

PROTOCOL FOR THE EXPORTATION
OF FRESH FRUITS FROM FLORIDA
TO JAPAN

October 2010

TABLE OF CONTENTS

I.	Methyl bromide Fumigation	
A.	Fruits	3
B.	Treatment Schedule	3
C.	Treatment Procedure	3
D.	Additional Declaration on the Phytosanitary Certificate.....	4
E.	Miscellaneous.....	4
II.	Cold Treatment	
A.	Fruits	4
B.	Treatment Schedules	4
C.	Treatment Procedures	5
D.	Additional Declaration on the Phytosanitary Certificate.....	6
E.	Miscellaneous.....	6
III.	Areas Under Quarantine Safeguards	
A.	Fruits	7
B.	Treatment Schedules	7
C.	Treatment Procedures for Early Season Certification	7
D.	Standard Certification Procedures.....	9
E.	Bait Spray Formulations.....	12
F.	Packing Facility and Labeling.....	13
G.	Over-land Shipment and Storage at Port of Embarkation.....	13

H.	Additional Declaration on the Phytosanitary Certificate.....	13
I.	Import Inspection.....	14
J.	Miscellaneous.....	14

JAPAN-US CARIBFLY PROTOCOL ON FRESH FLORIDA FRUITS

I. Methyl Bromide Fumigation

A. Fruits

As used herein, "fruit(s)" shall mean grapefruit, oranges, limes (excluding Persian limes), oroblanco, tangerines, mangoes **pomelos**, and/or other fresh fruits (excluding sour lemons, *Citrus limon*) produced in Florida which are known to host caribflies.

B. Treatment Schedule

dosage: 40g/m³
time: 2 hours
temperature: 24°C to 29°C
loading rate: no more than 20%

C. Treatment Procedure

1. Fresh fruits shall be fumigated by inspectors with methyl bromide in trailers or containers (vans) in fumigation chambers designated by the US Plant Protection and Quarantine authority (hereinafter referred to as US PPQ).
2. Chambers used for fumigation shall have passed a gas leakage test conducted by US PPQ. Said leakage test shall be conducted on a regular basis.
3. Inspectors shall place seals on the trailers upon completion of fumigation. Trailers or containers shall have screened ventilation openings to prevent possible infestation.
4. A "Certificate of Treatment" (indicating the details of the treatment, trailer number, and seal number) shall be issued for fumigated fruits. Said Certificate shall be delivered, along with the "Export Citrus Fruit Inspection Certificate," to the port of embarkation.
5. Should the back doors of the trailer be opened for aeration following fumigation, the door opening shall be screened during this period for prevention of possible infestation.

6. Cartons with air holes shall be used for packing the fruits.
7. When storing at the port of embarkation, fumigated fruits shall not be placed in the same warehouse as untreated fruits.
8. A US PPQ "Phytosanitary Certificate" shall be issued upon confirmation of the presence of the "Certificate of Treatment" and "Export Citrus Fruit Inspection Certificate," as well as of the trailer and seal numbers.

D. Additional Declaration on Phytosanitary Certificate

The details of the fumigation and the fact that the subject fruit is a produce of Florida shall be noted on the "Phytosanitary Certificate."

E. Miscellaneous

1. Should a live caribfly be found in the inspection at the port of import, subject shipment shall be destroyed or re-exported. The US PPQ shall immediately suspend all certification procedures, investigate and clarify the cause, and make positive efforts for improvement.
2. Amendment of the foregoing provisions is subject to consultations between the parties hereto.

