



Introducing the potential of sweet potato's ability to enhance healthy food safety in developing nations

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DESCRIPTION

The morning glory family includes the sweet potato, a crop used for both food security and famine relief. Sweet potatoes come in more than 400 different types. In countries like India, Bangladesh, Vietnam, Indonesia, the Philippines, and the Pacific Islands, the sweet potato is a significant source of bioenergy. Good quantities of vitamins and minerals can be found in both the leaves and the tubers (Ahmad et al., 2005). Through a food-based strategy, Orange-Fleshed Sweet Potatoes (OFSP) may help to reduce vitamin A insufficiency. While anthocyanin-rich purple variants are popular in Asia, African customers prefer types with up to 30% dry matter. Utilizing bio fortification techniques, sweet potato tubers with high levels of pro-vitamin A carotenoids are being created. This review aims to uphold the recent strong commitment to breed sweet potato varieties that are bio fortified, nutrient dense, and stress tolerant by raising awareness of research accomplishments in the field and drawing attention to knowledge gaps that must be filled in order to develop the crop's value chain. Despite the fact that sweet potatoes are said to have originated in Central America, they are currently widely grown throughout tropical, subtropical, and a few temperate regions with various agro climatic conditions. 86% of the sweet potatoes grown worldwide are produced in Asia, with China alone accounting for up to 80%. The other half is used for human consumption, with roughly half of this production going to industry and animal feed. Malawi, Nigeria, and Tanzania are the continent's top producers, with production in Africa primarily going for human use. The paler, lower beta carotene variants are grown by traditional African farmers (Ahmad et al., 2006). Over 80 kilograms of sweet potatoes are consumed per person in African nations where they are a primary staple; 15 to 40 kg is typically consumed per person in nations where they are a secondary staple. In order to develop OFSP, seven African nations (Ethiopia, Mozambique, Ghana, Uganda, Kenya, Tanzania, and South Africa) have joined forces.

Breeding, variety selection for high beta-carotene and dry matter content, adaptation and acceptability testing, sustainable seed multiplication, and post-harvest processing for industrial and domestic use are some of the methods used (Alleman et al., 1997).

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and its adaption to various agro ecologies. Farmers should have more access to good planting supplies. The entire carotenoid profiles and contents of the recently created OFSP cultivars must be analyzed. It is recommended to use OFSP varieties to create more inventive food products and to implement suitable sweet potato storage practices.

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