

DEPARTMENT OF FOOD AND AGRICULTURE
PROPOSED CHANGES IN THE REGULATIONS
Title 3, California Code of Regulations
Section 3423(b), Oriental Fruit Fly Interior Quarantine
INITIAL STATEMENT OF REASONS/
POLICY STATEMENT OVERVIEW

Description of the Public Problem, Administrative Requirement, or Other Condition or Circumstance the Regulation is Intended to Address

This regulation is intended to address the obligation of the Secretary of Food and Agriculture to protect the agricultural industry of California from the movement and spread within California of injurious plant pests.

Specific Purpose and Factual Basis

This action established regulatory restrictions for the Oriental fruit fly.

OAL File No. 2011-1018-02 E

On October 12, 2011, a male Oriental fruit fly (Pest and Damage Record (PDR) AM0P06044067), was detected in the Anaheim area of Orange County. On October 13, 2011 (PDR AM0P06044094) another male was trapped; on October 14, 2011, a total of five males (PDRs AM0P06044145, AM0P06044146 and AM0P06044148) and one mated female (PDR AM0P06044147) were trapped; and, on October 17, 2011, three males (PDRs AM0P06044173 and AM0P06044174) were trapped in the Anaheim area of Los Angeles County. The detection of 11 Oriental fruit flies is indicative of a new incipient infestation of Oriental fruit fly in the Anaheim area of Orange County. The Department amended this regulation as an emergency action which established a new quarantine area of approximately 75 square miles in the Anaheim area of Los Angeles and Orange counties. This emergency amendment was effective on October 19, 2011.

Oriental fruit fly is a destructive insect pest of innumerable commercial agricultural crops. This unexpected occurrence of Oriental fruit flies in Los Angeles and Orange counties meets the national and international trigger for both eradication and quarantine responses in Los Angeles and Orange counties. Fruits (including nuts, dates, and berries), many kinds of vegetables, and the fruiting bodies of many wild and ornamental plants are known to be hosts or possible hosts of the Oriental fruit fly. Larval feeding reduces the interior of fruit to a rotten mass. Egg punctures admit decay organisms that cause tissue breakdown. Damaged fruit is generally unfit for human consumption. Movement of hosts infested with the larvae of the fly can artificially spread the fly. It has been estimated that the yearly cost of not eradicating Oriental fruit fly in California would range from \$44 to \$176 million in crop losses, additional pesticide use, and quarantine requirements. Thus, this presented a clear, imminent danger to the agricultural industry in California.

Like all quarantine actions, the intended effect of the emergency amendment of California Code of Regulations, Title 3, Section 3423, Oriental Fruit Fly Interior Quarantine is to provide the necessary regulatory authority to prevent the human-assisted artificial spread of this exotic pest. Artificial spread, such as Oriental fruit flies being moved in infested host commodities from infested areas to uninfested areas has the potential to spread the pest rapidly throughout the State or to other states, whereas the natural spread of the pest would be gradual.

To prevent artificial spread of the fly to noninfested areas to protect California's agricultural industry, it was necessary immediately to regulate the human assisted movement of hosts that can carry the fly from, into and within the infested area and a surrounding buffer area.

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.

Statutory Exemption Title 14, California Code of Regulations Section 15269, subdivision (c) “Specific actions necessary to prevent or mitigate an emergency.”

Categorical Exemption

Title 14, California Code of Regulations, Section 15308. “Class 8 consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment.”

For the reasons set forth in this document, this constitutes a specific act necessary to prevent or mitigate an emergency and is also an action required for the preservation of the environment.

Evidence of Emergency

The Oriental fruit fly has the capability of causing significant irreparable harm to California’s agricultural industry and some likely adverse environmental impacts. Should the Department not take these actions; the Oriental fruit fly could cause direct catastrophic losses to California’s affected agricultural industries and significant harm to the State’s economy through cost impacts or prohibitions to interstate commerce and exports of host commodities. Although there are no known commercial host crops being produced in the Anaheim area, there are containerized transfer stations used in international trade which are included within the regulated area. When handling any host material, they either have to have the operations completely enclosed or only operate at night when the fly is inactive. Additionally, there are Farmer Markets and swap meets, community and backyard gardens and other sources of host commodities located within the quarantine area. The movement of one piece of infested fruit can result in a new incipient infestation.

