

FINDING OF EMERGENCY

The Secretary of the Department of Food and Agriculture finds that an emergency exists due to the sudden unexpected detection of *Lobesia botrana*, European Grapevine Moth (EGVM), in Nevada County, California. “Emergency’ means a situation that calls for immediate action to avoid serious harm to the public peace, health, safety, or general welfare.” Government Code Section 11342.545. This new occurrence is thought to be associated with the human-assisted movement of EGVM life stages. The Department is proposing an emergency amendment of the regulation to establish new quarantine area in Nevada County. Like all quarantine actions, the intended effect of this quarantine is to prevent the human-assisted artificial spread of the pest. Artificial spread, such as moths hitchhiking on equipment, clothing or the movement of infested plant material has the potential to spread the pest rapidly throughout the state, whereas the natural spread of the pest is gradual.

On May 9, 2011 (Pest and Damage Records No. 1402319) adult male EGVM were trapped in the Grass Valley area of Nevada County. This was the first time that EGVM were detected in that county and occurred despite the quarantine the Department adopted as an emergency action in February of 2010. These EGVM were trapped within three miles of one another and within one life cycle. This meets the State and federal regulatory protocol for establishing a quarantine in this area of Nevada County.

The EGVM regulated products include grapes, olives, stone fruits, kiwifruits, pomegranates, and persimmons. California’s 844,000 acres of grapes (526,000 acres of wine grape, 93,000 acres of table grape and 225,000 acres of raisin-type grapes) leads the nation in grape production with 89% of the total. In 2007, grapes were the number two commodity in the state, based on a dollar value of \$3.08 billion dollars, and were among the top three commodities produced in 15 California counties. The retail value of California grapes was valued at \$16.5 billion in 2006. The United States Department of

Agriculture's (USDA) November 2010 economic analysis estimates the EGVM regulated products were valued in 2008 at \$2.7 billion in the existing quarantined counties California. More information regarding potential economic impact in California may be found in the economic analysis prepared by USDA at: http://www.aphis.usda.gov/plant_health/plant_pest_info/eg_moth/downloads/EGVM-EconomicAnalysis-Nov2010.pdf

Emergency Rulemaking Procedures

If a state agency makes a finding that the adoption of a regulation is necessary to address an emergency, the regulation may be adopted as an emergency regulation. Government Code Section 11346.1(b)(1).

In this document the Department is providing the necessary specific facts demonstrating the existence of an emergency and the need for immediate action to prevent serious harm to the general welfare of the citizens of California, pursuant to Government Code Section 11346.1(b)(2).

Government Code section 11346.1(a)(2) requires that, at least five working days prior to submission of the proposed emergency action to the Office of Administrative Law, the adopting agency provide a notice of the proposed emergency action to every person who has filed a request for notice of regulatory action with the agency. After submission of the proposed emergency to the Office of Administrative Law, the Office of Administrative Law shall allow interested persons five calendar days to submit comments on the proposed emergency regulations as set forth in Government Code section 11349.6. Since the Department does not have a record of any person requesting a notice of regulatory actions under Government Code Section 11346.4(a)(1), the notification provisions of Government Code Section 11346.1(a)(2) do not appear to be applicable to this emergency action. Further, the Secretary believes 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).

California Environmental Quality Act

“Specific actions necessary to prevent or mitigate an emergency” are exempt from the California Environmental Quality Act [CEQA]. Public Resources Code Section 21080(b)(4). “Emergency means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services.” Public Resources Code Section 21060.3.

Evidence of Emergency

Under Section 14.5 of the State of California Emergency Plan, dated July 1, 2009, the Department is responsible for coordinating integrated federal, state and local preparedness for response to, recovery from and mitigation of plant diseases and pests and overseeing the control and eradication of outbreaks of harmful or economically significant plant pests and diseases. The Department is also charged with leading the administration of programs to detect, control and eradicate pests affecting plants.

EGVM is known to feed on close relatives of plants listed as threatened or endangered in the United States and presents a potential threat to perhaps 24 species, some of which are known to occur only in California. To protect this source of revenue and the environment, California must do everything possible to prevent the spread of EGVM in the State.

