



United States Department of Agriculture

Overview of Citrus Fruit Export Requirements to the EU

Pete Grace
Acting Federal CHRP Coordinator
USDA, APHIS, PPQ

Presentation for Citrus Packinghouse Day, Lake Alfred, FL
August 19, 2019



EU Recognized Quarantine Counties

Citrus Canker – All Counties

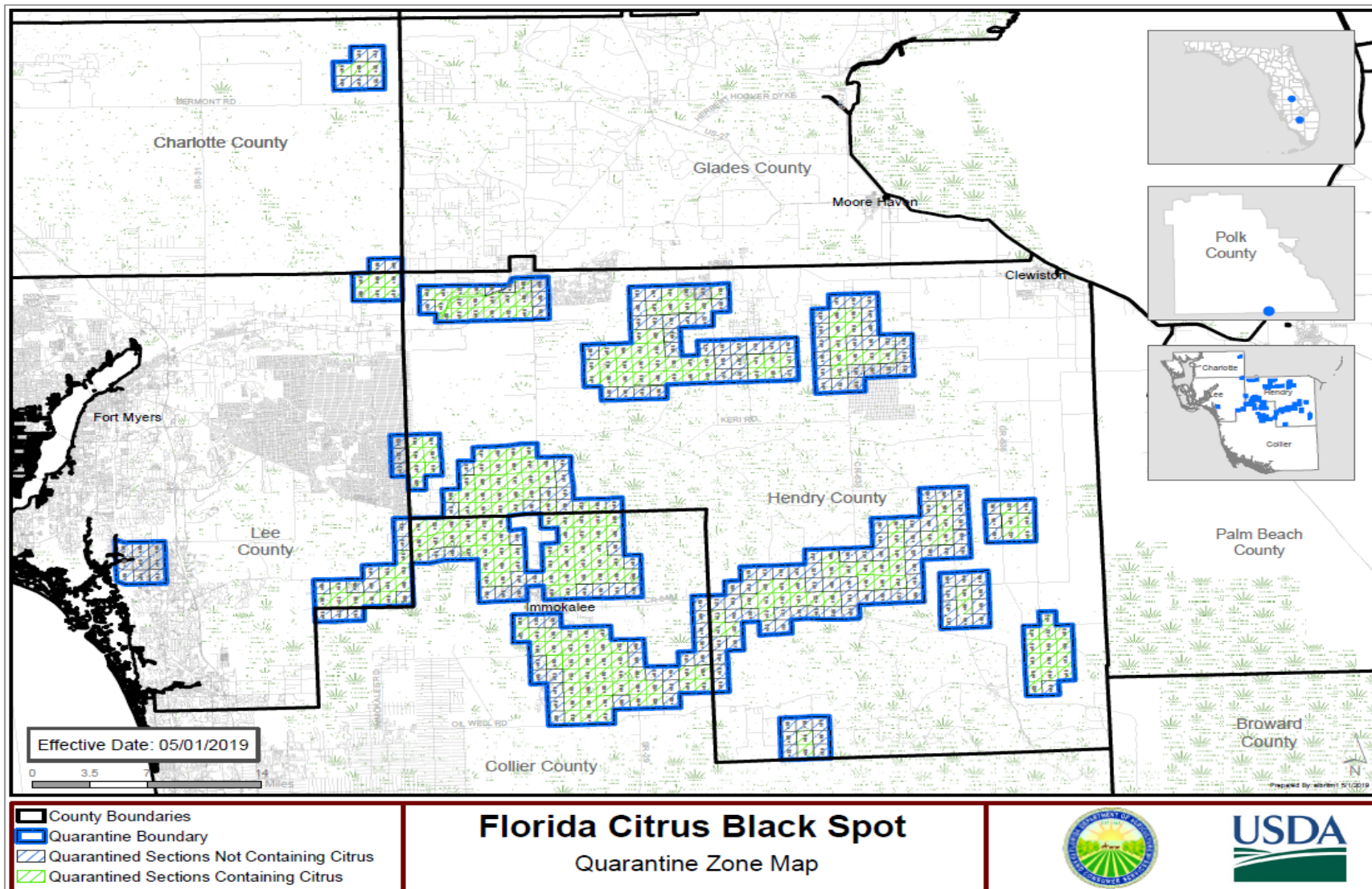
Citrus Black Spot (5)

