

## **Risk Mitigation Plan for Citrus Fruit from Groves in Areas Quarantined for HLB (Citrus Greening Disease) that Must be Moved to Packinghouses in Unquarantined Areas**

Clean citrus fruit are not known to be able to transmit Huanglongbing (HLB). However, freshly harvested citrus fruit normally is accompanied by a significant amount of leaves, stems and even Asian citrus psyllid (ACP) that can carry HLB. These procedures are designed to mitigate potential risks incurred when citrus fruit from groves in quarantined areas is processed at packinghouses in unquarantined areas. The procedures involve (1) pre-harvest and harvest-time steps taken at the grove, (2) precautions during transport to the packinghouse, and (3) special steps taken at the packinghouse.

### **I. One-day Pre-harvest**

Treat grove with pyrethrum insecticide. The day before harvest (minimum: 12 hours pre-harvest), spray grove with a pyrethrum insecticide such as Evergreen Crop Protection EC 60-6, EPA Reg. No. 1021-1770, (at the rate of 12 fluid ounces of product in 100 gallons of water per acre) or PyGanic Crop Protection EC 5.0, EPA Reg. No. 1021-1772, (at the rate of 17 fluid ounces of product in 100 gallons of water per acre), according to label directions, being sure to get coverage inside the trees' canopy.

### **II. At Harvest Time**

A. Harvest can start immediately after the 12 hour re-entry period (required by the insecticide label).

B. Before placing fruit in bins for transport to packing house, assure that all fruit, bins and trucks leaving the quarantine area are completely free of all leaves, stems, plant debris, or *Asian citrus psyllids* (ACP). Use the following procedure:

1. Dump freshly picked fruit onto a leaf decontamination table (Figure 1).
2. Remove all leaves, stems, plant debris, and Asian citrus psyllids (ACP).
3. Lift one end of the table and dump the fruit (without any leaves, plant debris or ACP) into the bins (Figure 1). Be sure that no leaves, stems, plant debris, or ACP enter the transport bins.
4. As soon as a bin contains any fruit, the bin should be covered by a tarp (to keep ACP off of the fruit).
5. Load bins onto the truck and tarp the load, to prevent entry of any ACP. Before the loaded truck leaves the grove, assure that no leaves or other plant debris are on the truck.

### **III. Transport**

A. Before a truck leaves the grove with its load of fruit, cover the entire truck load securely with tarp.

B. Empty bins need to be cleaned and disinfected with a high pressure wash before being transported into the quarantine area. After having been unloaded, bins need to be

cleaned and disinfected before being moved out of the packing house. This will prevent the movement of psyllids and any other pests between groves.

#### IV. At the Packinghouse

A. No leaves or twigs from the grove should reach the packinghouse, but if any do, contact the Texas Department of Agriculture and handle the plant material as follows:

1. Leaves, twigs and other plant debris from fruit or from the bins used to transport the fruit should be carefully collected placed in a black garbage bag.
2. After a bag has been filled, securely close the bag, and then seal that bag entirely inside another black garbage bag (double-bag the material).
3. The sealed bags should be left outdoors in sunlight for one week before being properly disposed of at a sanitary landfill.



**Figure 1.** Leaf decontamination table to remove leaves and twigs from harvested fruit before being put into bins.