II. Cold Treatment

A. Fruits

1. Grapefruit, oranges, tangerines, **pomelos** and oroblanco produced in Florida
2. Carambola produced in Florida.

B. Treatment Schedule

1. Grapefruit, oranges, tangerines, **pomelos** and oroblanco
 - a. Standard Treatment

<u>Pulp Temperature</u>	<u>Days</u>
0.6°C (33°F)	14
0.8°C (33.5°F)	16
1.1°C (34°F)	17
1.4°C (34.5°F)	19
1.7°C (35°F)	20
1.9°C (35.5°F)	22
2.2°C (36°F)	24

b. Short-Term Cold Treatment

<u>Pulp Temperature</u>	<u>Days</u>
0.6°C (33°F)	10
1.1°C (34°F)	12
1.7°C (35°F)	14
2.2°C (36°F)	17

2. Carambola

<u>Pulp Temperature</u>	<u>Days</u>
1.10°C (34°F)	15

C. Treatment Procedure

1. Short-term cold treatment schedule shall be applied to fruits (grapefruit, oranges, tangerines, **pomelos**, and oroblanco only) satisfying the following requirements.
 - a. The fruits shall have been produced in low density caribfly infestation areas.
 - b. Fruits sampled (300 or more per shipment) in the export inspection shall be dissected after a minimum of 10-day storage at 26.7°C (80°F) and be found free of caribflies.
2. Vessels, cold treatment warehouses (located within the United States), and reefer containers designated by the US PPQ shall be used for cold treatment.

3. Temperature values during cold treatment shall be recorded using temperature recorders meeting standards set by the US PPQ.
4. Should reefer containers be used for in-transit cold treatment, the loading of the containers on the vessel shall take place only after confirmation that the pulp temperature of fruit to be loaded has reached the treatment temperature. US PPQ will make a statement to Japanese plant quarantine authority, according to the information provided by the shipper that "the pulp temperature of the fruit in containers listed above were within treatment temperatures at the time of loading."
5. Warehouses used for cold treatment shall provide necessary security for safeguarding each shipment. Following the positioning of the sensors, the warehouses shall be locked and the doors shall be sealed. Should it not be possible to lock a warehouse, a method to identify and segregate the loaded fruit shall be established. Plant quarantine inspectors of the US PPQ shall visit the warehouses from time to time during treatment to confirm the identity of the loaded fruit and check on the progress of the treatment. After completion of treatment, fruit is loaded into closed containers or trailers and a seal is affixed. Fruit off loaded for storage of shipment must be segregated in such a manner that it does not become mixed with untreated fruit or become exposed to possible infestation.
6. An individual designated by the US PPQ shall confirm the completion of a specified treatment on board a vessel in the case of bulk treatment, and on board a vessel or in a container yard subsequent to unloading in the case of container treatment.
7. Container treatment can be completed in transit but may begin in warehouses used for cold treatment.

D. Additional Declaration on Phytosanitary Certificate

1. It shall be specified that the treatment method is "in-transit cold treatment," in case of reefer containers and vessels being used for in-transit cold treatment.

2. "Method of treatment," "treatment temperature," "date treatment began," "date treatment was completed," and "treatment period" shall be specified when cold treatments are conducted in warehouses.
3. When applying a short-term treatment schedule, the following statement must be made in a blank space on the "Phytosanitary Certificate":

"The subject fresh fruits were produced in (an) area(s) where the infestation density of the Caribbean fruit fly was low. Upon completion of the dissection examination of the fruit sample collected at random from the lot covered under this certificate, no live Caribbean fruit fly was detected."

4. The following shall be provided in a blank space on the "Phytosanitary Certificate":
 - a. date treatment began
 - b. date treatment ended
 - c. treatment temperature
 - d. number of treatment days
 - e. signature
 - f. organization with which the signing individual is affiliated
 - g. date treatment was confirmed

However, if a phytosanitary certificate for several reefer containers in one consignment is prepared, an annexed paper "Certificate of loading, calibration, and clearance for cold treatment of fruit to Japan in integral containers" shall be prepared for each container.

E. Miscellaneous

1. Should a live caribfly be found in the inspection at the port of import, subject shipment shall be destroyed or re-export. The US PPQ shall immediately suspend all certification procedures, investigate and clarify the cause, and make positive efforts for improvement.
2. Amendment of the foregoing provisions is subject to consultations between the parties hereto.

