Adopt the following:

§ 3444. Zeugodacus tau Interior Quarantine.

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

(a) Pest. The fruit fly *Zeugodacus tau* (formerly *Bactrocera tau*).

(b) 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. 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.

(1) An infestation is present when:

(A) Either eggs, a larva, a pupa, a mated female or two or more adult *Zeugodacus tau* fruit flies of either sex are detected within three miles of each other and within one life cycle.

(B) Satellite infestations. A detection of a single life stage of *Zeugodacus tau* 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 within the quarantine area.

(5) The time determined for *Zeugodacus tau* 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 *Zeugodacus tau* 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 *Zeugodacus tau*, the Department uses 826 degree-days Fahrenheit as the length of one life cycle.

(c) Articles and Commodities Covered. All fruit, vegetables, pericarp of nuts, seeds, or berries listed in Title 3 California Code of Regulations Section 3591.27 (b)(1) *Zeugodacus tau* Eradication Area.

(1) 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) above.

(2) 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 *Zeugodacus tau* 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 *Zeugodacus tau*, is transported in a manner to preclude exposure to *Zeugodacus tau*, 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 *Zeugadacus tau*, is transported in a manner to preclude exposure to any *Zeugodacus tau,* 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 *Zeugodacus tau* 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 *Zeugodacus tau*; 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 *Zeugodacus tau* 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 407, 5301, 5302 and 5322, Food and Agricultural Code.

Amend the following section:

§ 3591.27. ~~Bactrocera~~ Zeugodacus tau Eradication Area.

(a) Proclamation of Eradication Area. That portion of the State of California described as follows, within which a certain pest, ~~*Bactrocera*~~ *Zeugodacus tau* (formerly *Bactrocera tau)* is known to exist, is hereby proclaimed to be an eradication area with respect to said pest:
The entire counties of Los Angeles, Riverside, ~~and~~ San Bernardino, and Ventura.
(b) Hosts.
(1) All fruit, vegetables, pericarp of nuts, seeds, or berries of the following:

Scientific Name	***Host Name***
Abelmoschus esculentus (L.) Moench	Okra
Adenia hondala (Gaertn.) W. J. de Wilde	Hondala
Annona muricata L.	Soursop
Annona squamosa L.	Custard apple
Artocarpus heterophyllus Lam.	Jackfruit
Artocarpus integer (Thunb.) Merr.	Chempedak
Averrhoa carambola L.	Star fruit, Carambola
Baccaurea angulata Merr.	Red angle tampoi
Bambusa pallida Munro	Bakhal
Benincasa hispida (Thunb.) Cogn.	Ash gourd
Benincasa spp.	Gourd, melon
Bidens biternata (Lour.) Merr. & Sherff	Sendangusa
Borassus flabellifer L.	Palmyra palm, Doub palm
Brassica oleracea L.	Cabbage
Capsicum annuum L.	Chili pepper
Capsicum frutescens L.	Bird pepper
Capsicum spp.	Pepper
Carica papaya L.	Papaya
Citrullus colocynthis (L.) Schrad.	Bitter apple
Citrullus lanatus (Thunb.) Matsum. & Nakai	Watermelon
Citrus maxima (Burm.) Merr.	Pummelo
Citrus paradisi Macfad.	Grapefruit
Citrus reticulata Blanco	Mandarin orange
Citrus sinensis (L.) Osbeck	Sweet orange
Citrus spp.	Citrus
Citrus tangelo J. W. Ingram & H. E. Moore	Tangelo
Citrus unshiu Marcow.	Satsuma mandarin
Coccinia grandis (L.) Voigt	Ivy gourd
Cucumis anguria L.	~~Pepin cimarron~~ Bur cucumber

