

DEPARTMENT OF FOOD AND AGRICULTURE
PROPOSED CHANGES IN THE REGULATIONS

Title 3, California Code of Regulations

Section 3280

Japanese Beetle Exterior Quarantine

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 to protect the agricultural industry and environment from the introduction and spread of injurious plant pests within California.

Specific Purpose and Factual Basis

Section 3280

The specific purpose of Section 3280 of Title 3 of the California Code of Regulations is to prevent the introduction of live Japanese beetle (*Popillia japonica*) into California.

The Japanese beetle is a highly destructive plant pest that can be difficult and expensive to control. Feeding on grass roots, Japanese beetle larvae damage lawns, golf courses, and pastures. Japanese beetle adults attack the foliage, flowers, or fruits of more than 300 different ornamental and agricultural plants. This beetle is not established in California and the Department has an active eradication program in place for any outbreaks that occur from Japanese beetle incursions.

Under Food and Agricultural Code (FAC) Sections 407, 5301, and 5302, the Department is authorized to adopt regulations necessary to prevent the spread of injurious insect pests and animal diseases.

Under FAC Section 5024, the Department shall inspect any plant or thing that is, or is liable to be, infested or infected by, or which might act as a carrier of, any pest. Under FAC Section 5701, the Secretary or the county agricultural commissioner may put a hold on any plant, other

hosts, or possible carrier which is, or may be, capable of disseminating or carrying the pest. FAC sections 6441 and 6442 provide that: after inspection, any plant or thing found to be infested or infected, the owner or bailee shall, at his expense, disinfect the conveyance or place where the plant or thing may have been located, and that the inspecting officer will not permit the removal of any article which has come in contact with the infested or infected, meaning in contact with Japanese beetle, plant or thing. Under FAC 5310, 5311, and 6461, penalties may be levied against parties violating this division or any regulation adopted pursuant to this division, and costs of inspecting and controlling the pest may be charged to the shipper or transporter by charging actual costs for inspection and treatments.

The Department has determined it is necessary to take these steps to protect California agriculture from this aggressive and dangerous pest as per FAC 403.

Section 3280 (a)

Section 3280 (a) lists the pest for which the quarantine has been established. In this case, it is the Japanese beetle, *Popillia japonica*. The Department is proposing to add “flowers” as one of the plant parts attacked by the Japanese beetle as it can be attacked by Japanese beetle and was not currently on the list.

Section 3280 (b)

Section 3280 (b) defines terms used in the regulation.

This section has been modified to clarify the definition of a “category 1 state” and to remove the reference to the website, as the link is no longer valid.

Section 3280 (b) has also been expanded to include the definitions of: “Bill of Lading,” “California State Plant Quarantine Officer,” “conveyance,” “dead Japanese beetle,” “inspecting officer,” “inspection,” “live Japanese beetle,” “moribund Japanese beetle,” “owner,” “person,” “shipper,” and “transporter”. The detailed definitions are necessary to ensure consistent interpretation for the terms used in the proposed regulation.

“Category 1 state” is defined under the U.S. Domestic Japanese Beetle Harmonization Plan as adopted by the National Plant Board. In summary, a Category 1 state does not have an established Japanese beetle population based on official surveys; the state has officially adopted and maintained a quarantine to prevent entry of Japanese beetle; and the state has an active eradication program in place for any incipient populations. California is a category 1 state under the U.S. Domestic Japanese Beetle Harmonization Plan as adopted by the National Plant Board.

The National Plant Board is a non-profit organization formed in 1925. The board includes the plant pest regulatory agencies of each of the states, Puerto Rico and Guam. The board works cooperatively with other agencies such as USDA’s Animal and Plant Health Inspection Service. The U.S. Domestic Japanese Beetle Harmonization Plan was developed by the National Plant Board as a framework to protect un-infested states, such as California, while providing shippers consistent, easy to understand certification requirements.

“Bill of lading” is defined as a document issued by a shipper or their agent to acknowledge receipt of cargo for shipment.

“Conveyance” is defined as a thing, including but not limited to, an aircraft, ship, or truck, used to transport someone or something from one place to another and that is subject to inspection.

“California State Plant Quarantine Officer” is defined for the purpose of this regulation, as a state or county staff person authorized by the Secretary to:

- a) Certify the pest condition or pest treatment of shipments
- b) Enforce the laws and regulations which relate to Japanese beetle quarantine

“Inspecting officer” is defined as a federal, state, or county employee conducting an inspection.

“Inspection” is defined as an in-person examination of a conveyance, shipment, object, or property to determine if a pest or plant disease is present.

“Owner” is defined as a person who has legal control over an object, property, or organization.

“Person” is defined as any individual, partnership, association, corporation, and limited liability company. Person can be any organized group of persons organized whether incorporated or not.

“Shipper” is defined as any person who engages in the operation of selling, marketing, handling, or distributing on behalf of a producer, whether as owner, agent, employee, broker, or otherwise. As defined in FAC 38 person means any individual, partnership, association, corporation, limited liability company, or any organized group of persons whether incorporated or not.

“Transporter” is defined as a person or thing that moves something from one property to another, along public roadways, or within or from without the state.

The following definitions have been developed by CDFA entomologists and have been used by inspecting officers at airports to denote beetle status for over 15 years.

“Live Japanese beetle” is defined as an adult beetle which is alert, active, and responsive to external stimuli. Live adult beetles have the capacity for coordinated movement at ambient temperatures equal to or exceeding 70° F. Coordinated movements may consist of any of the following: walking at least one body length, responding to touch or other external physical stimuli, attempting to escape grasp or capture via powered flight or leg/body movements, turning over (righting itself) from back to front if placed upside down, and exhibiting feeding behaviors. Live adult beetles typically exhibit a posture consisting of fully extended legs and antennae

“Moribund Japanese beetle” is defined as an adult beetle which is presumed to be in the process of dying with no chance of recovery. These beetles may exhibit body or appendage movement, but they are uncoordinated and not necessarily in response to any external stimuli. In some instances, the body and/or appendages may be visibly twitching. Moribund beetles, if already on their back, are not capable of turning over (righting itself). Coordinated activities such as feeding, sustained walking, and powered flight are not possible.

