Department of Food and Agriculture

Proposed Changes in the Regulations

Title 3, California Code of Regulations

Section 3437(b) and (c)

European Grapevine Moth Interior 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 from the movement and spread of injurious plant pests within California (Food and Agricultural Code Section 403).

Specific Purpose and Factual Basis

The specific purpose of Section 3437 is to provide authority to the State to regulate the movement of hosts and possible carriers of European Grapevine Moth, *Lobesia botrana*, within or from the regulated area.

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

The Secretary of the Department of Food and Agriculture found that an emergency existed due to the United States Department of Agriculture's (USDA) February 27, 2012 issuance of a new Federal Order, Domestic Quarantine for *Lobesia botrana*, (European Grapevine Moth [EGVM]). EGVM is a serious pest and host material is subject to State regulation for intrastate movement and federal regulation for interstate movement. The USDA's Federal Order became effective March 8, 2012 and deregulated the entire counties of Fresno, Mendocino, Merced and San Joaquin; reduced the quarantine areas in the counties of Napa, Nevada, Santa Clara, Santa Cruz, Solano and Sonoma and removed *Rubus* as a host. To stay parallel with this Federal Order, the Department made an emergency amendment to its regulation which was also effective March 8,

2012. This emergency action removed unnecessary State quarantine restrictions and prevented serious harm to the general welfare and economy of the State and the economic well-being of agriculturally-dependent rural communities.

The removal of the four counties reduced the overall size of the California EGVM quarantine area by 20 percent or approximately 479 square miles. As a result, grapes and other host commodities from these previously regulated four counties can now move without restrictions.

A previous Federal Order had required a minimum of a five mile “buffer” radius be used. The new Federal Order shrunk the required buffer area from five miles surrounding each find to three miles surrounding each find. This emergency regulatory action resulted in the reduction of the quarantine area in Napa County by approximately 22 square miles, in Nevada County by approximately 142 square miles, in Santa Clara County by approximately 56 square miles, in Santa Cruz County by approximately 53 square miles, in Sonoma County by approximately 436 square miles and in Solano County approximately 113 square miles for a total of approximately 822 square miles. The grand total reduction was 50 percent or approximately 1,301 square miles.

The total remaining quarantine area will be approximately 1,303 square miles. The contiguous quarantine area in the counties of Napa (approximately 575 square miles), Sonoma [approximately 228 square miles (It should be noted that due to a previously unaccounted find, approximately three square miles were also added to Sonoma County.)] and Solano (approximately 124 square miles) will be approximately 927 square miles; Santa Clara will be approximately 38 square miles; Santa Cruz will be approximately 34 square miles; and, Nevada County will be approximately 74 square miles (Grass Valley area approximately 34 square miles and Nevada City area approximately 40 square miles).

Project Description

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 three-mile radius (this includes a buffer area) surrounding an EGVM infestation as defined under the following regulatory protocol:

A quarantine area is any location where EGVM is detected and a three-mile radius surrounding each of the detections in which:

(a) A total of two or more adult EGVMs are trapped within three miles of each other and within the timeframe of one lifecycle as determined by the degree day model; or

(b) DNA analysis on pest detections confirms the presence of one or more immature EGVMs.

Less than an entire state will be designated as a quarantine area only if the USDA determines that:

(a) The State has adopted and is enforcing restrictions on the intrastate movement of the regulated articles that are equivalent to those imposed by the Federal Order on the interstate movement of regulated articles; and,

(b) The designation of less than the entire State as a quarantine area will prevent the interstate spread of EGVM.

The federal conditions for interstate movement of regulated articles are summarized as follows:

Certificate and limited permit: Interstate movements of regulated articles from a quarantined area require a certificate or limited permit issued by an authorized inspector.

Compliance agreement: Any person engaged in producing, growing, harvesting, handling, packing, transporting or moving regulated articles interstate may enter into a compliance agreement.

