3252. CARIBBEAN FRUIT FLY

State Exterior Quarantine

A quarantine is established against the following pest, its hosts, and possible carriers.

A. Pest. Caribbean fruit fly, *Anastrepha suspensa*, of the family Tephritidae is, in the adult state, a yellowish-brown fly from one and a half to two times the size of a housefly. This insect is a serious pest of many kinds of fruit.

B. Area Under Quarantine. The Commonwealth of Puerto Rico and all the State of Florida south of and including Hernando, Sumter, Lake, and Volusia counties.

C. Articles and Commodities Covered.

(Additional Hosts, See Appendix I)

1. The fruit or berries of all plants listed below are declared to be hosts and possible carriers of the Caribbean fruit fly.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akee</td>
<td><em>Blighia sapida</em></td>
</tr>
<tr>
<td>Allspice</td>
<td><em>Pimenta dioica</em></td>
</tr>
<tr>
<td>Apple</td>
<td><em>Malus sylvestris</em></td>
</tr>
<tr>
<td>Avocado, except</td>
<td><em>Persea americana</em></td>
</tr>
<tr>
<td>commercial fruit</td>
<td></td>
</tr>
<tr>
<td>Barbados Cherry</td>
<td><em>Malpighia glabra</em></td>
</tr>
<tr>
<td>Bell Pepper, except</td>
<td><em>Capsicum frutescens</em></td>
</tr>
<tr>
<td>commercial fruit</td>
<td></td>
</tr>
<tr>
<td>Blackberry</td>
<td><em>Rubus hybrid</em></td>
</tr>
<tr>
<td>Box Orange</td>
<td><em>Severinia buxifolia</em></td>
</tr>
<tr>
<td>Calabur</td>
<td><em>Muntingia calabura</em></td>
</tr>
<tr>
<td>Calamondin</td>
<td><em>X Citrofortunella mitis</em></td>
</tr>
<tr>
<td>Carambola</td>
<td><em>Averrhoa carambola</em></td>
</tr>
<tr>
<td>Ceylon Gooseberry</td>
<td><em>Dovyalis hebecarpa</em></td>
</tr>
<tr>
<td>Cherry of the</td>
<td><em>Eugenia aggregata</em></td>
</tr>
<tr>
<td>Rio Grande</td>
<td></td>
</tr>
<tr>
<td>Cocoplum</td>
<td><em>Chrysolbalanus icaco</em></td>
</tr>
<tr>
<td>Egg Fruit</td>
<td><em>Pouteria campeachiana</em></td>
</tr>
<tr>
<td>Fig</td>
<td><em>Ficus carica</em></td>
</tr>
<tr>
<td>Governor's Plum</td>
<td><em>Flacourtia indica</em></td>
</tr>
<tr>
<td>Grapefruit</td>
<td><em>Citrus paradisi</em></td>
</tr>
<tr>
<td>Grumichama</td>
<td><em>Eugenia brasiliensis</em></td>
</tr>
<tr>
<td>Guava (all)</td>
<td><em>Psidium spp.</em></td>
</tr>
<tr>
<td>Guiana Plum</td>
<td><em>Drypetes lateriflora</em></td>
</tr>
<tr>
<td>Imbe</td>
<td><em>Garcinia livingstonei</em></td>
</tr>
<tr>
<td>Jaboticaba</td>
<td><em>Myrciaria cauliflora</em></td>
</tr>
<tr>
<td>Jambolan Plum</td>
<td><em>Syzygium cumini</em></td>
</tr>
<tr>
<td>Japanese Pear</td>
<td><em>Pyrus pyrifolia</em></td>
</tr>
<tr>
<td>Japanese Persimmon</td>
<td><em>Diospyros kaki</em></td>
</tr>
<tr>
<td>Java Apple</td>
<td><em>Syzygium samarangense</em></td>
</tr>
<tr>
<td>Kei Apple</td>
<td><em>Dovyalis caffra</em></td>
</tr>
<tr>
<td>Kieffer Pear</td>
<td><em>Pyrus pyrifolia x</em></td>
</tr>
<tr>
<td>Kiwi</td>
<td><em>Pyrus communis</em></td>
</tr>
<tr>
<td>Kumquat</td>
<td><em>Actinidia chinensis</em></td>
</tr>
<tr>
<td>Kumquat (oval)</td>
<td><em>Fortunella crassifolia</em></td>
</tr>
<tr>
<td>Lime</td>
<td><em>Fortunella margarita</em></td>
</tr>
<tr>
<td>Limeberry</td>
<td><em>Citrus aurantifolia</em></td>
</tr>
<tr>
<td>Limequat</td>
<td><em>Triphasia trifolia</em></td>
</tr>
<tr>
<td>Longan, except</td>
<td><em>X Citrofortunella floridana</em></td>
</tr>
<tr>
<td>commercial fruit</td>
<td></td>
</tr>
<tr>
<td>Loquat</td>
<td></td>
</tr>
<tr>
<td>Lychee, except</td>
<td><em>Dimocarpus longan</em></td>