“Dead Japanese beetle” is defined as an adult beetle which has no capacity for movement or response to stimuli. The beetle may have the appendages tucked beneath the body sometimes with the legs completely curled underneath the body. A dead adult beetle may be dry and brittle

and have appendages fixed in a rigid position. A recently dead adult beetle may still possess flexible, pliant appendages that can be readily moved by the observer.

Section 3280 (c)

Section 3280 (c) specifies which areas of the United States and Canada are under quarantine for Japanese beetle due to their infested or partially infested status.

In section 3280 (c)(1) the quarantine areas listed for the United States currently include the entire states of Alabama, Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, West Virginia, Wisconsin, and the District of Columbia.

The Department is proposing to amend Section 3280 (c)(1) to add North Dakota to the list of quarantine states. The status of that state has been changed to “partial infestation” status based on the current Animal Plant Health and Inspection Service (APHIS) Plant Protection and Quarantine U.S. Japanese Beetle Distribution map, which was modified to include North Dakota in response to repeated trapping of Japanese beetles that indicated an established infestation in that state.

Section 3280 (c)(2) lists the provinces of Canada that are under quarantine. The Department is not proposing to amend this section.

Section 3280 (d)

Section 3280 (d) lists the articles and commodities declared in the regulation as hosts and possible carriers for Japanese beetle. The Department proposes to amend subpart (7) within this subsection.

Currently, section 3280 (d) (7) states:

“Any other plant, plant part, article, or means of conveyance when it is determined by a California State Plant Quarantine Officer to present a hazard of spreading live Japanese beetle due to infestation of exposure to infestation by Japanese beetle.”

The Department proposes to amend this section to replace “means of conveyance” with “conveyance” as newly defined as in section 3280 (b)(2).

Section 3280 (e)

Section 3280 (e) states that all articles and commodities covered in section 3280 (d) are prohibited entry into California from areas under quarantine unless they are covered by a Certificate of Treatment as described in section 3280 (e)(1) or a Certificate of Origin as described in section 3280 (e)(2) or are privately owned houseplants which have passed inspection as described in section 3280 (e)(3).

The Department is proposing to amend section 3280 (e)(1) to exclude grass sod as a commodity that can be approved for entry into California with a Certificate of Treatment. This change aligns the regulation with provisions of the U.S. Domestic Japanese Beetle Harmonization Plan. The Plan states that shipment of sod is not allowed from Japanese beetle infested states to Category 1 states. The risks associated with sod are too high; grass sod sites are preferred sites for Japanese beetle egg laying and none of the current treatments for Japanese beetle are considered 100% effective for grass sod.

The provisions of 3280 (e)(2) state that commercial plant shipments with soil may be shipped from an area under quarantine into California provided that they are accompanied by a Certificate of Origin. The Department is proposing to modify this section to indicate that grass sod may not be shipped under this provision. Again, this change is to align the regulation with the provisions of the U.S. Domestic Japanese Beetle Harmonization Plan.

Section 3280 (e)(2) states that Certificate of Origin shall only be issued if a shipment conforms fully with one of the following subsections:

(A) Production in an Approved Japanese Beetle-Free Greenhouse / Screenhouse

(B) Plants Produced Outside Regulated Area

(C) Origin County Free Survey

(D) Nursery Free Survey

(E) Production During a Pest-Free Window

Subsection (A) *Production in an Approved Japanese Beetle-Free Greenhouse / Screenhouse* describes the criterion that production in a Japanese beetle-free greenhouse and/or screenhouse must meet to receive a Certificate of Origin. The Department proposes clarifying that the adult flight period of the Japanese beetles is June through September when the greenhouse/screenhouse shall be made secure. The Department proposes minor formatting change; removing the italics from the additional declaration, and replacing the terms authorized agricultural official with inspection officers to match the rest of the regulation.

Subsection (B) *Plants Produced Outside Regulated Area* describes the criterion for plants that were produced outside of the regulated areas, but then were transported into the regulated areas. The Department proposes adding the appropriately to describe the closed contained used to transport plants to clarify the level of protection given.

Subsection (C) *Origin County Free Survey* provides that articles and commodities may be accepted from counties within the quarantine area that are not infested with Japanese beetle if they meet certain criteria and are on an approved list maintained by the Secretary. Subsection (C) lists the criterion that the counties must meet to be considered non-infested. If a county meets the stated criterion, the relevant agricultural official may request approval through written request to the Department.

The Department proposes amendments to the subsection. The first amendment clarifies that a written request to the Secretary is required for a county to be added to the non-infested list instead of a written request, so any applicant knows who to address their request to. The next adds a date requirement to the survey. The next amendment updates the title of the Pest Exclusion Branch. The last amendment addresses the degree of infestation in neighboring counties. The current requirement is that neighboring counties may not be heavily infested. The Department is proposing to amend Subsection (C) to replace “heavy infestation” with “live Japanese beetle has been detected in neighboring counties ” and to strengthen the regulation to state that placement

of a county on the approved Japanese Beetle non-infested list “shall” be denied if neighboring counties are infested rather than merely state that it “may” be denied. Japanese beetles are highly vagile, and presence in an adjacent county indicates a significant risk that Japanese beetle is established in the county in question but has not yet been officially acknowledged due to the time lag in detecting, officially recording, and communicating the presence of new Japanese beetle infestations.