- Charlotte (newest)
- Collier
- Hendry
- Lee
- Polk

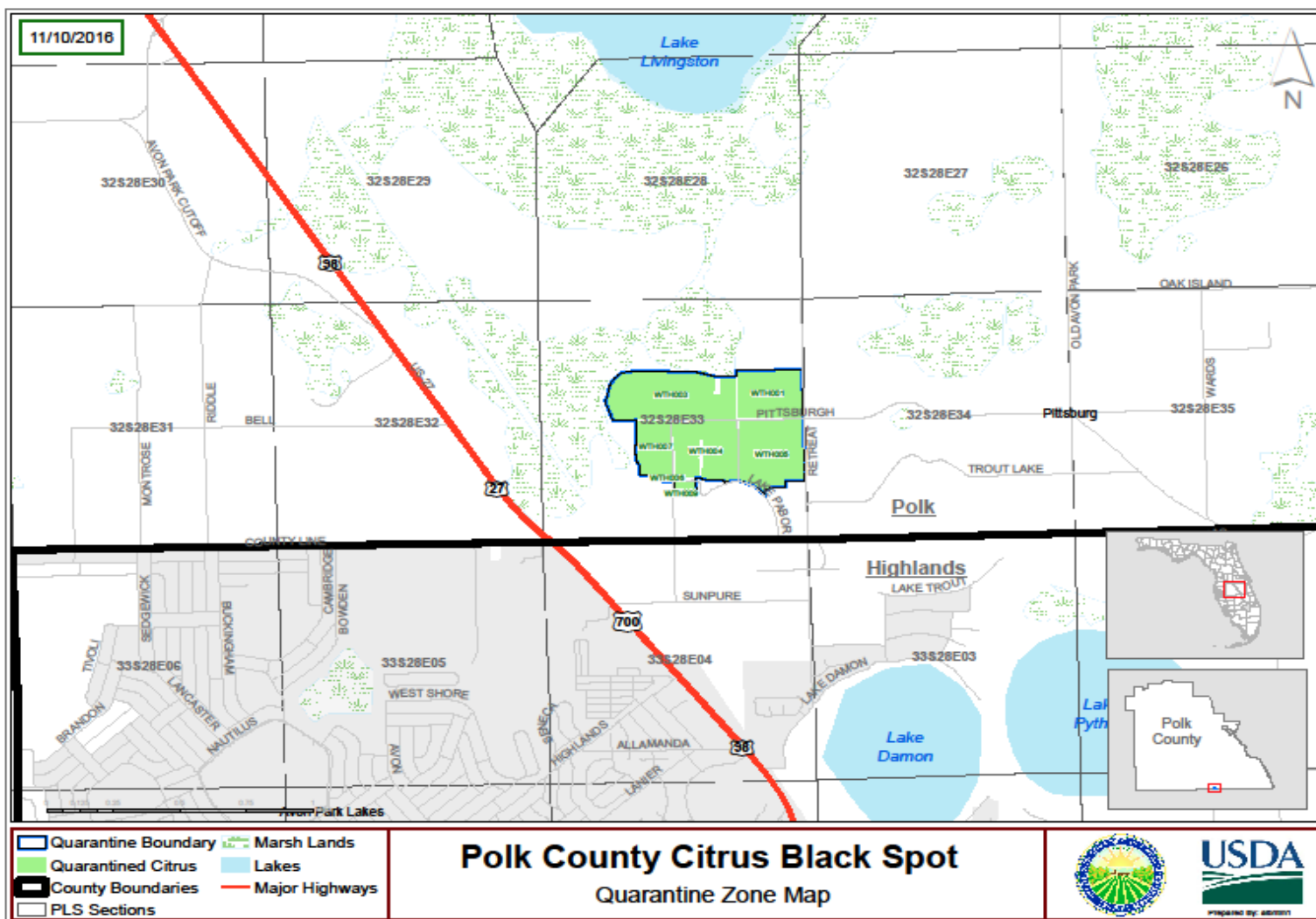
Sweet Orange Scab – All Counties

