

# Indigenous African Leafy Vegetables (ALV) for Enhancing Livelihood Security of Smallholder Farmers in Kenya



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## Project Summary and Goals

Enhance the potential for production, utilization and marketing of ALVs in Western Kenya for important ALV species including spider plant (*Cleome gynandra*), African nightshades (*Solanum scabrum/S. villosum/S. americanum/S. tarderomotum*) and amaranths (*Amaranthus blitum/A. dubius/A. hybridus /A. spinosus*). Indigenous ALVs contain higher levels of nutrients than commonly grown exotic species like Swiss chard, kale and cabbage. They are rich in proteins (17.4-38.3% of dry matter), carbohydrates, vitamins and minerals and have medicinal properties. These vegetables are popular in cultural diets and there is excellent potential for increased production and use in areas of traditional culture. Our goal is to establish a base of information and experience for greater production and use of indigenous vegetables that in the long-term will provide a source of food for economic security and improved nutrition for Kenyans, especially those afflicted with HIV/AIDs and women farmers. Activities include imparting knowledge on ALV germplasm, establishing/improving local seed banks, providing quality seeds for production, transfer of improved production techniques to stakeholders, organization of self-help groups and farming and market analysis surveys. Participatory approaches will be used to achieve these project goals and impact target groups.

## Objectives

- 1) Assess and enhance genetic resources of ALVs for Kenya
- 2) Improve ALV seed system availability to Kenyan stakeholders
- 3) Develop and disseminate improved horticultural practices and post-harvest technologies for ALVs
- 4) Develop marketing strategies for ALVs
- 5) Promote educational programs on ALV's for farmers and other community groups



Field visit of HORT CRSP Kenyan Team

## Anticipated Outcomes

- 1) Development of a comprehensive research and education agenda for effective ALV production and marketing
- 2) ID obstacles and solutions to production and marketing of ALV's in western Kenya
- 3) Develop education programs for all stakeholders on production, post-harvest handling, marketing and consumption for ALV's
- 4) Improve synergies for collaboration of all participating universities, organizations and government entities in the project



Spiderplant



Amaranth



Nightshade



ALV Demonstration Planting at KARI

## Outreach Activities

- 1) Provide information on ALVs by effectively reaching stakeholders in Western Kenyan farming communities with proactive outreach programs of education, demonstration and hands-on participation in new and improved ALV production technologies
- 2) Farmer's field days and exchange visits will be organized to enable lead farmers to share experiences facilitating face-to face deliberations and exchange of ideas between farmers and our team
- 3) Train (training of trainers) lead farmers, mainly literate women and community leaders, in critical production and marketing skills
- 4) Extension staff will transfer knowledge to the ALV community on challenges and solutions for production inefficiencies
- 5) Establish a research agenda for the ALV sector in Kenya



Marketing of ALVs

## Impacts

- 1) Identify through farm and market surveys production and market access needs to allow development of effective information transfer mechanisms to stakeholders
- 2) Increase farmers' income and consumer nutrition
- 3) Create synergies resulting in improved knowledge systems and increased human capacity
- 4) Ensure women and other disadvantaged farm sector workers have access to our programs
- 5) Identify gender issues and barriers to greater female participation in ALV production and market systems
- 6) Beneficiaries will be small-scale resource-poor farmers and consumers, village communities, NGOs, local public and private seed sectors

Timeline	Activities
Feb 12-22, 2010	<ul style="list-style-type: none"> <li>Organizational meeting between U.S. and Kenyan collaborators</li> <li>Implement program with farmer stakeholders</li> </ul>
Mar 2010	<ul style="list-style-type: none"> <li>ALV demonstration plantings established at Moi University and KARI.</li> <li>Meet educators, outreach personnel and farmers in the region</li> <li>Farmer and market survey tool prepared and plan for achieving gender objectives</li> </ul>
May 2010	<ul style="list-style-type: none"> <li>Conduct pilot market and farmer survey for ALV's</li> </ul>
May-Oct 2010	<ul style="list-style-type: none"> <li>Workshops on ALV's with farmers, market personnel and collaborators</li> <li>Field days on ALV production, handling, and marketing</li> <li>Hold women only production and marketing workshops</li> <li>Program evaluation and gender impact assessment</li> <li>Disseminate survey results</li> </ul>
Oct-Nov 2010	<ul style="list-style-type: none"> <li>Regional partner training in U.S. for Kenyan cooperators/students</li> </ul>
Dec 2010-Feb, 2011	<ul style="list-style-type: none"> <li>Final meetings with collaborators and stakeholders</li> <li>Prepare project summary</li> </ul>