III. Areas under Quarantine Safeguards

A. Fruits

As used herein, "fruit(s)" shall mean oranges, grapefruit, **pomelos**, oroblanco and tangerines produced in Florida.

B. Treatment Schedule

The fruits shall have been produced in areas where the US PPQ has determined as a result of negative trapping or negative trapping following bait sprays, that the caribfly does not occur and where it is believed that the situation can be maintained [area(s) certified under this section III shall hereinafter be referred to as "designated area(s)"].

C. Treatment Procedure for Early Season Certification

1. Certification of Fruits (August 1 – **January 31**)

a. Low Risk Area (Risk Level 1)

- (1) A low risk area shall be more than 1.5 miles from areas where preferred host plants are distributed (hereinafter, "preferred host plants" shall mean common guava, Cattley guava, Surinam cherry, rose apple, and loquat) and its designation shall be based on negative trapping.
- (2) A low risk area shall be at least 300 acres in size and surrounded by 1-1/2 miles (2.4 km) wide buffer zone.
- (3) Trapping surveys shall begin 7 days before harvest and continue through January 31. Trap density shall be maintained at 2 traps per square mile within the designated area and 5 traps per square mile in the 300-foot wide monitoring zones within the buffer zone.
- (4) McPhail traps shall be used and the attractant shall be 4 or 5 yeast tablets dissolved in 1/2 liter of water. The attractant shall be changed and the traps

checked weekly [all traps used under this protocol shall be prepared as described in this Item (4)].

b. Moderate Risk Area (Risk Level 2)

- (1) A moderate risk area shall be at least 40 acres in size and surrounded by a 300-foot wide monitoring zone.
- (2) Designated areas and monitoring zones shall be free of fruiting, preferred host plants.
- (3) Designated areas shall be trapped weekly, starting 10 days before harvest and continuing until the completion of harvest.
- (4) Should two adults be found within a designated area during one life cycle (30 days), the area will be bait sprayed at a 7 to 10 day interval for 30 days. At the end of the 30-day period, bait applications would no longer be required.
- (5) McPhail traps shall be set at the density of 15 (minimum of 4) per square mile.
- (6) Bait spray shall be prepared in accordance with the provisions of Paragraph III E below.

c. Response to Caribfly Detection

- (1) Should a fly be caught in a trap in an early season designated area during the period August 1 through January 31, one or more of the following actions shall be taken:
 - (a) determination of the need for additional action should there be no risk of fruit infestation,
 - (b).... an increase in the density of traps in the surrounding areas to 5 - 15 traps per square mile and continued certification of fruits,

- (c) initiation of fruit cutting in areas adjacent to the trap find and continue certification of fruits,
- (d) initiation of bait sprays for a specific period and continued certification of fruits,
- (e) a combination of (b) through (d) above, or
- (f) removal of the affected area from early season designation and reclassification to negative trapping or bait spray designated area if warranted;

(2) With due consideration to:

- (a) number and sex of flies caught,
- (b) presence and fertility of eggs in the case of females,
- (c) maturity of grapefruit in the affected designated area,
- (d) climatic conditions (temperature, day/night ratio, humidity/rainfall data),
- (e) previous history of trap catches in the affected designated area,
- (f) proximity of trap to any preferred host plants,
- (g) status of fruit on preferred host plants,
- (h) trap servicing data for the affected trap, and
- (i) results of trap inspection in the monitoring zone.

* The Japanese Plant quarantine authority shall be notified of any fly catches in early season designated areas, the factors considered, and actions taken relative to the find.

