

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
PROPOSED CHANGES IN THE REGULATIONS
Title 3, California Code of Regulations

Sections 3406. Mediterranean Fruit Fly Interior Quarantine

- 3417. Mexican Fruit Fly Interior Quarantine
- 3422. Caribbean Fruit Fly Interior Quarantine
- 3423. Oriental Fruit Fly Interior Quarantine
- 3424. Bactrocera zonata Interior Quarantine
- 3425. Melon Fruit Fly Interior Quarantine
- 3436. White Striped Fruit Fly Interior Quarantine
- 3441. Bactrocera correcta Interior Quarantine
- 3442. Malaysian Fruit Fly Interior Quarantine
- 3444. Zeugodacus tau Interior Quarantine
- 3445. Queensland Fruit Fly Interior Quarantine

INITIAL STATEMENT OF REASONS/
POLICY STATEMENT OVERVIEW

The California Department of Food and Agriculture (Department) proposes to amend Title 3 California Code of Regulations (CCR) Sections 3406 Mediterranean Fruit Fly Interior Quarantine, 3417 Mexican Fruit Fly Interior Quarantine, 3422 Caribbean Fruit Fly Interior Quarantine, 3423 Oriental Fruit Fly Interior Quarantine, 3424 Bactrocera zonata Interior Quarantine, 3425 Melon Fruit Fly Interior Quarantine, 3436 White Striped Fruit Fly Interior Quarantine, 3441 Bactrocera correcta Interior Quarantine, 3442 Malaysian Fruit Fly Interior Quarantine, 3444 Zeugodacus tau Interior Quarantine, and 3445 Queensland Fruit Fly Interior Quarantine. This amendment will allow the Department to update the location of these pests host's lists from the 11 eradication area regulations they are currently at to the forthcoming proposed new Section 3591.32 Tephritidae Fruit Fly Eradication Area regulation.

Description of Public Problem, Administration Requirement, or Other Condition or Circumstance the Regulations are Intended to Address

These regulations are intended to address the obligation of the Department to protect the agricultural industry and environment from the introduction and spread of injurious plant pests within California. Specifically, these regulations are intended to prevent the establishment of fruit flies in the family Tephritidae, a family of pest that are threats to agriculture and the environment, into California. Currently the host lists for these pests are located within each species eradication area regulation. However, with the forthcoming adoption of the new section 3591.32 Tephritidae Fruit Fly Eradication Area regulation, the current interior quarantine regulations would direct the public to an incorrect section in the CCR. These amendments will update the reference and direct the public to the correct section.

Background

The fruit fly family Tephritidae includes roughly 5000 species worldwide. Many tephritid fruit flies share a common life history that places them in the highest pest risk category for agricultural production. The females punctures young host fruit to lay eggs which develop into larvae. This contrasts with common household fruit flies or pomace flies (family Drosophilidae) that generally lay eggs in overripe or rotting fruit. 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 are found in soil. While maturation time varies between and within species, some populations reach sexual maturity in 32 days and can fly up to 30 miles in search of new host fruit. This, added to their high reproductive rate, allows them to infest new areas and expand their range very quickly.

California currently has interior quarantines for the following species of the Tephritidae family:

- *Anastrepha ludens*, Mexican fruit fly
- *Anastrepha suspensa*, Caribbean fruit fly
- *Bactrocera albistrigata*, white striped fruit fly
- *Bactrocera correcta*, guava fruit fly
- *Bactrocera cucurbitae*, melon fly
- *Bactrocera dorsalis*, Oriental fruit fly
- *Bactrocera latifrons*, Malaysian fruit fly
- *Bactrocera tryoni*, Queensland fruit fly
- *Bactrocera zonata*, peach fruit fly
- *Ceratitis capitata*, Mediterranean fruit fly
- *Zeugodacus tau*, tau fly

The overlapping host lists for these various species include several major agricultural crops, including almonds, which in 2022 had \$3.5 billion in production value, citrus at \$2.2 billion, and tomatoes at \$1.5 billion. Other crops that host these species include apples, avocados, cherries, mangos, melons, peppers, olives, pears, and stone fruits. As the known host lists for these species are broad and are regularly being revised by addition, there are likely unknown potential hosts in California agriculture and the environment.

