

Section 3445. Queensland Fruit Fly Interior Quarantine

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

A. Pest. The Queensland Fruit Fly *Bactrocera tryoni*.

B. Area Under Quarantine.

- 1. An area shall be designated as under quarantine** when survey results indicate an infestation is present, the Department has defined the infested area, and the local California County Agricultural Commissioner(s) is notified and requests the quarantine area be established. The Department shall also provide electronic and/or written notification of the area designation(s) to other California County Agricultural Commissioners and other interested or affected parties and post the area description to its website at: <https://www.cdfa.ca.gov/plant/qff/regulation.html>. An interested party may also go to the website and elect to receive automatic notifications of any changes in quarantine areas through the list serve option.
 - a. An infestation is present when:** (a) Either eggs, a larva, a pupa, a mated female or two or more adult Queensland fruit flies of either sex are detected within three miles of each other and within one life cycle.
 - b. Satellite infestations.** Notwithstanding (b)(4), a detection of a single life stage of Queensland Fruit Fly within any established quarantine area may be considered a satellite infestation and may be used as the epicenter using an additional 4.5-mile radius surrounding the detection to expand the quarantine area.
- 2. The initial area under quarantine shall be a minimum of a 4.5-mile** radius surrounding the detections being used as an epicenter. Commercial host properties shall not be split by the quarantine boundary line and the boundary line shall be expanded beyond the 4.5 miles as necessary to encompass such host material in its entirety. Wherever possible, known accepted mapping features, including, but not limited to, roads, streets, highways, creeks, streams, rivers, canals, city, county, state, park, and forest boundary lines are used first, and if there are no acceptable features such as these,

then imaginary lines with or without latitude and longitude points may be used.

3. **Any interested party or local entity may appeal** an area designation by submission to the Department of a written request for review of the designation accompanied by clear and convincing evidence justifying a change in the designation. The appeal must be submitted to the Department's Legal Office at 1220 N Street, Suite 315, Sacramento, CA 95814 or emailed to CDFA.LegalOffice@cdfa.ca.gov no later than ten (10) working days following publication of the notice of designation. The Department must respond with a written decision no later than ten (10) working days following receipt of the appeal. During the pending of the appeal, the designation under appeal shall remain in effect.
4. **The infested area designation shall be removed** if no additional life stages are detected by trapping or visual surveys for three life cycles after the last detection that triggered the quarantine. Subsequent detections within the quarantine area that are more than three miles from, or one lifecycle after, the detections triggering the quarantine will not affect the area or duration of the quarantine unless they meet the criteria in subsection (b)(1)(A).
5. **The time determined for Queensland Fruit Fly to complete three life cycles** begins from the date of the most recent detection and is measured by a life cycle estimate. A life cycle estimate is an assessment of insect development based on a model derived from the temperatures recorded for each day at the time and in the area of an infestation. Daily minimum and maximum temperatures are used to produce an interpolated temperature curve over each 24-hour period and a calculation of how much time is above and below a base developmental (minimum) temperature needed for insect development. This information is used to estimate the time period necessary for the completion of one full lifecycle of Queensland Fruit Fly under the specific local and temporal circumstances. The total amount of heat required to develop from one stage to another is calculated in units called degree-days. If the average temperature in 24 hours is one degree higher than the

minimum temperature required for a particular pest, one degree-day's temperature is accumulated in the life cycle estimate. Accumulating degree-days is used to determine the generation time. For Queensland Fruit Fly, the Department uses 826 degree-days Fahrenheit as the length of one life cycle.

C. Articles and Commodities Covered. The following are declared to be hosts and possible carriers of Queensland Fruit Fly.

