

CARDI/CTA WORKSHOP

On improving the policy framework for developing Climate Change Agriculture Systems:

THE ROLE OF PLANT GENETIC RESOURCES

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This presentation outlines the status of Plant Genetic Resources in Antigua and Barbuda

Collections which exist in Antigua and Barbuda

- **Fruits-** Antigua Black Pineapple, Black Mango ,citrus,
- **Vegetables-** Local eggplant, ochro, table squash, pumpkin,cucumber, seasoning /hot pepper, pigeon pea, field corn, peanuts, lima bean, herbs and spices
- **Root Crops-** sweet potato, yam, cassava
- **Non food crops-** Montserrat sea island cotton, forest species
- **Forage /Legumes-** Guinea grass



Objectives of collections



Seed production, multiplication and distribution(hot pepper, corn ,cotton)



Characterisation and evaluation(sweet potato)



Conservation of species for food security biodiversity and planting material

Status of collections in Antigua and Barbuda

Plant Genetic materials are collected, conserved and managed by the Ministry of Agriculture at the various Agricultural Stations, Agricultural Development Corporation, CARDI/Antigua, Informal collections by Farmers.

Crop	No. of accessions	Location	State of Collection	Storage facilities
Cotton	2	Cotton Division	Seed	Short term storage
Sweet Potato	7 24 9	Dunbars Station CARDI Field Station(¼ acre) ADC	Field	
Pineapple	6	Cades Bay Agricultural Station	Field	
Avocado	6	Christian Valley	Field	
Citrus	10	Christian Valley, Greencastle	Field	
Mango	36	Christian Valley	Field	
Hot pepper	4	CARDI Field Station	Seed	Short to medium term storage
Field corn	1	CARDI Field Station	Seed	
Local pumpkin	1	CARDI Field Station Dinbars Station	Seed	
Local table squash	1	CARDI Field Station	Seed	
Local cucumber	1	CARDI Field Station	Seed	
Forage (Grass)	2	CARDI Field Station	Seed	
Forage (Legume)	2	CARDI Field Station	Seed	
Lima Bean, Peanut, Muskmelon	1 each	Barbuda Council	Seed	Short term storage

Collections as it relates to climate change readiness, food security and nutrition

- The loss of agricultural biodiversity can reduce food security, increase economic uncertainty, and threaten the viability and sustainability of agricultural systems. Existing collections are contributing by providing food and nutrition security to the nation.
- There is no planned programme of collection that are tied to climate readiness, however, a Study was done to determine the effect of time of planting and zones on the performance of ten of the most commonly grown sweet potato accessions in Antigua and Barbuda by CARDI, results showed: the optimum planting dates for the highest yielding accessions, Catch Me and Hurricane were January and October.

Policies and Regulating mechanisms which govern collections, conservation, sharing and utilisation

- Some institutions that deals with aspects of collection, conservation and management of plant genetic resources are; Ministry of Agriculture(Government Stations ,Cotton Division, Environment Division, Plant Protection Unit, Forestry Unit, Agricultural Development Corporation)CARDI/Antigua, Environmental Awareness Group,Ministry of Legal Affairs
- There is no national policy which govern collections, conservation, sharing and utilistation
- Antigua and Barbuda is a signatory to the following conventions which governs collection,conservation, sharing and utilistation of plant genetic resources, Convention of Biological Diversity, The Intellectual Treaty of Plant Genetic Resources for Food and Agriculture and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization.

Are objectives of collections met?

1. Seed production, multiplication and distribution

- Annually cotton seeds are produced for planting by local/commercial farmers and export to Leewards islands by the Cotton Division
- CARDI produces quality hot pepper and other seeds for distribution locally and regionally

2. Characterization and evaluation

- Sweet potato accessions are being evaluated

3. Conservation, biodiversity and planting material

- This objective is achieved to some extent, however, some materials are lost due to the impact of adverse climatic conditions drought, hurricanes, flood and damage by roaming livestock

Improvements to further develop collections

- Public Awareness
- Inventory to be done ascertain exactly what accessions are available, size of collections etc.
- Introduction of lost accessions
- Systematic programme of strengthening national PGR work plans and programs
- Create and strengthen existing legislations which governs PGR
- Evaluation and screening of existing germplasm for useful traits
- Improvement of varieties

REFERENCES

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2. Cotton Division Reports, 2011/2012
3. Country Highlights Report, 2009
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Thank you