Purpose and Factual Basis

The purpose of amending Sections 3406, 3417, 3422, 3423, 3424, 3425, 3436, 3441, 3442, 3444, and 3445 is to update the location of these pests' host lists from the 11 eradication area regulations where they currently reside to the current Section 3591.32 Tephritidae Fruit Fly Eradication Area regulation.

The factual basis for determination by the Department that the adoption of these regulations is necessary is as follows:

Currently these 11 interior quarantine regulations direct the public to various eradication area regulation for their species. However the Statewide Eradication Area regulation, Section 3591.32 Tephritidae Fruit Fly Eradication Area, is currently being adopted for all species of the invasive fruit flies in the family Tephritidae which includes the fruit flies within this amendment. Once this regulation is in place the individual species eradication areas regulations will be superfluous, and as such they are being repealed. This amendment of interior quarantine regulations will allow the quarantine regulations to direct the public to the new Section 3591.32 and continue regulation of host material as required.

As many known, and likely unknown, host plants for these various species of tephritid fruit flies are widely grown in California, this family could possibly establish wherever it is introduced. Only certain desert and high mountain regions are unlikely areas of establishment. The known hosts of the family Tephritidae include multiple agriculturally important crops in California, including almonds, apples, avocados, cherries, citrus, mangos, melons, peppers, olives, pears, stone fruits, and tomatoes. Infestations of fruit flies may lower crop yields and increase production costs of economically important crops such as almonds, citrus, and tomatoes. The host lists are a vital

part of regulating against these pests, which is why the Department is amending these regulations.

Project Description

Section 3406(c)

This section establishes what commodities are covered for the Mediterranean Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.5(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3417(c)

This section establishes what commodities are covered for the Mexican Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.11(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3422(c)

This section establishes what commodities are covered for the Caribbean Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.11(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3423(c)

This section establishes what commodities are covered for the Oriental Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.2(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3424(c)

This section establishes what commodities are covered for the *Bactrocera zonata* Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.12(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3425(c)

This section establishes what commodities are covered for the Melon Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.15(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3436(c)

This section establishes what commodities are covered for the White Striped Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.23(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3441(c)

This section establishes what commodities are covered for the *Bactrocera correcta* Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.13(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3442(c)

This section establishes what commodities are covered for the Malaysian Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.26(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae

regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Section 3444(c)

This section establishes what commodities are covered for the Zeugodacus tau Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.27(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities

Section 3445(c)

This section establishes what commodities are covered for the Queensland Fruit Fly Interior Quarantine. The text has been edited so the regulation no longer directs the public to CCR Section 3591.30(b) which is being repealed and instead to 3591.32(b), the new statewide Tephritidae regulation. This allows the public to find the most current host list, which is necessary for interior quarantine activities.

Current Laws & Regulations

Existing law, Food and Agricultural Code (FAC) Section 407, provides that the Secretary may adopt such regulations as are reasonably necessary to carry out the provisions of this code which the Secretary is directed or authorized to administer or enforce.

Existing law, FAC Section 5301, provides that the Secretary may establish, maintain, and enforce such quarantine regulations as they deem necessary to protect the agricultural industry of this state from pests. The regulations may establish a quarantine at the boundaries of this state or elsewhere within the state.

Existing law, FAC Section 5302, provides that the Secretary may make and enforce such regulations as they deem necessary to prevent any plant or thing which is, or is liable to be, infested or infected by, or which might act as a carrier of, any pest, from passing over any quarantine line which is established and proclaimed pursuant to this division.

