

FINDING OF EMERGENCY

The Secretary of the Department of Food and Agriculture finds that an emergency exists, and that the foregoing adoption of a regulation is necessary for an immediate action to avoid serious harm to the public peace, health, safety or general welfare, within the meaning of Government Code Section 11342.545 and Public Resources Code Section 21080. The Secretary has also determined that this emergency clearly poses such an immediate, serious harm that delaying action by providing five working days advance notice to allow public comment would be inconsistent with the public interest, within the meaning of Government Code Section 11346.1(a)(3). Further, the Secretary has determined that this emergency clearly poses such an immediate, serious harm that delaying action by the Office of Administrative Law providing five working days advance notice to allow public comment would also be inconsistent with the public interest, within the meaning of Government Code Section 1349.6(b).

Description of Specific Facts Which Constitute the Emergency

The light brown apple moth (*Epiphyas postvittana*) was first detected in California on February 27, 2007, in Alameda County and on March 7, 2007, the light brown apple moth (LBAM) was first detected in Contra Costa County. Through the deployment of delimiting detection traps, numerous additional adult male moths were trapped in both counties. As a result, the Department adopted an emergency regulation, Section 3591.20, which became effective on March 21, 2007. The Department has continued to deploy detection traps in additional counties. On March 22, 2007 multiple male LBAMs were detected in Golden Gate Park, San Francisco County. On March 27, 2007, multiple adult male LBAMS were detected in Marin County. As a result, the Department made an emergency amendment to Section 3591.20, adding Marin and San Francisco counties, which became effective on March 21, 2007. On April 2, 2007, adult male LBAMS were trapped in the cities of Los Altos and Palo Alto, located in Santa Clara County. The Department intends to amend its eradication authority to include Santa Clara County as soon as possible.

An emergency quarantine response is necessary now to help ensure the LBAM does not continue to spread to other uninfested areas of the State. The adult LBAMs will continue to emerge and are not known to be a long distance flyer. These types of moths generally only fly up to approximately one half mile and the current traps will attract a male moth within 100 meters. The real threat of long distance spread is through the human assisted movement of infested plants and plant parts, including green waste, and other possible carriers such as equipment or appliances contaminated with host material.

The proposed quarantine area for these five counties includes the initial detection sites as the epicenter and a buffer zone which extends approximately one and one half mile in each direction from the epicenter. A buffer zone is necessary because the LBAM can spread naturally (as well as being spread artificially in infested hosts). The proposed boundary lines were drawn jointly by the United States Department of Agriculture, the California Department of Food and Agriculture, and the Alameda, Contra Costa, Marin, San Francisco and Santa Clara county agricultural commissioners. The proposed quarantine area is considered the minimum area around the initial detection sites which should be regulated to prevent artificial spread of LBAM to noninfested areas.

The Department is still in the process of conducting a statewide survey for LBAM using delta or Jackson traps (sticky, flat base) with pheromone lures. Until all of the traps are deployed and serviced at the appropriate densities, the full extent of the area occupied by the current incipient infestation of LBAM in Alameda, Contra Costa, Marin, San Francisco and Santa Clara counties may not be known. Nonetheless, the Department must begin quarantine activities based upon its current knowledge of the distribution of LBAM.

The LBAM has the capability of causing significant irreparable harm to California's agricultural industry and some possible adverse environmental impacts. While the

Department's compliance with the California Administrative Procedure Act and the California Environmental Quality Act (CEQA) are separate actions, they can be interrelated. Although adoption of specific regulatory authority can be the beginning of a project and therefore covered by CEQA, this is a ministerial action for an emergency and an action also for the protection of natural resources and the environment by a regulatory agency and is therefore exempt from the requirements of the CEQA statutes, under PRC Section 21080, and under Sections 15268, 15269, 15307 and 15308 of the CEQA Guidelines.

LBAM is a highly polyphagous pest that attacks a wide number of fruits and other plants. Hosts occurring in California that are of significant agricultural or environmental concern include, but are not limited to: alder, alfalfa, apple, apricot, avocado, blueberry, blackberry, broccoli, cabbage, camellia, cauliflower, ceanothus, chrysanthemum, citrus, clematis, clover, columbine, cottonwood, currant, cypress, dahlia, ferns, fir, geranium, grape, hawthorn, honeysuckle, kiwi, lupine, madrone, mint, oak, peach, pear, peppers, persimmon, poplar, potato, raspberry, rhododendron, rose, sage, spruce, strawberry, walnut and willow. This species has a relatively restricted geographic distribution, being found only in portions of Europe and Oceania. The pest is native to Australia but has successfully invaded other countries. The likelihood and consequences of establishment by LBAM have been evaluated in pathway initiated risk assessments. LBAM was considered highly likely of becoming established in the United States and the consequences of its establishment for United States agricultural and natural ecosystems were judged to be severe. The United States Department of Agriculture, Animal Plant and Health Inspection Service (USDA, APHIS) estimated that approximately 80 percent of the continental United States may be climatically suitable for LBAM.

