

FINDING OF EMERGENCY

The Secretary of the Department of Food and Agriculture finds that an emergency exists, and that the foregoing regulation is necessary for the immediate preservation of the public peace, health and safety, or general welfare. On October 29, 2014, Caribbean fruit fly, (*Anastrepha suspensa*), was unexpectedly trapped in Ventura County, in the Thousand Oaks area. This is the first time Caribbean fruit fly has been detected in Ventura County.

The Secretary is proposing to adopt this regulation pursuant to the authority in Food and Agricultural Code (FAC) Section 407, “the director may adopt such regulations as are reasonably necessary to carry out the provisions of this code which he is directed or authorized to administer or enforce,” and FAC Section 5322, “the director may establish, maintain, and enforce quarantine, eradication, and such other regulations as are in his or her opinion necessary to circumscribe and exterminate or prevent the spread of any pest which is described in FAC Section 5321.”

Additionally, FAC Section 401.5 states, “the department shall seek to protect the general welfare and economy of the state and seek to maintain the economic well-being of agriculturally dependent rural communities in this state” and Section 403 states, “the department shall prevent the spread of injurious insect pests.”

Emergency Defined

“Emergency’ means a situation that calls for immediate action to avoid serious harm to the public peace, health, safety, or general welfare,” Government Code Section 11342.545. If a state agency makes a finding that the adoption of a regulation is necessary to address an emergency, the regulation may be adopted as an emergency regulation, per Government Code Section 11346.1(b)(1).

In this document the Department is providing the necessary specific facts demonstrating the existence of an emergency and the need for immediate action to prevent serious harm

to the general welfare of the citizens of California, pursuant to Government Code Section 11346.1(b)(2).

Government Code Section 11346.1(a)(2) requires that, at least five working days prior to submission of the proposed emergency action to the Office of Administrative Law, the adopting agency provide a notice of the proposed emergency action to every person who has filed a request for notice of regulatory action with the agency.

Government Code Section 11346.1(a)(3) provides that if the emergency situation clearly poses such an immediate, serious harm that delaying action to allow public comment would be inconsistent with the public interest, an agency is not required to provide notice pursuant to Government Code Section 11346.1(a)(2) (See Emergency Established).

The Secretary believes that this emergency clearly poses such an immediate, serious harm that delaying action to give the notice pursuant to Government Code Section 11346.1(a)(2) would be inconsistent with the public interest, within the meaning of the Government Code Section 11349.6(b).

The information contained within this finding of emergency also meets the requirements of Government Code Sections 11346.1 and 11346.5.

California Environmental Quality Act

“Specific actions necessary to prevent or mitigate an emergency” are exempt from the California Environmental Quality Act (CEQA). Public Resources Code Section 21080(b)(4).

“‘Emergency’ means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services.” Public Resources Code Section 21060.3.

Emergency Established

If the fly were allowed to spread and become established in host fruit production areas, California's agricultural industry would suffer losses due to decreased production of marketable fruit, increased pesticide use, and loss of markets if other states or countries enacted quarantines against California products. This in turn would negatively impact the State's economic recovery which in turn would impact the general welfare of the State. California's unemployment rate in March 2013 dropped to 9.6 per cent. During the preceding 12 months prior to March 2013, agricultural employment was up by 2.8 per cent. The agricultural industry is one of the economic engines which are lowering the State's unemployment rate. Additionally, any job losses in this area would likely be felt by low-skilled workers whose employment options are already limited. The loss of any agricultural jobs would likely result in an increase in the State's public assistance obligations which would also negatively impact the State's economic recovery.

California is the number one economic citrus state in the nation, with the USDA putting the value of California citrus at \$1,131,851,000 (Federal Register Vol. 71 No.83; published May 1, 2006; pg 25487). A 2002 report by the Arizona State University School of Business indicates that there is at least \$825.6 million of direct economic output and another \$1.6 billion when all upstream suppliers and downstream retailers are included. This represents over 25,000 direct and indirect employees.

In 2009, out of the top 20 California commodities, tomatoes ranked 8th - at over \$1.5 billion and peaches ranked 20th - at over \$326 million. Other notable crops which would be impacted are: apples - \$62.2 million, figs - \$30.5 million, dates - 28.7 million, kiwi - \$35 million and pears - \$93.2 million.