D. Standard Certification Procedures

1. Negative Trapping

- a. A designated area shall be at least 300 acres (120+ha) in size.
- b. A designated area shall be surrounded by a buffer zone 1.5 miles (2.4km) in width.
- c. A buffer zone shall be free of preferred host plants. Should any preferred host plant be present therein, bait spray shall be applied in accordance with the provisions of E, at 7- to 10-day intervals, beginning 30 days before harvest until the end of harvest.
- d. Trapping surveys shall be conducted weekly in accordance with the following standards, beginning 30 days before harvest until the end of harvest.
 - (1) McPhail traps shall be set in designated areas and 1.5-mile wide buffer zones at the density of 15 traps per square mile.
 - (2) Weekly trap survey results shall be collected and reported to the Japanese plant quarantine authority each month.
- e. The following measures shall be taken should a caribfly be found.
 - (1) The Japanese plant quarantine authority shall be notified immediately should a caribfly be found as a result of the trap survey.
 - (2) Should two adults be found within 1.5 miles of each other during one life cycle (30 days) in a trap survey of a designated area or the surrounding buffer zone, the designation of the 0.25-mile area around the trapping site shall be withdrawn. Said area shall be reinstated, should a .25 mile area around the trapping site be bait

sprayed at 7- to 10-day intervals and confirmed by trapping surveys to be free of caribflies over a 30-day period.

- (3) Should one or more larvae or pupae be found during a survey of a designated area or the surrounding buffer zone, the designation of the area shall be withdrawn immediately for the entire protocol season.
- (4) Should there be a need to discontinue exports from a specific area owing to the suspension of its designation, only that particular area shall be deemed ineligible to ship fruits under the protocol. Other designated areas within the protocol will continue to be eligible to ship. The loss of certification of citrus fruit from the area shall not affect the certification of fruits from other designated areas in the same shipment.
- (5) Should a caribfly be trapped in a designated area when fruit from that particular area is in transit to Japan, said fruits shall be subjected to a more thorough inspection than usual upon arrival in Japan.

2. Bait Sprays

a. Designated Areas 1/2 Mile from Numerous Hosts

1. A designated area shall be at least 40 acres (16ha) in size and shall be surrounded by a 300-foot wide buffer zone.
2. A buffer zone shall be free of preferred host plants.
3. A designated area shall be at least 1/2 mile from areas where numerous fruiting host plants are present. All preferred host plants present in the area shall be treated at 7- to 10-day intervals with bait spray prepared in accordance with the provisions of Paragraph E below until their removal or the completion of harvest.

4. McPhail traps shall be set in designated areas and buffer zones at the density of 15 traps (minimum of 4) per square mile.
 5. There shall be a 30-day negative trapping period in the designated area before it acquires eligibility for export. Bait spray, prepared in accordance with the provisions of Paragraph E below, shall be applied at 7- to 10- day intervals beginning 7 days before harvest until the end of harvest.
- b. Designated Areas within 1/2 Mile of Numerous Hosts
- (1) A designated area shall be at least 40 acres (16ha) in size. It shall be surrounded by a 300-foot (91.2 m) wide buffer zone.
 - (2) A buffer zone shall be free of preferred host plants.
 - (3) McPhail traps shall be set in designated areas and buffer zones at the density of 15 traps (minimum of 4) per square mile.
 - (4) There shall be a 30-day negative trapping period in the designated area before it acquires eligibility for fly-free status. Bait spray, prepared in accordance with the provisions of Paragraph E below, shall be applied at 7 to 10-day intervals beginning 28 days before harvest and continuing until the end of harvest.
- c. The provisions of Subparagraph 1, Clause e above, shall apply to trapping surveys conducted under this subparagraph.
- d. The following measures shall be taken should a caribfly be found.
- (1) Should a caribfly be found in an area prior to bait spraying, said area shall be deemed ineligible for export.

