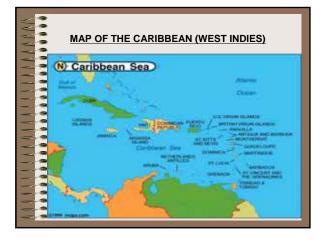
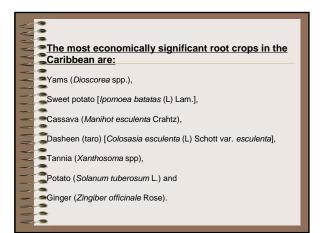
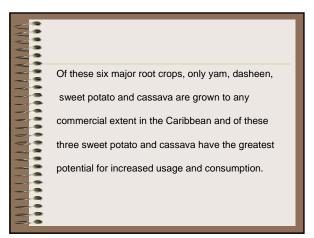
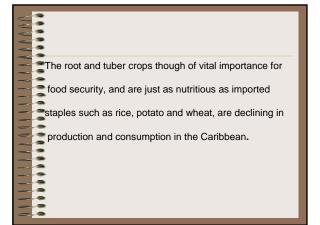
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	services - representation - and the service - representation
2.	Current root and tuber crops research in
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	Gregory C. Robin
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	Caribbean Agricultural Research and
	Development Institute
	P.O.Box 346, Roseau, Commonwealth of
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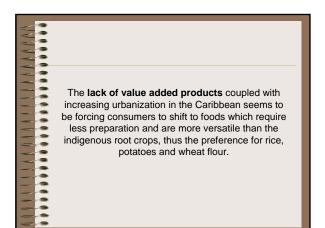






_The decline in production and consumption can be attributed to the following:

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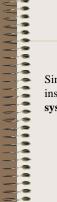


Agro-processing enterprises and export ventures based on **small farm** operations, are continuously faced with high handling costs and improper storage and packing facilities. These constraints often results in wastage, periodic gluts and price fluctuations (Durrant, 1987), causing these enterprises to experience great difficulties while operating in today's highly competitive markets.

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	Doot and tuber arong house a shert
	Root and tuber crops have a short
	storage/shelf life.
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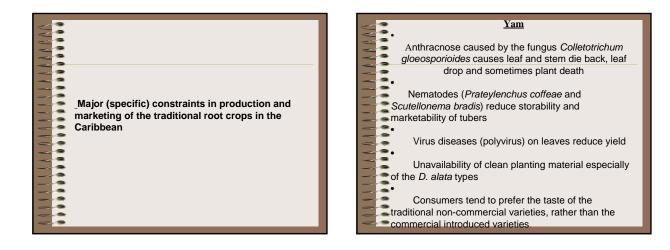
The production systems are **labour intensive** due to the inability to mechanize the steep and undulating locations these crops are grown on, especially in the smaller Caribbean Islands.

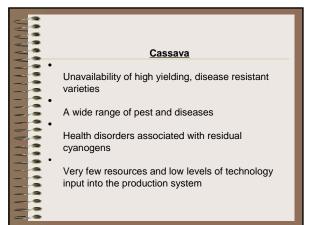
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23	Because of their subsistence nature, roots and
~ 2	tuber crops are subjected to limited research
	and development activity/support as
	compared to that received by the traditional
	export crops of bananas, citrus, coffee and
	sugar cane. As a result, pest and disease
-	problems, the use of unimproved varieties and
	lack of adoption of improved technologies tend
	to plague these crops



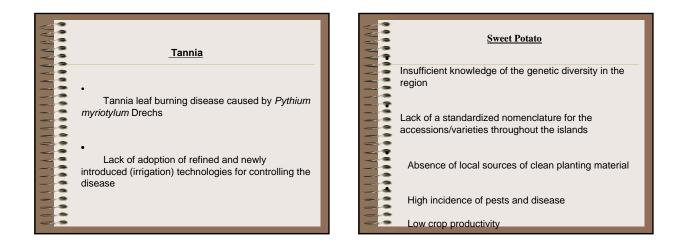
Since all these root and tuber crops are in most instances, are **propagated vegetatively**, **systemic diseases** can be a problem.

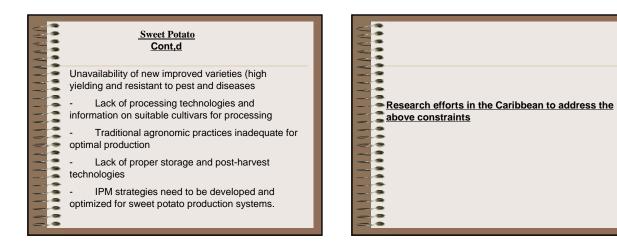
Productivity, which in turn is a function of competitiveness, is also affected by limited attention being given to cultivating root and tuber crops in agroecological zones that would allow for optimization of yield