The entire County of Ventura is being proposed as eradication area because the utilization of these political boundaries will avoid frequent amendments to the regulation if the Caribbean fruit fly is detected elsewhere within this county and there are no associated impacts with the regulation if no flies are found. The detection of one Caribbean fruit fly is

the trigger for eradication delimitation trapping to confirm either there are no other flies present and no further actions are necessary, or treatment activities begin upon the detection of a second fly. If delimitation trapping is not implemented then one fly is the trigger for a quarantine and by default this would include the entire County of Ventura. This would have a significant impact on many of California exports of Caribbean fruit fly host material. Many trading partners do not accept host material produced or transiting through a quarantine area. China, Japan and South Korea would all have concerns.

If a second fly is found, not only does it trigger a treatment program but it also triggers a quarantine. A quarantine would include that area encompassed by a 4.5 mile radius surrounding the epicenter of the incipient infestation.

In addition to trapping, host fruit on a property where a fly has been trapped and adjacent properties may be inspected for possible larval infestation. Small circular oviposition scars are occasionally visible, indicating an infested fruit. In the absence of visible clues, 100 or more of the fruit on preferred hosts (if available) may be cut open at random and examined for larvae.

This regulation will avoid harm to the public's general welfare by providing authority for the State to perform detection, control and eradication activities against Caribbean fruit fly in Ventura County. To prevent spread of the fly to noninfested areas to protect California's agricultural industry, it is necessary to immediately begin delimitation activities. Therefore, it is necessary to adopt Section 3591.11 on an emergency basis.

Background

Caribbean fruit fly is an insect pest which attacks the fruit of various plants including:

Common Name

Akee

Allspice

Botanical Name

Blighia sapida

Pimenta dioica

Ambarella	<i>Spondias cytherea</i>
Atemoya	<i>Annona cherimola</i> X <i>A. squamosa</i>
Apple	<i>Malus sylvestris</i> , <i>Malus domestica</i> <i>Malus</i> spp.
Autumn Maple Tree	<i>Bischofia javanica</i>
Avocado, except commercial fruit	<i>Persea americana</i>
Balsam Apple	<i>Momordica balsamina</i>
Barbados Cherry	<i>Malpighia glabra</i>
Bell Pepper, except commercial fruit	<i>Capsicum frutescens</i> and <i>Capsicum annuum</i>
Birchberry	<i>Eugenia ligustrina</i>
Blackberry	<i>Rubus</i> hybrid
Box Orange	<i>Severinia buxifolia</i>
Brazil Cherry	<i>Eugenia dombeyi</i>
Cabeluda	<i>Plinia glomerata</i>
Calabur	<i>Muntingia calabura</i>
Calamondin	X <i>Citrofortunella mitis</i>
Carambola	<i>Averrhoa carambola</i>
Ceylon Gooseberry	<i>Dovyalis hebecarpa</i>
Cherry of the Rio Grande	<i>Eugenia aggregata</i>
Clementine	<i>Citrus reticulata</i>
Cocoplum	<i>Chrysolobanus icaco</i>
Custard Apple, Sugar Apple	<i>Annona squamosa</i> , <i>Annona reticulata</i>
Egg Fruit	<i>Pouteria campechiana</i>
Date Palm	<i>Phoenix dactylifera</i>
Fig	<i>Ficus carica</i>
Garcinia aristata	<i>Garcinia aristata</i>
Garcinia	<i>Garcinia</i> spp.

Governor's Plum	<i>Flacourtia indica</i>
Grapefruit	<i>Citrus paradisi</i>
Grumichama	<i>Eugenia brasiliensis</i>
Guava (all)	<i>Psidium</i> spp.
Guiana Plum	<i>Drypetes lateriflora</i>
Hog Plum	<i>Spondias mombin</i>
Imbe	<i>Garcinia livingstonei</i>
Jaboticaba	<i>Myrciaria cauliflora</i>
Jack Orangequat	<i>Citrus nobilis</i> 'unshu' x <i>Fortunella</i> sp.
Jambolan Plum	<i>Syzygium cumini</i>
Jamboisier Rouge	<i>Eugenia pyriformis</i> Cambess. var. <i>uvalha</i>
Japanese Pear	<i>Pyrus pyrifolia</i>
Japanese Persimmon	<i>Diospyros kaki</i>
Java Apple	<i>Syzygium samarangense</i>
Kei Apple	<i>Dovyalis caffra</i>
Kieffer Pear	<i>Pyrus pyrifolia</i> x <i>Pyrus communis</i>
Kiwi	<i>Actinidia chinensis</i>
Kumquat	<i>Fortunella crassifolia</i>
	<i>Fortunella</i> spp.
Kumquat (oval)	<i>Fortunella margarita</i>
Kumquat (round)	<i>Fortunella japonica</i>
Kumquat, Meiwa	<i>Fortunella</i> X <i>crassifolia</i>
Lime	<i>Citrus aurantifolia</i>
Limeberry	<i>Triphasia trifolia</i>
Limequat	X <i>Citrofortunella floridana</i>
Longan, except commercial fruit	<i>Dimocarpus longan</i>
Loquat	<i>Eriobotrya japonica</i>
Lychee, except commercial fruit	<i>Litchi chinensis</i>

