Coconut Industry Development for the Caribbean: Towards a shared vision & Road Map

Facilitating Cross-border Movement of Improved Genetic Resources

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Introduction:

In this presentation I will attempt to give the current status of plant health of coconut plants and products across the Caribbean and how plant health and quarantine across the region may help in facilitating the movement of improved genetic material

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Background:

The coconut *Cocos nucifera* is cultivated in all of the countries of the Caribbean.

Its economic significance is highlighted in some countries more than others.

However within the past 15 years the potential for coconut as a healthy alternative has been highly portrayed.

The coconut plant is known for its multifaceted use.

The green coconut is favored for its 'water' and many industries are now built around this commodity generating considerable income for rural communities.

The plant is one that lends itself to the identity of tourism in those countries that depend on this industry as a main economic contributor to their economies.

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Current Status:

At present there are a number of pests(insects,nematodes,microplasms and other disease organisms) affecting coconuts in the region.

Amongst the ones of serious concern are:

Lethal yellowing, Red Palm mite, Bud rot, Red Ring disease, Palm weevil, Cedros wilt

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Current Status:

Others are emerging and are of some concerns to Plant Health Officials:

Coconut whitefly – *Aleuroodicus cocois,* **Coconut mite** *Aceria guereronis* **Coconut mealybug,** *Nipaecoccus nipae,* **Coconut caterpillar**, *Brassolis sophorae,* **Coconut scale** *Aspidiotus desructus,* **Coconut moth borer** *Castnia daedalus,* **Coconut inflorescence moth** *Batrachedra nucifera*

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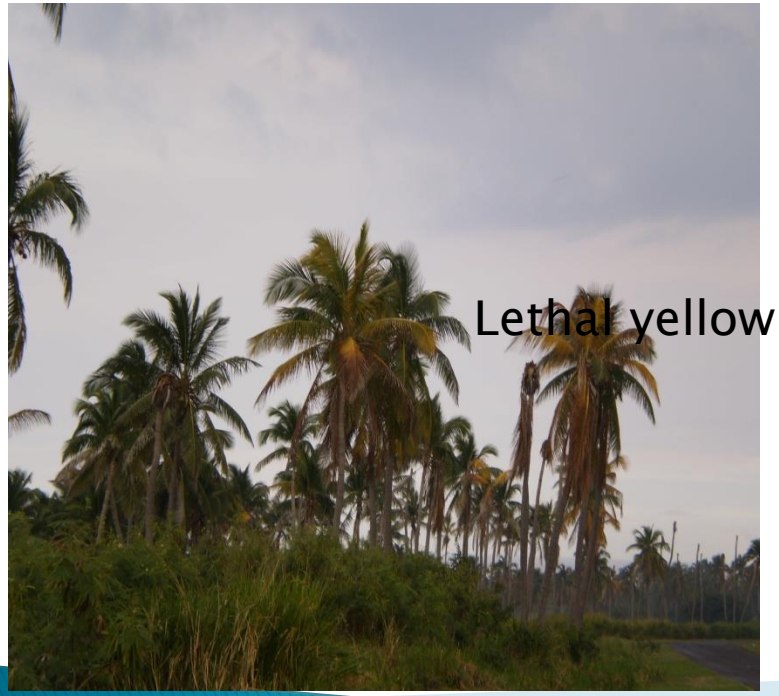
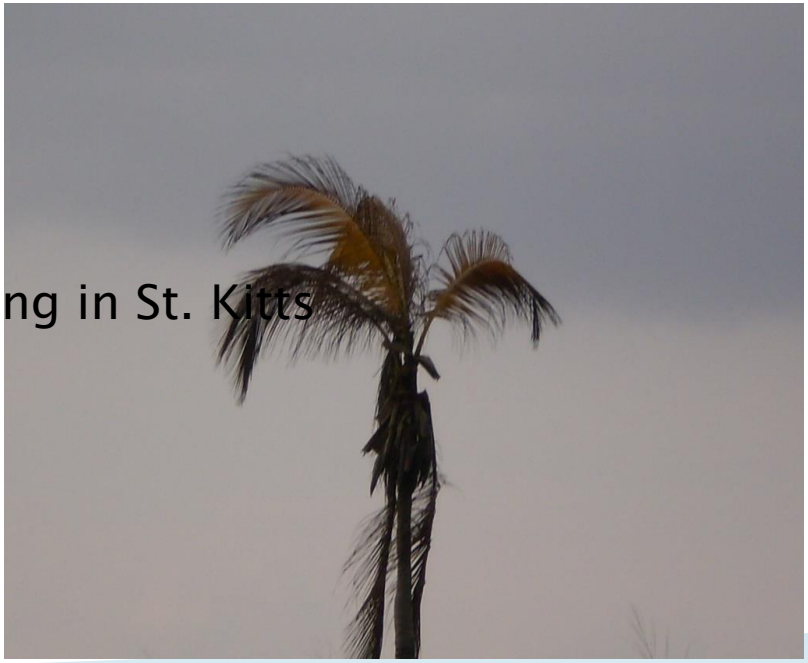