EGVM is a pest of quarantine concern to the USDA and they have issued a federal order governing the interstate movement of host material. Unless the State’s EGVM regulation is substantially the same as the latest EGVM federal order, the USDA cannot

regulate less than the entire State. The current federal order requires the State to regulate at least a five mile radius (this includes a buffer area) surrounding an EGVM infestation as defined under the regulatory protocol. Minimally, the State's regulation has to prevent the intrastate movement of regulated articles and commodities which do not qualify for certification from the infested area and the surrounding buffer area. This is to ensure that such articles and commodities are not subsequently moved from a non-regulated area of California into interstate commerce. More information regarding EGVM including all issued federal orders may be accessed at:

http://www.aphis.usda.gov/plant_health/plant_pest_info/eg_moth/index.shtml

The EGVM has the capability of causing significant irreparable harm to California's agricultural industry and some possible adverse environmental/urban impacts. Should the Department not take these actions; the EGVM could cause catastrophic losses to not only California's table and wine-grape industries but the industries which rely on the regions scenic beauty and international reputation as a tourist destination.

The Secretary finds that the immediate amendment of a regulation to establish a new quarantine area is necessary to prevent or mitigate the emergency, to avoid serious harm to the general welfare and economy of the State, demanding immediate action to prevent the spread of an injurious insect and to maintain the economic well-being of agriculturally dependent rural communities (Food and Agricultural Code (FAC) Sections 401.5 and 403).

Project Description

This proposed emergency action will establish a new quarantine area for EGVM and will include the new detection sites as epicenters and a buffer zone which extends approximately five miles in each direction from the epicenters. A buffer zone is necessary because the moth can spread naturally (as well as being spread artificially on 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 Nevada County Agricultural Commissioner. The criteria for determining quarantine boundaries around an epicenter was based upon the information contained in the Final Report of the International Technical Working Group for the European Grape Vine Moth in California, released February 10, 2010. An epicenter is defined as an egg, larva or pupa found in the environment, or two male moths trapped within three miles of one another and within one life cycle.

The proposed quarantine area is considered the minimum area around the initial detection sites which should be regulated to prevent artificial spread of EGVM to noninfested areas.

The effect of the amendment of this regulation will be to implement the State's authority to perform quarantine activities against the EGVM in this new area of Nevada County. Quarantine activities consist of limiting the movement of EGVM host articles within or from the area under quarantine. Any quarantine actions undertaken by the Department will be in cooperation and coordination with the USDA and the Nevada County Agricultural Commissioner. The amendment will establish a regulated area in Nevada County of approximately 103 square miles, for a total of approximately 2,174 square miles. It is immediately necessary to implement quarantine actions in order to prevent the artificial spread of EGVM to the uninfested areas of California.

Background

In addition to California, EGVM are found in southern Asia, Europe, North Africa, Anatolia, the Caucasus and in South America (Chile where it was first identified in 2008). Adult EGVM are 6 to 8 mm long with a wingspan of about 10 to 13 mm. However, their size is greatly affected by larval food quality. The first flight of adults occurs in spring when daily average air temperature is above a minimal threshold temperature of 10°C for 10 to 13 days. High temperature (over 20°C) and low humidity

(40-70% relative humidity) provide optimal conditions for moth activity – conditions that prevail in much of California's grape production areas. The second flight period begins in summer. Adults may be hard to discover during the day and may be noticed only when they take flight after being disturbed. Within a day or two of mating, females begin to oviposit on the blossoms, leaves, and tender twigs of grapevines. The female lays 300 or more eggs at a rate of 35 per day. First generation eggs are laid on the flower buds or pedicels of the vine while second generation eggs are laid on individual grapes. Eggs hatch in seven to eleven days in spring and three to five days in summer. The number of generations in a given area is fixed by photoperiod together with temperature. The moth achieves two generations in northern cold areas and usually three generations in southern temperate areas, but as many as five generations have been reported.

Larvae develop in four to five weeks in spring and two to three weeks in summer. Pupation lasts nine to twelve weeks in spring, five to seven days in summer, and up to six months in winter.

The EGVM is a serious pest in warm vine-growing areas, such as California. Damage by EGVM makes berries attractive to other insects and predisposes the fruit to fungal infection. Larval boring may promote a number of fungal rots, including *Aspergillus*, *Alternaria*, *Rhizopus*, *Cladosporium*, *Penicillium* and especially, grey rot caused by *Botrytis cinerea*. Loss of up to one-third of the vintage has been reported in areas of the Soviet Union, Syria and Yugoslavia. Losses in Israel sometimes reach 40 to 50 percent among table grapes and up to 80 percent for wine grapes. Further loss is due to the time and labor spent in cleaning the grape bunches. When infestations are heavy, work days spent in cleaning the fruit account for 30 to 40 percent of the time of those involved in harvesting.