Malay Apple	<i>Syzygium lalaccense</i>
Mandarin	<i>Citrus reticulata</i>
Mango	<i>Mangifera indica</i>
Mangosteen	<i>Garcinia mangostana</i>
Miracle Fruit	<i>Synsepalum dulcificum</i>
Mombin, Purple	<i>Spondias purpurea</i>
Mombin	<i>Spondias</i> spp.
Murraya	<i>Murraya</i> spp.
Natal Plum	<i>Carissa grandiflora</i> , <i>Carissa macrocarpa</i>
Nectarine	<i>Prunus persica</i>
Orange	<i>Citrus sinensis</i>
Orange Jasmine	<i>Murraya paniculata</i>
Otaheite Apple	<i>Spondias dulcis</i> (=S. cytherea)
Panama Orange	<i>Citrofortunella mitis</i>
Papaya	<i>Carica papaya</i>
Paradise Apple	<i>Malus pumila</i>
Peach	<i>Prunus persica</i>
Pear	<i>Pyrus communis</i>
Persimmon	<i>Diospyros virginiana</i>
Pitomba	<i>Eugenia luschnathiana</i>
Plum	<i>Prunus domestica</i>
Plum, Japanese	<i>Prunus salicina</i>
Pomegranate	<i>Punica granatum</i>
Pond Apple	<i>Annona glabra</i>
Pummelo	<i>Citrus maxima</i>
Rangpur Lime	<i>Citrus limonia</i>
Raspberry	<i>Rubus idaeus</i>
Rose Apple	<i>Syzygium jambos</i>
Sapodilla	<i>Manilkara zapota</i> , <i>Achras zapota</i>
Satinleaf, Damson-plum	<i>Chrysophyllum oliviforme</i>

Sea-grape	<i>Coccoloba uvifera</i>
Shaddock	<i>Citrus grandis</i>
Snowflake Aralia	<i>Trevesia palmata</i>
Sour Orange	<i>Citrus aurantium</i>
Star Apple	<i>Chrysophyllum cainito</i>
Sugar Apple	<i>Annona squamosa</i>
Surinam Cherry	<i>Eugenia uniflora</i>
Sweet Lemon	<i>Citrus limetta</i>
Sweet Orange	<i>Citrus sinensis</i>
Syzygium	<i>Syzygium</i> spp.
Tangelo	<i>Citrus paradisi</i> x <i>Citrus reticulata</i>
Tangerine	<i>Citrus reticulata</i> Blanco
Temple Orange	<i>Citrus sinensis</i> x <i>Citrus reticulata</i>
Tomato, except commercial fruit	<i>Lycopersicon esculentum</i> (L. <i>lycopersicum</i>)
Triphasia	<i>Triphasia</i> spp.
Tropical Almond	<i>Terminalia catappa</i>
Velvet Apple or Velvet Persimmon	<i>Diospyros blancoi</i>
Wampi	<i>Clausena lansium</i>
White Sapote	<i>Casimiroa edulis</i>
Wild Balsam Apple	<i>Momordica charantia</i>
Wild Cinnamon	<i>Canella winteriana</i>
Wild Coffee	<i>Casearia hirsuta</i>
Wild Dilly	<i>Manilkara jaimiqui</i> ssp. <i>emarginata</i> <i>Annona</i> hybrid <i>Atalantia citriodes</i> <i>Eugenia coronata</i> <i>Eugenia ligustrina</i> <i>Eugenia</i> spp. <i>Ficus altissima</i>

Garcinia xanthochymus
Manilkara roxburghiana
Myrcianthes fragrans
Myrciaria glomerata
Pseudanmomis umbellulifera
Rheedia aristata
Terminalia muelleri
Trevisia palmata

The female punctures host fruit to lay eggs which develop into larvae. The punctures admit decay organisms that may cause tissue breakdown. Larval feeding causes breakdown of fruit tissue. Fruits with egg punctures and larval feeding are generally unfit for human consumption. Pupae may be found in fruit, but normally drop out and are found in soil.