Federal conditions to be eligible for interstate movement from the quarantined area:

- Implementation of integrated pest management program
- Record keeping of regulated articles shipped interstate
- Disposal of plant litter, compost, harvesting waste and green waste by a commercial entity at a designated composting facility
- Use of screens or tarps to cover fruits when they are moved outside of the quarantined area under applicable conditions
- Cleaning of all equipment, machineries and conveyances leaving the infested area by either pressure washing or steam treatment

For fresh table and juice grapes, a systems approach was implemented:

- A minimum of one trap per five acres and either:
    1. Post-harvest treatment (such as fumigation with methyl bromide) if vineyards are located within 200 meters of a EGVM detection.
    2. If outside of 200 meters, inspection to verify freedom from EGVM prior to interstate movement.

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

This emergency action reduced the quarantine area for EGVM by including the 2010 and 2011 detection sites as epicenters and a buffer zone which extends approximately three 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 affected agricultural commissioners. The criteria for determining quarantine boundaries around an epicenter was based upon the information contained in the Report of the International Technical Working Group for the European Grape Vinemoth in California, dated December 13-15, 2011. 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 lifecycle.

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 remove the State's authority to perform quarantine activities against the EGVM in the deregulated areas. 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 are in cooperation and coordination with the USDA and the county agricultural commissioners.

Background

In addition to California, EGVM are found in southern Asia, Europe, North Africa, Anatolia, the Caucasus and in South America (Chile is 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 percent 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 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.

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.

To protect these sources of revenue and the environment, California must do everything possible to prevent the spread of EGVM in the State.

<u>California Environmental Quality Act</u>

"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.

Categorical Exemption

Title 14, California Code of Regulations, Section 15308. “Class 8 consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment.”

For the reasons set forth in this document, this constituted a specific act necessary to prevent or mitigate an emergency and is also an action required for the preservation of the environment.

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

The Department of Food and Agriculture has determined that the adoption and subsequent amendments of Section 3437 do not impose a mandate on local agencies or school districts and no reimbursement is required under Section 17561 of the Government Code. Each county commissioner in a regulated county requested the State to implement the regulated areas in their county and the removal of these areas lessens their responsibilities.

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 adoption and subsequent amendments of Section 3437.

The cost impact of the changes in the regulations on private persons and businesses are expected to be insignificant. In fact, the changes should be beneficial because quarantine restrictions are being removed.

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:

Previously the Department determined that regulated growers/vineyard managers and harvesters of bulk grapes for crush must ensure that all equipment used for vineyard maintenance and harvesting is thoroughly cleaned of all host material, debris and all possible life stages of EGVM year-round and prior to leaving the growing premises. The Department estimates that it costs a representative grower/vineyard manager or harvester $500 to purchase cleaning equipment to accomplish the above. An additional labor cost would apply but would vary widely depending on how often equipment is moved from the premises. A grower/vineyard manager or harvester operating in the deregulated area would not be subject to any new costs.

The Department has also determined that haulers/transporters of bulk grapes for crush must ensure that: all equipment used (bins, barrel, machinery, gondolas, etc.) is thoroughly cleaned of all host material, debris and all possible life stages of EGVM prior to leaving the growing premises, all vehicles/conveyances used in the transport of shipment must be cleaned of same prior to leaving the growing premises, and, again, prior to leaving the receiving facility. Additionally, they must transport the bulk grapes in a fully enclosed conveyance or the shipment must be completely covered. The haulers/transporter may face additional costs of $500 to purchase cleaning equipment to accomplish the above, $1,085 for tarps and labor costs of $434, although the last two costs may be distributed among growers and/or harvesters. These costs will no longer be incurred for the deregulated areas.

The Department has also determined that receivers of bulk grapes who must ensure that all equipment (bins, barrels, machinery, gondolas, etc.) used for the transport of bulk grapes to their facility are thoroughly cleaned of all host material, excess debris and all possible life stages of EGVM prior to leaving the premises. The Department estimates that a representative receiver may face an additional cost of $500 to purchase cleaning equipment to meet this requirement with unknown labor costs. These costs will also now decrease.