Subsection(D) *Nursery Free Survey* describes the Japanese beetle-free certification process for nurseries within quarantine areas. The nurseries certified under this approach produce all their own stock or receive nursery stock which has been certified free of Japanese beetle by an authorized agricultural official.

The regulation specifies the minimum trap density that certified nurseries must use in their Japanese beetle detection program. The Department is proposing to amend the trap densities to include a minimum number of traps. This is to ensure that larger areas do not end up with fewer traps than smaller areas at the lower end of the size ranges.

1. For sites less than 5 acres in size, 3 traps are used per site.
2. For sites 5 to 30 acres in size, 1 trap is used for each 5 acres with a minimum of three traps used.
3. For sites 31 to 160 acres in size, 1 trap is used for each 10 acres with a minimum of 6 traps used.
4. For sites greater than 160 acres in size, 8 traps are used for each 100 acres with a minimum of 16 traps used.

By including a minimum number of traps for sites 5 to 30 acres in size and larger, the Department ensures that the trap number doesn't decrease as the parcel size class increases.

The Department is also proposing to modify the Additional Declaration to remove the italic formatting. The term “sexing” is also removed and is replaced with “identification of sex” a more descriptive term that does not change the meaning of the activity.

Subsection (E) *Production During a Pest-Free Window* describes the timing of production and the proper growing medium for certification. The entire rooted plant production cycle (planting, growth, harvest, and shipment) is completed within a pest-free window dissociated from the Japanese beetle adult life stage. Beetle flight period (June through September) in Japanese beetle-free commercial growing medium or sterilized field soil. The Department proposes a minor modification to this section where the Additional Declaration is reformatted to remove the italics.

Section 3280 (e)(3)

Privately owned houseplants grown indoors may enter the state if they have been inspected and passed by California State Plant Quarantine Officers and found to be free from Japanese beetle. The Department does not propose any changes to this section at this time.

Section 3280 (f)

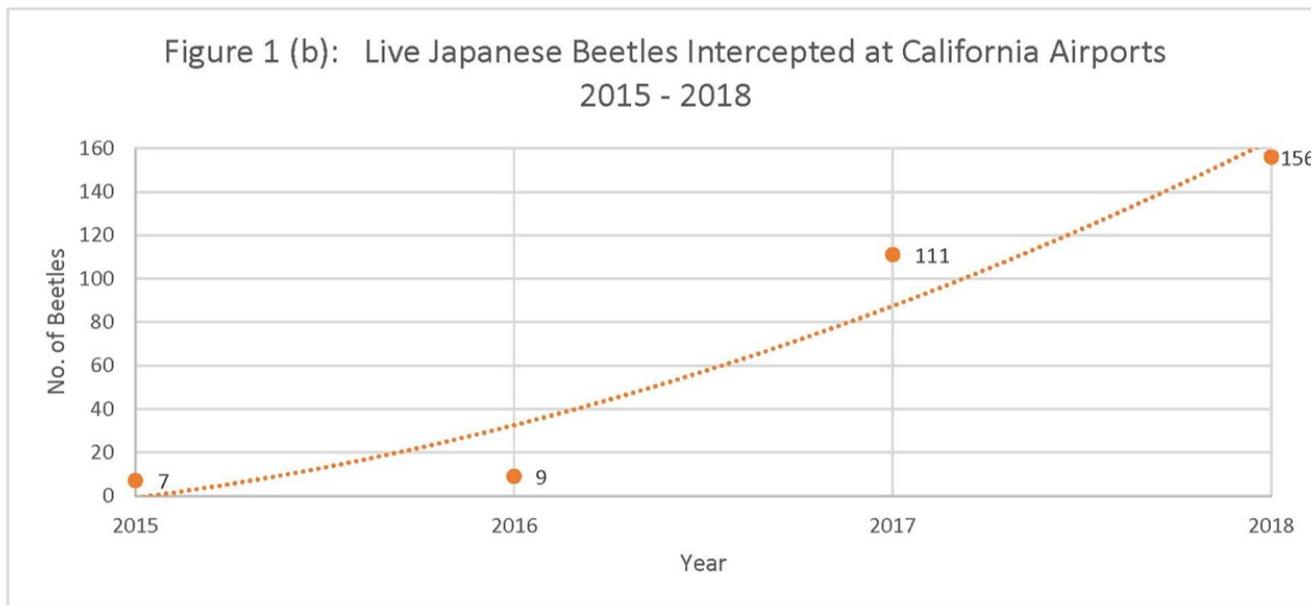
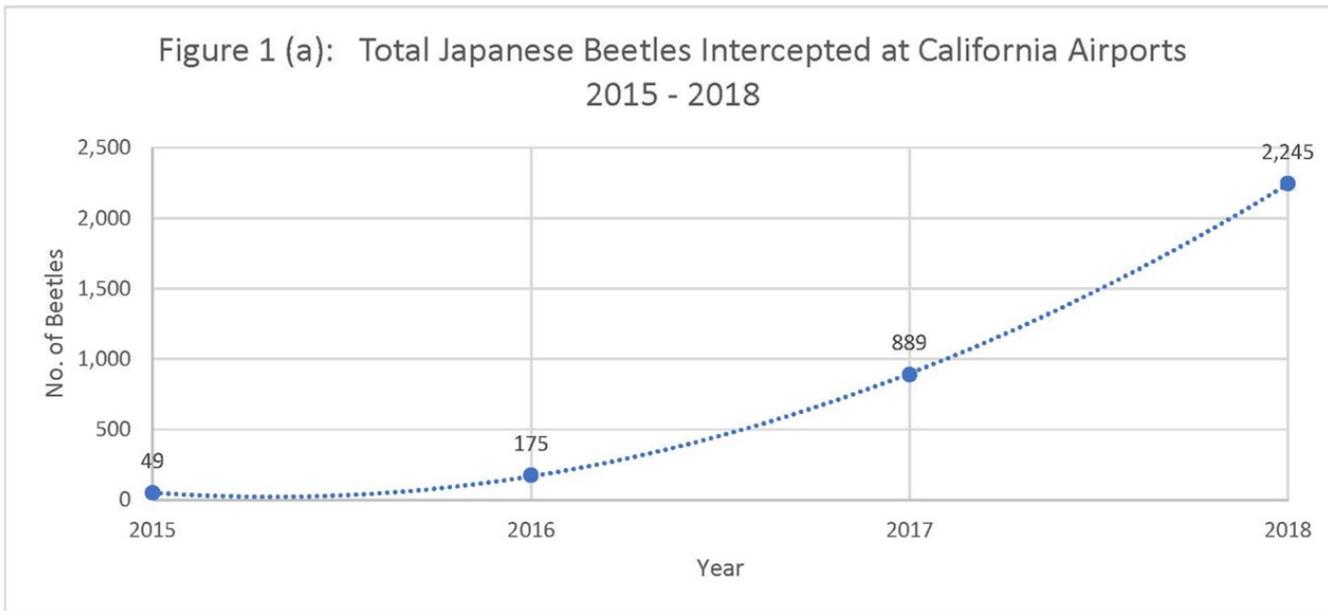
The Department is proposing to add a new section called “Inspections for Compliance”.