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

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Prior to conducting any action authorized by this regulation, the Department shall comply with the California Environmental Quality Act of 1970 (Public Resources Code Section 21000 et. seq. as amended) and the State CEQA Guidelines (Title 14 California Code of Regulations Section 15000 et. seq.).

Anticipated Benefits from This Regulatory Action

Amending these regulations provides the necessary regulatory authority to correctly enact interior quarantines, a mandated statutory goal.

These regulations are necessary to prevent the spread of species of the fruit fly family Tephritidae to uninfested areas of the State. The regulation benefits industries (nursery, fruit for domestic use and exports, packing facilities), the environment, and the overall California economy by preventing the spread of fruit flies.

Mandate on Local Agencies or School Districts

The Department of Food and Agriculture has determined that these regulations do not impose a mandate on local agencies or school districts.

Economic Impact Analysis (Government Code 11346.3(b))

This regulatory action will allow the Department to correctly enact interior quarantines and prevent the spread of species of the fruit fly family Tephritidae in California and will benefit:

- the general public
- homeowners and community gardens
- the agricultural industry
- the State's general fund

If species of the fruit fly family Tephritidae were to become established within California it could greatly affect the general public. Host plants are widely grown in California and include both native plants and agriculturally important crops. By adopting these regulations to prevent infestation, the general public benefits by having a native environment and agriculture safe from this pest.

The amendment of these regulations benefits home gardeners who grow host material for consumption and/or ornamentals in various rural and urban landscapes. By preventing infestation with species of the fruit fly family Tephritidae and thereby preventing damage to hosts, the regulations eliminate the need for widespread treatment of hosts to mitigate infestations of species in the fruit fly family Tephritidae.

California is a large-scale commercial producer, in some cases the principal or only domestic producer, of many host crop plants of species of tephritid fruit fly. The California, national, and international consumers of California agriculture benefit by having high quality produce and produce products available at lower cost. It is assumed that any increases in production costs will ultimately be passed on to the consumer. By preventing an infestation with species of the fruit fly family Tephritidae, these increased production costs will be avoided.

There are economic benefits to the State's general fund from these regulations. The cost of many species of the fruit fly family Tephritidae infestation is unknown, but the Department estimated the cost of not eradicating oriental fruit fly in California would range from \$44 to \$176 million in crop losses per year. Preventing a wide scale infestation in California and maintaining the economic baseline prevents an outcome that could cost the State millions or billions of dollars.

The Creation or Elimination of Jobs within the State

Amending Sections 3406, 3417, 3422, 3423, 3424, 3425, 3436, 3441, 3442, 3444, and 3445 will allow the Department to correctly quarantine host material against area for species of the fruit fly family Tephritidae, which will help prevent the spread of fruit flies within California should it be detected within the state. Detection and eradication activities are currently being performed by existing state staff throughout the state by trapping and identifying invasive agricultural pests. No additional staff positions will be created or eliminated by this regulation. Therefore, the Department has determined that this proposal will not have a significant impact on the creation of new businesses in the State of California.

The Creation or Elimination of Businesses in California

Amending Sections 3406, 3417, 3422, 3423, 3424, 3425, 3436, 3441, 3442, 3444, and 3445 will allow the Department to correctly quarantine host material against area for species of the fruit fly family Tephritidae, which will help prevent the spread of fruit flies within California should it be detected within the state. Detection and eradication activities are currently being performed by existing state staff throughout the state by trapping and identifying invasive agricultural pests. Therefore, the Department has determined that this proposal will not have a significant impact on the creation of new businesses in the State of California.

The Expansion of Businesses in California

Amending Sections 3406, 3417, 3422, 3423, 3424, 3425, 3436, 3441, 3442, 3444, and 3445 will allow the Department to correctly quarantine host material against area for species of the fruit fly family Tephritidae, which will help prevent the spread of fruit flies within California should it be detected within the state. Detection and eradication activities are currently being performed by existing state staff throughout the state by trapping and identifying invasive agricultural pests. Therefore, the Department has determined that this proposal will not have a significant impact on the expansion of businesses currently doing business in the State of California.