Non-EU Tephritidae Fruit Flies (Caribfly) – All Counties

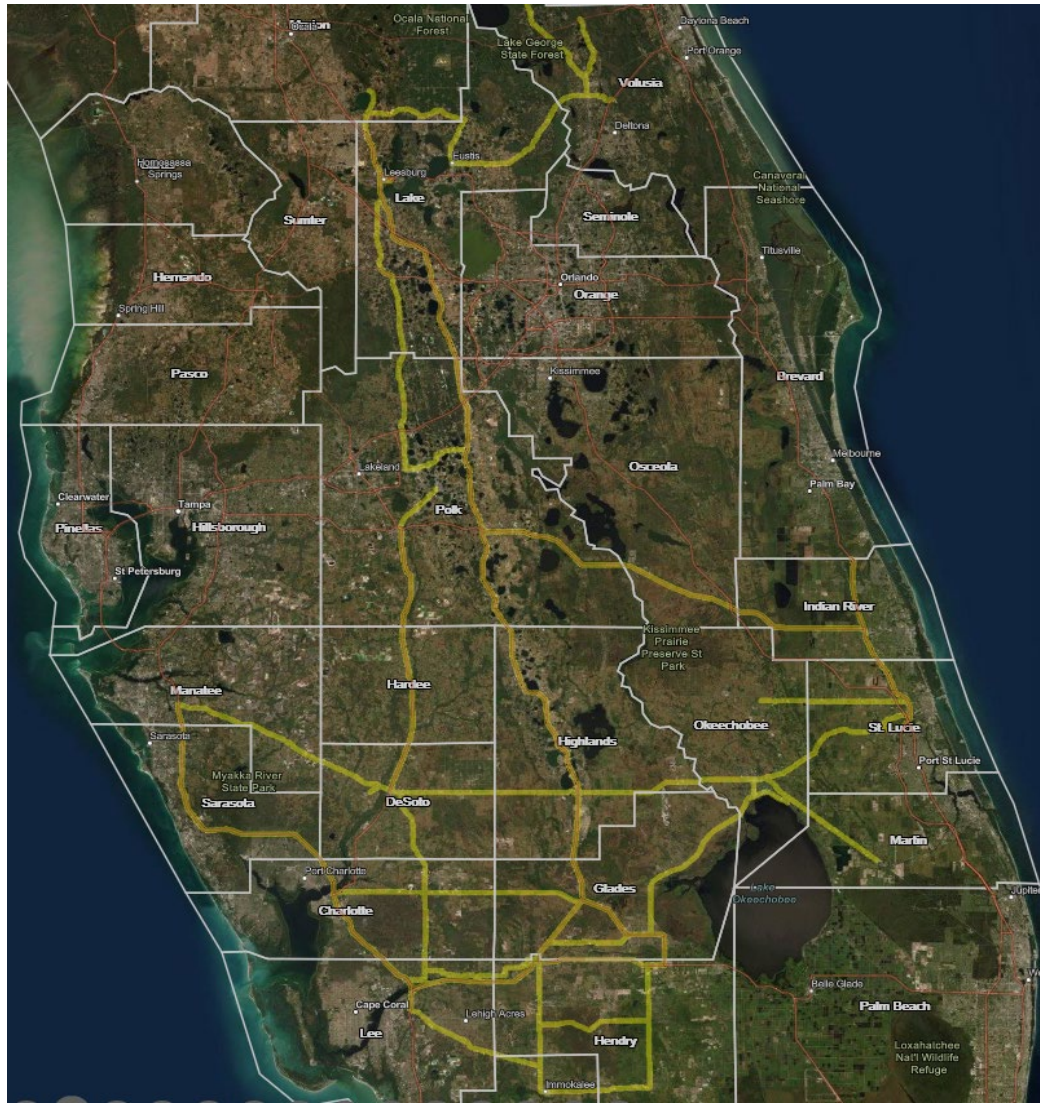
Charlotte, Collier, Hendry, Lee County Map