1. All fruit, vegetables, pericarp of nuts, seeds, or berries of the following:

Scientific Name	Host Name
<i>Acca sellowiana</i> (O. Berg) Burret	Pineapple Guava
<i>Actinidia deliciosa</i> (A. Chev.) C.F. Liang & A.R. Ferguson	Kiwifruit
<i>Anacardium occidentale</i> L.	Cashew
<i>Annona cherimola</i> Mill.	Cherimoya
<i>Annona muricata</i> L.	Soursop
<i>Annona reticulata</i> L.	Bullock's Heart
<i>Annona</i> sp.	
<i>Annona squamosa</i> L.	Custard-Apple
<i>Artocarpus altilis</i> (Parkinson) Fosberg	Breadfruit
<i>Artocarpus heterophyllus</i> Lam.	Jackfruit
<i>Asimina triloba</i> (L.) Dunal	Pawpaw
<i>Averrhoa carambola</i> L.	Carambola
<i>Barringtonia asiatica</i> (L.) Kurz	Fish Killer Tree
<i>Barringtonia edulis</i>	Pau Nut
<i>Calophyllum inophyllum</i> L.	Alexandrian Laurel
<i>Cananga odorata</i> (Lam.) Hook. f & Thomson	Ylang Ylang Tree
<i>Canarium vulgare</i> Leenh.	Chinese Olive
<i>Capsicum annuum</i> L.	Chile/Sweet Pepper
<i>Carica papaya</i> L.	Papaya
<i>Casimiroa edulis</i> LaLlave & Lex.	White Sapote
<i>Chrysophyllum cainito</i> L.	Star Apple
<i>Citrus aurantiifolia</i> (Christm.) Swingle	Keys Lime
<i>Citrus latifolia</i> (Yu. Tanaka) Tanaka	Persian lime
<i>Citrus limon</i> (L.) Burm. F	Lemon*
<i>Citrus maxima</i> (Burm.) Merr	Pomelo
<i>Citrus medica</i> L.	Citron
<i>Citrus xparadisi</i> Macfad.	Grapefruit
<i>Citrus reticulata</i> Blanco	Mandarin

<i>Citrus sinensis</i> (L.) Osbeck	Orange
<i>Citrus xtangelo</i> J.W. Ingram & H.E. Moore	Tangelo
<i>Coffea</i> sp.	Coffee
<i>Cucurbita pepo</i> L.	Acorn Squash
<i>Cydonia oblonga</i> Mill.	Quince
<i>Dimocarpus longan</i> Lour.	Longan
<i>Diospyros bicolor</i> (=D. <i>mespiliformis</i>)	Jackalberry
<i>Diospyros digyna</i> Jacq.	Black Sapote
<i>Diospyros kaki</i> Thunb.	Japanese Persimmon
<i>Diospyros mespiliformis</i> Hochst. Ex A. DC.	Jackalberry
<i>Diospyros</i> sp.	Persimmon
<i>Durio zibethinus</i> L.	Durian
<i>Eriobotrya japonica</i> (Thunb. Lindl.)	Loquat
<i>Eugenia brasiliensis</i> Lam	Brazil-cherry
<i>Eugenia uniflora</i> L.	Surinam-cherry
<i>Ficus carica</i> L.	Common Fig
<i>Ficus pancheriana</i> Bureau	Pancher's Fig
<i>Ficus</i> sp.	Fig
<i>Fortunella japonica</i> (Thunb.) Swingle	Round Kumquat
<i>Fragaria xananassa</i> Duchesne ex Rozier	Garden Strawberry
<i>Fragaria vesca</i> L.	European Strawberry
<i>Garcinia mangostana</i> L.	Mangosteen
<i>Hernandia cordigera</i> Vieill.	Bois Bleu
<i>Hylocereus undatus</i> (Haw.) Britton & Rose	Dragon Fruit
<i>Inocarpus fagiferus</i> (Parkinson) Fosberg	Tahiti Chestnut
<i>Litchi chinensis</i> Sonn.	Litchi
<i>Malpighia glabra</i> L.	Acerola
<i>Malus domestica</i> Borkh.	Apple
<i>Mangifera indica</i> L.	Mango
<i>Manilkara zapota</i> (L.) P. Royen	Sapodilla
<i>Mimusops elengi</i> L.	Medlar
<i>Morinda citrifolia</i> L.	Canary Wood
<i>Morus alba</i> L.	Russian Mulberry
<i>Musa xparadisiaca</i> L.	Edible Banana
<i>Musa</i> sp.	Banana
<i>Musa troglodytarum</i> L.	Fe'i Banana
<i>Nephelium lappaceum</i> L.	Rambutan
<i>Opuntia ficus-indica</i> (L.) Mill.	Mission Prickly-Pear
<i>Passiflora edulis</i> Sims	Passionfruit
<i>Passiflora laurifolia</i> L.	Yellow Granadilla
<i>Passiflora quadrangularis</i> L.	Giant Granadilla
<i>Persea americana</i> Mill.	Avocado**