The emergency amendment of Section 3437 removed authority for the Department to conduct quarantine activities against EGVM and removed *Rubus* species as a host and there are no known private sector cost impacts.

Anticipated Benefits from This Regulatory Action

Existing law, FAC section 24.5, states "Inasmuch as plants growing in native stands or planted for ornamental purposes contribute to the environmental and public health and welfare needs of the people of the State, the Legislature hereby finds and declares that such plants shall be considered as a part of the agricultural industry for the purpose of any law that provides for the protection of the agricultural industry from pests."

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 she is directed or authorized to administer or enforce.

Existing law, FAC section 5321, 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.

Existing law, FAC section 5322, provides that the Secretary may establish, maintain, and enforce quarantine, eradication, and such other regulations as are in her opinion

necessary to circumscribe and exterminate or prevent the spread of any pest which is described in FAC section 5321.

The existing law obligates the Secretary to investigate and determine the feasibility of controlling or eradicating pests of limited distribution but establishes discretion with regard to the establishment and maintenance of regulations to achieve this goal. The amendment of this regulation benefits the environment by not having to conduct a quarantine program for an exotic invasive species where it is not necessary because the goal of eradication has been achieved in the areas removed from regulation. This eliminates any potential unnecessary environmental impacts. Additionally, the amendment of this regulation eliminates obligating any Department funds or resources to perform quarantine activities and redirect any resources to those remaining quarantine projects or future incipient infestations by exotic invasive species.

The specific anticipated benefits of the amendment of this regulation are to:

- Enable the Department and affected county agricultural commissioners to save the time and resources which would continue to be used for quarantine enforcement activities in areas where there is no longer a need to do so.
- All eradication activities cease in the deregulated areas and the general public is no longer impacted; applications of organic pesticides, fruit or blossom stripping of grapes and olives will no longer be conducted on homeowners' properties.
- California is faced with constant pressure from other exotic invasive species and has numerous other quarantine projects in place. The reduction of this quarantine area by approximately 50 percent enables the Department's Emergency Quarantine Response Program to focus on these other quarantine projects.
- Previously, the Department estimated that a representative private person or business within the quarantine areas could incur average costs of approximately $881 annually. There are over 3,193 businesses which will no longer be

regulated. This results in an annual savings of over $2,813,033 for these previously affected businesses.

- A total of 132,838 acres (126,904 acres of grapes, 183 acres of olives, 5,751 acres of fruit other than grapes and olives) will no longer be regulated in Fresno, Mendocino, Merced and San Joaquin counties. An additional 27,841 acres of wine grapes were deregulated in Sonoma county.
- The United States Department of Agriculture (USDA) maintains a parallel federal domestic quarantine regulating the interstate movement of host material which implements the proposed quarantine boundary which was jointly developed. The implementation of this State regulation removed areas from quarantine; those affected businesses which were previously under quarantine may resume shipping both intrastate and interstate without State of federal restrictions.
- If a business within the previously regulated area had to perform quarantine treatments in order to move host commodities out of the area for either intrastate or interstate movement, these treatments would no longer be required. Although there is no known harm caused to the environment by the performance of these treatments, this action eliminates any potential environmental impacts resulting from this activity which is no longer needed.
- There are hundreds of businesses located throughout California which do business authorized under the terms of a compliance agreement with businesses located within the area proposed for deregulation. The terms of a compliance agreement are authorized by a State permit and the regulated host commodity requires special handling by the receiver at destination. An example is a business located outside the regulated area which receives bulk grapes for crush from within the regulated area. These shipments of bulk grapes currently require special handling. If the business shipping the bulk grapes becomes deregulated, then these special handling requirements are no longer required by the receiver and the receiver benefits too.
- Canada and Mexico have trade restrictions on host commodities produced or shipped from EGVM regulated areas. The growers and shippers of host commodities located in the deregulated and reduced quarantine areas should

benefit by having these trade restrictions lifted. All EGVM quarantine restrictions were lifted from the San Joaquin Valley where most of California's table grapes and stone fruits are exported from. This new area-wide freedom from EGVM instills confidence with our trading partners that we have a successful quarantine program in place.