In its native habitat of Australia, LBAM generally completes three generations annually. More than three generations can be completed if temperatures and host plants are favorable. In southeastern Australia where it is warmer, four generations can be completed. In contrast, two generations occur in Tasmania, New Zealand and in Great

Britain. In Australia, generations do not overlap, but they do in the Great Britain. As the population builds, LBAM is more abundant during the second generation. Therefore, the second generation causes the most economic damage as larvae move from foliage to fruit. The size of the third generation is typically smaller than the previous two due to leaf fall (including attached larvae) as temperatures decline in autumn. LBAM does not diapause and its continued development is slowed under cold winter temperatures. In cold climates the pest overwinters as larvae. Because LBAM causes damage in a wide range of climate types in Australia, pest status is not dictated by climate.

LBAM causes economic damage from feeding by caterpillars, which may:

- destroy, stunt or deform young seedlings;
- spoil the appearance of ornamental and native plants; and
- injure deciduous fruit-tree crops, citrus and grapes.

Additionally, LBAM, if not eradicated, will cause economic damage to California's export markets due to the implementation of quarantines by foreign and state governments. The USDA, APHIS, is also contemplating the need for a federal domestic quarantine restricting the interstate movement of possible hosts and carriers.

Where it occurs, LBAM is difficult to control with sprays because of its leaf-rolling ability, and because there is evidence of resistance due to overuse of the same insecticides. Conifers are damaged by needle-tying and chewing. Larvae have been found feeding near apices of Bishop Pine seedlings where they spin needles down against the stem and bore into the main stem from the terminal bud. LBAM constructs typical leaf rolls (nests) by webbing together leaves, a bud and one or more leaves, leaves to a fruit, or by folding and webbing individual mature leaves. During the fruiting season, they also make nests among clusters of fruits, such as grapes, damaging the surface and sometimes tunneling into the fruits. During severe outbreaks, damage to fruit may be as high as 85 percent.

Egg masses are most likely to be found on leaves. The larvae are most likely to be found

near the calyx or in the endocarp; larvae may also create “irregular brown areas, rounds pits, or scars” on the surface of a fruit. Larvae may also be found inside furled leaves, and adults may occasionally be found on the lower leaf surface.

LBAM is an actionable pest for the USDA, APHIS and requires the Australian Quarantine and Inspection Service to take corrective actions to prevent this pest from being associated with apple, citrus, pear fruits and other host commodities being exported to the United States. Host fruit exported from New Zealand faces similar restrictions by USDA, APHIS and the New Zealand Ministry of Forestry and Fisheries is responsible for any corrective actions at origin. Any host commodity arriving in the United States that is infested with or contaminated by LBAM is issued a Federal Emergency Action Notice and must be either destroyed, reexported or undergo an appropriate quarantine treatment prior to its release into the United States commerce. Canada and Japan also treat LBAM as a quarantine action pest. The People’s Republic of China requires all host fruit imported to originate from orchards that are free from LBAM.

The USDA, APHIS conducts preclearance inspections in New Zealand. During these inspections, the LBAM has been intercepted in association with nine plant taxa. The majority (57 percent) listed strawberry (*Fragaria* sp.) as the host. The international movement of LBAM has also been noted in Japan where the pest was intercepted 63 times at one port of entry in one year. In that year, nearly 40 percent of the interceptions were of larvae on imported New Zealand peppers.

Where ever LBAM occurs in association with vineyards, it is considered to be a very important agricultural pest. Unless properly managed, LBAM causes substantial risk to crop yield and quality by causing both direct and indirect damage. Emerging larvae in the spring may feed upon both the flowers and newly set fruitlets causing a direct loss in yield. Later in the year, LBAM larvae feeding on maturing fruit can cause indirect loss by introducing botrytis infections into the grape bunches. As an example, in 1992 in Australia,

70,000 larvae per hectare were documented and caused a loss of 4.7 tons of Chardonnay fruit. Damage in the 1992-93 Chardonnay season at Coonawarra, southern Australia, cost \$2,000 per hectare.

In South Australia, LBAM is also a significant pest of apricots and can attack other stone fruit. Peaches are also damaged by feeding that occurs on the shoots and fruit.