First generation EGVM larvae feed on bud clusters or flowers and spin webbing around them before pupating inside the web or under a rolled leaf. If heavy flower damage occurs during the first moth generation, the affected flowers will fail to develop and yield will be low. Second generation larvae enter the grapes and feed before pupating inside the grape. Larvae of the third generation, the most damaging, feed on ripening grapes, migrating from one to another and spinning webs. When berries are a little desiccated, the larvae penetrate them, bore into the pulp, and remain protected by the berry peel. Larvae secure the pierced berries to surrounding ones by silk threads in order to avoid falling. Each larva directly damages several berries (one to six), but if the conditions are suitable for fungal or acid rot development, a large number of surrounding berries may also be affected. The third generation larvae leave the fruit and seek shelter under the bark, among dead leaves, or between clods of earth, where they pupate before overwintering.

The most probable method of EGVM movement within California is human-aided on equipment, fruit or infested propagative material. Though larvae are active, their movement is usually limited to between berry clusters, and virgin females' movement rarely exceeds 80 m.

EGVM detections in California have led to several expansions of the original quarantine areas in Napa and Sonoma counties; as well as creating new quarantine areas in Fresno, Lake, Mendocino, Merced, Santa Clara, San Joaquin and Solano counties.

Information Relied Upon

Letter from Jeffery Pylman to Karen Ross, dated May 20, 2011.

Pest and Damage Record 1402319, California Department of Food and Agriculture.

Federal Domestic Quarantine Order, *Lobesia botrana* (European Grapevine Moth), Revised February 10, 2011.

“ECONOMIC IMPACTS OF THE EUROPEAN GRAPEVINE MOTH (*LOBESIA BOTRANA*) IN CALIFORNIA,” dated November 2010, Policy Analysis & Development Policy & Program Development, Animal & Plant Health Inspection Service, United States Department of Agriculture.

Phytosanitary Advisory No. 11-2010, dated June 21, 2010, California Department of Food and Agriculture.

Movement of Grapes and Other Regulated Articles from the European Grapevine Moth (*Lobesia botrana*) Quarantine Zone, Environmental Assessment, dated June 2010, United States Department of Agriculture.

European Grapevine Moth 2009 Napa County Winegrape Fruit and Wine Value Losses, June 2010.

Second Report of the International Technical Working Group for the European Grape Vine Moth (EGVM) in California, Final – May 14, 2010.

Email dated February 18, 2010, from Eileen Y. Smith to Helene Wright, and its attachments.

Phytosanitary Advisory No. 02-2010 dated February 16, 2010, California Department of Food and Agriculture.

Final Report of the International Technical Working Group for the European Grape Vine Moth (EGVM) in California, dated February 10, 2010.

Email dated February 8, 2010, from Kevin Hoffman to Stephen Brown and its attachment.

Email dated February 8, 2010, from John Hooper to Stephen Brown and its attachment.

Email dated February 4, 2010, from Eileen Y. Smith to Helene R. Wright and its attachment.

Interim Report of the International Technical Working Group for the European Grape Vine Moth (EGVM) in California, January 11, 2010.

Email dated December 15, 2009, from Stephen Brown to Susan McCarthy, and its attachment, "The European Grapevine Moth."

Agricultural Statistical Review, California Agricultural Resource Directory, 2008-2009.

Electronic Code of Federal Regulations (e-CFR), Title 7, Part 305, dated October 13, 2009.

Email dated December 23, 2009, from Eileen Y. Smith to Helene R. Wright, and its attachments.

New Pest Advisory Group (NPAG), Plant Epidemiology and Risk Analysis Laboratory Center for Plant Health Science & Technology, October 14, 2009.

Press Release, National Agricultural Statistics Service, October 9, 2009.

California Grape Acreage Report, 2008 Summary, United States Department of Agriculture.

Mini Risk Assessment, Grape berry moth, *Lobesia botrana*, (Denis & Schiffermuller) [Lepidoptera: Tortricidae], September 5, 2003. Robert C. Venette et. al., Department of Entomology, University of Minnesota.

Authority and Reference Citations

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

Reference: Sections 407 and 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 (FAC, Sections 401, 401.5 403, 407 and 5322).

Section 3437. European Grapevine Moth Interior Quarantine

The effect of the amendment of this regulation will be to implement the State's authority to perform quarantine activities against the EGVM in this new area of Nevada County. Any quarantine actions undertaken by the Department will be in cooperation and coordination with the USDA and the Nevada County Agricultural Commissioner. It is immediately necessary to implement quarantine actions in order to prevent the artificial spread of EGVM to the uninfested areas of California. The amendment will establish a regulated area in Nevada County of approximately 103 square miles for a total of approximately 2,174 square miles.

Mandate on Local Agencies or School Districts

The Department of Food and Agriculture has determined that Section 3437 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 Nevada County Agricultural Commissioner requested that these changes to the regulation be made.

Cost Estimate

The Department has also determined that the regulations 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.