Lethal yellowing in St. Kitts



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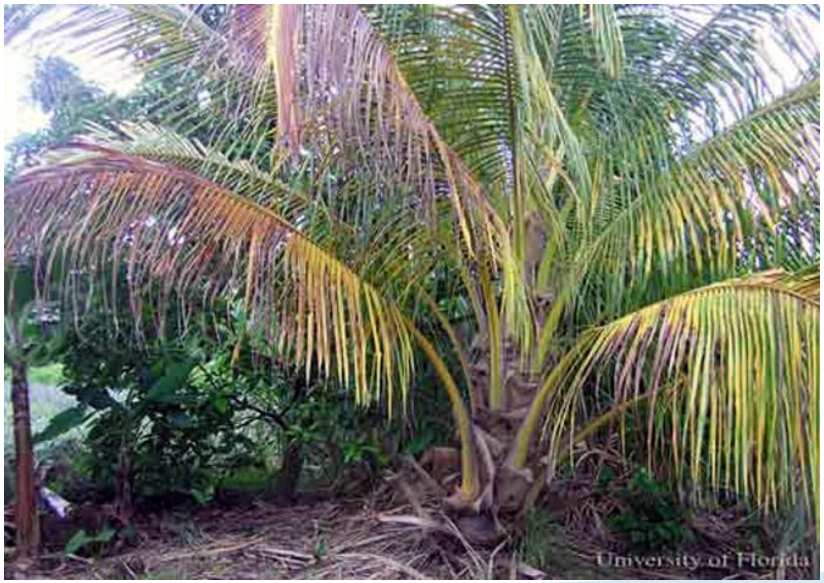
The Red palm mite



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Present Action on the movement:

Most countries if not all in the region severely restrict the movement of coconut (and related species) planting material and products.

In Belize, Jamaica, Trinidad & Tobago, St. Lucia, Dominica where there are coconut plantations, the effects of pest incursions were and continue to be devastating .

Production of coconuts in Trinidad has fell more than 80% over the past few years as a result the Red palm mite.

Lethal yellowing has decimated coconuts in St. Kitts and Jamaica over the past few years and it is threatening in Antigua.

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Plant Health:

Plant health officials through out the region are aware of the importance of coconut to the social, environmental and economic life of their respective countries .

To this end they are conscious of their roles in protecting their territories from the devastating effects caused by introduction of new pest.

Mindful of the need to resuscitate the coconut industry throughout the region, plant health must be in joint partnership with the industry players in such a venture.

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Plant Protection:

Facilitating the movement of new improved genetic material.

First there must a recognized and accredited entity(ies) developing, testing and certifying such material .

Such an entity(ies) must be willing to involve the Caribbean plant health officials in their deliberations and work in order to build confidence in any programme aimed at sharing material .

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Plant Protection:

Facilitating the movement of new improved genetic material.

The movement of germplasm involves a risk of accidentally introducing pests of quarantine importance along with the host plant material; in particular, pathogens that are often symptomless, such as viruses, pose a special risk.

In order to minimize this risk, effective testing (indexing) procedures are required to ensure that distributed material is free of pests that are of plant health\quarantine concern.

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Plant Health:

Facilitating the movement of new improved genetic material.

Any entity(ies) that may be established will be well advised to seek guidance under the **FAO/IBPGR TECHNICAL GUIDELINES FOR THE SAFE MOVEMENT OF COCONUT GERMPLASM**

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Plant Protection:

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The recommendations as set out in this document could be used as a starting point.

Germplasm should be collected from palms that appear healthy.
Germplasm should not be moved from sites at which diseases of unknown etiology occur.
Germplasm should preferably be moved as embryo cultures or pollen.

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Plant Protection:

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Seednuts may be transferred under certain circumstances:

(i) when a thorough ***pest risk assessment*** indicates that there are no problems of quarantine concern in the area from which they were collected, or

(ii) from areas where diseases of quarantine concern are present **only when** embryo culture is not possible, and as long as they are germinated in quarantine.

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Plant Health:

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Seednuts should never be moved directly from areas where non-cultivable mollicutes or *Phytomonas occur, to areas not affected by these pathogens.*

Embryos, seedlings and palms from which pollen is collected should be indexed for cadang-cadang and other viroids*, as well as for coconut foliar decay virus (CFDV).

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Plant Health:

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The transfer of germplasm should be carefully planned in consultation with quarantine authorities, the relevant indexing laboratory and, when appropriate, the intermediate quarantine facility.

The material should be accompanied with the ***necessary documentation.***

* Several viroid-like nucleic acid sequences related to cadang-cadang viroid are widely distributed in coconuts and understorey plants. Until such time as more is known about the significance and distribution of these viroid-like sequences, all germplasm introduced from countries where viroid-like sequences are known to occur to countries where they have not yet been reported should be indexed, and material for which tests are positive should be rejected.

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Plant Health:

Facilitating the movement of new improved genetic material.

In summary plant health across the region appreciates the importance of coconuts to the livelihood of Caribbean people.

However plant health officials are also wary of the devastation that can be wrought on the region with the introduction of new pest from outside and the spread of those pests already in certain countries to those that are not known to have such.

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Plant Health:

Facilitating the movement of new improved genetic material.

Plant Health\Protection officers through the Plant Health Directors forum will work alongside those responsible for the resuscitation of the coconut industry in the Caribbean by

1. Offering technical scientific support.
2. Testing and indexing where possible and necessary.
3. Assisting in the developing of monitoring, surveillance and quarantine protocols.

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Plant Health:

Facilitating the movement of new improved genetic material.

Thank You