Polk County Map



CBS Risk Fruit Movement Corridors



Importance of Tarping, Cleaning & Disinfecting (C&D) Conveyances

- CBS continues to spread in SW FL, and we do not know yet how far it has spread from Hurricane Irma.
- Once a county falls within a CBS quarantine, there is no means of releasing it from Q because CBS has never been successfully eradicated from a production area.
- Before conveyances leave a grove they must be properly tarped to prevent potential leaf drop along corridors.
- Once a county is quarantined, tarping will always be required.
- After discharge of the load at the packinghouse, conveyances must be cleaned free of fruit, leaves, limbs, soil and debris and be decontaminated.

EU Phytosanitary Certification (PC) Requirements

1. **Preharvest Grove Inspections and Harvest Permits (HP)** required for fruit from CBS quarantined counties only,
 - Charlotte
 - Collier
 - Hendry
 - Lee
 - Polk
- Additional counties could be added during the season as CBS grove inspections take place. Updated maps are posted on the DPI website.
- HP valid only if harvesting begins within 120 days of survey



Citrus Fruit Harvesting Permit (HP)



ADAM H. PUTNAM
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Plant Industry

CITRUS FRUIT HARVESTING PERMIT

Section 581.101(1), F.S. / Rule 5B-63.001, F.A.C.

3027 Lake Alfred Road, Winter Haven, FL 33881 / Phone: (863) 298-3000

HP#: Grower/Caretaker C/A#: _____ Survey Completion Date: _____

Responsible Party (Grower, Harvester, Caretaker, Fruit Dealer): _____

Contact Name: _____ Contact Phone #: _____

Contact City, State: _____ Contact Fax #: _____

County of MB (Grove) Location: _____

Grove Name: _____

Grove Block(s): _____ Sub-block(s): _____

Varieties in Block(s)/Sub-block(s): _____

Block/Sub-block Acres: _____

T – R – S Multi-Block (List the Multi-Block associated with the Block(s)/Sub-block(s) indicated above)

Proposed Packinghouse(s) for Harvested Fruit:

Packinghouse 1 (Name): _____

Packinghouse 2 (Name): _____

Packinghouse 3 (Name): _____

THIS GROVE IS LOCATED IN FLORIDA, A CITRUS CANKER QUARANTINE AREA AND WITHIN A COUNTY QUARANTINED FOR CITRUS BLACK SPOT.

Fresh fruit harvested under this permit that is treated, inspected, commercially packed, and for which a phytosanitary certificate has been issued is qualified for distribution to all other markets including the countries of the European Union (EU).

The submitted distinctive grove blocks or sub-blocks listed above, are located within EU designated counties having citrus black spot quarantines, and have been inspected and found to be apparently free of *Phyllosticta citricarpa* (McAlpine) Van der Aa, the causal agent of citrus black spot. The fruit is eligible for harvest and shipment as noted above.

The owner or representative must deliver a copy of this permit to the packinghouse before or upon arrival of fruit at the packinghouse.

Field Office: _____ Date Permit Issued: _____

Field Office Phone #: _____ Expiration Date: _____

HARVESTING MUST BEGIN FROM THIS MULTIBLOCK, OR SUB BLOCK IF APPLICABLE, ON OR BEFORE / / (120 DAYS FROM THE SURVEY COMPLETION DATE) FOR THIS HARVESTING PERMIT TO BE VALID FOR FRESH FRUIT SHIPMENT TO COUNTRIES OF THE EUROPEAN UNION, THE HARVESTING PERMIT COVERS REQUIREMENTS FOR CITRUS BLACK SPOT INSPECTION ONLY.