- The majority of affected growers have been voluntarily performing integrated pest management activities targeting EGVM to reduce its populations which can be a significant cost to the grower. This reduction in the area under quarantine should encourage the remaining affected growers to continue to perform these integrated pest management activities which also benefits the Department's goals of having successful quarantine and eradication programs.
- By the same token, those growers who were removed from the regulated area will no longer be performing integrated pest management activities specifically targeting EGVM and will not incur these added voluntary costs and there will be less pesticide use targeting this exotic pest.
- Nonmonetary benefits include that it demonstrates to those still within the regulated area that the Department is conducting a successful eradication program against the EGVM. This should help encourage those affected businesses and representative private persons who will remain within the quarantine area to continue to comply with the quarantine restrictions.
- The "wine country" is a prominent area for tourism and the uncontrolled spread of an exotic pest such as EGVM may have long term negative impacts on tourism.
- 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 she is directed or authorized to administer or enforce. Existing law, FAC section 5322, provides that the Secretary may establish, maintain, and enforce quarantine, eradication, and such other regulations as are in her opinion necessary to circumscribe and exterminate or prevent the spread of any pest which is described in Section 5321. The goal of quarantine regulations is to prevent the artificial spread of exotic pests by human-assisted movement. The

goal of eradication regulations is to eradicate, control or suppress a pest population within a given area. In this case, all of the primary goals of the enabling statutes have been achieved.

- FAC section 401.5 states, “the department shall seek to protect the general welfare and economy of the state and seek to maintain the economic well-being of agriculturally dependent rural communities in this state.” All of the affected counties had agriculturally dependent communities impacted by incipient infestations of EGVM. Conducting successful quarantine and eradication programs enabling four entire counties to be removed from the regulation and reducing the quarantine area in the remaining affected counties is achieving this statutory goal.

The Department is the only agency which can implement plant quarantines. As required by Government Code Section 11346.5(a)(3)(D), the Department has conducted an evaluation of this regulation and has determined that it is not inconsistent or incompatible with existing state regulations.

Economic Impact Analysis

The reduction of the regulated area and continued prevention of the artificial spread of EGVM in California through the implementation of this regulation economically benefits:

- The general public
- Homeowners
- Tourism
- Local governments
- Federal and State agencies
- The affected and potentially affected businesses

Program Costs

The Department did not spend any general fund money, except for the associated costs promulgating the regulation, on quarantine activities related to EGVM. All of the funds

were federal. The EGVM quarantine budget for 2011 was $2,216,710 and as a result of the deregulation of the four counties and reduction of the regulated area for 2012 it is $1,119,309.

The use of this federal funding by the program creates California business opportunities within the regulate areas. This source of funding enables the certification of host material which otherwise would be unable to move and which then facilitates the sales of host material for intra, inter and international movement. The sale of this host material then also serves as an important source of California tax revenue.

Overview

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 grapes, 93,000 acres of table grapes and 225,000 acres of raisin-type grapes) leads the nation in grape production with 89 percent of the total. In 2007, grapes were the number two commodity in the State, based on a dollar value of $3.08 billion, 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 in California. More information regarding potential economic impact in California may be found in the economic analysis prepared by the USDA at:
http://www.aphis.usda.gov/plant_health/plant_pest_info/eg_moth/downloads/EGVM-EconomicAnalysis-Nov2010.pdf

The following summarizes the market values of the regulated products in the eight regulated counties in 2008 ($ million):

