

**United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine**

**INTERSTATE MOVEMENT OF CITRUS NURSERY STOCK FROM AREAS
QUARANTINED FOR CITRUS CANCER, CITRUS GREENING, AND/OR ASIAN CITRUS
PSYLLID**

November 25, 2019

Citrus nursery stock intended for interstate movement from areas quarantined for citrus canker (CC), citrus greening (CG), and/or Asian citrus psyllid (ACP) may only be moved in accordance with the requirements contained in:

- 7 CFR §301;
- all applicable Federal Orders;
- all applicable State laws, AND
- all requirements outlined in this protocol.

This protocol provides conditions for the interstate movement of citrus nursery stock from quarantined areas, including provisions for unrestricted movement under certificate from areas quarantined for CC, CG, and/or ACP, and provisions for restricted movement from areas quarantined for CC, ACP and/or CG.

All other interstate movement of citrus nursery stock from areas quarantined for citrus canker (CC), citrus greening (CG), or Asian citrus psyllid (ACP) is prohibited.

I. General Requirements for Interstate Movement of Citrus Nursery Stock from Areas Quarantined for CC, CG, and/or ACP:

- a. All general requirements in this protocol apply except where specifically exempted.
 - i. The facility must follow Sections II, III, or IV to move citrus nursery stock interstate under certificate to all areas of the United States from CC, ACP, and/or CG, quarantine areas, respectively.
 - ii. Section V states the requirements for restricted interstate movement to non-citrus producing states under a limited permit. Movement to commercial citrus producing states is prohibited under Section V.
- b. If an area is quarantined for more than one of the indicated pests, the more stringent of the requirements in Sections II, III, or IV will apply.
- c. Compliance Agreements and Certificates:
 - i. Any person engaged in growing, processing, handling, or moving citrus nursery stock in an area quarantined for CC, CG, and/or ACP must enter into a compliance agreement with APHIS if s/he wishes to move citrus nursery stock interstate.
 - ii. The facility may only ship citrus nursery stock interstate to all U.S. states if the shipment is accompanied by a certificate issued by an inspector verifying that all conditions of this protocol and any additional requirements stipulated in the compliance agreement have been met. Facilities must attach a copy of the certificate to the consignee's copy of the accompanying waybill.

- iii. An inspector may withdraw a certificate, limited permit, or compliance agreement that has been issued by APHIS, either orally or in writing, if s/he determines that the holder of the certificate, limited permit, or compliance agreement has not complied with all conditions in this protocol. If the inspector withdraws it orally, the inspector will confirm the withdrawal and the reasons for the withdrawal in writing as promptly as circumstances allow. Any person whose certificate, limited permit, or compliance agreement has been withdrawn may appeal the decision in writing to the Administrator within 10 days after receiving the written notification of the withdrawal. The appeal must state all of the facts and reasons upon which the person relies to show that the certificate or compliance agreement was wrongfully cancelled. The Administrator must grant or deny the appeal, in writing, stating the reasons for the decision, as promptly as circumstances allow. If there is a conflict as to any material fact, a hearing will be held to resolve the conflict. Rules of practice concerning the hearing will be adopted by the Administrator.
- d. APHIS Approved Structure:
 - i. Except as noted in Sections II and V, all citrus nursery stock for interstate shipment must be produced in an APHIS-approved structure as described below (hereafter referred to as “approved structure”).
 - ii. The approved structure must be designed and constructed to exclude quarantine pests and diseases. The owner of the approved structure is responsible for maintaining the integrity of the approved structure and ensuring it remains pest-free. Facilities must notify APHIS immediately if any structural breaches are detected. Each approved structure must have plants or benches arranged with sufficient space around them to permit reasonable access for inspectors. To protect the integrity of the structure and allow access for inspectors, plants must not touch exterior walls of the structure. Entryways must be designed and constructed to exclude pests. All approved structure emergency exit doors must be marked ‘Emergency Exit Only’ and not used as a routine entrance. All screening used in structure construction must have openings approximately 0.3 square millimeters (e.g. 0.547 x 0.547, or 0.5 x 0.6) or less in size. Entryways must be protected from pest incursion by using forced air curtains, and/or double door positive air pressure compartments. Exterior approved structure air sources utilized to create positive pressure must be covered with approximately 0.3 square millimeter (or less) screening to exclude pests.
- e. Source Material for Inclusion in an APHIS Approved Structure:
 - i. Mother/scion trees - Budwood or tissue culture material used to propagate trees for use as a mother/scion tree should originate from foundation trees from a certified clean stock program. Each foundation tree should be propagated with budwood or tissue culture that has originated from a source that has undergone inspection, testing, and therapy (e.g. shoot tip grafting, cryotherapy, etc.), and has been found negative for pests of quarantine significance as part of a certified clean stock program.
 - ii. Increase trees –Material used to propagate trees for use as an increase tree should originate from foundation trees or mother/scion trees from a certified clean stock program.
 - iii. Production trees –Material used to propagate trees for use as a production tree, whether for residential or commercial plantings, should originate from foundation trees or mother/scion trees or increase trees from a certified clean stock program.
 - iv. Seed source tree – Should originate from a certified clean stock program.
 - v. Seeds - Should originate from a state certified seed source tree.