The detection of an adult Caribbean fruit fly meets the State's, national and international standards that mandate intensive delimitation efforts to determine if an incipient infestation of the fly exists in these areas.

The California, national and international consumers of California apples, citrus, peaches, tomatoes and other host crops benefit by having high quality fruit available at lower cost. It is assumed that any increases in production costs will ultimately be passed on the consumer. The adoption of this regulation also benefits homeowners who grow their own host fruits for consumption.

Action Plan

Intensive Delimitation Trapping

Intensive delimitation trapping is triggered when a single fly is trapped. The program uses the McPhail trap, an invaginated glass flask baited with yeast or Nu-lure in water that is attractive to male and female flies. Following the confirmation of the specimen, trap densities in the core square mile are increased within 24 hours. Trap densities in the

remainder of the delimitation area will be increased from the core outward within 72 hours of the find. Optimally, delimitation traps are placed over an 81-square-mile area in an 80-40-20-10-5 array. Traps in the core mile are serviced daily for the first week. If no additional flies are found, the trap inspection frequency changes to weekly and intensive trapping continues for two life cycles and then trap densities revert to detection trapping levels. However, if a second fly is found, additional traps are deployed around the new fly find and trap servicing in the core area will go to a twice weekly schedule and increased emphasis will be placed on servicing traps in the buffer areas in an effort to better delimit the infestation. Traps in the eight-square-miles around the core are serviced every two days, until eradication activities begin, at which time the trap inspection frequency changes to weekly. All traps are then serviced weekly for three life cycles of the fly beyond the last fly detected. Traps may be relocated to available preferred hosts as practical.

Core square mile, surrounding each detection site is 0.5 mile radius with 80 McPhail traps.

First buffer is 8 square miles surrounding core with 40 McPhail traps per square mile.

Second buffer is 16 square miles surrounding first buffer with 20 McPhail traps per square mile.

Third buffer is 24 square miles surrounding second buffer with 10 McPhail traps per square mile.

Fourth buffer is 32 square miles surrounding third buffer with 5 McPhail traps per square mile.

Following an eradication program, if no additional flies are trapped, intensive trapping ends after the third complete life cycle, depending on the technique used to achieve eradication, following the last fly find, as determined by a temperature-dependent developmental model run by program personnel in Sacramento.

Larval Survey

Fruit on a property where a fly has been trapped may be inspected for possible larval infestation. Small circular oviposition scars are occasionally visible, indicating an infested fruit. In the absence of visible clues, 100 or more of the fruit on preferred hosts (if available) may be cut open at random and examined for larvae. First and second instar larvae are tiny and may be feeding immediately under the surface of the skin; therefore, fruit cutting should be left to experienced personnel. Fruit on properties adjacent to a trap catch may also be inspected.

If two or more flies are trapped in proximity, fruit cutting may be extended to all properties in a 200-meter radius of the finds, concentrating on preferred hosts. Fruit must be inspected on the property; it cannot be removed from an established quarantine area.

ERADICATION ACTIVITIES

Triggers and General Approach

The CDFA begins an eradication project when it determines that a Caribbean fruit fly infestation exists within the state. Although there is no debate that the last two criteria indicate the presence of a breeding Caribbean fruit fly population, the first criterion is often open to further review. The CDFA may take up to 10 days, after the criteria are met, to further refine the presence and location of the infestation, in order to better target eradication activities.

1. Two flies within three miles of each other and within a time period equal to one life cycle of the fly;
2. One mated female (known or suspected to have been mated to a wild male); or
3. Larvae or pupae.

Treatment will begin immediately after notification, within 24 to 72 hours after an infestation is determined to exist. Any single male or immature female fly caught within a 15-mile radius of the treatment area may be considered a satellite infestation. The decision on whether to treat will be based on when and where the flies are trapped. A single fly trapped within less than one life cycle of the original find may trigger intensive trapping only. More than one single find, or a fly that is trapped after one or two completed life cycles of the original find, may trigger immediate treatment. The 15-mile radius for satellite infestations then expands to encircle any new treatment area.

Bait sprays are used to stop reproduction of the wild flies and to suppress fly populations until sterile flies can be reared in sufficient numbers to overload the wild population. Consult current label(s) for conditions or restrictions to pesticide treatments. Treatments using bait sprays will continue generally for at least two life cycles of the fly past the last fly detected. Treatments that include the use of sterile flies will continue for at least two life cycles past the last fly detected. A temperature dependent model of the fly's life cycle is used to time the end of treatments. Daily high and low temperatures will be taken from the soil and air in the treatment area using a thermograph (Datapod) housed in a standard weather shelter. Temperature monitoring equipment is to be located at the initial fly find site and each additional wild fly site that represents a significantly different environment or core area. Data will be relayed weekly to the PD/EP Branch in Sacramento.