The first part of this new section states:

“The secretary, commissioner or a designated inspecting officer may inspect any conveyance that is infested or infected by, or which might act as a carrier, of Japanese beetle or any conveyance that originates from an infested area. Inspection shall consist primarily of visual observation of conveyance surfaces for Japanese beetle specimens as well as any other objects that may harbor Japanese beetles.”

The Department has been tracking the number of Japanese beetles found during inspections at border protection stations and airports. The number of Japanese beetles found in conveyances at border protection stations is quite low (between the years 2016 to 2018 it comprised 3 live beetles, 7 total beetles). This is in stark contrast to the numbers of beetles found at airports. The

Department has State and County personnel located at California airports to inspect incoming airplanes for the presence of Japanese beetle. Data collected by these inspectors demonstrated an alarming trend wherein the number of Japanese beetles intercepted at California airports has increased at an accelerated rate (see Figures 1(a) and (b) below).



The new Subsection (f) provides that if, after inspection of any conveyance such as an aircraft, truck, or train car by an inspecting officer, a live Japanese beetle is found, the following steps will take place:

- (1) If, upon or during inspection of any conveyance, a live Japanese beetle is found, the secretary or the commissioner may order the reclosure of any conveyance that is capable of disseminating or carrying the pest. Any aircraft may be moved from the area of inspection, including withdrawal from the state, as directed by airport personnel, pending abatement . For ground vehicles, the inspector shall determine the location the vehicle is to be held if the shipper or their representative chooses abatement rather than withdrawal from the state. The shipper, as identified on the bill of lading, shall be immediately notified of any hold.

Holding a conveyance is authorized under FAC section 5701. This section provides that if any pest exists on any premises, the Secretary may hold any carrier which is, or may be, capable of disseminating or carrying the pest. By holding these conveyances for treatment the risk of beetles escaping is lowered.

Cargo planes are normally parked on the tarmac in an area that is out of the way of passenger travel. However, if the hold would disrupt normal airport operations, airport personnel can direct the aircraft to be moved to a more favorable location.

By notifying the shipper immediately they will be able to participate in any treatment the conveyance requires.

- (2) The shipper of the conveyance shall, at their expense, have the conveyance in which the Japanese beetle or beetles have been located rendered free of living Japanese beetles, as determined by subsequent reinspection for any living Japanese beetle.

FAC section 6461 provides that if, after inspection, any plant or thing is found to be infested, the owner or bailee shall, at his expense, disinfect the conveyance where the plant or thing was located, in such manner as to destroy all the infestation present. Once the conveyance is free of Japanese beetles it will no longer be a threat to California

- (3) Any article that is part of the shipment or conveyance that may have come in contact with the Japanese Beetle, if such article is capable of conveying infestation as determined by the inspecting officer, shall not be moved from the conveyance as determined by the inspecting officer until after the infestation is removed, except for the purpose of destruction or disinfection. If the inspecting officer determines that the conveyance may be moved for the purpose of insect removal, destruction, disinfection, or further inspection, then the conveyance shall be secured against the escape of Japanese beetle before being moved following the closure of all means of insect egress. This includes closing doors or any other entryway to areas within the conveyance where Japanese beetle have been found and any egress on the conveyance.

FAC section 6442 provides that the inspecting officer shall not permit any article to be removed which has come in contact with the infested object, if such article might convey infestation, until after the infection or infestation is destroyed. The only exception is for the purpose of destruction or disinfection under the supervision of the inspecting officer and the conveyance must be secured against the escape of Japanese beetle beforehand to ensure this is done without risk of infesting any area outside the conveyance. Any article which is liable to be infested or infected shall be held until it has been thoroughly disinfected and the pest has been destroyed.

- (4) Reinspection may occur once the shipper or their agent determines that the quarantine violation has been abated, or, if treatment occurs, once it is safe to reenter the aircraft. Once the inspecting officer determines that the conveyance is free of living Japanese beetles, the hold notice over the shipment or conveyance shall be removed. If the Japanese beetle infestation is still active upon reinspection, then withdrawal or further abatement and subsequent inspection shall be required before the hold is removed.

FAC section 6465 provides that if, after the treatment or processing, the inspecting officer determines that the pest has been exterminated, the shipment may be released.

- (5) Any conveyance in which a living Japanese beetle is detected is in violation of Section 6461. The secretary or the commissioner may assess a fine on the shipper of not more than two thousand five hundred dollars (\$2,500) for each violation. A violation is defined as the finding of a single living Japanese beetle.