EU Phytosanitary Certification (PC) Requirements

2. **Proof of Grove BMPs (cultural practices, treatments & decontamination that minimize disease incidence & spread)**
 - **Grower/Caretaker Compliance Agreement (GCA)**
 - **Trip Ticket Markings** (serially #’d, clearly written, collected at packinghouse by USDA and verified for accuracy)
 - **GCA#** for the owner of each grove block/sub-block harvested (e.g. GCA# 6789123)
 - **CC** = Grower followed IFAS Citrus Production Guide recommendations to minimize incidence of CC
 - **TARP-Q (from CBS Counties only)** at bottom of ticket. Indicates destined for EU and grower followed CA requirements to minimize incidence of CBS, including tarping of load.
 - **HP# (from CBS Counties only)**



United States Department of Agriculture

2 Examples:

Left from a Non-CBS County

- GCA#
- CC

Right from a CBS County

- GCA#
- CC
- TARP-Q

(G refers to a particular Food Safety protocol)

1-24-18 A.M. TIME LEFT GROVE OR OTHER ORIGIN

RECEIVED FROM ~~XXXXXXXXXX~~

ADDRESS GCA#67000388

GROVE NAME ~~XXXXXXXXXX~~

COUNTY ST LUCIA

TWP. 20 34

HARVESTING COMPANY TCFO # 35

DESTINATION ~~XXXXXXXXXX~~

CITY Felkmerc

TRUCK TAG NO. 9

TRAILER TAG NO. C1546H

BOXES	BUCK	VARIETY
<u>540</u>	<u>8C</u>	<u>Reds</u>

PICK 1.93 HAUL

NAME OF DRIVER Juan

HAUL BY ~~XXXXXXXXXX~~

RECEIVED FROM ~~XXXXXXXXXX~~ HED 32946

NUMBER 22

DATE 1-24-18 6:10 p.m.

ELIVERY J.I.R. CC G

1-24-18 P.M. TIME LEFT GR OR OTHER ORIGIN

RECEIVED FROM ~~XXXXXXXXXX~~

ADDRESS GCA#67000388

GROVE NAME ~~XXXXXXXXXX~~

M-B# 1-1 8

TWP. 34 9

HARVESTING COMPANY TCFO # 35

DESTINATION ~~XXXXXXXXXX~~

CITY Felkmerc

TRUCK TAG NO. 9

TRAILER TAG NO. C4702D

BOXES	BUCK	VARIETY
<u>40</u>	<u>8A</u>	<u>Reds</u>

PICK 1.93 HAUL

NAME OF DRIVER Juan

HAUL BY ~~XXXXXXXXXX~~

RECEIVED FROM ~~XXXXXXXXXX~~ DRENCHER 32946

NUMBER 9

DATE 1-24-18 8:40 p.m.

WHITE DELIVERY J.I.R. CC G

TARP-Q



Computer Generated and Combined Markings

If computer generated, TARP Q doesn't have to be at bottom.

The Packers of Indian River Ltd.
2220 12th Avenue, Vero Beach, FL 32960
(772) 464-6575
2019-02-07 CC67004673
Received From: Packers of Indian River
GlobalGAP: 4049928157928
Grove Name: Packers
Block: F2B Multi Block # 2
Permit: IMM-2018/2019-26419 Tarp Q
Protocol: CH30
Designated Area: 3
COUNTY: CH
SEC: 16 TWP: 40 RNG: 27
Harvesting Company: Everglades
Hauling Company: Everglades
Destination: Riverfront
Contract: C
Truck#: Tag#:
Trailer#: 70728 Tag#: C55 23A

TRIP TICKET 007687

FRESH ☒ FIELD RUN ☒ ELIMINATION ☐

DATE 2/6/ 20 19 A.M. ☐ P.M. ☐

TIME LEFT GROVE OR OTHER ORIGIN

RECEIVED ☐ FROM ☐

GROWER ☐

GROVE: 2 BLK# 3-B

HARVEST PERMIT # _____

MULTI BLOCK # _____ BOX _____

GROVE: _____ BLK# _____

HARVEST PERMIT # _____

MULTI BLOCK # _____ BOX _____

GROWER COMPLIANCE # 67004268-CC

EU Phytosanitary Certification (PC) Requirements

3. Chemical Decontamination, Treatment & Testing

APHIS Packinghouse Treatment

- Wash, brush, disinfect, fungicide and wax

APHIS Approved Disinfectant Options

- Chlorine, PAA, SOPP foaming or non-foaming



USDA Approved Disinfectants and Treatments

APPENDIX A

USDA APPROVED DISINFECTANTS

Treatment of Fresh Fruit. Regulated fruit for which treatment is required by this subpart must be treated in one of the following ways at a commercial packinghouse whose owner operates under a compliance agreement under §301.75-7(a)(2); treatments can be accomplished using immersion baths or sprays, with or without roller brushes:

- A. Chlorine (sodium hypochlorite). The regulated fruit must be thoroughly wetted for at least two minutes with a solution containing two hundred parts per million (200 ppm) sodium hypochlorite with the solution maintained at a pH of 6.0 -7.5; or
- B. SOPP (sodium o-phenyl phenate). The regulated fruit must be thoroughly wetted with a solution containing sodium o-phenyl phenate (SOPP) at a concentration of 1.86 to 2.0 percent of the total solution, for 45 seconds if the solution has sufficient soap or detergent to cause a visible foaming action or for one (1) minute if the solution does not contain sufficient soap to cause a visible foaming action; or
- C. Peroxyacetic Acid. The regulated fruit must be thoroughly wetted for at least one minute with a solution containing 85 parts per million peroxyacetic acid.

APPENDIX B

APHIS APPROVED PACKINGHOUSE TREATMENTS

The following treatments are required as designated in the above Sections III and IV:

- 1. Washed, and
- 2. Brushed, and
- 3. Surface disinfested with at least one treatment outlined in Appendix A
- 4. Treated at the time of packing, in accordance with label directions, with at least one of the following treatments, and
 - a) Imazalil
 - b) Thiabendazole
 - c) Combination of fludioxonil plus azoxystrobin (meets the requirements for the SOS quarantine only)
- 5. Waxed

EU Phytosanitary Certification (PC) Requirements

4. USDA Fruit Inspection Options

- Matrix
- 600 pieces/lot
- 2% of lot

Note: These rates are the **minimum inspection level for commodities not considered high risk**. Whenever USDA concludes that conditions have changed enough to cause commodities to become **high risk**, they **may be subject to higher inspection levels** (e.g. 1000 pieces/lot, 5%)



If a High Suspect Lesion is Found on Fruit

- **Digital image** sent to USDA Plant Pathologist
- **If pathologist concurs, then**
 - **CC.** The Immunostrip test procedure (test strip) is conducted by local staff to confirm.
 - **SOS.** No quick diagnostic tools available, suspects are forwarded to DPI Gainesville lab, results take 24-96 hrs., or longer if a weekend is involved.
 - **CBS,** the LAMP test procedure (portable unit) is conducted by a pathologist to confirm.

Loop-mediated isothermal amplification (LAMP)

LAMP is an established nucleic acid amplification method offering rapid, accurate, and cost-effective diagnosis of infectious diseases.

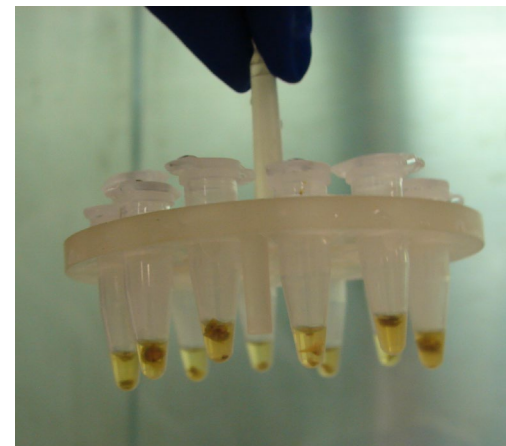
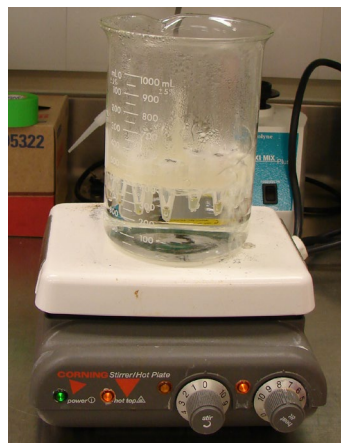


Pathology Team
Citrus Health Response Program
 United States Department of Agriculture
 Animal and Plant Health Inspection Services
 Plant Protection Quarantine