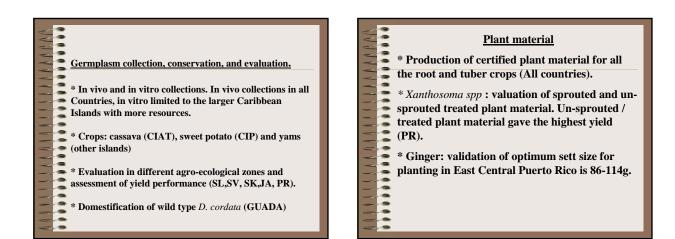


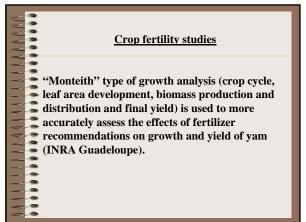


Dasheen
• Non adoption of improved technological packages
Post-harvest losses due to soft rot
• Pests -dasheen beetle (<i>Ligyrus ebenus</i>) and diseases (taro leaf blight) caused by <i>Phytophthora</i> <i>colocasiae</i> Racib
 Despite workshops on post-harvest treatments and agro-processing, acridity in dasheen chips has constrained the expansion of that industry.









<u>Weed management</u> • Grass and plastic mulches are evaluated as an alternative method for controlling weeds in sweet potato (CARDI JA). • Treatments on cassava: always clean, weedy up to 35, 49, 63 and 77 days after planting, followed **Solution** by weeding every 28 days until 161 days after **2** planting. Results showed that as the period of weediness increased every 14 days, the yield a decreased by 0.25/ha (P=0.03). The highest **a** returns to the farmer were fields with weeds for = 35 days (IDIAF, DR).

Pest and disease control
• Yam anthracnose
-Introduction of new anthracnose tolerant / resistant <i>D. alata</i> cultivars (BA, DOM, GUADA)
- Pathogen aggressiveness studies of
C. Gloeosporioides (BA, DOM)
- Population genetic studies of C. gloeosporioides (BA, DOM, SV, SL)
- Extraction of toxins from C. Gloeosporioides to
test for resistance in yam (DOM)

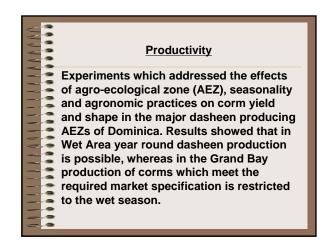
Sweet potato pests

- Sweet potato pest
 Weevils (*Phyllophaga* spp)

 Chemical control using Neem-X (*a* (thiamethoxam), Pirate (chlorprifor)
 St. Kitts introduced varieties from there resistance / tolerance to *Cyla Phyllophaga* spp.

 - Chemical control using Neem-X (Azdinachtin) Actara (thiamethoxam), Pirate (chlorprifos) (SV) St. Kitts introduced varieties from CIP are tested for
 - there resistance / tolerance to Cylas spp and

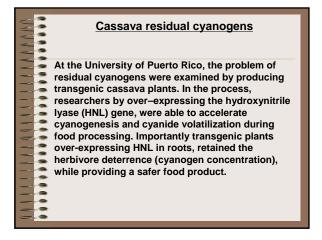
	Sweet potato pests (contd)
3.	IPM Programme in Jamaica
	evaluation of sex pheromones,
=	cultural practices for management of sweet potato weevil,
=:	evaluating the efficacy of various trap types for sweet potato weevil management,
	determination of pest tolerance of various local and US varieties,
	evaluation of organic and plastic mulches for insect management and
	evaluation of biorationals to manage sweet potato pest complex



Value added products
A study on the production of dasheen chips, using the three main edible cultivars (White, Common and Pink) in Dominica, assessed the effects of corm maturity, cultivar and agro-ecological zone on acridity. Though acridity was not completely removed, it was found that in Grand Bay, the least acrid crisps were obtained from corms of the Common and Pink dasheen harvested in 7 months and from the White dasheen in 8months, whereas in Wet Area the three cultivars can all be harvested in 8 months.

Valu	ie ad	lded	ded products (co)

21 sweet potato cultivars were evaluated for market acceptance and as a source for crisp and fries production. Slice thickness, frying oil temperature and residency times were optimized for crisps and fries. Based on market demand the red skin, white flesh cultivars Black Vine and Big Red were the most acceptable. The varieties were found to be better suited to crisps production.



<u>Networking</u> PROCICARIBE, of which the Caribbean Roots and Tubers (CAROT) Network is a component, is one of the major strategies aimed at initiating sharing of information and technologies on root and tuber crop research in the Caribbean. It is designed to provide an institutional framework by which the region can design and implement strategies for the integration and coordination of agricultural research at the national and regional levels with linkages to international organizations.

THE WAY FORWARD •Caribbean Food Crop Society •Root Crops Associations (like those formed for the traditional export crops). •Caribbean Hotel Schools •Agricultural venture trust, to provide loans and technical assistance to farmers and small businesses for the production of value added products • EDUCATION

 THANKS FOR VOUR ATTENTION
 THANKS FOR YOUR ATTENTION