Regulated Product by Common Name	EGVM Host Category	Market Value - California Total ($ millions)	Market Value- Eight Regulated Counties ($ millions)	Percent of Eight Regulated Counties in California
Grape: Wine	Primary	2,348	1,404	60%
Grape: Raisins	Primary	423	310	73%
Grape: Table	Primary	1,120	154	14%
Grape: Total	Primary	3,914I	1,868	48%
Kiwifruits	Secondary	33	2	5%
Olives	Primary	67	12	18%
Persimmons	Secondary	27	16	57%
Pomegranate	Secondary	41	30	72%
Stone fruit: Apricots	Secondary	46	17	37%
Stone fruit: Cherries	Secondary	336	224	67%
Stone fruit: Nectarines	Secondary	284	152	54%
Stone fruit: Peaches	Secondary	502	234	47%
Stone fruit: Plumcots	Secondary	–	-	-
Stone fruit: Plums	Secondary	220	122	55%
Stone fruit: Plums Dried	Secondary	203	26	13%
Stone fruit: Total	Secondary	1,593	775	49%
Total \2		5,675	2,703	48%

Source: USDA-NASS. California County Agricultural Commissioners ' Data, 2008, October 15, 2009.
Note \I: California grape total includes $23.5 million for un-specified grapes.
Note \2: Total does not include regulated products: blackberry and carnation.

Grapes: Wine, raisin and table variety grapes

The total market value of grapes in California increased in 2008 to about $3.9 billion. The regulated counties accounted for approximately 48 percent ($1.9 billion) of that total. In 2007, 11,623 grape farms existed in California. The regulated counties (excluding Santa Clara-no data to rely on) accounted for 61 percent (7,067 grape farms) of that total. With 90 percent of grape production in the United States,

California is by far the largest grape-producing State. In 2009, grapes had the highest value of production among all fruit and nut products in the United States. In California, grape is the second-highest valued agricultural product next to milk and cream.

In 2009, the United States was the third largest producer of grapes in the world and the second largest exporter of table grapes after Chile. The United States exported $586 million of fresh grapes to 86 countries in 2009. Canada is the largest importer of U.S. fresh grapes, accounting for 33 percent of U.S. grape exports in 2009.

Napa and the surrounding counties of Sonoma, Yolo, Lake and Solano contain 27 percent of California's wine grape acreage. Almost all grape production in Napa County consists of wine grapes. Wine grape production was valued at $495 million in 2009, accounting for 98.6 percent of the total gross value of all agricultural production ($502 million) in the county. The potentially affected acreage (both bearing and non-bearing) includes 32,947 acres of black wine grape varieties and 10,084 acres of white wine grape varieties for a total of 43,031 acres. Of the surrounding counties, Sonoma has the largest value of wine grape production at $465 million, followed by Lake at $34 million and Solano at $12 million.

In 2008, Kern, Tulare, and Fresno counties produced table grapes valued at $439 million, $397 million, and $153 million, respectively, accounting for almost 90 percent ($989 million) of total California table grape sales ($1.1 billion).

Stone fruit and other regulated products

Total market value of stone fruits produced in California, such as peaches, nectarines, plums, cherries, and apricots, was about $1.6 billion in 2008, and the total share of the regulated counties was approximately 49 percent ($783 million). Total market value of other regulated products, such as olives, persimmons, pomegranates, and kiwifruits, in California was $171 million in 2008, with a total share of 35 percent ($60 million) among the regulated counties.

In 2007, 10,312 farms in California produced stone fruits and other regulated products; the regulated counties (again excluding Santa Clara) accounted for 2,729 of those farms (27 percent). Fresno County has the most farms of any regulated county; 1,402 farms (51 percent).

In the United States, California dominates the planted acreage of kiwifruits (97 percent), olives (96 percent), plums/prunes (94 percent), and pomegranates (100 percent).

The shares of stone fruits grown in Fresno County in 2007 were 45 percent of nectarines, 19 percent of peaches, and 13 percent of apricots in the United States. Fresno County also accounts for about 75 to 80 percent of U.S. raisin production.

Rubus spp.