Worker Safety

These regulations are not expected to have an effect on worker safety.

Estimated Cost or Savings to Public Agencies or Affected Private Individuals or Entities

The Department of Food and Agriculture has determined that Sections 3406, 3417, 3422, 3423, 3424, 3425, 3436, 3441, 3442, 3444, and 3445 will allow the Department to correctly quarantine

host material against area for species of the fruit fly family Tephritidae, which will help prevent the spread of fruit flies within California should it be detected within the state. This does not impose a mandate on local agencies or school districts. All quarantine activities shall be conducted by the Department. Therefore, no reimbursement is required under Section 17561 of the Government Code.

The Department also has determined that no reimbursable costs or savings under Part 7 (commencing with Section 17500) of Division 4 of the Government Code to local agencies or school districts and no nondiscretionary costs or savings to local agencies or school districts, will result from the adoption of subsection 3591.32.

There are no reimbursable costs or savings under Part 7 (commencing with section 17500) of Division 4 of the Government Code to local agencies or school districts and no nondiscretionary costs or savings to local agencies or school districts anticipated from the adoption of this regulation.

The Department has determined that the proposed actions will not have a significant adverse economic impact on housing costs or California business, including the ability of California businesses to compete with businesses in other states.

Potential Impact to Homeowners and Community Gardens

The implementation of these regulations will maintain the economic baseline and prevent increased costs to the consumers of California produce and increased pesticide usage by homeowners and others. The host plants attacked by the fruit fly family Tephritidae are enjoyed by the home gardener and community gardens. If an infestation of fruit flies are not eradicated due to a delay in eradication efforts, then homeowners and community gardeners would be negatively impacted.

Potential Impacts to General Fund and Welfare

The proposed regulations do not have immediate or definitive impact to the general fund or general welfare, as it is meant to maintain the economic baseline. Amending Sections 3406, 3417, 3422, 3423, 3424, 3425, 3436, 3441, 3442, 3444, and 3445 will allow the Department to correctly quarantine host material against area for species of the fruit fly family Tephritidae, which will help

prevent the spread of fruit flies within California should it be detected within the state. There are no negative impacts to agriculture impact the State's economic recovery and the general welfare of the State

As required by Government Code Section 11346.5(a)(3)(D), the Department has conducted an evaluation of these regulations and has determined that they are not inconsistent or incompatible with existing state regulations.

The Department is simultaneously proposing two separate and related rulemakings, both Notices of which are also being published in the March 28, 2025 California Regulatory Notice Register:

- Adoption of new section 3591.32 titled Tephritidae Fruit Fly Eradication Area

Adoption of this new section will create an eradication area for any fruit flies in the family Tephritidae.

- Repeal of 13 Fruit Fly Eradication Area regulations in Title 3.

Repealing these regulations will eliminate duplication with the forthcoming adoption of section 3591.32

The various fruit flies enumerated in these other regulations, as well as these regulations proposed for repeal, all fall under the family of Tephritidae Fruit Fly.

For more information on these proposed regulations, please see those other Notices published in this same Notice Register.”

Assessment

The Department has made an assessment that the adoption of these regulations will help maintain the economic baseline and (1) will have no significant impact on the creation or elimination of jobs in the State of California, (2) will have no impact on the creation of new businesses or elimination of existing businesses within the State of California, (3) will have no impact on the expansion of businesses within the State of California, 4) will benefit the health

and welfare of California residents by providing the correct, updated reference to the CCR section for pests host's lists, (5) will have an impact on the state's environment, and (6) is not expected to benefit workers' safety.

Health and welfare: The proposed action will benefit the health and welfare of California residents by making it more likely that the Department can react effectively if species in the fruit fly family Tephritidae infestation are detected.