Each day that the Department could not conduct the necessary quarantine project activities significantly increased the immediate threat that the infestation could grow through artificial spread by human assisted movement of infested commodities. While the continued

unabated natural spread from this incipient infestation may be confined to Orange and Los Angeles counties for a period of time, human assisted artificial spread could occur to anywhere in California or to other states. If the fly were allowed to spread and become established in other host fruit production areas, California's agricultural industry would suffer losses due to increased pesticide use, decreased production of marketable fruit, and loss of markets if the United States Department of Agriculture or other states or countries enact quarantines against California products which can host and carry the fly.

In addition to the economic impacts on the agricultural industry, this would result in consumers suffering by facing higher prices for the affected host commodities. The spread to other urban areas would also have negative impacts on homeowners and community gardens. The natural reaction of the general public to finding larvae damaging their crops would also be to increase the use of pesticides. Pesticides used in compliance with all label requirements do not have a significant impact on the environment or waterways. However, there would likely be an element of the general public which may misuse the pesticides. The widespread misuse of pesticides in our urban areas, including properly disposing containers, could cause damage to the environment and our waterways.

Under international trade agreements, the USDA is obligated to notify any trading partner which has concerns regarding the quarantine status of Oriental fruit fly in the United States. Examples of countries which have specific concerns pertaining to Oriental fruit fly include Argentina, Australia, Brazil, Chile, Costa Rica, Japan, Mexico, New Zealand, South Africa and South Korea. Some of these countries are major trading partners involving California produced host commodities. Trade impacts may not be just limited to host commodities produced within the regulated area or even in California. For instance, Japan, Mexico and South Korea will not accept any Oriental fruit fly host material produced in, packed or repacked within a regulated area even if it originated in another state. Additionally, any host commodities transiting a regulated cannot unnecessarily stop and must be sealed and enclosed in a manner to exclude the possible entry of the fly into the host shipment. The introduction of exotic fruit flies such as Oriental fruit fly is always the subject of the regional and specific bilateral trade discussions which occur between the USDA and our trading

partners. The expeditious implementation of exotic fruit fly quarantines is key to ensure qualifying host commodities produced in or packed anywhere in California can also continue to move in international trade. Our trading partners are astute and have used the internet in the past to review our State regulations and compare them to the information they receive from the USDA.

The immediate implementation of this proposed regulatory action was necessary to prevent the USDA from considering the entire State as infested with Oriental fruit fly. The USDA is in the process of revising a federal domestic regulation and cannot regulate less than the entire State unless it has a parallel State regulation. If the USDA were to regulate the entire State, there would be additional detrimental quarantine requirements directed against California host commodities by the USDA and our concerned international trade partners.

Therefore, it was necessary to amend this regulation to establish a quarantine area in the Anaheim area of Los Angeles and Orange counties as an emergency action.

Project Description

This amendment of Section 3423(b) established approximately 75 square miles in the Anaheim area of Los Angeles and Orange counties as the area under quarantine for Oriental fruit fly.

The goal of quarantine activities is the prevention of human-assisted dispersal of the Oriental fruit fly from infested to uninfested areas. In the case of Oriental fruit fly, the buffer area, which is a minimum of 4.5 miles, is three times the distance of any anticipated natural spread. The real threat of long distance spread is from human-assisted movement of infested host material.

The quarantine area is considered the minimum area surrounding the initial detection site which should be regulated to prevent artificial spread of Oriental fruit fly to uninfested areas. The effect of this regulation will be to implement the State's authority to perform quarantine activities against the Oriental fruit fly in this area of Los Angeles and Orange

counties. Any quarantine actions undertaken by the Department will be in cooperation and coordination with the USDA and the Los Angeles and Orange County Agricultural Commissioners.

Quarantine activities include the establishment of the boundary, notification of affected residences and businesses, monitoring and regulation of susceptible commodities and articles covered. This may include soil, raw cannery waste, fruits, host nursery stock, etc., which have been exposed to infestation by the Oriental fruit fly. Sellers and transporters of host commodities and articles are required to implement measures to protect their commodities and articles from infestation. Protective measures include but are not limited to, refrigeration of host commodities, enclosure in fly proof packaging or containers, the use of air screens, automatic doors or screening to exclude Oriental fruit fly from areas where hosts are present and are intended to be subsequently moved either within or from the quarantine area. Growing season protective or post-harvest treatments of exposed host commodities may be required prior to movement from or within the quarantine area and be monitored by regulatory officials.