FAC section 5311 provides that the Secretary may levy a civil penalty against a person violating this division or any regulation adopted pursuant to this division in an amount not to exceed two thousand five hundred dollars (\$2,500) for each violation. As the Japanese beetle is such a destructive pest, and the consequences for the State of a Japanese beetle infestation would be exceedingly costly, this dollar amount was deemed appropriate.

- (6) If a single shipment or conveyance is found to contain multiple Japanese beetles, a fine shall be levied for each live Japanese beetle found.

Each individual Japanese beetle, should it escape into the environment of California, could form the nexus of an incipient infestation. Therefore, each beetle is considered an individual violation and each violation can be fined.

- (7) Any shipper or transporter that has shipped or transported three or more pest infested shipments into this state within any 12-month period may be charged the actual cost of subsequent inspections.

FAC section 6461 provides that the Secretary may impose inspection or other requirements for any shipper or transporter that has shipped or transported three or more pest-infested shipments into California within any 12-month period. The Secretary may also charge the shipper or transporter the cost of inspecting for the pest.

The conveyance will be held for a period sufficient to treat and be re-inspected for quarantine compliance. Currently, Japanese beetle treatment products recommended by USDA instruct aircraft treatment personnel to “ventilate the aircraft for 30 minutes before boarding passengers, crew, or ground personnel” after treating the unloaded baggage and cargo holds. This indicates that the aircraft would likely be held on the ground for at least one hour to allow time for treatment, ventilation, and re-inspection. This minimum hold time would be influenced by availability of treatment personnel to apply treatment products, as well as personnel availability to reinspect the conveyance after treatment. As an example of potential treatment costs, industry typically pays between \$75 to \$300 per application to treat aircraft for Japanese beetle at an eastern U.S. airport (Hempfling, 2019).

Section 3280 (f)(8)

Section 3280(f)(8) has been added to address the appeals process. If a fine is imposed as described in section 3280(f)(5), the person charged with the violation can appeal the fine. The appeals process complies with the provisions of FAC 5311 and follows the following steps:

(8) Before a civil penalty is levied, the person charged with the violation shall receive notice of the nature of the violation and shall be given an opportunity to be heard. This shall include the right to review the evidence and a right to present evidence on his or her own behalf.

(A) The person against whom a civil penalty is levied by a commissioner may appeal to the secretary within 10 days of the date of receiving notification of the penalty, as follows:

1. The appeal shall be in writing and signed by the appellant or their authorized agent and shall state the grounds for the appeal.
2. Any party, at the time of filing the appeal or within 10 days thereafter, may present written evidence and a written argument to the secretary.
3. The secretary may grant oral arguments upon application made at the time written arguments are filed.
4. If an application to present an oral argument is granted, written notice of the time and place for the oral argument shall be given at least 10 days prior to the date set therefor. This time requirement may be altered by an agreement between the secretary and the person appealing the penalty.
5. Based on any oral or written arguments, briefs, and evidence that he or she has received in the written appeal and oral arguments, the secretary shall, within 10 days

after the filing of the appeal, decide the appeal. The Secretary's findings shall be based on clear and convincing evidence.

6. The secretary shall render a written decision within 45 days of the date of appeal or within 15 days of the date of oral arguments.

7. On an appeal pursuant to this section, the secretary may sustain, modify by reducing the amount of the penalty levied, or reverse the decision. A copy of the secretary's decision shall be delivered or mailed to the appellant and the commissioner who levied the penalty.

The steps outlined above gives the person against whom a civil penalty is levied a process to appeal the fine in a timely fashion. 10 days is given to present the appeal, then to give evidence, and the secretary gives ten days' notice before any oral arguments are scheduled to allow time for the applicant to prepare. If the applicant and secretary agree this last ten day period can be altered, allowing for a shorter process. Based on the evidence present that is clear and convincing the secretary shall render a decision in writing for accurate record keeping, either within 45 days of the date of the appeal or 15 days of the oral argument, these timelines keep the process from becoming delayed. Depending on the evidence presented the secretary may alter the penalty levied, either by reducing, sustaining it, or reverse it altogether. The decision shall be send to the appellant and the commissioner who levied the penalty for records keeping.

As outlined in Section (B) pursuant to Section 1094.5 of the Code of Civil Procedure the person whom the penalty was levied can seek a review of the secretary decision within 30 days.

As outlined in Section (C) the funds recovered from these penalties are deposited in either the counties general fund for the enforcement of the division or, if recovered by the secretary, the Department of Food and Agriculture Fund for its cost related to the enforcement of this division. All penalties go to further the needs of the program.

Background

A native of Asia, Japanese beetle (*Popillia japonica*) occurs in Japan (Hokkaido, Honshu, Shikoku, and Kyushu) and in at least one of the Kuril Islands (Kunashir, currently part of Russia). Japanese beetle was first found in the United States in 1916 near Riverton, New Jersey. In 1918, the USDA and New Jersey authorities attempted to exterminate this pest. However, because the infestation was well established, control measures then in use were marginally effective, funds were limited, and eradication was not achieved.

Since its introduction, Japanese beetle has spread throughout much of the eastern United States and parts of Canada. Because of its wide adaptability to thrive in varied environmental conditions, broad host plant feeding preferences, and the threat of artificial spread by aircraft and other conveyances, the Japanese beetle is a major risk to the agriculture and environment of California.

Japanese beetle is a highly destructive pest of a wide variety of plants. For decades, extremely high populations have occurred in infested areas across the eastern United States. Feeding on grass roots, larvae damage lawns, golf courses, and pasturelands. Attacking foliage, flowers, or fruits, the adults feed on more than 300 different ornamental and agricultural plants in 79 botanical families. Where Japanese beetle has become established in the eastern United States, it is so abundant as to cause serious injury to tree fruits as well as many field and vegetable crops on which it feeds. Japanese beetle control by insecticides or biological methods is often expensive due to the labor, equipment, and/or pesticides involved.

