

DEPARTMENT OF FOOD AND AGRICULTURE
PROPOSED CHANGES IN THE REGULATIONS

Title 3, California Code of Regulations

Section 3589 Subsection (a)

Japanese Beetle Eradication Area

INITIAL STATEMENT OF REASONS/
POLICY STATEMENT OVERVIEW

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

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

Specific Purpose and Factual Basis

The specific purpose of Section 3589 is to provide authority to the Department to perform eradication activities against Japanese beetle, *Popilia japonica*, from within the declared eradication area by the established means and methods.

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

On September 18, 2015, two adult Japanese beetles were unexpectedly trapped in Sunnyvale, Santa Clara County. Japanese beetle is one of the most destructive insect pests in the United States. The adult beetle is a gregarious and general feeder that causes serious damage to fruits, truck and garden crops, ornamental herbaceous garden plants, ornamental shrubs, trees and vines, and many other urban plants. The larvae feed extensively on the root systems of plants, particularly in grassy (sod/turf) areas such as parks, golf courses, etc. This unexpected occurrence of Japanese beetle in the Sunnyvale area is indicative of an incipient infestation existing in the Sunnyvale area of Santa Clara County.

The entire County of Santa Clara is being proposed as eradication area because the utilization of these political boundaries will avoid frequent amendments to the regulation if the Japanese

beetle is detected elsewhere within this county, and there are no associated impacts with the regulation if no beetles are found.

The effect of the amendment of this regulation was to implement the State's authority to perform specific survey, control and eradication activities against Japanese beetle in Santa Clara County. Any eradication or control actions undertaken by the Department will be in cooperation and coordination with federal, city, county, and other state agencies as deemed necessary by the Department to ensure no long-term significant public health or environmental impacts. To prevent the spread of the Japanese beetle to non-infested areas in order to protect California's agricultural industry and environment, it was necessary to begin eradication activities against the Japanese beetle immediately. Therefore, it was necessary to amend this regulation on an emergency basis.

Subsection 3589(a) established the target pest, Japanese beetle and the eradication area, Santa Clara County.

Background

Both as adults and as grubs (the larval stage), Japanese beetles are destructive plant pests. Adults feed on the foliage and fruits of several hundred species of fruit trees, ornamental trees, shrubs, vines, and field and vegetable crops. Among the plants most commonly damaged are rose, grape, crabapple, turf grass and beans. Adults leave behind skeletonized leaves and large, irregular holes in leaves. The grubs develop in the soil, feeding on the roots of various plants and grasses and often destroying turf in lawns, parks, golf courses, and pastures. Today, the Japanese beetle is the most widespread turf-grass pest in the United States. Efforts to control the larval and adult stages are estimated to cost more than \$460 million a year. Losses attributable to the larval stage alone have been estimated at \$234 million per year—\$78 million for control costs and an additional \$156 million for replacement of damaged turf. Additionally, as a general feeder, the Japanese beetle likely poses a serious threat to the general environment and some of California's threatened and endangered species.

Several states within the United States maintain quarantines in an effort to prevent the introduction or spread of this serious pest through the movement of nursery stock or other carriers. The National Plant Board is comprised of representatives of all state agriculture

agencies and has a Japanese Beetle Harmonization Plan. The plan was created to assure that the pest risks associated with movement of plant material were acceptably managed and to facilitate the orderly marketing of nursery stock and other regulated commodities between states. Adopted by the National Plant Board on August 19, 1998, it was most recently revised on March 4, 2016.

The United States Department of Agriculture still considers this pest serious enough to maintain a Japanese Beetle Program to prevent the dissemination of adult beetles through the movement of airplanes and air cargo from infested states during the Japanese beetle flight season. The State of California has a Japanese Beetle Exterior Quarantine, Section 3280, Title 3, California Code of Regulations to help mitigate the introduction of this beetle into California.

Action Plan

Delimitation Trapping

Intensive trapping is triggered when one or more beetles are found in a trap. The objective is to determine the extent and epicenter of an infestation. The trap density is increased to 50 traps per square mile within one square-mile core surrounding each adult find. The trap density in the remainder of the delimitation area are increased outward from the core within 48 hours of the find to complete a 50-25-5-5 array. Traps near the core are monitored daily for a week and weekly thereafter. Core trap densities may be increased if additional beetles are found.