<i>Phoenix dactylifera</i> L.	Date Palm
<i>Phyllanthus acidus</i> (L.) Skeels	Gooseberry Tree
<i>Physalis peruviana</i> L.	Cape Gooseberry
<i>Planchonella sphaerocarpa</i> (Baill.) Dubard	
<i>Plinia cauliflora</i> (Mart.) Kausel	Brazilian Grapetree
<i>Pometia pinnata</i> J.R. Forst. & G. Forst.	Pacific Lychee
<i>Pouteria caimito</i> (Ruiz & Pav.) Radlk.	Caimito
<i>Prunus americana</i> Marshall	American Plum
<i>Prunus armeniaca</i> L.	Apricot
<i>Prunus avium</i> (L.) L.	Sweet Cherry
<i>Prunus xdomestica</i> L.	European Plum
<i>Prunus persica</i> (L.) Batsch	Peach
<i>Prunus persica</i> (L.) Batsch var. <i>nucipersica</i> (Suckow) C.K. Schneid.	Nectarine
<i>Prunus simonii</i> Carriere	Apricot Plum
<i>Psidium acutangulum</i> DC.	
<i>Psidium cattleyanum</i> Sabine	Cattley Guava
<i>Psidium cattleyanum</i> Sabine var. <i>littorale</i> (Raddi) Fosberg	Strawberry Guava
<i>Psidium friedrichsthalianum</i> (O. Berg) Nied.	Costa Rican Guava
<i>Psidium guajava</i> L.	Guava
<i>Punica granatum</i> L.	Pomegranate
<i>Pyriluma sphaerocarpum</i> (Baill.) Aubrev	
<i>Pyrus communis</i> L.	Pear
<i>Pyrus pyrifolia</i> (Burm. F.) Nakai var. <i>culta</i> (Makino) Nakai	Asian Pear
<i>Rubus fruticosus</i>	Blackberry
<i>Rubus idaeus</i> L.	Raspberry
<i>Rubus xloganobaccus</i> L.H. Bailey	Loganberry
<i>Sandoricum koetjape</i> (Burm.f.) Merr.	Santol
<i>Solanum betaceum</i> Cav.	Tree Tomato
<i>Solanum lycopersicum</i> L. var. <i>lycopersicum</i>	Tomato
<i>Solanum mauritianum</i> Scop.	Bugtree
<i>Solanum melongena</i> L.	Eggplant
<i>Solanum muricatum</i> Aiton	Pepino
<i>Spondias dulcis</i> Sol. Ex Parkinson	Juneplum
<i>Spondias mombin</i> L.	Hog Plum
<i>Synsepalum dulcificum</i> (Schumach.) Daniell	Miracle Fruit
<i>Syzygium cumini</i> (L.) Skeels	Jambolan
<i>Syzygium jambos</i> (L.) Alston	Rose-Apple
<i>Syzygium malaccense</i> (L.) Merr. & L.M. Perry	Malay-Apple
<i>Syzygium samarangense</i> (Blume) Merr. & L.M. Perry	Java-Apple