Preferred hosts of Japanese beetle are listed in Table 1 (below).

Common Name	Scientific Name	Common Name	Scientific Name
Chinese-lantern	<i>Abutilon cvs.</i>	Apple	<i>Malus domestica</i>
Cootamundra wattle	<i>Acacia baileyana</i>	Heavenly bamboo	<i>Nandina domestica</i>
Japanese maple	<i>Acer palmatum</i>	Virginia creeper	<i>Parthenocissus quinquefolia</i>
Norway maple	<i>Acer plantanoides</i>	London planetree	<i>Platanus acerifolia</i>
Horse chestnut	<i>Aesculus hippocastanum</i>	Yew pine	<i>Podocarpus macrophyllus</i>
Hollyhock	<i>Alcea rosea</i>	Smartweed	<i>Polygonum spp.</i>
Marshmallow	<i>Althaea spp.</i>	Italian poplar	<i>Populus nigra</i> 'Italica'
Strawberry tree	<i>Arbutus unedo</i>	Cherry	<i>Prunus avium</i> & spp.
Orchid tree	<i>Bauhinia variegata</i>	Plum	<i>Prunus domestica</i>
Gray birch	<i>Betula populifolia</i>	Peach	<i>Prunus persica</i>
American chestnut	<i>Castanea dentata</i>	Pomegranate	<i>Punica granatum</i>

Carmel ceanothus	<i>Ceanothus griseus</i>	Pin oak	<i>Quercus palustris</i>
Orange	<i>Citrus sinensis</i>	Rose	<i>Rosa spp.</i>
Common quince	<i>Cydonia oblongas</i>	Raspberry/Blackberry	<i>Rubus spp.</i>
Red ironbark	<i>Eucalyptus sideroxylon</i>	Sassafras	<i>Sassafras albidum</i>
Common flannel bush	<i>Fremontodendron californicum</i>	American mountain-ash	<i>Sorbus americana</i>
Soybean	<i>Glycine max</i>	Linden	<i>Tilia spp.</i>
Lavender starflower	<i>Grewia caffra</i>	American elm	<i>Ulmus americana</i>
Rose-of-sharon	<i>Hibiscus syriacus</i>	English elm	<i>Ulmus procera</i>
Black walnut	<i>Juglans nigra</i>	Grape	<i>Vitis spp.</i>
Common crapemyrtle	<i>Lagerstroemia indica</i>	Maize	<i>Zea mays</i>
Western larch	<i>Larix occidentalis</i>	Zinnia	<i>Zinnia elegans</i>

California is a major producer and shipper for many Japanese beetle host plants. If the beetle were allowed to spread and establish in host fruit and ornamental 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 enact quarantines against California products. Thus, incipient infestations present a clear, imminent danger to the agricultural industry in California. The value of primary hosts of the Japanese beetle (including turf) was valued at over \$7.8 billion in 2016 and \$8.4 billion in 2017. Likewise, native sensitive plant species such as dwarf flannel bush (*Fremontodendron californicum* spp. *decumbens*) and dwarf abutilon (*Abutilon parvulum*) would be likely hosts for Japanese beetle. Other likely hosts include important native trees such as oaks (*Quercus spp.*) and California buckeye (*Aesculus californica*). Therefore, California's unique natural ecosystems would be in jeopardy of significant negative impacts.

There have been Japanese beetle outbreaks in California that the Department has eradicated before the beetle could become established. One recent incursion occurred in May 2014 in Fair Oaks, Sacramento. Between 2014 through 2018, the Japanese beetle infestation was eradicated from this area at a cost of nearly \$2.4 million.

Lifecycle of Japanese Beetle

The female beetle burrows into the soil to a depth of about three inches to lay eggs. The eggs are deposited singly and only a few are laid at one time. Egg laying is intermittent, and females usually deposit forty to sixty eggs. The eggs hatch in about two weeks and the larvae feed on grass and other roots. During the summer, the larvae feed within the upper four inches of soil in the turf; in

late fall, they work downward in the soil as deep as eight to ten inches to overwinter. The grubs cause serious damage to grasses, lawns, vegetables and nursery stock. In the spring, the larvae move upward and resume feeding on grass roots. Grass is sometimes killed by the feeding of the larvae on roots. When fully-grown, the grubs go slightly deeper in the soil and form an earthen cell to pupate. Newly emerged adults may remain in the pupal cell for two to fourteen days before emerging from the soil. The adult is present during warm summer months, is an active flier and feeds on emergent vegetation of host plants. Peak adult activity occurs four to six weeks after first emergence.

There is usually one generation each year, but a percentage of the larvae may take two years to mature, especially in wet, cold soils. Temperature and moisture affect the development of life stages. Therefore, in any locality, the life stages will appear at varying times from year to year; in addition, the life stages will appear at varying times from north to south on a latitudinal gradient.

In eastern North Carolina, the beetles begin to emerge from the soil in mid to late May. In the vicinity of Philadelphia, the beetles begin to emerge about mid-June. In Tennessee, adult emergence begins in mid-June and continues until mid-August. Emergence is later in more northern locations, occurring in late June in southern New England and in early July in northern New England. In eastern North Carolina, most adult beetles are dead by mid-August, but in New England some may live until frost.

Beetles fly only during the day, and are especially active on warm, sunny, calm days. Often gregarious, the beetles feed mostly on the upper surfaces of leaves exposed to the sun. When feeding on the leaves, the beetles chew out the parts between the veins leaving only the veins. After this type of feeding, the leaves are described as either "lace-like" or "skeletonized." The adults also feed in a mass on ripening fruit and flowers.