Specific primers are designed for amplification of *Phyllosticta citricarpa* DNA (Citrus black spot)



Select lesion

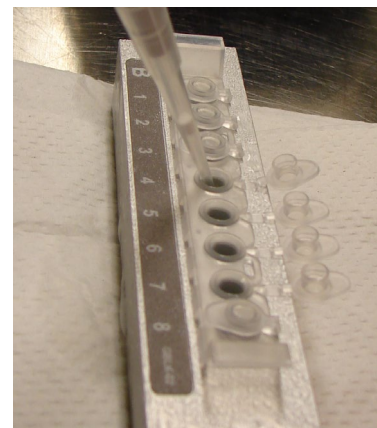


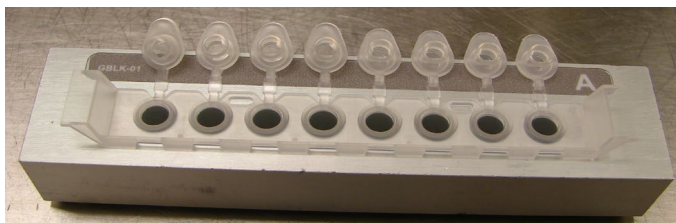
DNA Extraction

Incubate lesion in tube with molecular grade water at 99°C for 10 minutes
One suspect lesion will be processed at a time



Transfer aliquot of
extraction product to
reaction tubes



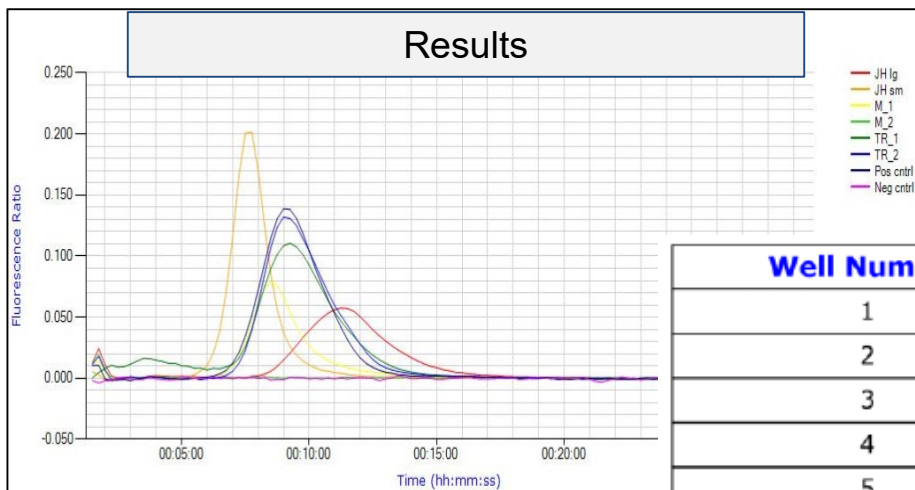


Reagents and primers are added and reaction tubes are transferred to LAMP device

Process time from lesion selection to start of LAMP Assay is 30 min



LAMP Assay is 30 min at 65°C
Total time 60 min



A peak value indicates DNA amplification of targeted pathogen

Negative samples will have no peak value

Well Number	Well Name(mm:ss)	Peak Value(mm:ss)
1	JH Ig	11:15
2	JH sm	07:45
3	M_1	08:30
4	M_2	
5	TR_1	09:15
6	TR_2	09:00
7	Pos cntrl	09:00
8	Neg cntrl	

EU Phytosanitary Certification (PC) Requirements

5. Citrus Manifest Declarations and Certification Stamp (No changes from previous season)

A. FRUIT ORIGIN STATEMENT must be on manifest (choose one):

1) If from a Non-Citrus Black Spot (CBS) County(s), then,

“The fruit has been treated with SOPP, chlorine, or peroxyacetic acid, meets European Union import requirements, and is eligible for phytosanitary certification.”
(use exact wording)

2) If from a Citrus Black Spot (CBS) County, then,

“The fruit has been treated with SOPP, chlorine, or peroxyacetic acid. **AND**, The fruit is from groves in which required grove inspections have been conducted and found free of citrus black spot. It meets European Union requirements, and is eligible for phytosanitary certification.” (use exact wording)