Background

Oriental fruit fly has been established in Hawaii, since 1976, where it is a major pest of agriculture and is particularly attracted to mangoes, avocados and papayas. Maggots have been found in over 125 kinds of fruits and vegetables in Hawaii alone. The introduction of this pest threatens numerous crops in California, including apples, apricots, avocados, cherries, citrus, figs, nectarines, peaches, pears, plums and tomatoes. It has been estimated that the cost of not eradicating Oriental fruit fly in California would range from \$44 to \$176 million in crop losses, additional pesticide use, and quarantine requirements. Oriental fruit fly has been introduced into California a number of times, through the movement of prohibited host fruits and vegetables into the State, and has been eradicated.

Females lay eggs in groups of three to 30 under the skin of host fruits and vegetables; the female can lay more than 1,000 eggs in her lifetime. Time taken for development depends on the ambient temperature. Larvae tunnel through the fruit feeding on the pulp, shed their

skins twice, and emerge through exit holes in approximately 10 days. The larvae drop from the fruit and burrow two to three cm. into the soil to pupate. In 10 to 12 days, adults emerge from these puparia. The newly emerged adult females need eight to 12 days to mature sexually prior to egg laying. Breeding is continuous, with several annual generations. Adults live 90 days on the average and feed on honeydew, decaying fruit, plant nectar, bird dung, and other substances. The adult is a strong flyer recorded to travel up to 30 miles in search of food and sites to lay eggs. Transport of fruit infested with eggs or larvae also allows the fly to spread artificially and infest new areas very quickly.

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

The Department of Food and Agriculture has determined that Section 3423 does not impose a mandate on local agencies or school districts, except that agricultural commissioners of counties under quarantine have a duty to enforce it. No reimbursement is required under Section 17561 of the Government Code because the Los Angeles and Orange County Agricultural Commissioners requested the change in the regulations.

The Department also has determined that no savings or increased costs to any state agency, 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, no nondiscretionary costs or savings to local agencies or school districts, and no costs or savings in federal funding to the State will result from the proposed action.

The statewide cost impact of the changes in the regulations on private persons or businesses is not expected to be significant.

The Department has determined that the proposed action will not have a significant adverse economic impact on housing costs or California businesses, including the ability of California businesses to compete with businesses in other states. The Department's determination that this action will not have a significant adverse economic impact on businesses was based on the following:

Within the quarantine area, the Department has identified 234 markets/produce vendors. These businesses must maintain quarantine commodities in a manner that precludes exposure to Oriental fruit fly. Approved safeguards include maintaining the commodities indoors, in coolers, in plastic bags, enclosed behind window screen, or covered with fine mesh or plastic. All of these methods are fairly inexpensive. These businesses may experience a reduction in sales and reduced shelf-life of the commodities. Neither of these reductions would represent a significant economic impact.

There are 39 nurseries in the area under quarantine that must treat the soil of host plants and strip the fruit of host plants before they may be moved from or within the area under quarantine. The required treatment is a soil drench with diazinon. This treatment does not have to be repeated if the fruit is kept stripped from the plants. The cost of the treatment is low and existing nursery personnel perform the treatment and fruit stripping. The fruit is placed in plastic bags for landfill disposal. The plastic bags are inexpensive and the extra material for landfill disposal does not add appreciably to their existing disposal costs.

The Department has identified 7 growers in the area under quarantine. Host fruit from growers outside the core area (a one-half mile area surrounding the infested sites) must be treated with a bait spray before it can be moved. The treatments are to be applied for one life cycle of the fly for a minimum of 30 days. Applications are made at 10-14 day intervals. Conventional grower spray costs are approximately \$5 per acre for materials, \$45 per acre for a pesticide applicator or \$200 per acre for a Pest Control Advisor to apply and \$200 for a Pest Control Advisor recommendation. There are a minimum of three applications required for 30 days. Therefore minimally the materials are \$15 per acre. There are 7.18 acres of host crops. The total minimum cost for these host growers would be $(7.18 \text{ acres} \times \$15/\text{acre}) + (7.18 \text{ acres} \times \$45 \text{ acre}) + (\$200 \text{ Pest Control Advisor recommendation} \times 7 \text{ growers}) = \$1,832$. The average minimum cost would be $\$1,832/7 \text{ growers} = \262 . Some growers may have to make up to ten applications prior to getting through one life cycle of the fly. In this case materials would be \$150 per acre. In this case, the maximum costs for these growers would be \$3,195 and the average cost would be \$457.