- (a) Subject designated area shall be reinstated should it be bait sprayed for a 30-day period (one life cycle) following the find, and no additional fly is found.
 - (b) Should an additional fly be found during the 30-day preharvest spray period or during harvest subsequent to reinstatement, the area shall be deemed ineligible for export for the balance of the season.
- (2) Should a caribfly be found in an area after bait spraying begins, subject area shall be ineligible for export.
 - (a) Should no additional caribfly be found during the 30 days (one life cycle) of bait spraying following the original find, subject area shall be reinstated.
 - (b) Should additional caribflies be found during the 30-day spray period or during harvest subsequent to reinstatement, subject area shall be ineligible for export for the balance of the season.
- (3) Should there be a need to discontinue exports from a specific area owing to the suspension of its designation, only that particular area shall be deemed ineligible to ship fruits under the protocol. Other designated areas within the protocol will continue to be eligible to ship. The loss of certification of citrus fruit from the area shall not affect the certification of fruits from other designated areas in the same shipment.
- (4) Should a caribfly be trapped in a designated area when fruits from that particular area is in transit to Japan, said fruits shall be subjected to a more thorough inspection than usual upon arrival in Japan.

E. Bait Spray Formulations

1. Aerial bait spray shall consist of: (1) 2.4oz (71.04ml) 91% malathion and 9.6oz (284.16ml) protein hydrolysate bait (ex: NU-LURE) per acre

OR (2) 48 oz (1.4 liters) GF-120 Naturalyte (Spinosad) Fruit Fly Bait per acre.

2. Ground bait spray shall consist of: (1) 4.1 oz (121.2 ml) malathion and 16.6 oz (490 ml) protein hydrolysate bait (ex: NU-LURE) and up to 39.8 gallons (150.6 liters) water per acre OR (2) 3 oz (88.7 ml) of GF-120 Naturalyte (Spinosad) Fruit Fly Bait per tree as a foliar spot spray.

F. Packing Facility and Labeling

1. The US PPQ shall designate an inspector(s) to be present during the entire period that the fruits are being packed for Japan.
2. Packinghouses shall be 3 miles (4.8km) or more from a caribfly infested area; or if the packinghouse is less than 3 miles (4.8km) from the caribfly infested area, ground bait sprays will be applied to all preferred host plants within 800 feet (244 m) of the packinghouse when such host plants in the judgment of a US PPQ, present a threat of caribfly contamination during packing.
3. Fruits destined for Japan shall be packed only on clearly marked line(s) under the supervision of the US PPQ to ensure that no mixing occurs with fruits from non-designated areas.
4. The following label shall be clearly visible and placed on the top of each carton or side or end of each tray.

DESIGNATED AREA (area number)

G. Over-Land Shipment and Storage at Port of Embarkation

1. When transporting shipments for Japan over land from the packing house containers into which the shipments are loaded shall be secured to prevent possible contamination.
2. Should certified fruits be stored at the port of embarkation prior to ship loading, they shall be segregated and safeguarded from other shipments.

H. Additional Declaration on Phytosanitary Certificate

The phytosanitary certificate accompanying a shipment shall hold designated area numbers and the number of cartons from each area, along with the following additional declarations.

1. In the case of fruits certified under the early-season provisions, the additional declaration shall read:

"Having been harvested during the period August 1 to January 31 and inspected by the US PPQ, the subject shipment destined for Japan is not believed to be infested by the Caribbean fruit fly."

2. In the case of fruits certified under the standard certification procedure, the additional declaration shall read:

"As a result of trap surveys, ground and/or aerial bait sprays and export inspection by the US PPQ, the subject shipment destined for Japan is not believed to be infested by the Caribbean fruit fly."

I. Import Inspection

1. Should a caribfly be found in the inspection at the port of import, subject shipment shall be destroyed or re-exported. Shipments in transit to Japan, which were harvested in the same designated area as the subject shipment, shall be re-exported to the United States or to a third country.
2. The US PPQ shall suspend certification of fruit from the subject designated area until clarification of the cause.

J. Miscellaneous

1. The US PPQ shall provide, when requested by the Japanese plant quarantine authority, a map(s) of the designated areas and a list of groves with corresponding designated area numbers and the information on the results of trapping survey, to facilitate their identification.
2. The Japanese plant quarantine authority shall be invited to conduct necessary on-site inspections of the production areas in relation to the determination of certification procedures.

3. Amendment of the provisions of this protocol shall be subject to consultations between the Japanese and US PPQ.