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.cdffa.ca.gov/plant/peir/>.

Economic Impact Analysis

The prevention of the introduction of Japanese beetle in California through the amendment and implementation of this regulation has the following economic impacts:

The Creation or Elimination of Jobs within the State

The amendment is designed to minimize the introduction of Japanese beetle from interstate travel and shipping. Inspection activities are currently being performed by existing state and county staff at airports and entry points throughout the State. The Department does not expect that additional post abatement inspections would require significantly greater staff time. Therefore, the Department has determined that this regulatory proposal will have no significant impact on the creation or elimination of jobs in the State of California.

The Creation of New Businesses or the Elimination of Existing Businesses within the State

The amendment may require shippers to treat airplanes that do not pass inspection. There may be new vendors that will be formed to provide this service or current vendors may hire new staff.

Therefore, the Department has determined that this regulatory proposal may have a potential small impact on the creation of new businesses in the State. This impact is likely temporary as shippers bring themselves into compliance with the Japanese beetle restrictions and cease bringing beetles into the State.

The Expansion of Businesses Currently Doing Business within the State

The amendment may require owners or bailees to treat airplanes that do not pass inspection. Existing California businesses may choose to be trained and equipped to treat for Japanese beetle and make themselves available as vendors for this service.

Therefore, the Department has determined that this regulatory proposal may have a small impact on the expansion of current businesses in the State. This impact should be temporary as shippers bring themselves into compliance with the Japanese beetle restrictions and cease bringing beetles into the State.

Anticipated Benefits from This Regulatory Action

This amended regulation is expected to close a likely pathway for the establishment of Japanese beetle in California. Therefor the implementation of this regulation will likely prevent:

- direct damage to the agricultural industry growing host plants
- indirect damage to the agricultural industry growing host plants 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 plants
- increased pesticide use by homeowners and others
- the need to implement a State interior quarantine
- the need to implement a federal domestic quarantine
- damage to the natural environment in California

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.

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 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 he or she deems 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 he or 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.

Existing law, FAC section 5021, provides that, unless otherwise specified, any treatment which may be required pursuant to this division is at the risk and at the expense of the owner or person in charge or in possession of the property which is treated at the time of treatment.

Existing law, FAC section 5024, provides that the Secretary shall, during the maintenance of any quarantine established by the secretary pursuant to Article 1 (commencing with Section 5301) of Chapter 5, inspect any plant or thing that is, or is liable to be, infested or infected by, or which might act as a carrier of, any pest. The person who conducts the inspection shall not permit any of those plants or things to pass over the quarantine line during the inspection, except pursuant to a certificate of inspection and release that is signed by that person.

Existing law, FAC section 5102, provides that each county agricultural commissioner and each of their qualified representatives are state plant quarantine officers for the purposes of:

- a) certifying to the pest condition or pest treatment of shipments, if certification as a condition of movement or entry is officially required
- b) enforcing laws and regulations which relate to plant quarantine

Existing law, FAC section 5310, provides that in addition to any other penalties prescribed in this division, any person who violates this division or any regulation adopted pursuant to this division is liable civilly in an amount not exceeding ten thousand dollars (\$10,000) for each violation.

Existing law, FAC section 5311, provides that in lieu of any civil action pursuant to Section 5310, except as provided in Article 5 (commencing with Section 5781) of Chapter 8, the secretary may levy a civil penalty against a person violating this division or any regulation adopted pursuant to this division in an amount not to exceed two thousand five hundred dollars (\$2,500) for each violation. A fine equaling the legal maximum is justified, as the potential impacts of a Japanese beetle infestation are severe and the cost of continued detection efforts and eradication measures is substantial. The remainder of the section outlines the procedures for implementing this fine and the appeals process.

Existing law FAC section 5350, provides that the Secretary shall establish a program for inspection of conveyances entering California through airport facilities to prevent the introduction into, or the spread within the State of pests. This section also provides that the inspections shall be performed by plant quarantine officers.

Existing law, FAC section 5701, provides that if any pest exists on any premises, the Secretary may hold any plant or other host or possible carrier which is, or may be, capable of disseminating or carrying the pest. The Secretary shall notify the owner of the plant or other host or possible carrier, or his or her agent, of this action, and the issuance of any shipping permit or nursery stock certificate with respect to the plant or other host or possible carrier shall be refused and any such permit or certificate which has been previously issued shall be revoked.

Existing law, FAC section 6301.1 provides that the Secretary shall adopt federal quarantine regulations in Parts 301 to 369, inclusive, of Title 7 of the Code of Federal Regulations. Federal regulation 7 CFR Subpart F – Japanese Beetle (§§ 301.48 – 301.48-8) contains the federal Japanese beetle quarantine and regulations.

Existing law, FAC section 6441, provides that if, after inspection, any plant or thing is found to be infested or infected, the owner or bailee shall, at his expense, disinfect the conveyance or place where the plant or thing may have been located, in such manner as to destroy all infection or infestation present, or that is liable to be present.

Existing law, FAC section 6442, provides that the officer who makes the inspection shall not permit any article to be removed which has come in contact with the infested or infected plant or thing, if such article might convey infection or infestation, until after the infection or infestation is destroyed, except for the purpose of destruction or disinfection under the supervision of the inspecting officer. Any article which is liable to be infested or infected shall be held until it has been thoroughly disinfected and the pest has been destroyed.

Existing law, FAC section 6461, provides that, it is unlawful to ship or transport any plant or any other thing into this state which is infested with any pest which has been listed, by the director, as detrimental to agriculture in this state. The director shall either establish and amend the list of pests by order, after notice and opportunity for written or oral comments, or through the adoption

or amendment of quarantine regulations. In addition to the civil, criminal, and administrative remedies specified in this division, the director may, after notice and opportunity to respond, impose inspection, treatment, certification, holding, or other requirements for any shipper or transporter that has shipped or transported three or more pest-infested shipments into this state within any 12-month period. With regard to any commercial shipment violating any of those requirements imposed pursuant to this section, the director or commissioner may also charge the shipper or transporter the cost of inspecting and controlling the pest.

