



Cultivating food security in Africa

By Danielle Nierenberg and Abdou Tenkouano, Special to The Kansas City Star

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As hunger and drought spread across Africa, a huge effort is underway to increase yields of staple crops, such as maize, wheat, cassava, and rice.

While these crops are important for food security, providing much-needed calories, they don't provide much protein, vitamin A, thiamin, niacin, and other important vitamins and micronutrients—or taste. Yet, none of the staple crops would be palatable without vegetables.

Vegetables are less risk-prone to drought than staple crops that stay in the field for longer periods. Because vegetables typically have a shorter growing time, they can maximize scarce water supplies and soil nutrients better than crops such as maize, which need a lot of water and fertilizer.

Unfortunately, no country in Africa has a big focus on vegetable production. But that's where AVRDC – The World Vegetable Center steps in. Since the 1990s, the Asian Vegetable Research and Development Center (based in Taiwan) has been working in Africa, with offices in Tanzania, Mali, Cameroon, and Madagascar, to breed cultivars that best suit farmers' needs.

By listening to farmers and including them in breeding research, AVRDC – The World Vegetable Center is building a sustainable seed system in sub-Saharan Africa. The Center does this by breeding a variety of vegetables with different traits—including resistance to disease and longer shelf life—and by bringing the farmers to the Regional Center in Arusha and to other offices across Africa to find out what exactly those farmers need in the field and at market.

Babel Isack, a tomato farmer from Tanzania, is just one of many farmers who visits the Center, advising staff about which vegetable varieties would be best suited for his particular needs—including varieties that depend on fewer chemical sprays and have a longer shelf life.

The Center works with farmers to not only grow vegetables, but also to process and cook them. Often, vegetables are cooked for so long that they lose most of their nutrients. To solve that problem, **Mel Oluoch**, a Liaison Officer with the Center's

Vegetable Breeding and Seed System Program (vBSS), works with women to improve the nutritional value of cooked foods by helping them develop shorter cooking times.

“Eating is believing,” says Oluoch, who adds that when people find out how much better the food tastes—and how much less fuel and time it takes to cook—they don’t need much convincing about the alternative methods.

Oluoch also trains both urban and rural farmers on seed production. “The sustainability of seed,” says Oluoch, “is not yet there in Africa.” In other words, farmers don’t have access to a reliable source of seed for indigenous vegetables, such as amaranth, spider plant, cowpea, okra, moringa, and other crops.

Although many of these vegetables are typically thought of as weeds, not food, they are a vital source of nutrients for millions of people and can help alleviate hunger. Despite their value, these “weeds” are typically neglected on the international agricultural research agenda. As food prices continue to rise in Africa—in some countries food is 50-80 percent higher than in 2007—indigenous vegetables are becoming an integral part of home gardens.

The hardiness and drought-tolerance of traditional vegetables become increasingly important as climate change becomes more evident.

Many indigenous vegetables use less water than hybrid varieties and some are resistant to pests and disease, advantages that will command greater attention from farmers and policymakers, and make the work of AVRDC – The World Vegetable Center more urgent and necessary than ever before.

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