornell University • East and Central African Bean Research Network • Flinders University, Australia • Institut des Sciences Agronomiques du Burundi (ISABU), Burundi • Kansas State University • Michigan State University • National Crops Resources Research Institute (NaCRRI)/National Agricultural Research Organisation, Uganda - Bean Program • North Dakota State University • Nutrisurvey – Jürgen Erhardt • Pan-Africa Bean Research Alliance (PABRA) • Penn State University • SEED Solutions, SEED Infotech Ltd. • Selian Agricultural Research Institute

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HarvestPlus improves nutrition and public health by developing and promoting biofortified food crops that are rich in vitamins and minerals, and providing global leadership on biofortification evidence and technology. HarvestPlus is part of the CGIAR Research Program on Agriculture for Nutrition and Health (A4NH). CGIAR is a global agriculture research partnership for a food secure future. Its science is carried out by its 15 research centers in collaboration with hundreds of partner organizations. The HarvestPlus program is coordinated by two of these centers, the International Center for Tropical Agriculture (CIAT) and the International Food Policy Research Institute (IFPRI).



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