General

Treatment will begin immediately after notification, within 24 to 72 hours after an infestation is determined to exist. Japanese beetle eradication programs rely on chemical treatment to two phases of the insect life cycle: larva and adult. Treatment areas, based on the known flight capabilities of the adult insect, are approximately a 200-meter radius from the source of an infestation, as determined by beetle finds. Foliar treatments of all host and suspected host material are made during the adult flight season if one or more adults are detected during a visual survey. Soil treatment is timed to kill larvae when they are actively feeding on grass roots in the spring or summer, depending on the product used. Residents are notified at least 48 hours before the initial soil or foliar treatment except in isolated cases when immediate treatment is necessary.

Notification

The purpose of notification is to comply with state law and present accurate information in an understandable format to concerned groups. Local and state elected representatives of the residents in the treatment area will be notified and appraised on major developments before and during treatment. Any residents whose property will be treated with foliar sprays or soil treatment following the discovery of an infestation on or near the property will be notified in writing prior to treatment. Treatment notices include the name of the pest to be eradicated, the material to be used, the boundaries, and a phone number to call in case of additional questions on project operations and the number for the pesticide control center. Following treatment, a completion notice is left detailing any precautions the homeowner should take.

Treatment

In the event that one or more live adult beetles are found in the environment (i.e., not in a trap), a foliar treatment may be used to target adults. Foliar treatment uses an insecticide applied by hydraulic spray equipment to all non-fruit bearing plants within the treatment area. Application is repeated at 14-21 day intervals during the adult flight season. Shorter application intervals may be needed during the peak growing season to adequately cover rapidly growing foliage. Soil pesticides are applied in the spring or summer, depending on the product used. The pesticide is watered into the soil. The soil surfaces of grass turf areas and other ground cover plants are treated in order to target the young grubs. Additional finds of adult beetles found from July onward may trigger a soil treatment the following year.

Pesticide Monitoring

A pesticide monitoring program is used to evaluate program effectiveness and environmental impact. Pesticide monitoring is a cooperative effort involving federal, state, and county personnel. The evaluation must effectively address agency, cooperator, and public concerns.

In compliance with appropriate pesticide laws, the CDFA or agricultural commissioner's pesticide enforcement personnel will make regular inspections of treatment, equipment, mixing/loading activities, and pesticide container storage.

Pesticide residues in the environment will be monitored by the Department of Pesticide Regulation. Monitoring for detectable levels of pesticides in and around treatment areas may

include sampling of air, foliage, food crops, water, soil, or other media. Monitoring results will indicate program effectiveness by measuring persistence of pesticides in pest host materials, and show environmental impact by measuring residues in non-target environmental components.

Post-Treatment Monitoring

To ensure the success of an eradication program, intensive trapping continues for three years following the completion of treatment. Additional finds may trigger re-treatment.

California Environmental Quality Act

A Statewide Plant Pest Prevention and Management Program Environmental Impact Report (EIR) was prepared by the Department as the lead agency under the California Environmental Quality Act. The EIR addresses the potential impacts and mitigations when implementing the Statewide Plant Pest Prevention and Management Program activities related to Japanese beetle.

The EIR may be accessed at the following website:

<http://www.cdfa.ca.gov/plant/peir/>

Economic Impact Analysis

The eradication and prevention of the spread of Japanese beetle in California through the amendment and implementation of this regulation economically benefits:

- The general public.
- Homeowners and community gardens.
- Agricultural industry.
- The State's general fund.

The Department's budgeted operational program costs for the implementation of this eradication program for fiscal year 2015/2016 is \$1,057,000 through the Department's Emergency Fund. The total budgeted cost of \$1,057,000 is money well spent to eliminate the long term impacts of a Japanese beetle infestation.

Potential Agricultural Industry Impacts

If the beetle were allowed to spread and become established in host 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.

Some listed hosts are grown as specialty crops in California. These niche markets would also be negatively impacted if Japanese Beetle were to become established in California.

Potential Impact to Homeowners and Community Gardens

Many of the host plants attacked by Japanese beetle are favored by the home gardener and community gardener. Therefore, if Japanese beetle were not eradicated, homeowners and community gardeners would be negatively impacted.

Potential Impacts to General Fund and Welfare

California's unemployment rate in March 2015 dropped to 6.5 per cent. During the preceding 12 months prior to March 2015, agricultural employment was up by 5.1 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.