- f. Sampling: All sampling for testing must be done according to the Survey Protocol for the Interstate Movement of Citrus Nursery Stock from Areas Quarantined for Citrus Canker, Citrus Greening, and/or Asian Citrus Psyllid 2019.
- g. Movement Between Contiguous Quarantines: The facility may move citrus nursery stock material subject to this protocol between approved structures within a contiguous quarantine area provided safeguards are in place during packing, loading, transit, and unloading at the destination.
- h. Safeguarding and Sanitation:
 - i. All approved structures, containers, or conveyances where citrus nursery stock eligible for interstate movement under this protocol is grown, stored, or shipped must be inspected and found free of all extraneous plant material and must be cleaned, and/or treated to ensure freedom from pests and diseases prior to the entry of nursery stock eligible for interstate movement or other clean plant material.
 - ii. The facility may not enter, grow, store, or ship citrus nursery stock eligible for interstate movement under certificate in accordance with this protocol in the same structure, container, or conveyance as other citrus nursery stock that does not meet the requirements of this protocol or citrus nursery stock from ACP or CG quarantined areas eligible for interstate movement in accordance with Section V of this protocol. If citrus nursery stock eligible for interstate movement enters, is grown, stored, or shipped in the same structure, containers, or conveyance as ineligible citrus nursery stock or is otherwise commingled with or exposed to such citrus nursery stock, all plants are ineligible for interstate movement.
 - iii. Vehicles and other equipment entering approved structures must be free of all extraneous plant material and soil, and must be cleaned to ensure that the approved structure remains free of pests.
 - iv. The facility must have procedures in place to protect material eligible for interstate movement from the introduction of pests while loading takes place. One or more safeguards may be used. Please consult your local inspector.
 - v. Facilities must load the plants into a solid-sided, sealable shipping container or conveyance in a manner that is designed to exclude the entry of pests.
- i. Labeling: The facility must individually label eligible citrus nursery stock plants with adequate identifying information to permit trace-back to each premise on which the plants were grown.
- j. Recordkeeping: The facility must maintain inspection, treatment, and shipment records from all approved structures for at least 3 years from the date the nursery stock is shipped interstate. The facility must provide the records to APHIS upon request.
- k. Access by Inspectors: The facility must allow inspectors reasonable access to the approved structure to ensure compliance with this protocol. Failure to allow inspectors reasonable access to an approved facility may result in immediate withdrawal of the compliance agreement and ineligibility of all nursery stock within the structure until reasonable access has been re-established. See Section I for details on withdrawal of compliance agreements.

II. Requirements for Interstate Movement from Citrus Canker (CC) Quarantined Areas to All U.S. States under Certificate:

- a. Structure: The facility must grow citrus nursery stock in an approved structure that meets the requirements in Section I. of this protocol. Additionally, the approved structure must be designed and constructed to exclude citrus canker and be resistant to wind-blown rain. Each approved structure must have a minimum of a 100 foot citrus-free buffer area around the

exterior wall of the approved structure. If 100 feet is not feasible, a minimum buffer area of 25 feet is allowed if the side of the approved structure facing citrus nursery plant material is constructed with a water-proof material, or is double-walled screening with a minimum of a 4-inch space between each screen. Interior walls may be a single-wall or approved screening with adequate space between all internal and external walls and citrus nursery stock to allow reasonable access for inspection.

b. Sanitation:

- i. Personnel must disinfect hands and arms and spray clothing and footwear with a product approved by APHIS to be effective against citrus canker prior to entering the approved structure where citrus nursery stock is grown for interstate movement.
- ii. Vehicles, equipment, and other articles used to handle or move citrus nursery stock must be treated in accordance with Title 7, *Code of Federal Regulations*, part 305 and the PPQ Treatment Manual, prior to entering all approved structures.

c. Visual Inspection and Detection:

- i. An inspector must visually inspect plants for interstate movement in the approved structure for symptoms of citrus canker. The interval between inspections must not exceed 30 calendar days. The facility must arrange plants according to Section I of this protocol to allow inspectors access to all material in the structure at all times.
- ii. An inspector must visually inspect mother/scion, seedlings and increase trees for symptoms of citrus canker
- iii. The interval between inspections must not exceed 30 calendar days.
- iv. If CC is detected in an approved structure:
 1. The facility must notify APHIS immediately of the findings; AND
 2. All plants from the affected structure(s) are prohibited from interstate movement pending confirmation.
- v. If CC is confirmed in any approved structure:
 1. All plants from the affected structure(s) are ineligible for interstate movement; AND
 2. The facility must apply APHIS approved and verified treatment measures to affected structure(s) before the facility can place plants eligible for interstate movement in the structure(s); AND
 3. APHIS will complete a critical control point assessment as needed.

- d. Eligibility for shipment: Citrus nursery stock must undergo 3 consecutive 30 day negative inspection cycles to be eligible for shipment.

III. Requirements for Interstate Movement from Asian Citrus Psyllid (ACP) Quarantined Areas to All U.S. States under Certificate:

- a. Structure: The facility must grow citrus nursery stock in an approved structure that meets the requirements in Section I of this protocol.

b. Visual Inspection, Trapping, and Detection:

- i. Visual Inspection: An inspector must visually inspect plants in the approved structure(s) for the presence of ACP using methods approved by APHIS and as stipulated in the compliance agreement. The interval between inspections must not exceed 30 calendar days.
- ii. ACP trapping and detection methods may include:
 1. Yellow sticky panels
 2. Vacuum suction of plants

- 3. Tapping of plants, OR
- 4. Other methods approved by APHIS
- iii. If ACP is detected in an approved structure:
 - 1. The facility must notify APHIS immediately of the findings; AND
 - 2. All plants from the affected structure(s) are prohibited from interstate movement pending confirmation.
- iv. If ACP is confirmed in any approved structure:
 - 1. All plants from the affected structure(s) are ineligible for interstate movement; AND
 - 2. The facility must apply APHIS-approved and verified mitigation measures to affected structure(s) and contents before placing plants eligible for interstate movement in the structure(s); AND
 - 3. APHIS will complete a critical control point assessment as needed.
- c. Eligibility for Shipment:
 - i. Inspection: Citrus nursery stock for interstate movement must undergo 3 consecutive 30 day negative inspection cycles to be eligible for shipment. The inspection cycle interval must not exceed 30 days.
 - ii. Treatment: The facility must treat all citrus nursery stock with an APHIS-approved systemic insecticide (soil drench) at least 30 days but no more than 3 months (90 days) before shipment. This must be followed by an APHIS-approved foliar spray no more than 14 days before shipment. Treatment must be done with APHIS and EPA-approved product labeled for use in nurseries. Persons applying treatments must follow the product label, its applicable directions, and all restrictions and precautions, including statements pertaining to Worker Protection Standards. APHIS or State personnel must verify treatments.

IV. Requirements for Interstate Movement from Citrus Greening (CG) Quarantined Areas to All U.S. States under Certificate:

- a. Structure: The facility must grow citrus nursery stock in an approved structure that meets the requirements in Section I of this protocol.
- b. Visual Inspection, Tissue Testing, and Detection:
 - i. Visual Inspection: An inspector must visually inspect plants in the approved structure(s) for the presence of ACP and CG using methods approved by APHIS and stipulated in the compliance agreement. The interval between inspections must not exceed 30 calendar days. Additional inspection methods for ACP may include, but not be limited to, yellow stick panels, vacuum suction of plants, tapping of plants, or other methods approved by APHIS.
 - ii. Tissue testing: A diagnostician certified by APHIS at a laboratory accredited by APHIS must conduct testing for CG. Plants are not eligible for interstate movement unless material has been tested and found free of CG according to the schedule below.
 - 1. Mother/scion trees: Each mother plant will be tested once per calendar year at an interval not less than 11 months and not more than 12 months.
 - 2. Increase trees: Increase trees must be tested every 6 months. Citrus nursery stock may not leave the increase house prior to testing.
 - 3. Production trees: If production trees are sold prior to 12 months,

testing is not required. Production trees that are held in approved structure(s) for longer than 12 months must be tested at 12 months and every 6 months thereafter.