<i>Terminalia catappa</i> L.	Tropical Almond
<i>Thevetia peruviana</i> (Pers.) K. Schum	Yellow Oleander
<i>Vaccinium corymbosum</i> L.	Blueberry
<i>Vasconcellea xheilbornii</i> (V.M. Badillo) V.M. Badillo	Babaco
<i>Vitis vinifera</i> L.	European Grape
<i>Ximenia americana</i> L.	False Sandalwood
<i>Ziziphus jujuba</i> Mill.	Chinese Jujube
<i>Ziziphus mauritiana</i> Lam.	Chinese-Apple

Note:

* Unripe (green) Eureka lemons are NOT a host.

** Fresh, mature green variety 'Hass' avocados are a conditional host.

2. Soil within the drip area of plants producing, or which have produced, fruit or berries as listed in [Title 3 California Code of Regulations Section 3591.27 \(b\)\(1\)](#) and above.
3. Any other product, article, or means of conveyance when it is determined by the Secretary or County Agricultural Commissioner to present a hazard of spreading live life stages of Queensland Fruit Fly and the person in possession thereof has been so notified, either by public notice, written communication, or verbally by a county, state, or federal agricultural official;

D. Restrictions.

1. **At the wholesale level, articles and commodities covered in subsection (C) are prohibited movement within or from the area under quarantine** except as provided in (a) or (b) below:
 - a. If the article or commodity has been treated in a manner to eliminate Queensland Fruit Fly, is transported in a manner to preclude exposure to Queensland Fruit Fly, and is accompanied by a written certificate issued by an authorized State or county agricultural official affirming compliance with this subsection; or,
 - b. The article or commodity is moving for treatment or processing to eliminate Queensland Fruit Fly, is transported in a manner to preclude exposure to any Queensland Fruit Fly *and* is accompanied by a written certificate issued by an authorized State or county agricultural official affirming such movement has been authorized under this subsection.

2. **At the wholesale level, articles and commodities covered in subsection (C) which have been commercially produced outside the area under quarantine** are prohibited movement into the area under quarantine except when accompanied by a shipping document indicating the point of origin and destination and moved in compliance with (a), (b) or (c) below:
 - a. If the article or commodity is moving directly through the area under quarantine without stopping except as dictated by traffic controls and by a direct route in an enclosed vehicle or container or completely enclosed by a covering to prevent exposure to the Queensland Fruit Fly while enroute through the area; or,
 - b. The article or commodity is destined to a wholesale or retail establishment within the quarantined area and, if moving between 9 a.m. and sunset, is transported in an enclosed vehicle or container or completely enclosed by a covering to prevent exposure to Queensland Fruit Fly; or
 - c. The article or commodity is destined to a commercial processing facility.
3. **At the retail level, articles and commodities covered which have been commercially produced are prohibited movement from or within the area under quarantine** except when the person in possession has a proof of sale showing the commodity was purchased from a commercial establishment.
4. **Articles and commodities covered which have been noncommercially produced within the area under quarantine**, including “backyard” production, are prohibited movement from the premises where grown except under written authorization of the Department or County Agricultural Commissioner.
5. **Articles and commodities covered which have been noncommercially produced outside the area under quarantine** are prohibited movement into the area under quarantine except when the person in possession has signed a statement showing the commodity, amount, origin, destination, and date of transportation.
6. **Within the area under quarantine, no wholesale or retail establishment**

shall handle, sell, or offer for sale any article or commodity covered unless such commodities at all times are maintained securely indoors or covered to minimize exposure to the environment in a manner to effectively preclude Queensland Fruit Fly access. No commodity covered shall be held for sale or sold from a truck, trailer, or other mobile vehicle.

Note: Authority cited: Sections 407, 5301, 5302 and 5322, Food and Agricultural Code. Reference: Sections 5301, 5302 and 5322, Food and Agricultural Code.