

Post Entry Quarantine

The importation of new and improved varieties of plants for crop improvement becomes necessary as we seek to increase production and productivity. Furthermore, with the movement of plant materials around the world, this can lead to increased dissemination of dangerous pests.

The goal of the Post Entry Quarantine Unit is to screen high and medium risk plant germplasm or plant propagating materials obtained for agricultural production or for research purposes in order to prevent the introduction of new pests into Jamaica's agricultural system. The Post-Entry Quarantine facility, located in Bodles, St. Catherine, serves as a secure environment that will ensure the containment of noxious pests and diseases that may be found on imported plant material.

Current Activities of PEQ

PEQ Unit acts as the complementary agent to government inspectors by growing and screening imported plant material under quarantine conditions. Some commercial crops are given priority through programmes that seek to address possible and active infestations. The flagship programmes currently being executed are:

1. Citrus Certification Programme

Citrus tristeza virus (CTV) has been present in Jamaica for years but the urgency of the problem of the disease has increased with the discovery of the brown citrus aphid. The aphid is an efficient transmitter of the disease. This has led the citrus growers along with the Ministry of Agriculture to initiate the development of a Citrus Certification Programme (CCP).

The Citrus Certification Programme's main responsibility is the prevention of the distribution of trees contaminated with diseases and to allow for early discovery of new pathogens and vectors or transmitter of diseases. So, PEQ facilitates the CCP in the current activities listed below.

1. Maintenance of parent plants in disease free conditions – i.e. imported citrus varieties from certified sources.
2. Housing plants infected with known citrus viruses (positive controls)
3. Production and maintenance of seed source trees: the citrus plots are for sources of seeds to produce indicator plants to be used in biological indexing.
4. Diagnostic tests for citrus virus
 1. Laboratory indexing – citrus tristeza virus (CTV) via ELISA
 2. Biological indexing for eight citrus varieties

Diagnostic tests are done for:

1. Parent plants at PEQ and Jamaica Citrus Growers Association
2. Citrus nurseries with quick multiplication blocks
3. Nursery of seed source trees for rootstock varieties
4. Citrus plants established in the field
5. For any citrus bud lines that are imported or existing varieties that were cleaned and re-entered the country

2. Evaluation of Alternative Citrus Rootstock

CTV affects citrus scion budded onto the Sour orange rootstock. In Jamaica about 98% of citrus was produced on Sour orange rootstock. So the CCP has allowed the introduction of alternative rootstocks that are resistant and/or tolerant to CTV, namely, Cleopatra mandarin, single citrumelo, Carrizo citrange and Gou tou. However, these other rootstocks have other characteristics that differ from Sour orange. In order to assist with the transition of the new recommended rootstocks to local production, PEQ has embarked on field evaluation of these rootstocks in the major citrus cultivated areas in Jamaica.

The objectives of the field evaluations are to:

1. Compare the environmental adaptation of four tristeza tolerant rootstock (Cleopatra mandarin, single citrumelo, Carrizo citrange and Gou tou) with that of sour orange rootstock.
2. To compare the survival, growth rate, time of fruiting, yield, fruit size and juice quality of selected commercial varieties on the rootstock in different ecological regions.

Services Offered

1. Provision of Certified bud wood to citrus nurseries:

Orders must be placed through:

The Jamaica Citrus Protection Agency
Bog Walk, St. Catherine
Telephone: (876) 708-2785
Fax: (876) 708-2737

2. Testing of citrus for viruses and viroids

To request the service complete the Bioindexing Survey form and mail to:

The Chief Post-Entry Officer
Research and Development Division
Old Harbour P.O., St. Catherine
peq@mcaf.gov.jm