The continued application of insecticide bait spray occurs only when the severity of an infestation warrants it.

Authority and Reference Citations

Authority: Sections 407 and 5322, Food and Agricultural Code.

Reference: Sections 5761, 5762, 5763 and 5764, Food and Agricultural Code.

Informative Digest

Existing law provides that the Secretary is obligated to investigate the existence of any pest that is not generally distributed within this state and determine the probability of its spread, and the feasibility of its control or eradication (Food and Agricultural Code Section 5321).

Existing law also obligates the Department of Food and Agriculture to protect the agricultural industry of California and prevent the spread of injurious pests, and that the Secretary may establish, maintain, and enforce eradication regulations as he deems necessary to circumscribe and exterminate or prevent the spread of pests (Food and Agricultural Code, Sections 401, 403, 407 and 5322). The eradication regulations may proclaim any portion of the State as an eradication area and set forth the boundaries, the pest, and the means and methods which may be used in the eradication of said pest (Food and Agricultural Code, Section 5761).

Anticipated Benefits from This Regulatory Action

Existing law, FAC section 403, provides that the department shall prevent the introduction and spread of injurious insect or animal pests, plant diseases, and noxious weeds.

Existing law, FAC section 407, provides that the Secretary may adopt such regulations as are reasonably necessary to carry out the provisions of this code which she is directed or authorized to administer or enforce.

Existing law, FAC section 5321, provides that the Secretary is obligated to investigate the existence of any pest that is not generally distributed within this State and determine the probability of its spread, and the feasibility of its control or eradication.

Existing law, FAC section 5322, provides that the Secretary may establish, maintain, and enforce quarantine, eradication, and such other regulations as are in her opinion necessary to circumscribe and exterminate or prevent the spread of any pest which is described in FAC section 5321.

The existing law obligates the Secretary to investigate and determine the feasibility of controlling or eradicating pests of limited distribution but establishes discretion with regard to the establishment and maintenance of regulations to achieve this goal. The amendment of this regulation benefits the apple, citrus, date, fig, guava, loquat, mango, peach, pear, pomegranate and tomato industries (nursery, fruit for domestic use and exports, packing facilities) and the environment (urban landscapes) by having an eradication program to prevent the artificial spread of the Caribbean fruit fly over short and long distances.

This amendment provides the necessary regulatory authority to prevent the artificial spread of a serious insect pest which is a mandated statutory goal.

FAC Section 401.5 states, “the department shall seek to protect the general welfare and economy of the state and seek to maintain the economic well-being of agriculturally dependent rural communities in this state.” The amendment of this regulation is preventing the potential spread of the Caribbean fruit fly to uninfested areas of the State.

The California, national and international consumers of California apples, citrus, peaches and tomatoes benefit by having high quality fruit available at lower cost. It is assumed that any increases in production costs will ultimately be passed on the consumer.

The amendment of this regulation benefits homeowners who grow their own host fruits for consumption and host material which is planted as ornamentals in various rural and urban landscapes.

The Department is the only agency which can implement plant quarantines. As required by Government Code Section 11346.5(a)(3)(D), the Department has conducted an evaluation of this regulation and has determined that it is not inconsistent or incompatible with existing state regulations.

Information Relied Upon

Action Plan for the Caribbean Fruit Fly (*Anastrepha suspensa*), Revised April 2000, CDFA.

“Pest and Damage Record # CR0P06224827,” California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

Section 3591.11, Caribbean Fruit Fly Eradication Area.

This emergency adoption of Section 3591.11 will establish the entire County of Ventura as the eradication area. The effect of the amendment is to provide authority for the State to perform detection, control and eradication activities against Caribbean fruit fly in this area of the State to prevent spread of the fly to noninfested areas to protect California's agricultural industry.

Mandate on Local Agencies or School Districts

The Department of Food and Agriculture has determined that this regulation does not impose a mandate on local agencies or school districts and no reimbursement is required under Section 17561 of the Government Code. All eradication activities are performed by the Department.

Cost Estimate

The Department also has determined that the regulation will involve no costs or savings to any state agency, no nondiscretionary costs or savings to local agencies or school districts, no reimbursable costs or savings to local agencies or school districts under Part 7 (commencing with Section 17500) of Division 4 of the Government Code, and no costs or savings in federal funding to the State.