</tr>
<tr>
<td>commercial fruit</td>
<td><em>Eriobotrya japonica</em></td>
</tr>
<tr>
<td>Mango</td>
<td><em>Litchi chinensis</em></td>
</tr>
<tr>
<td>Miracle Fruit</td>
<td><em>Mangifera indica</em></td>
</tr>
<tr>
<td>Natal Plum</td>
<td><em>Synepalum dulcificum</em></td>
</tr>
<tr>
<td>Nectarine</td>
<td><em>Carissa grandiflora</em></td>
</tr>
<tr>
<td>Orange Jasmine</td>
<td><em>Prunus persica</em></td>
</tr>
<tr>
<td>Jack Orangequat</td>
<td><em>Murraya paniculata</em></td>
</tr>
<tr>
<td>Otaheite Apple</td>
<td><em>Citrus nobilis 'unshu' x Fortunella sp.</em></td>
</tr>
<tr>
<td>Papaya</td>
<td><em>Spondias dulcis</em> (=S. cytherea)</td>
</tr>
<tr>
<td>Peach</td>
<td><em>Carica papaya</em></td>
</tr>
<tr>
<td>Pear</td>
<td><em>Prunus persica</em></td>
</tr>
<tr>
<td>Pitomba</td>
<td><em>Pyrus communis</em></td>
</tr>
<tr>
<td>Pomegranate</td>
<td><em>Eugenia luschnathiana</em></td>
</tr>
<tr>
<td>Pond Apple</td>
<td><em>Punica granatum</em></td>
</tr>
<tr>
<td>Rangpur Lime</td>
<td><em>Annona glabra</em></td>
</tr>
<tr>
<td>Rose Apple</td>
<td><em>Citrus limon</em></td>
</tr>
<tr>
<td>Sapodilla</td>
<td><em>Syzzygium jambos</em></td>
</tr>
<tr>
<td>Sour Orange</td>
<td><em>Manilkara zapota</em></td>
</tr>
<tr>
<td>Sugar Apple</td>
<td><em>Citrus aurantiflora</em></td>
</tr>
<tr>
<td>Surinam Cherry</td>
<td><em>Annona squamosa</em></td>
</tr>
<tr>
<td>Sweet Lemon</td>
<td><em>Eugenia uniflora</em></td>
</tr>
<tr>
<td>Sweet Orange</td>
<td><em>Citrus limetta</em></td>
</tr>
<tr>
<td>Tangelo</td>
<td><em>Citrus sinensis</em></td>
</tr>
<tr>
<td>Tangerine</td>
<td><em>Citrus paradisi x</em></td>
</tr>
<tr>
<td>Temple Orange</td>
<td><em>Citrus reticulata</em></td>
</tr>
<tr>
<td>Tomato, except</td>
<td><em>Citrus reticulata Blanco</em></td>
</tr>
<tr>
<td>commercial fruit</td>
<td><em>Citrus sinensis x</em></td>
</tr>
<tr>
<td>Tropical Almond</td>
<td><em>Lycopersicon esculentum</em> (=L. lycopersicum)</td>
</tr>
<tr>
<td>Velvet Apple or</td>
<td><em>Terminalia catappa</em></td>
</tr>
<tr>
<td>Velvet Persimmon</td>
<td><em>Diospyros blancoi</em></td>
</tr>
<tr>
<td>Wampi</td>
<td><em>Clausena lansium</em></td>
</tr>
<tr>
<td>White Sapote</td>
<td><em>Casimiroa edulis</em></td>
</tr>
<tr>
<td>Wild Balsam Apple</td>
<td><em>Momordica charantia</em></td>
</tr>
<tr>
<td>Wild Cinnamon</td>
<td><em>Canella winteriana</em></td>
</tr>
<tr>
<td>Wild Dilly</td>
<td><em>Manilkara jainqui ssp. emergenata</em></td>
</tr>
<tr>
<td>Annona hybrid</td>
<td><em>Annona hybrid</em></td>
</tr>
<tr>
<td>Atalantia citriodes</td>
<td><em>Eugenia coronata</em></td>
</tr>
<tr>
<td>Momordica charantia</td>
<td><em>Eugenia ligustrina</em></td>
</tr>
<tr>
<td>Canella冬天iana</td>
<td><em>Ficus altissima</em></td>
</tr>
<tr>
<td>Manilkara roxburghiana</td>
<td><em>Garcinia xanthochymus</em></td>
</tr>
<tr>
<td>Myrcianthes fragrans</td>
<td><em>Manilkara roxburghiana</em></td>
</tr>
<tr>
<td>Myrciaria glomerata</td>
<td><em>Myrcianthes fragrans</em></td>
</tr>
<tr>
<td>Pseudanamomis umbellulifera</td>
<td><em>Myrciaria glomerata</em></td>
</tr>
<tr>
<td>Rheedia aristata</td>
<td><em>Pseudanamomis umbellulifera</em></td>
</tr>
<tr>
<td>Terminalia muelleri</td>
<td><em>Rheedia aristata</em></td>
</tr>
<tr>
<td>Trevisia palmata</td>
<td><em>Terminalia muelleri</em></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Soil or planting media within the drip area of plants producing, or which have produced, fruit of the plants listed in (1) above.

