

FINDING OF EMERGENCY

The Secretary of the Department of Food and Agriculture finds that an emergency exists, and that the foregoing amendment 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 continued to deploy detection traps in additional counties. As a result of multiple detections of LBAM, the Department amended Section 3591.20 to add the counties of Marin and San Francisco (effective April 3, 2007); Santa Clara County (effective April 20, 2007); and, Monterey, San Mateo and Santa Cruz counties (effective April 23, 2007). The Department also proposed the emergency adoption of Section 3434, Light Brown Apple Moth Interior Quarantine (effective April 20, 2007).

On May 9, 2007, an adult male LBAM was detected in Napa County (Napa area). The

Department identified this pest on May 11, 2007. Under an agreement with the United States Department of Agriculture (USDA) pertaining to new federal action pest detections in a new county, the Department forwarded this specimen to the USDA's Systematic Entomology Laboratory (SEL) for its confirmation. On May 15, 2007, the SEL confirmed LBAM as being found in Napa County.

On May 2, 2007, the United States Department of Agriculture (USDA) issued a Federal Domestic Quarantine Order for LBAM which restricts the interstate movement of host commodities produced in the California counties of Alameda, Contra Costa, Marin, Monterey, San Francisco, San Mateo, Santa Clara and Santa Cruz. Additionally, this federal order specified the criteria for adding a new county is the detection of a live LBAM life stage. The USDA's intent is to now also restrict the interstate movement of host commodities produced in Napa County. However, the USDA's interstate restrictions are more stringent for host commodities produced within one and one half miles of a LBAM detection than for those produced outside this area in a regulated county.

Therefore, this emergency amendment to Section 3591.20 is necessary to ensure the Department has the best chance to conduct a successful eradication project in the smallest possible area of Napa County. Additionally, the Department is still conducting a regional delimitation survey for LBAM in Napa County. This activity would also be specifically authorized under Section 3591.20.

An emergency eradication response is necessary now to ensure the LBAM does not continue to multiply and spread to other uninfested areas of the State. The adult LBAMs may continue to emerge and are not known to be a long distance flyer. These types of moths generally only fly up to 100 meters to find suitable host material during release studies. The real threat of long distance spread is through the human assisted movement of infested plants and plant parts, including greenwaste, and other possible carriers such as equipment or appliances contaminated with host material. The Department also intends to

amend Section 3434 to add a portion of the Napa area to that regulation.

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, 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.

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. 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 also determined that to ensure it conducts the most efficient and effective eradication project with the greatest chances of success, eradication activities will need to begin as soon as possible. This includes, "The searching for all stages of light brown apple moth by visual inspection, the use of traps, or any other means anywhere within the said area." Additionally, the Department will continue to work with the USDA LBAM Technical Working Group to develop its comprehensive eradication strategy. The Department will also propose appropriate emergency amendments Section 3434, Light Brown Apple Moth Interior Quarantine.

The proposed amendment of Section 3591.20(a) would establish Napa County as an additional eradication area for LBAM. The entire county is being proposed as eradication area as ongoing delimitation surveys may result in finds of additional small LBAM infestations outside the current known infested area. To enable rapid treatment of newly discovered small infestations without frequent amendment of the regulation, the entire county should be established as an eradication area.

The effect of the amendment of this regulation will be to implement the State's authority to perform control and eradication activities against LBAM in Napa 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 LBAM to non-infested areas in order to protect California's agricultural industry and environment, it is necessary to begin eradication activities against the LBAM immediately. Therefore, it is necessary to amend this regulation as an emergency action.

Authority and Reference Citations

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

Reference: Sections 407, 5322, 5761, 5762 and 5763, Food and Agricultural Code.

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). Existing law also provides that eradication regulations may proclaim any portion of the State as an eradication area and set forth the boundaries, the pest, its hosts and the methods to be used to eradicate said pest (Food and Agricultural Code Section 5761).

Section 3591.20. Light Brown Apple Moth Eradication Area.

The proposed amendment of Section 3591.20(a) will establish Napa County as an

additional eradication area with respect to LBAM. The effect of the amendment of this regulation is to provide authority for the State to perform eradication activities against LBAM in Napa County.

Mandate on Local Agencies or School Districts

The Department of Food and Agriculture has determined that the proposed amendment of Section 3591.20 does not impose a mandate on local agencies or school districts and no reimbursement is required under Section 17561 of the Government Code.

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.