Existing law, FAC section 6465, provides that if, after the treatment or processing, the inspecting officer determines that the pest has been exterminated, the shipment may be released.

Existing law, Code of Civil Procedure (CCP) section 1094.5, provides that a review of the decision of the Secretary to impose a penalty may be sought by the person against whom the penalty was levied.

Existing California regulation, CCR Section 3280, establishes the state's quarantine against the Japanese Beetle, its hosts, and possible carriers. The proposed amendment will add a subsection (f) Inspections for Compliance.

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

The Department of Food and Agriculture has determined that subsection 3280 does not impose a mandate on local agencies or school districts and no reimbursement is required under Section 17561 of the Government Code. The California Plant Quarantine Officers are sometimes county staff, but the Department does not foresee that the amendments to Section 3280 will increase county staff workload beyond current levels.

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 subsection 3280.

The agency is aware that this regulation will potentially have a cost impact to shippers, but this impact will be ameliorated as shippers bring their conveyances into compliance with the Japanese beetle quarantine.

Using the Japanese beetle data from 2016 to 2018, the Department estimated the costs that the shippers would have had to pay in Table 2 below:

Year	No. of Live Beetles	Projected Fines	No. of treatments	Projected Treatment Costs	# of inspections	Projected Inspection Costs	Total
2016	9	\$22,500	6	\$1,800	3	\$75	\$24,375
2017	111	\$277,500	69	\$20,700	63	\$1,575	\$299,775
2018	156	\$390,000	86	\$25,800	77	\$1,925	\$417,725

This represents a total cost across all shippers for all the live Japanese beetles that entered California during the 3-year period. A rate of \$300 per treatment was assumed. The charge for inspection was only incurred for those shippers that had more than three shipments which contained live beetles. A rate of \$25 per inspection was assumed based on the personal cost for the state officers. The costs after the regulation goes into effect will be higher as now shippers with less than three violations will be charged, this will not result in significant impacts on private individuals or entities.

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:

Potential Impact to Homeowners and Community Gardens

Many of the host plants attacked by the Japanese beetle are enjoyed by the home gardener and community gardens. Roses and many other major garden plants are preferred hosts of Japanese beetle. Therefore, if Japanese beetle is established in California, homeowners and community gardeners would be negatively impacted, many severely.

Potential Impact to California businesses

The proposed regulations may have an impact on California businesses by delaying the shipment or receipt of products to facilitate the inspection of a conveyance or shipment, or to otherwise implement the Japanese beetle quarantine laws and regulations. The Department has determined that any potential additional cost incurred to California businesses to accommodate for these activities will decrease, however, as compliance with the Japanese beetle quarantine laws and regulations increases. To the extent that a business incurs direct costs owing to Japanese beetle treatment activities, the Department has determined that such costs are necessary to effectively mitigate against the agricultural and environmental hazards that could result if a Japanese beetle were to occur.

Potential Impacts to General Fund and Welfare

The negative impacts to agriculture would in turn negatively impact the State's economy which would negatively impact the general welfare of the State.

California's unemployment rate in April 2019 was at 4.3 per cent. During the preceding 12 months prior to April 2019, the average amount of individuals employed in agriculture was 432,900. The agricultural industry is one of the economic engines that lowers 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 economy.

Assessment

The Department has made an assessment that the amendment of the regulation 1) could potentially create jobs within California; 2) could potentially create new businesses within California; or 3) could potentially affect the expansion of businesses currently doing business with 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 as and less burdensome to affected private persons than the proposed action. Compliance of

businesses with current quarantine standards will obviate any regulatory actions authorized by this amendment. Therefore, the proposed amendment has been judged the least burdensome alternative consistent with the department's statutory mandates.

Information Relied Upon

The Department relied upon the following studies, reports, and documents in the proposed adoption and subsequent amendment of Section 3280:

CDFA. 2003. Japanese Beetle Aircraft Inspection Record. California Department of Food and Agriculture. Revised June 6, 2003.

CDFA. 2019. "Nursery Advisory No. 01-2019: Value of California Nursery Products for 2017," California Department of Food and Agriculture. April 30, 2019.

CDFA. 2018. "California Agricultural Statistics Review, 2017-2018," California Department of Food and Agriculture. March 9, 2018.

CDFA. 2018. "California County Agricultural Commissioners' Reports Crop Year 2016-2017," California Department of Food and Agriculture. December 28, 2018.

CDFA. 2018. "California County Agricultural Commissioners' Reports Crop Year 2015-2016," California Department of Food and Agriculture. January 19, 2018.

Employee Development Department. 2019. News Release: California unemployment rate remains at 4.3 percent in April. State of California. May 17, 2019. Sacramento, California.

Hempfling, Harold. 2019. Email regarding treatment of airplanes at Cincinnati / N KY International airport. USDA, APHIS, PPQ. State Plant Health Director, Kentucky. July 5, 2019.

Hempfling, Harold. 2019. Email regarding treatment of airplanes. USDA, APHIS, PPQ. State Plant Health Director, Kentucky. July 10, 2019.

National Plant Board. 2016. U.S. Domestic Japanese Beetle Harmonization Plan. Revised June 20, 2016. 43 pages.

USDA. 2016. "Japanese Beetle Program Manual", United States Department of Agriculture.

USDA. 2019. Japanese Beetle (*Popillia japonica* Newman), United States Department of Agriculture; Animal and Plant Health Inspection Service. Accessed: September 10, 2019. <https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/japanese-beetle>