Anticipated Benefits from This Regulatory Action

One of the Department's broad statutory objective is to prevent the introduction and spread of injurious insect or animal pests, plant diseases, and noxious weeds (FAC section 403) and that it may adopt regulations as are reasonably necessary to achieve this (FAC section 407). The Department 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 (FAC section 5321) and may establish and maintain eradication regulations (FAC section 5322).

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 nursery, fruit for domestic use and exports, and the environment (urban landscapes) by having an eradication program to eliminate Japanese beetle prior to its being artificially spread over short and long distances.

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. This amendment provides the necessary regulatory authority to eradicate this pest; preventing the spread of a serious insect pest is a mandated statutory goal.

The Department is also obligated to protect the general welfare and economy of the State and to seek to maintain the economic well-being of agriculturally dependent rural communities in this State (FAC Section 401.5). The activities authorized by this adoption of this regulation are preventing the establishment and potential spread of Japanese beetle to uninfested areas of the State; including areas with wholesale nurseries, retail nurseries, and agriculturally dependent rural communities.

With the eradication of Japanese beetle, California, national and international consumers of California fruit and nursery stock benefit by having high quality plants, turf, and fruit available at lower cost. It is assumed that any increases in production costs would ultimately be passed on the consumer.

The amendment of this regulation benefits homeowners and community gardens that grow their own host fruits for consumption and host material which is planted as ornamentals in various rural and urban landscapes, including lawns.

This regulation will benefit the public's general welfare by providing authority for the State to perform detection, control and eradication activities against Japanese beetle in Santa Clara County.

The implementation of this regulation will prevent:

- Direct damage to the agricultural industry growing hosts.
- Indirect damage to the agricultural industry growing hosts due to the implementation of quarantines by other countries and loss of export markets.
- Increased production costs to the affected agricultural industries.
- Increased pesticide use by the affected agricultural industries.
- Increased costs to the consumers of host fruits.
- Increased pesticide use by homeowners and others.
- The need to implement an unnecessary federal regulation of the entire State.

Assessment

Based upon the Economic Impact Analysis, the Department has made an assessment that the adoption of the regulation would not 1) create or eliminate jobs within California; 2) create new business or eliminate existing businesses with California; or 3) affect the expansion of businesses currently doing business with California. Additionally, the Department has been conducting eradication projects throughout the State for over 30 years without creating or eliminating businesses.

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.

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

The Department of Food and Agriculture has determined that the amendment of Section 3589 does not impose a mandate on local agencies or school districts and no reimbursement is required under Section 17561 of the Government Code.

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 amendment of Section 3589.

The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

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. The Department's determination that the action will not have a significant statewide adverse economic impact on business was based on the following:

The amendment of Section 3589 will provide authority for the Department to conduct eradication activities against Japanese beetle in Santa Clara County and there are no known private sector cost impacts.

Alternatives Considered

The Department of Food and Agriculture determined 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. The Department did not consider any alternatives to the proposed amendment of the regulation because it believes the proposed regulations are the best way to achieve its statutory goals which obligate it to prevent the establishment and spread of pests.

One of the Department's statutory mandates is to prevent the spread of harmful pests. The emergency amendment of this regulation was necessary to prevent the further artificial spread of Japanese beetle as part of an existing ongoing Japanese beetle eradication project. No other interested party has suggested an alternative to this existing regulation.

Information Relied Upon

The Department relied upon the following studies, reports, and documents in the proposed adoption of subsection 3589:

California Pest and Damage Record # SJ0P06003018

“Action Plan for Japanese Beetle, *Popillia japonica* (Newman),” May 2000, California Department of Food and Agriculture, Plant Health and Pest Prevention Services (nine pages).

“Japanese Beetle Program Manual,” Fourth Edition Issued 2016. United States Department of Agriculture, Marketing and Regulatory Programs, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

“Economic Risk Analysis: Oregon and the Japanese Beetle (*Popillia japonica*) Newman,” 2007, Oregon Department of Agriculture.

“Final JB SAP Recommendations” <https://www.cdfa.ca.gov/plant/jb/pdfs/JB-SAP-Recommendations.pdf>

“U.S. Domestic Japanese Harmonization Plan,” revised March 4, 2016 {}, National Plant Board.

USDA Program Aid No. 1599, “Managing the Japanese Beetle: Homeowner’s Handbook,” revised May 2015.