The first generation (in spring) causes the most damage to apples while the second generation damages fruit harvested later in the season. Some varieties of apples such as 'Sturmer Pippin' (an early variety), 'Granny Smith' and 'Fuji' (late varieties) can have up to 20 percent damage while severe attacks can damage up to 75 percent of a crop.

There is no comprehensive estimate of the total economic losses that could be caused by the LBAM to the environment and the agricultural industry in California. The impact on production costs for LBAM hosts could top \$100 million. It was estimated for Australia that LBAM causes AU\$21.1 million annually in lost production and control costs, or about 1.3% of gross fruit value, for apples, pears, oranges and grapes. Applying this percentage to the 2005 gross value of these same crops in California of \$5.4 billion (USDA 2006), the estimated annual production costs would be \$70.2 million. This estimate does not include economic costs to the nursery industry nor to other significant host crops in California such as apricots, avocados, kiwifruit, peaches and strawberries. If the same level of costs were incurred by these as for the previous four crops, the additional costs would be \$63.1 million, based on their 2005 gross value of \$4.8 billion. Therefore, the total lost production and control costs in California could be \$133 million for all of the crops mentioned above.

Exact economic impacts on international and domestic exports are uncertain at this time. California is the nation's leader in agricultural exports and in 2003 shipped more than \$7.2 billion in both food and agricultural commodities around the world. Some countries have specific regulations against this pest, and many others consider it a regulated pest that

would not be knowingly allowed to enter. Additional measures, such as preharvest treatments and postharvest disinfestation, would likely have to be taken to ensure that shipments to these countries are free from LBAM. In addition, LBAM is an exotic pest, i.e., it is not established in the continental United States, and therefore other states within the United States would likely impose restrictions on the movement of potentially infested fruits, vegetables and nursery stock. These restrictions could severely impact the domestic marketing of California agricultural products.

The majority of California does have a climate which would favor the LBAM. Additionally, LBAM may have seven or more generations under some California climatic conditions. If unchecked, this would enable LBAM to build higher population levels in California. Given the known economic damages occurring in LBAMs present range, its potential damage to California's environment and agricultural industry could be devastating; especially without adequate control measures.

The Department has determined that to ensure it conducts the most efficient and effective quarantine project with the greatest chances of success, quarantine regulatory activities need to begin as soon as possible. The immediate implementation of this proposed regulatory action is also necessary to prevent the USDA, APHIS from considering the entire state as infested with LBAM, rather than just the current areas of Alameda, Contra Costa, Marin, San Francisco and Santa Clara counties. If this were to occur, there would likely be additional detrimental quarantine requirements directed against California host commodities by the USDA, APHIS and our concerned international trade partners.

Since the Department first intercepted LBAM, it has been relying on its statutory authority contained in California Food and Agricultural Code (FAC) Section 5701 to prevent the artificial spread of this pest. FAC Section 5701(a) states, "If any pest exists on any premises, the director or the commissioner may hold any plant or other host or possible carrier which is, or may be, capable of disseminating or carrying the pest. The director or

the commissioner also may hold the plants, other hosts, or other possible carriers on any premises within five miles of the premises on which the pest was found to exist. The director or commissioner 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.

(b) The distance from the premises at which a pest is found that the director or commissioner may hold plants, other hosts, or other possible carriers shall be the maximum distance that the director or commissioner determines the pest is likely to travel, but not to exceed five miles.”

During the initial delimitation trapping activities, the Department has targeted the highest risk facilities located within one and one half mile of a trapped moth by placing a hold notice on the affected property to prevent the long distance movement of LBAM. This primarily involved nurseries. Initially, it was not practical to implement a quarantine regulation as the Department was just beginning its delimitation activities and the distribution of LBAM within the current affected area was unknown. This worked well as an interim solution but is impractical to utilize in place of a specific quarantine regulation, which compliments our eradication regulation and targets LBAM.

The USDA LBAM Technical Working Group has identified green waste as a high risk for artificially spreading LBAM. It is not feasible for the Department to issue a hold notice on all commercial, public and residential properties that produce green waste and are located in the proposed quarantine areas in the four affected counties. There are also garden, landscape, tree and yard services located inside and outside the current one and one-half mile area that work within the LBAM infested areas. Therefore, the implementation of a quarantine regulation is immediately necessary now that the distribution of LBAM is better known.

