Unlocking the Potential and Synergy of Biofortification with Micronutrient Interventions

Biography

Mr. Steve Orr is Partnership Coordinator at HarvestPlus based in Hanoi, Vietnam. He manages the Partnership for Biofortification between HarvestPlus and the Global Alliance for Improved Nutrition (GAIN), working to commercialize 9 biofortified staple crops in 6 countries across Asia and Africa. He is also an International Development Industry Thought Leader, Program Manager and Consultant with over 25 years of experience work in Africa, the Middle East, and Asia championing global initiatives that address food security issues impacting the world’s most vulnerable populations. Prior to that, he served as team leader for the UK AID funded FoodTrade for Eastern and Southern Africa programme facilitating improved trade in staple foods in 9 African countries. Mr. Orr is also a former USAID Foreign Service Officer serving as a Director for Agriculture in two USAID Missions. He is passionate about improving the availability and access of nutritious foods through better collaboration between development industry donors/practitioners and the Private Sector.

Abstract

Two billion people, nearly one-quarter of the world’s population is affected by vitamin and mineral deficiency. This micronutrient deficiency, or “hidden hunger,” is particularly prevalent in rural populations in low- and middle-income countries whose diets are dominated by staple food crops that are deficient in vitamin A, iron, and zinc. Micronutrient deficiency is not just limited to developing countries, every country on earth is facing a serious issue with malnutrition.

Biofortification aims to increase micronutrient levels in crops during plant growth through conventional plant breeding; this differs from fortification, which involves the use of micronutrient additives during the processing of crops into food products. HarvestPlus improves nutrition and public health by developing and promoting biofortified crops and foods and providing global leadership on biofortification evidence and technology. Biofortification presents a way to reach populations where supplementation and conventional fortification activities may be difficult to implement, or where fortified foods are not readily available.

Staple food crops such as wheat, maize, rice, cassava, sweet potato, beans, and pearl millet are primary targets for biofortification because they are consumed widely as a part of everyday diets in lower middle-income countries (LMICs) but tend to provide low levels of bioavailable micronutrients. Biofortification is sustainable; once a farming family has made the switch to more-nutritious crops, the intervention is sustained for seasons and generations to follow.

HarvestPlus was launched 16 years ago, emerging from an idea by its founder, Howarth Bouis. The crops were developed with CGIAR center partners and the benefit to human health was
demonstrated through extensive human intervention studies in several countries. Now is the time to scale up and sustainably embed biofortification into the global food system, in partnership with the food industry, which is showing quantifiable demand for the use of naturally nutritious crops that provide clean label foods without genetic modification.

Together with supplementation, dietary diversity, and fortification, we can work in partnership to end global hunger.