Cucumis melo L.	Melon
Cucumis sativus L.	Cucumber
Cucumis spp.	Melon, cucumber
Cucurbita argyrosperma C. Huber	N/A
Cucurbita maxima Duchesne	~~Wintersquash~~ Pumpkin
Cucurbita moschata Duchesne	Butternut squash
Cucurbita pepo L.	~~Pumpkin~~ Bitter bottle gourd
Cucurbita spp.	Pumpkin, squash, gourd
Dimocarpus longan Lour.	Longan
Diplocyclos palmatus (L.) C. Jeffrey	Lollipop climber
Dracontomelon dao (Blanco) Merr. & Rolfe	Argus pheasant tree
Eugenia spp.	Eugenia
Fagraea ceilanica Thunb.	Hui li
Ficus racemosa L.	Cluster fig
Ficus tinctoria G. Forst.	~~Liang liao rong~~ Dye fig
Gomphogyne cissiformis Griff.	N/A
Gymnopetalum scabrum (Lour.) W. J. de Wilde & Duyfjes	~~N/A~~ Feng gua
Hodgsonia macrocarpa ~~var. capniocarpa (Ridl.) Tsai~~ *(Blume) Cogn.*	~~N/A~~ Chinese lardfruit
Hydnocarpus anthelminthicus Pierre ex Laness.	Chaulmoogra tree
Hydnocarpus spp.	Chaulmoogra
Hylocereus undatus (Haw.) Britton & Rose	Dragon fruit, red pitaya
Lagenaria siceraria (Molina) Standl.	Bottle gourd
Lagenaria spp.	Gourd, calabash
Luffa acutangula (L.) Roxb.	Angled loofah
Luffa aegyptiaca Mill.	~~Smooth~~ Loofah
Luffa spp.	Loofah
Mangifera foetida Lour.	Bachang mango
Mangifera indica L.	Mango
Manilkara zapota (L.) P. Royen	Sapodilla
Melastoma malabathricum L.	Indian rhododendron
Momordica charantia L.	~~Balsam-apple~~ Bitter melon
Momordica cochinchinensis (Lour.) Spreng	Balsam-pear
Momordica dioica Roxb. Ex Willd.	Spine gourd
Momordica spp.	Balsam apple, balsam pear
Morinda citrifolia L.	Noni Indian mulberry
Morus spp.	Mulberry
Muntingia calabura L.	Calabur tree
Musa paradisiaca L.	Banana

Myxopyrum smilacifolium (Wall.) Blume	~~N/A~~ Kuo ye jiao he mu
Passiflora edulis Sims	Passion fruit
Persea americana Mill.	Avocado
Phaseolus vulgaris L.	Bean
Pometia pinnata J. R. Forst. & G. Forst	Fijian longan
Pouteria lucuma (Ruiz & Pav.) Kuntze	Lucuma
Prunus pseudocerasus Lindl.	Chinese sour cherry
Prunus salicina Lindl.	~~Asian~~ Japanese plum
Prunus spp.	Peach, nectarine, cherry, almond
Psidium guajava L.	Guava
Pyrus communis L.	Pear
Pyrus pyrifolia (Burm. f.) Nakai	Sand pear, Chinese pear
Pyrus spp.	Pear
Sechium edule (Jacq.) Sw.	Chayote
Siphonodon celastrineus Griff.	N/A
Siphonodon spp.	N/A
Siraitia grosvenorii (Swingle) A. M. Lu & Zhi Y. Zhang	Monkfruit
Solanum lycopersicum L.	Tomato
Solanum melongena L.	Eggplant
Solanum muricatum Aiton	Melon pear
Strychnos ignatii P. J. Bergius	Ignatius bean
Strychnos nux-vomica L.	Nux-vomica ~~tree~~
Strychnos rupicola Pierre ~~ex Dop~~	N/A
Strychnos spp.	N/A
Strychnos thorelii Pierre ex Dop	N/A
Syzygium aqueum (Burm. f.) Alston	Watery rose apple
Syzygium jambos (L.) Alston	Rose apple
Syzygium malaccense (L.) Merr. & L. M. Perry	Malay apple
Syzygium samarangense (Blume) Merr. & L. M. Perry	Java apple
Tetrastigma leucostaphylum (Dennst.) Alston ex Mabb.	Indian Chestnut Vine
Trichosanthes celebica Cogn.	N/A
Trichosanthes cordata Roxb.	N/A
Trichosanthes costata Blume	N/A
Trichosanthes cucumerina L.	~~Snake~~ Annual gourd
Trichosanthes dioica Roxb.	Pointed gourd
Trichosanthes pilosa Lour.	Snake gourd
Trichosanthes rubriflos Thorel ex Cayla	N/A
Trichosanthes spp.	~~Gourds~~ Annual gourd, Snake gourd

Trichosanthes tricuspidata Lour.	N/A
Trichosanthes wallichiana (Ser.) Wight	N/A
Vigna unguiculata (L.) Walp.	Cowpea
Zehneria wallichii (C. B. Clarke) C. Jeffrey	N/A

(2) Soil or planting media within the drip area of plants producing, or which have produced, host fruit.

(c) Means and Methods. The following means and methods may be used in the eradication and control of said pest in said area:

(1) The use of insecticides, chemicals, or other materials as spray, dust, bait, or in any other manner as often as necessary to effect eradication.

(2) The removal and destruction of all plant parts known or suspected to harbor any stage of said pest.

(3) The search of all stages of ~~*Bactrocera*~~ *Zeugodacus tau* by visual inspection, the use of traps, or any other means.

(4) The removal and destruction of abandoned or unwanted plants bearing or capable of bearing hosts.

(5) The importation, rearing, liberation, and fostering of parasites and predators which attack ~~*Bactrocera*~~ *Zeugodacus tau.*

(6) The importation, rearing, or liberation of sterile forms of ~~*Bactrocera*~~ *Zeugodacus tau.*

NOTE: Authority cited: Sections 407 and 5322, Food and Agricultural Code. Reference: Sections 5761, 5762, 5763 and 5764, Food and Agricultural Code.