The Department has obtained multiple LBAM host lists from the USDA LBAM Technical

Working Group and through the internet. LBAM has consistently demonstrated its ability to lay eggs and try to have larva subsequently develop on any plant and has even laid eggs on plastic with ribs that simulated a leaf. Additionally, where LBAM has established itself in a new geographic area, it has encountered new plants that did not exist in its native habitat and which have become a suitable host. Therefore, to prevent the frequent amendment of the regulation, the Department has determined that all nursery stock, fresh garlands, wreaths, cut flowers, greens and green waste produced within the area under quarantine must be regulated. However, there is a significantly lower risk involving harvested commodities. Therefore, the Department has determined that only harvested commodities derived from specified plants and produced within the quarantine area should be regulated.

The proposed adoption of Section 3434 would establish that LBAM (*Epiphyas postvittana*) is the quarantine pest; the areas under quarantine; the articles and commodities covered; and, the restrictions on movement within and from the regulated areas.

The proposed adoption of Section 3434(b) would establish portions of Alameda, Contra Costa, Marin, San Francisco and Santa Clara counties as the areas under quarantine for LBAM. The LBAM infestation on the East Bay Area begins at the Oakland Airport and extends in a northern direction past Richmond. The proposed quarantine land mass area for Alameda and Contra Costa counties is approximately 99 square miles. The proposed quarantine land mass area in Marin County is approximately 11 square miles surrounding a portion of the San Rafael area; approximately nine square miles surrounding a portion of the Mill Valley area; approximately eight square miles surrounding a portion of the Novato area; and, approximately two square miles surrounding the Sausalito area; for a total of 30 square miles. The proposed quarantine land mass area in San Francisco County is approximately 35 square miles. The proposed quarantine area in Santa Clara County is approximately 17.5 square miles surrounding portions of Los Altos and Palo Alto. The total quarantine land mass area to be under quarantine is approximately 182 square miles.

The LBAM detection near Sausalito was adjacent to the west side of State Highway 101,

next to the Golden Gate National Recreation Area. The movement of any plant material from the Golden Gate National Recreation Area is already prohibited and, therefore, the Department does not see the need to place additional quarantine restrictions on the Golden Gate National Recreational Area.

The proposed adoption of Section 3434(c) would establish nursery stock, green waste, fresh garlands, wreaths, cut flowers, greens and certain harvested commodities derived from specified plants produced within the regulated area; and, possible carriers as articles and commodities regulated; and, the exemptions.

The proposed adoption of Section 3434(d) would establish the restrictions on movement, both within and from the regulated area, on those articles and commodities covered.

The effect of this regulation will be to provide authority for the State to perform quarantine activities against LBAM (*Epiphyas postvittana*) in portions of Alameda, Contra Costa, Marin, San Francisco and Santa Clara counties.

To prevent the spread of the LBAM to non-infested areas in order to protect California's agricultural industry and environment, it is necessary to begin quarantine activities against the LBAM immediately. Therefore, it is necessary to adopt this regulation as an emergency action.

Authority and Reference Citations

Authority: Sections 407 and 5322, Food and Agricultural Code.

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Informative Digest

Existing law provides that the Secretary 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).

Existing law also provides that the Secretary may establish, maintain and enforce quarantine, eradication and other such regulations as he deems necessary to protect the agricultural industry from the introduction and spread of pests (Food and Agricultural Code, Sections 401, 403, 407 and 5322).

Section 3434. Light Brown Apple Moth Interior Quarantine.

The proposed adoption of Section 3434(a) will establish that LBAM (*Epiphyas postvittana*) is the quarantine pest. The proposed adoption of Section 3434(b) would establish portions of Alameda, Contra Costa, Marin, San Francisco and Santa Clara counties as the areas under quarantine. The proposed adoption of Section 3434(c) would establish the articles and commodities covered and the exemptions. The proposed adoption of Section 3434(d) would establish the restrictions on movement, both within and from the regulated area, on those articles and commodities covered. The effect of the adoption of this regulation is to provide authority for the State to perform quarantine activities against LBAM in portions of Alameda, Contra Costa, Marin, San Francisco and Santa Clara counties.

Mandate on Local Agencies or School Districts

The Department of Food and Agriculture has determined that Section 3434 does not impose a mandate on local agencies or school districts, except that an agricultural commissioner of a county under quarantine has a duty to enforce it. No reimbursement is required under Section 17561 of the Government Code because the Alameda, Contra Costa, Marin, San Francisco and Santa Clara county agricultural commissioners requested the changes in the regulation.

Cost Estimate

The Department has also determined that the regulation will involve no additional costs or savings to any state agency because initial funds for state costs are already appropriated, no nondiscretionary costs or savings to local agencies or school districts, no reimbursable savings to local agencies or costs or savings to school districts under Section 17561 of the Government Code and no costs or savings in federal funding to the State.