- iii. If ACP is detected in an approved structure:
 - 1. The facility must notify APHIS immediately of the findings; AND
 - 2. All plants from the affected structure(s) are prohibited from interstate movement pending confirmation.
- iv. If ACP is confirmed in an approved structure:
 - 1. All plants from the affected structure(s) are ineligible for interstate movement; AND
 - 2. The facility must apply APHIS approved and verified mitigation measures to affected structure(s) and contents before placing plants eligible for interstate movement in the structure(s); AND
 - 3. APHIS will complete a critical control point assessment as needed.
- v. If CG is detected in an approved structure:
 - 1. The facility must notify APHIS immediately of the findings; AND
 - 2. All plants from the affected structure(s) will be prohibited from interstate movement pending confirmation.
- vi. If CG is confirmed in an approved structure:
 - 1. All plants are from the affected structure(s) are ineligible for interstate movement; AND
 - 2. The facility must apply APHIS approved treatment measures to the affected structure(s) must undergo before placing plants eligible for interstate movement in the structure(s); AND
 - 3. APHIS will complete a critical control point assessment as needed.

V. Requirements for Restricted Interstate Movement of Citrus Nursery Stock Not Grown in an APHIS Approved Structure from ACP Quarantined Areas to Non-citrus Producing States under Limited Permit:

- a. Eligibility for Shipment: Citrus nursery stock moved interstate under the provisions of this section may only be moved to non-citrus producing States in accordance with all the requirements below:
 - i. The area where citrus nursery stock is grown must NOT be under quarantine for citrus greening.
 - ii. Visual Inspection: An inspector must visually inspect all citrus nursery stock for the presence of ACP at the time of shipment. Any finding of ACP must be reported to APHIS immediately.
 - iii. Treatment: The facility must treat all citrus nursery stock with an APHIS-approved systemic insecticide (soil drench) at least 30 days but no more than 3 months (90 days) before shipment. This must be followed by an APHIS-approved foliar spray no more than 14 days before shipment. APHIS or State personnel must verify treatments. Treatment must be done with an APHIS- and EPA-approved product labeled for use in nurseries. Persons applying treatments must follow the product label, its applicable directions, and all restrictions and precautions, including statements pertaining to Worker Protection Standards.
- b. Labeling: The facility must individually label citrus nursery stock with adequate identifying information to permit trace-back to the premises where plants were grown.

- c. Record Keeping: The facility must maintain inspection, treatment, and shipment records for at least 3 years from the date the nursery stock is shipped interstate. The facility must provide the records to APHIS upon request.
- d. Compliance Agreement: Any person engaged in growing, processing, handling, or moving citrus nursery stock in an area quarantined for ACP must enter into a compliance agreement with APHIS if s/he wishes to move citrus nursery stock interstate.
- e. Limited Permit: The facility may only ship citrus nursery stock interstate in accordance with this section if accompanied by a limited permit issued by an inspector verifying that all conditions of this protocol and any additional requirements stipulated in the compliance agreement have been met. The facility must attach a copy of the limited permit to the consignee's copy of the accompanying waybill.
- f. The facility may move citrus nursery stock from an ACP-quarantined area as outlined in this section of the protocol (Section V) to another ACP-quarantined area if all of the requirements in Sections V. a. are met.
- g. Citrus nursery stock from an ACP-quarantined area as outlined in this section of the protocol (Section V) may transit through a commercial citrus-producing state under the following conditions:
 - i. Nursery stock must meet all of the requirements in Section V. a.
 - ii. Nursery stock must be inspected by an inspector at the time of loading, and if one or more live ACP are detected, interstate shipment will be prohibited;
 - iii. Adequate safeguarding measures must be arranged by the shipper and approved by an inspector to ensure that each conveyance is sealed with an agricultural seal applied by an inspector at origin and removed at destination by an inspector; and
 - iv. Seals must remain intact from origin to destination, ensuring that the conveyance is not opened until it reaches the destination identified on the limited permit.

Definitions

Note: The definitions apply to the entire protocol document.

Asian citrus psyllid. The insect known as Asian citrus psyllid (*Diaphorina citri* Kuwayama) in any stage of development.

APHIS Approved Structure. A screenhouse, greenhouse, or other enclosure that has been approved by APHIS to grow citrus for interstate movement.

Breach. Any circumstance that would allow free access by federally-regulated pests into a structure, container, package or means of conveyance.

Citrus canker. A plant disease caused by strains of the bacterium *Xanthomonas axonopodis* pv. *citri*.

Citrus greening. A plant disease, also commonly referred to as Huanglongbing disease of citrus that is caused by several strains of the uncultured, phloem-limited bacterial pathogen “*Candidatus Liberibacter asiaticus*”.