3. Exemptions. The following are exempt from provisions of this regulation:
   (A) Green sour lime fruit which shows no yellow coloring.
   (B) Lemons regardless of color.

D. Restrictions. Articles and commodities covered are prohibited entry into California from the area under quarantine, except as provided below:

1. Articles and Commodities Covered Admissible When Treated at Origin. Articles and commodities covered are admissible into California from the area under quarantine provided each lot or shipment is accompanied by a certificate issued by an authorized representative of the origin State Department of Agriculture or the United States Department of Agriculture affirming that the lot or shipment was treated for Caribbean fruit fly, prior to shipment and under supervision of the origin State Department of Agriculture or the United States Department of Agriculture, in a manner approved by the Secretary of the Department of Food and Agriculture and was not exposed to reinestation by the fly.

CARIBBEAN FRUIT FLY FLORIDA INFESTED COUNTIES
APPENDIX A 08-02-80

<table>
<thead>
<tr>
<th>County</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brevard</td>
<td>Manatee</td>
</tr>
<tr>
<td>Broward</td>
<td>Martin</td>
</tr>
<tr>
<td>Charlotte</td>
<td>Monroe</td>
</tr>
<tr>
<td>Collier</td>
<td>Okeechobee</td>
</tr>
<tr>
<td>Dade</td>
<td>Orange</td>
</tr>
<tr>
<td>De Soto</td>
<td>Osceola</td>
</tr>
<tr>
<td>Glades</td>
<td>Palm Beach</td>
</tr>
<tr>
<td>Hardee</td>
<td>Pasco</td>
</tr>
<tr>
<td>Henry</td>
<td>Pinellas</td>
</tr>
<tr>
<td>Hernando</td>
<td>Polk</td>
</tr>
<tr>
<td>Highlands</td>
<td>Saint Lucie</td>
</tr>
<tr>
<td>Hillsborough</td>
<td>Sarasota</td>
</tr>
<tr>
<td>Indian River</td>
<td>Seminole</td>
</tr>
<tr>
<td>Lake</td>
<td>Sumter</td>
</tr>
<tr>
<td>Lee</td>
<td>Volusia</td>
</tr>
</tbody>
</table>

GUAVA, MANGO, AND PAPAYA
APPENDIX B 08-11-80
Florida officials notified us that all commercial guava, mango, and papaya fruit originating in Florida would be grown in the Caribbean fruit fly infested southern part of the state. This material should be rejected unless certified treated. Exceptions could be backyard grown fruit that the owner asserts originated from a noninfested county or green mangoes (see APPENDIX. G).