EU Phytosanitary Certification (PC) Requirements

B. SPECIFIC TREATMENT STATEMENT must be on manifest also (choose one):

- 1) If the treatment was Chlorine, then,** “The fruit was thoroughly wet for at least 2 minutes with a solution containing 200 ppm sodium hypochlorite maintained at a pH of 7.0.”
- 2) If the treatment was Peroxyacetic Acid (PAA), then** “The fruit was thoroughly wet for at least 1 minute with a solution containing 85 ppm peroxyacetic acid.”
- 3) If the treatment was SOPP, then,**

“The fruit was thoroughly wet with a solution containing SOPP at a concentration of 2.0 percent for 45 seconds (foaming SOPP).” **OR**

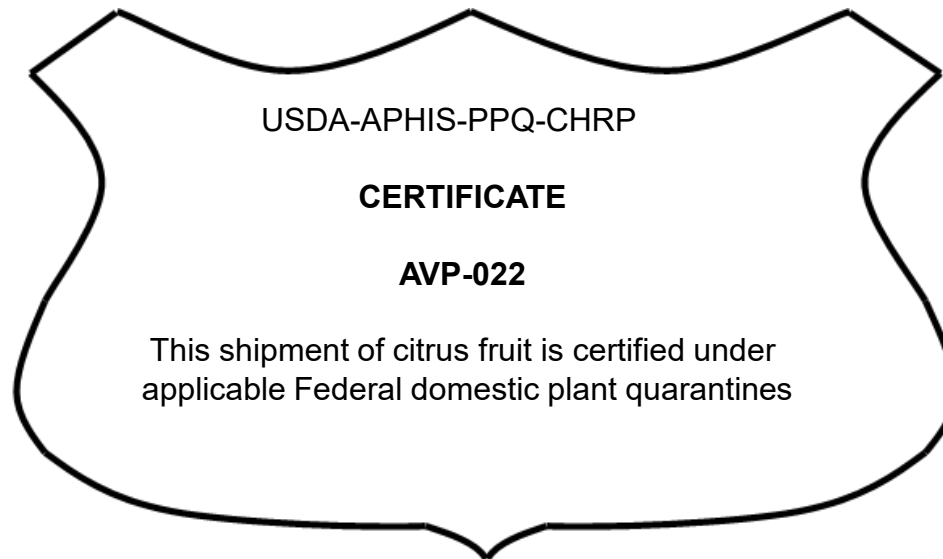
“The fruit was thoroughly wet with a solution containing SOPP at a concentration of 2.0 percent for 1 minute (non-foaming SOPP).”

NOTE: If there was more than one treatment, a packinghouse may have reason to include both, but only one is required to be listed for Federal phytosanitary purposes, and should be the one that APHIS is testing during their compliance inspections.

EU Phytosanitary Certification (PC) Requirements

C. County and State of origin must be indicated in the Place of Origin block.

D. Federal Certificate Stamp must be applied to both manifest and cartons.



EU Phytosanitary Certification (PC) Requirements

6. Completed manifests are used by a USDA Officer or other Authorized Certifying Official (FL DPI) to issue the Federal Phytosanitary Certificate for the EU.

7. Trace-back ability is required to grove block or sub-block through lot number on carton and manifest.

Other Countries

- **Japan.** Although USDA inspection of fruit at the packinghouse is no longer required for Japan, if Japan detects CC, CBS or SOS, it may reject the shipment.
- **China.** China will reject shipments with CC, even though it has CC.
- **Other.** Although some countries do not consider CC to be of regulatory significance, they may still reject a shipment if it is detected. So it is of utmost importance that only asymptomatic fruit be shipped.



Further Resources

- USDA packinghouse compliance agreement
- USDA Florida Fresh Citrus Fruit Shipment Procedures (covers presentation in greater detail and all other markets)
- Available from your local USDA office.
- Email: Peter.T.Grace@usda.gov



United States Department of Agriculture

THANK YOU! QUESTIONS?

