Tropical Fruit Biotechnology in the Virgin Islands

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Challenges to Tropical Fruit Production in the Virgin Islands

- Small Farms < 5 acres
- Semiarid
- Limited Water
- Calcareous Soils pH~8
- High Supply Costs
- Hurricanes
Focus on Traditional Caribbean Crops

Papaya
Passion Fruit
Pineapple
Cassava
Papaya Variety Evaluation
Papaya Breeding & Selection

Early bearing (w/in 1 m), fruit 1-2 Kg & hermaphrodites
Papaya Varieties Selected

Washington 5

Yuen Nong 1
R1 Segregating Yuen Nong 1
R1 Washington segregating for PRSV resistance
One week after spraying Kanamycin sensitive seedlings
No Yellow Spots, Transgenic
Farmers and the local public are shown the Transgenic Papaytas
Recording soil moisture using tensiometers
Fruit for Seed Harvest
What we want to see, a productive local farmer or backyard gardener
A Passion for Passiflora
The Unspeakable

Georges
Three wire system after one year
One wire system after one year
Pineapple

18 varieties from USDA Germplasm collection

Old Caribbean varieties & newer Cayenne
Auxin like compounds and rooting
Cassava Micropropagation
First field trials of transgenic Cassava
Amylose Free Starch in Cassava
Grapes

Disease resistance (PD)

Table & wine

Tropical production
Future

Biological control of nematodes

Post-harvest papaya storage

Modified starch cassava

Invasive plants