MASTER PERMIT FOR THE SHIPMENT OF CITRUS FRUIT TO CALIFORNIA FROM FLORIDA
APPENDIX C 01-30-15

Master Permit No. QC 222 has been reissued to the Florida Department of Agriculture and Consumer Services (FDACS) to authorize Florida businesses to ship citrus fruit (grapefruits, oranges, tangelos, and tangerines only), grown in Florida in areas certified free of Caribbean fruit fly, shipped to California without fumigation or cold treatment.

Certification: An additional declaration shall be placed on the phytosanitary certificate or USDA Fruit and Vegetable Citrus Certificate stating: “Meets the requirements of California Master Permit No. QC 222.” The certificate must also contain the designated Caribbean Fruit Fly area numbers. The certificate shall have the numbers of boxes of fruit from each designated area included in the shipment as well as the name of the approved shipper and the shipper’s assigned identification number.

Standard boxes: Caribbean Fruit Fly certification with the term “designated area” and a corresponding number shall appear on the top surface of the carton.

Gift Pack Shipments: Must meet all of the following requirements.

a. Gift packs containing Florida origin citrus must be accompanied (on the box or the accompanying paperwork) by a Federal Shield or other USDA approved stamp/sticker indicating the citrus fruit is certified for applicable federal quarantines.

b. Each carton must be marked indicating the fruit “Meets the requirements of California Master Permit No. QC 222” and that it must be held for inspection.

c. Each shipper must appear on the Master Permit No. QC 222 Approved Gift Pack Shippers List (available on the PHPPS Extranet site under Quarantine Commodity Permits).

TREATMENTS
APPENDIX D 03-07-17

COLD TREATMENTS

Quarantine cold treatments for certain commodities are acceptable. Cold treatment schedules are found in the USDA Treatment Manual. Acceptable cold treatment schedules are T107-a-1 and T107-c, and are summarized as follows:

T107-a-1
Apple, cherry, kiwi, nectarine, peach, pear, plum, pomegranate
34 °F (1.11 °C) or below 15 days
35 °F (1.67 °C) or below 17 days
T107-c
Apple, carambola, cherry, pomegranate
32 °F (0 °C) or below 11 days
33 °F (0.6°C) or below 13 days
34 °F (1.1°C) or below 15 days
35 °F (1.7°C) or below 17 days

IRRADIATION TREATMENT

The approved irradiation schedule is found in the USDA Treatment Manual. The acceptable irradiation treatment schedule for Caribbean Fruit Fly host material is:

T105, Table 5-2-4 (IR@70Gy minimum)

FUMIGATION TREATMENT

<table>
<thead>
<tr>
<th>Carambola: Methyl bromide fumigation treatment for carambola only. The acceptable treatment schedule for Caribbean fruit fly (carambola only) is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 g/m³ for 2 h (temperature 23 ± 1aC)</td>
</tr>
</tbody>
</table>

Note: The treatment reduces shelf life by 24-30% and 10ppb residues were not detected after 2 hours at 23C.

Phytosanitary certificates for the above listed commodities must state an acceptable quarantine treatment temperature/time duration in the certificate treatment section.

Citrus: For citrus fruit (grapefruits, oranges, tangelos, and tangerines only), grown in Florida in areas not certified free of Caribbean fruit fly, California will accept methyl bromide fumigation treatment at a minimum rate of 2.5 lbs/1000 cubic ft. for 2 hours at 70 °F and above. Also, as per the guidance in the federal treatment manual, the lot of Citrus sp. shall only be eligible for fumigation if a representative sample of the fruit is inspected and the level of fruit infested with fruit flies is less than 0.5% for the lot.

