

Introduction of spider plant (*Gynandropsis gynandra* (L.) Briq) in urban and peri-urban vegetable production systems in Benin

E. S. Deguenon¹, E. G. Achigan-Dako², P. Maundu³, M. E. Schranz⁴, A. Van Deynze⁵, S. Solberg⁶

¹NGO Hortitechs Developpement, Benin, ²Laboratory of Genetics, Horticulture and Seed Science, Faculty of Agronomic Science, University of Abomey-Calavi, Benin; ³Kenya Resource Center for Indigenous Knowledge, National Museums, Kenya; ⁴Biosystematics Group, Wageningen University, the Netherlands; ⁵African Orphan Crops Consortium, Kenya; ⁶The World Vegetable Center (AVRDC), Taiwan

Introduction

The project Cleonomics aims at developing improved cultivars of spider plant for Benin and Kenya markets. The species is a fast-growing vegetable and medicinal plant, rich in phytonutrients and an important source of income for some rural communities in Southern Benin.



Spider plant

Objectives

- Assemble a germplasm collection of 100 spider plant accessions from Africa and Asia;
- Characterize and evaluate the germplasm under field conditions
- Train urban and peri-urban farmers on adequate spider plant cultivation practices
- Develop marketing strategies for spider plant in Benin

Germplasm assembly

- Forty-eight (48) accessions provided by AVRDC including 24 from Southeast Asia and 24 from East Africa
- Additional germplasm characterization in West Africa (164 accessions) and Kenya (59 accessions)

Germplasm evaluation

- Characterization of one hundred (100) accessions including 60 from West Africa, 20 from Southeast Asia and 20 from East Africa under field conditions in Southern Benin and Kenya is on-going.
- Thirty (30) farmers from urban and rural areas in Benin visited the experiments and listed their selection criteria,



Farmers' visits during characterization experiments

Farmers' training

- Based on farmers' criteria, three late flowering accessions with broad leaves were selected and are cultivated and sold by 14 farmers in urban areas,
- There is a growing demand in the species among urban consumers and vegetable processing enterprises.
- Farmers are trained on best cultivation practices and their preferences are taken into account in the breeding program.



Woman buying spiderplant from an urban farmer in Benin (Pahou)



Spider plant seed production plot

Value chain development

- There is a growing demand in spider plant in urban areas and vegetable retailers are already involved in the marketing process.
- Two (2) vegetable processing enterprises adopted the species.

Prospects

- On-farm evaluation of performance of selected accessions
- Development of seed storage and conservation protocols
- Organoleptic tests with consumers
- Development of post-harvest management strategies in collaboration with vegetable processing enterprises
- Creation of awareness on spider plant nutritional and health benefits

HORTITECHS

GBioS



NWO
Netherlands Organisation for Scientific Research
WOTRO Science for Global Development

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