

HarvestPlus Zimbabwe works with more than 30 partners in government, the private sector, and civil society to improve nutrition and public health by promoting varieties of vitamin A-rich maize and orange sweet potato, and iron-rich beans.

These “biofortified” crops are conventionally bred and scientifically shown to improve nutrition and health status when eaten regularly. These nutritious crops benefit rural farming communities that are often missed by supplementation and food fortification initiatives. Consumer food products made with biofortified crops are bringing better nutrition to non-farm households.

Currently, 300,000 farming households in Zimbabwe grow and consume biofortified crops.



BIOFORTIFIED CROPS

VITAMIN A ORANGE MAIZE

- *Nutritional benefits:* Provides up to 50% of daily vitamin A needs
- *Farmer benefits:* High yielding, heat and drought tolerant.

IRON BEANS

- *Nutritional benefits:* Provides up to 80% of daily iron needs.
- *Farmer benefits:* High yielding, heat and drought tolerant, fast cooking.

VITAMIN A ORANGE SWEET POTATO

- *Nutritional benefits:* Provides up to 100% of daily vitamin A needs.
- *Farmer benefits:* High yielding, virus resistant and drought tolerant.

Costs of Vitamin A and Iron Deficiency

- Zimbabwe loses over US\$24 million annually due to vitamin and mineral deficiencies (World Bank).
- Vitamin A deficiency lowers immunity, impairs vision, and may lead to blindness and even death.
- 36% of Zimbabwean children under 5 are estimated to be vitamin A deficient (WHO).
- Iron deficiency impairs mental development and learning capacity, increases weakness and fatigue, and may increase the risk of women dying in childbirth.

“This intervention [biofortification] is critical in complementing other approaches being implemented in Zimbabwe to prevent and correct micronutrient malnutrition amongst the poor and vulnerable rural communities.”

— Dr. Agnes Mahomva, Permanent Secretary in the Ministry of Health and Child Care, Zimbabwe



Building Strong Seed and Crop Value Chains

In addition to reaching and empowering farmers, HarvestPlus provides technical, logistical, training, and marketing support to a wide array of partners in seed and food value chains to build strong biofortified food systems.



Crop Development: HarvestPlus supports the Department of Research and Specialist Services (DR&SS) to breed, test, and release varieties of vitamin A maize and iron beans developed with the International Maize and Wheat Improvement Center (CIMMYT) and the International Center for Tropical Agriculture (CIAT). HarvestPlus is collaborating with DR&SS and the International Potato Centre (CIP) to evaluate and promote production and consumption of vitamin A orange sweet potato in the country.



Vine and Seed Multiplication: Released varieties are licensed to private seed companies to produce seed for sale to farmers. Some varieties can also be licensed directly to seed companies by CIMMYT. Vine multiplication is done by local farmers; academic institutions and research centers to ensure that farmers get virus free vines.



Seed and Grain Distribution: HarvestPlus connects buyers and processors to farmers. Commercial seed is distributed through agro-dealers, government agricultural input support schemes, and nongovernmental organizations.



Consumer Engagement: HarvestPlus increases awareness of vitamin A maize, orange sweet potato, and iron beans through consumer education, roadshows, advertising, and media outreach.



Market Development: HarvestPlus supports the commercial processing of biofortified crops into popularly consumed products, thus providing an output market and income for farmers from their surplus, and allowing non-farming consumers to benefit from their nutritional value.



Policy Engagement: Through advocacy conducted with national partners, we strengthen national ownership of biofortification through effective integration into national nutrition and agricultural policies.

CURRENT PROGRAMS

The Livelihoods and Food Security Programme (LFSP)

Project Focus: To contribute to poverty reduction through increased agricultural productivity, increased incomes, and improved food and nutrition security for smallholder farmers. • *Funder:* UK Foreign, Commonwealth and Development Office • *Lead managers:* Food and Agriculture Organisation of the United Nations (FAO), Palladium. • *HarvestPlus Role:* Technical partner on biofortification. Biofortified crop distribution is being piloted in 12 districts of Zimbabwe.

Target number of farmers to reach: 300,000

Smallholder Irrigation Revitalisation Programme (SIRP)

Project Focus: Improve resilience of smallholder farming communities to nutrition insecurity, climate change, and economic shocks. • *Funder:* International Fund for Agricultural Development (IFAD), OPEC Fund for International Development, Zimbabwe Government • *Lead manager:* Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement. • *HarvestPlus Role:* Train farmers on nutrition and healthy eating, biofortified crops, preparing biofortified foods, food safety and preservation.

Target number of farmers to reach: 29,000

PARTNERS — **CGIAR Centers:** International Maize and Wheat Improvement center (CIMMYT), International Crop Research Institute for the Semi-Arid Tropics (ICRISAT), International Potato Center (CIP), International Center for Tropical Agriculture (CIAT) **NGOs:** Community Capacity Building, Initiative Centre for Africa (CCBICA), Farmers Association of Community Self-Help Investment Groups (FACHIG), Heifer International, Palladium, Practical Action, Sustainable Agriculture Trust, WeEffect, Welthungerhilfe (WHH), LEAD Trust, CNFA – Amalima, International Rescue Committee, SIRP (small holder irrigation Revitalization program, CAMFED, CARITUS, World Vision, Bract **Government:** Food & Nutrition Council (FNC), Ministry of Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement; Ministry of Health & Child Care; Ministry of Primary & Secondary Education **Donors & UN Agencies:** Foreign, Commonwealth and Development Office (FCDO), Food and Agriculture Organization of the United Nations (FAO) **Private sector:** Cairns Foods, SkyBrands, ARDA Seeds, Champion Seeds, Zimbabwe Super Seeds, Mukushi Seeds, National Tested Seeds, Prime SeedCo, Zimbabwe Commercial Farmers Union, Tosek, African Granary, IQfarmer **Research institutions:** Indaba Agricultural Policy Research Institute (IAPRI) **Academia:** University of Zimbabwe, Gwebi Agricultural College, Chinhoyi University of Technology, Rio Tinto agricultural college, Kaguvi Training Centre, Chaminuka Technical college, Bindura University of Science Education, Midlands State University.

Partner with us to make food systems more nutritious, inclusive, and sustainable

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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) and is based at the International Food Policy Research Institute (IFPRI).

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PROGRAM ON
Agriculture for
Nutrition
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