Citrus nursery stock. Any live rutaceous plant or plant part, except seed, used to produce plants for planting including budwood, foundation grove trees, scion grove trees, increase block trees, nursery production block trees, tissue culture, seed source trees, top-working material, and cuttings/air layerings.

Commercial citrus producing states. American Samoa, Arizona, California, Florida, Guam, Hawaii, Louisiana, Northern Mariana Islands, Puerto Rico, Texas, and U.S. Virgin Islands.

Inspector. An employee of the Animal and Plant Health Inspection Service, or other individual authorized by the APHIS Administrator to enforce the provisions of this protocol, e.g. a State Department of Agriculture official.

Interstate. From any State into or through any other State.

Limited permit. A document in which an inspector affirms that the regulated article not eligible for a certificate is eligible for interstate movement only to a specified destination and in accordance with conditions specified on the permit.

State. The District of Columbia, Puerto Rico, the Northern Mariana Islands, or any State, territory, or possession of the United States.

**United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine**

**Survey Protocol for Interstate Movement of Citrus
Nursery Stock from Areas Quarantined for Citrus
Canker, Citrus Greening, and/or Asian Citrus Psyllid
2019**

In support of the APHIS Citrus Nursery Stock Final Rule (Docket# APHIS-2010-0048), this survey protocol is for citrus nursery stock (CNS) intended for interstate movement from APHIS-approved exclusionary facilities in areas quarantined for citrus greening (CG), Asian citrus psyllid (ACP), and/or citrus canker (CC). Inspection, sampling, and testing requirements for allowing interstate movement of CNS are described (USDA, 2008 and 2019).

Detection Survey for CC: An inspector must visually inspect plants for disease symptoms at an interval not to exceed 30 calendar days. Leaves from plants showing symptoms of CC must be tested using Work Instructions approved by APHIS.

Detection Survey for ACP: An inspector must visually inspect new flush growth of CNS for ACP at an interval not to exceed 30 calendar days. Any suspect specimens should be submitted to an APHIS approved identifier. Visual inspection can be augmented by using yellow sticky cards (1 card per 1000 ft²), vacuum suction sampling, tap sampling, or other methods approved by APHIS.

Detection Survey for CG: An inspector must visually inspect plants for disease symptoms at an interval not to exceed 30 calendar days. Leaves from plants showing symptoms of CG must be tested by a diagnostician certified by APHIS at a laboratory accredited by APHIS using the APHIS Work Instruction. CG plant tissue sampling and testing must be conducted according to the schedule in Table 1.

Table 1. Testing intervals for different citrus nursery stock tree types.

Tree Type	Testing Interval
Mother/scion	ALL mother/scion plants must be tested once per calendar year at an interval not less than 11 months and not more than 12 months
Increase	A sample of increase trees must be tested every 6 months – see Table 2 for rate of sampling
Production trees: sold prior to 12 months of age	Testing is not required
Production trees: held for 12 months or longer	Trees must be tested at 12 months and every 6 months thereafter – see Table 2 for rate of sampling

Tissue samples must be collected from plants randomly selected from the lot. Tissue samples must be tested by a diagnostician certified by APHIS at a laboratory accredited by APHIS using

the APHIS Work Instruction. Table 2 provides required sample sizes for testing of citrus nursery stock for interstate movement.

Table 2. Sampling size required for citrus nursery stock lots eligible for interstate movement.

Plants per Lot ¹	Number of Plants to Sample ²	Number of Laboratory Tests Required ³
1 to 100	All plants	1 to 25
101 to 200	160	40
201 to 300	195	49
301 to 400	220	55
401 to 500	230	58
501 to 1,000	265	67
1,001 to 1,500	275	69
1,501 to 2,000	280	70
2,001 to 2,500	285	72
2,501 to 3,000	290	73
3,001 to 3,500	295	74
> 3,500	300	75

¹A lot is defined as the population of plants to be tested (i.e. mother plants, increase trees, etc.).

²Each plant sample consists of 8 leaves.

³Laboratory tests may be run on a composite sample taken from one to four citrus plants (8-32 leaves).

Supporting Documents:

USDA. 2008. New Pest Response Guidelines Citrus Greening Disease. United States Department of Agriculture.

USDA. 2019. Interstate Movement of Citrus Nursery Stock from Areas Quarantined for Citrus Canker, Citrus Greening, and/or Asian Citrus Psyllid – November 25, 2019. United States Department of Agriculture.