DEFINITION OF COMMERCIAL FRUIT

APPENDIX E 12-12-96

Commercial fruit means that fruit which has been commercially produced, cleaned, sorted and packed. The foregoing results in fruit that is free of splits or cracks, among other things, and thus without risk of harboring Caribbean fruit fly.

MAMEY COLORADO

APPENDIX F 04-21-99

Mamey colorado, Pouteria sapota, (a.k.a. mamey sapote) fruit, when certified as grown and harvested in Florida from commercial or backyard sources, is allowed into California. Studies conducted by USDA’s Agricultural Research Service have been interpreted as demonstrating that this fruit is not a host for Caribbean fruit fly in Florida.

IMMATURE MANGOS

APPENDIX G 04-22-03

Untreated, Florida-grown immature mangos are enterable into California during the period each year from April 15 through July 31, provided they meet the following criteria:

1. Mangos must have flesh that is white, cream, or very light yellow in color. Peel color will vary, and will not necessarily be green.
2. Mangos must be no more than two thirds the full normal size and weight of mature fruit.
3. The sides and shoulder of the fruit must not be fully developed (swollen).
4. The fruit must be accompanied a Florida phytosanitary certificate with the following additional declaration: “The immature mangos in this shipment were harvested prior to July 31 of the current year.”

APPROVED FLORIDA COMMERCIAL LITCHI & LONGAN SHIPPERS

APPENDIX H 08-22-16

Growers/Packers/Shippers (Location)

AEG Trading Co., Inc. Chee “Max” Tun (Homestead)
Bee Heaven Farm, MJ and SM Pikarsky (Homestead)
Best Florida Produce (Miami)
Brother Farm, Suhong Wu, (Homestead)
Chen-Wan & Kwong Lung Chiou (Loxahatchee)
Cook’s Grove, Regis Cook (Miami)
Daniel J. Hodgman (Miami)
Double Green Farms, Mike Chow (Homestead)
Ely & Syphya Ham (Homestead)
Fresh King, Inc., Peter Schnebly (Homestead)
Global Organic Specialty Source (Sarasota)
Green Groves Farm (Homestead)
Green Groves Organic Farm (Homestead)
J & C Trotopals, Nibaldo Capote, (Miami)
JLS Litchi Farm, Mean Saniny (Miami)
Kam Tai Farms, Choy Thay Chau (Homestead)
Keith Rowe (Homestead)
Khemara Farms (Homestead)
Laub Groves, Charles Laub (Homestead)
Leal Farms (Princeton)
LNB Groves, Marc Ellenby (Homestead)
Lychee Fruit Store, Pete Jaschinski (Loxahatchee)
New Asian Tropical Produce LLC, (Homestead)
New Limeco LLC (Princeton)
OK Farms, Gigi Lao (Homestead)
Perez Groves, Maria Perez (Miami)
Richard Quigley (Homestead)
Season’s Farm Fresh, Inc. (Homestead)
Steven Green (Homestead)
Sun Harvest Trotopals, LLC (Miami)
Sunshine Groves (Homestead)
Triple 8 Trading Int'l Corp., Frederick Woo (Miami)
Tron Dawdon, Tron & Joe Dawson (Homestead)
Unity Groves (Homestead)
Vega Produce LLC, Angel Jaime (Doral, FL)
William B. Malaney (Homestead)
ADDITIONAL HOSTS