The state's environment: The proposed action will benefit the state's environment by making it more likely that the Department can react effectively if species in the fruit fly family Tephritidae infestation are detected. If the Department fails to act effectively to prevent the spread and eradicate an infestation, this pest could easily spread into the local environment and non-agricultural ecosystems. This could adversely impact private and commercial landscape plantings, local, regional, state and national parks, other recreational sites, open habitats, and wild lands. Affected plants could become less vigorous and may produce fewer seeds. Plants/trees with low propagule output can result in major changes to plant community structure.

Alternatives Considered

The Department of Food and Agriculture must determine that no alternative considered would be more effective in carrying out the purpose for which the action is proposed or would be as effective as and less burdensome to affected private persons than the proposed action.

The Department considered taking no action. If no action is taken, the Department would not have correctly location host lists for these pest. This could allow species in the fruit fly family Tephritidae to spread and become fully established in host production areas. In which case California's agricultural industry would suffer losses due to increased pesticide use, decreased production of marketable produce, and loss of markets if the United States Department of Agriculture (USDA) or other countries enact quarantines against California products which are hosts for species in the fruit fly family Tephritidae. Therefore, this alternative was rejected.

Information Relied Upon

The Department relied upon the following studies, reports, and documents in the proposed adoption of Title 3 CCR Section 3591.32:

California Department of Food and Agriculture, “ACTION PLAN for METHYL EUGENOL ATTRACTED FRUIT FLIES including the Oriental Fruit Fly” Revised April 2000

California Department of Food and Agriculture, California Agriculture Statistics Review 2022-2023

California Department of Food and Agriculture, Oriental Fruit Fly Pest Profile, located at: https://www.cdfa.ca.gov/plant/PDEP/target_pest_disease_profiles/oriental_ff_profile.html#:~:text=It%20has%20been%20estimated%20that%20the%20cost%20of,crop%20losses%2C%20addit%20pesticide%20use%2C%20and%20quarantine%20requirements, visited on November 22, 2024

European and Mediterranean Plant Protection Organization, EPPO Global Database, *Anastrepha suspensa* (ANSTSU) Hosts, located at: <https://gd.eppo.int/taxon/ANSTSU/hosts>, visited on November 22, 2024

Jiří Trombik; Samuel F. Ward; Allen L. Norrbom; Andrew M. Liebhold; Journal of Pest Science (2023) 96:345–357, Global drivers of historical true fruit fly (Diptera: Tephritidae) invasions, 25 January 2022

United States Department of Agriculture, *Anastrepha ludens*, Mexican Fruit Fly Host List, July 2021

United States Department of Agriculture, *Bactrocera cucurbitae*, Melon Fly Host List, September 2016

United States Department of Agriculture, *Bactrocera tau* Host List 2016, June 2016

United States Department of Agriculture, Malaysian fruit fly, *Bactrocera latifrons*, Host List 2016

United States Department of Agriculture, Mediterranean fruit fly, *Ceratitis capitata*, Host List, January 2017

United States Department of Agriculture, National Agricultural Statistics Service, Citrus Fruits 2023 Summary, August 2023

United States Department of Agriculture, New World Guava Fruit Fly, *Anastrepha striata*, Host List, Host List, November 2018

United States Department of Agriculture, Oriental Fruit fly, *Bactrocera dorsalis*, Host List, August 2016

United States Department of Agriculture, Peach fruit fly, *Bactrocera zonata*, Host List, June 2017

United States Department of Agriculture, Provisional List of Host Plants of Guava Fruit Fly, *Bactrocera correcta* (Bezzi) (Diptera: Tephritidae), July 15, 2014

United States Department of Agriculture, Queensland Fruit Fly (QFF), *Bactrocera tryoni*, Regulated Host List, 2024

United States Department of Agriculture, West Indian fruit fly, *Anastrepha obliqua*, Host List, Host List. September 2016

United States Department of Agriculture, White Striped Fruit Fly, *Bactrocera albistrigata*, Host List. August 2019