There is an option for using Spinosad which is an organic formulation. The materials costs per acre are substantially higher, approximately \$27.27 per acre. However, there are no known organic growers within the quarantine area. In this case the average minimum cost per grower would be \$330 and the maximum costs would be \$685.

There are no known growers located within the core area that would only have the quarantine treatment options of cold treatment, fumigation or processing for host material. Host material produced in the core area is considered to be a higher risk due to its proximity to the known infested sites. Fumigation costs are approximately \$0.25-27 per pound of product. Cold treatment costs are approximately \$0.015 per pound of product.

The Department has also identified 2 haulers of host commodities. The Department has not been able to identify any specific additional costs associated with these businesses.

No business has gone out of business due to the quarantine. Many businesses have benefited from the sales of safeguarding materials and others have benefited from Oriental fruit fly expenditures by State and Federal governments. It is clear that there is a huge benefit to the majority of businesses located outside the quarantine area which are protected from unnecessary interstate and international quarantine restrictions if this regulation was not in place.

Based on the above information, it was determined that the amendment of Section 3423(b) will not have a significant adverse economic impact on businesses. All costs associated with compliance with the regulation are reasonably low, transitory and, for the most part, a number of optional ways to comply are available to businesses so they may select the means with the lowest cost and easiest implementation for them. For many businesses, no additional costs were incurred.

Assessment

The Department has made an assessment that repealing these regulations would not (1) create or eliminate jobs within California, (2) create new business or eliminate existing businesses within California, or (3) affect the expansion of businesses currently doing business within California.

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 and less burdensome to affected private persons than the proposed action.

Anticipated Benefits from This Regulatory Action

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 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.

Existing law, FAC section 5302, provides that the Secretary may make and enforce such regulations as she deems 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.

The existing law obligates the Secretary to establish and enforce a quarantine boundary to circumscribe and exterminate the limited infestation of Oriental fruit fly in the Anaheim area of Los Angeles and Orange counties. The amendment of this regulation benefits the environment by reducing the spread of an exotic invasive species. A small, contained quarantine area minimizes enforcement costs to the Department and prevents the entire

State from being regulated by the Federal government. A quarantine also expands public awareness of Department programs and the consequences of moving infested commodities throughout the state, as well as illegally importing host material. This reduces potential future incidents of quarantines. Additionally, a quarantine program increases the Department's knowledge of host commodities being sold within the quarantine and allows for identification of possible pest introduction pathways.

Economic Impact Analysis

The projected program costs to run the quarantine project are \$42,820. Only 7 growers are impacted by the amendment with a total of 7 acres of host crops in quarantine and none ship out of state. All costs associated with compliance with the regulation are reasonably low, transitory and, for the most part, a number of optional ways to comply are available to businesses so they may select the means with the lowest cost and easiest implementation for them.

Information Relied Upon

The Department is relying upon the following studies, reports, and documents in the amendment of Section 3423(b):

Pest and Damage Records (PDRs) AM0P06044067, AM0P06044094, AM0P06044145, AM0P06044146, AM0P06044147, AM0P06044148, AM0P06044173, and AM0P06044174.

Economic Impact Analysis: Email dated February 9, 2012 from Stephen Brown to Lindsay Rains; email dated January 12, 2012 from Casey Estep to Stephen Brown and its attachment; email dated December 2, 2011 from Casey Estep to Stephen Brown and its attachment.

Letter dated October 17, 2011 from Kurt Floren to Karen Ross.

Letter dated October 14, 2011 from Rick Le Feuvre to Karen Ross.

“Action Plan for Methyl Eugenol Attracted Fruit Flies, including Oriental Fruit Fly, *Bactrocera dorsalis* (Hendel),” revised April 2000, California Department of Food and Agriculture.

“Action Plan, Oriental Fruit Fly, *Bactrocera dorsalis* (Hendel),” October 1989, United States Department of Agriculture, Animal and Plant Health Inspection Service, Cooperating State Departments of Agriculture.