APPENDIX I

10-29-15

The following are known hosts for Caribbean fruit fly and should be rejected under the authority of California FAC, Section 6461.5 unless treated as outlined in Section D.1. of this quarantine. Note: There are many common names for scientific names. This list is not inclusive of all common names and common names should be verified.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambarella</td>
<td>Spondias cytherea</td>
</tr>
<tr>
<td>Apple</td>
<td>Annona cherimola, Malus spp.</td>
</tr>
<tr>
<td>Atemoya</td>
<td>Annona squamosa</td>
</tr>
<tr>
<td>Autumn Maple Tree</td>
<td>Bischofia javanica</td>
</tr>
<tr>
<td>Balsam Apple</td>
<td>Momordica balsamina</td>
</tr>
<tr>
<td>Bell Pepper (except commercial fruit)</td>
<td>Capsicum annuum</td>
</tr>
<tr>
<td>Birchberry</td>
<td>Eugenia ligustrina</td>
</tr>
<tr>
<td>Brazil Cherry</td>
<td>Eugenia dombeyi</td>
</tr>
<tr>
<td>Cabecluda</td>
<td>Plinia glomerata</td>
</tr>
<tr>
<td>Citrus</td>
<td>Citrus</td>
</tr>
<tr>
<td>Clementine</td>
<td>Citrus reticulata</td>
</tr>
<tr>
<td>Custard Apple, Sugar Apple</td>
<td>Annona squamosa, Annona reticulata</td>
</tr>
<tr>
<td>Date Palm</td>
<td>Phoenix dactylifera</td>
</tr>
<tr>
<td>Garcinia aristata</td>
<td>Garcinia aristata</td>
</tr>
<tr>
<td>Garcinia</td>
<td>Garcinia spp.</td>
</tr>
<tr>
<td>Hog Plum</td>
<td>Spondias mombin</td>
</tr>
<tr>
<td>Jamboisier Rouge</td>
<td>Eugenia pyriformis</td>
</tr>
<tr>
<td>Kumquat</td>
<td>Fortunella spp.</td>
</tr>
<tr>
<td>Kumquat (round)</td>
<td>Fortunella japonica</td>
</tr>
<tr>
<td>Kumquat, Meiwa</td>
<td>Fortunella x crassifolia</td>
</tr>
<tr>
<td>Malay Apple</td>
<td>Syzygium lalaccense</td>
</tr>
<tr>
<td>Mandarin</td>
<td>Citrus reticulata</td>
</tr>
<tr>
<td>Mangosteen</td>
<td>Garcinia mangostana</td>
</tr>
<tr>
<td>Mombin, Purple</td>
<td>Spondias purpurea</td>
</tr>
<tr>
<td>Mombin</td>
<td>Spondias spp.</td>
</tr>
<tr>
<td>Murraya</td>
<td>Murraya spp.</td>
</tr>
<tr>
<td>Natal Plum</td>
<td>Carissa macrocarpa</td>
</tr>
<tr>
<td>Orange</td>
<td>Citrus sinensis</td>
</tr>
<tr>
<td>Panama Orange</td>
<td>Citrofortunella mitis</td>
</tr>
<tr>
<td>Paradise Apple</td>
<td>Malus pumila</td>
</tr>
<tr>
<td>Persimmon</td>
<td>Diospyros virginiana</td>
</tr>
<tr>
<td>Plum</td>
<td>Prunus domestica</td>
</tr>
<tr>
<td>Plum, Japanese</td>
<td>Prunus salicina</td>
</tr>
<tr>
<td>Pummelo</td>
<td>Citrus maxima</td>
</tr>
<tr>
<td>Raspberry</td>
<td>Rubus idaeus</td>
</tr>
<tr>
<td>Sapodilla</td>
<td>Achras zapota</td>
</tr>
<tr>
<td>Satinleaf, Damson-plum</td>
<td>Chrysophyllum oliviforme</td>
</tr>
<tr>
<td>Sea-grape</td>
<td>Coccoloba uviferia</td>
</tr>
<tr>
<td>Shaddock</td>
<td>Citrus grandis</td>
</tr>
<tr>
<td>Snowflake Aralia</td>
<td>Trevesia palmata</td>
</tr>
<tr>
<td>Star Apple</td>
<td>Chrysophyllum cainito</td>
</tr>
<tr>
<td>Syzygium</td>
<td>Syzygium spp.</td>
</tr>
<tr>
<td>Triphasia</td>
<td>Triphasia spp.</td>
</tr>
<tr>
<td>Wild Coffee</td>
<td>Casearia hirsuta</td>
</tr>
<tr>
<td>Wild Dilly</td>
<td>Eugenia spp.</td>
</tr>
</tbody>
</table>