Although this regulation removed *Rubus* spp. as a host for EGVM, neither Canada nor Mexico has recognized this and still require certification when originating from inside an EGVM regulated area. By reducing the regulated area in Santa Cruz County, over 250 acres of *Rubus* spp. were removed from regulation and this fruit may be exported without restriction for EGVM.

Types of Economic Impacts

Because of the high levels of production of regulated products in the regulated counties, the presence of EGVM presented some major economic impacts to California agriculture including: direct loss of grapes, loss of some export markets to Canada and Mexico, expenses related to the disposal of green wastes, grower expenses related to performing voluntary treatments to control EGVM, increased expenses for safeguarding shipments during transport and expenditures for cleaning of machinery, equipment, and trucks.

Under the Federal Order, fresh grape shipments for consumption must be treated (e.g., fumigation with methyl bromide) if vineyards are located within 200 meters of an EGVM detection. In order to ensure the State restrictions are parallel to the federal restrictions, fumigation is also an acceptable option for intrastate movement. Fumigation is also an acceptable option to export to some countries. Due to logistics and quality issues, such as the limited number of existing fumigation facilities located within the quarantine areas, the high initial cost associated with constructing in-house facilities, and the shortened shelf life of fumigated grapes, treatment of fresh table grapes using methyl bromide is considered to be cost prohibitive for exports, intrastate and interstate movement.

Industry and government representatives agree that, without the Federal and State quarantines and related regulatory protocols, California growers could have lost the ability to export all EGVM regulated products. Stone fruits were the first products to experience the impacts of EGVM, as their April to September harvesting season preceded that of other regulated products. Canada halted stone fruit imports from the quarantined area for approximately 45 days starting in May, which resulted in an estimated 250,000 to 350,000 boxes of stone fruits being diverted domestically. Without the regulatory protocol to certify the safety of the products, the resulting loss of trade could have been significant, as high as 2.5 million boxes in Fresno County alone. On September 1, 2010, Mexico removed the temporary import suspension on the EGVM regulated products, which had been imposed on the regulated counties in their entirety, and began allowing imports of table grapes from non-regulated areas and imports of stone fruits from all areas in these counties.

Without the State regulation continuing, the USDA would have to regulate the entire State and it is clear there would be devasting impacts to some export markets.

Costs of Compliance with the Regulation

Growers, harvesters, haulers, and receivers of grapes for crushing in the quarantine area are required to have compliance agreements under the federal regulation to engage in these activities which may lead to interstate shipments. These same impacted businesses may enter into compliance agreements to facilitate intrastate shipments. For both inter and intrastate shipments the main activities that result in increased costs to the regulated industries are grower treatments, the cleaning of equipment, the covering or screening of loads under applicable conditions, and the processing of green wastes to control all life stages of EGVM.

This amendment to the regulation removed four entire counties from quarantine, accounting for approximately 479 square miles. In these four counties there were a total of 3,001 affected businesses/private people under compliance agreements stipulating the restrictions they needed to comply with to move and receive regulated host material. The types of businesses affected included production and retail nurseries, host commodity haulers, harvesters and receivers, and growers of host commodities. The total estimated annual cost for compliance for these businesses/private parties located within the four counties was $658,118, annually. The cost of compliance by county was Fresno-$253,880; Mendocino-$184,435; Merced-$2,856; and San Joaquin-$216,947.

This amendment also reduced the buffer area required surrounding each EGVM detection from five miles to three miles. This results in a reduction of the quarantine area in Napa County by approximately 22 square miles, in Nevada County by approximately 102 square miles, in Santa Clara County by approximately 56 square miles, in Santa Cruz County by approximately 53 square miles, in Sonoma County by approximately 436 square miles and in Solano County approximately 113 square miles for a total of approximately 816 square miles. It should be noted that due to a previously unaccounted find, approximately three square miles were added to Sonoma County.

The total number of establishments which have been deregulated is not completely known at this time. However, for this area the total estimated reduction in the costs for compliance is $1,277,520. The estimated reductions in costs per county are: Santa Clara-$68,499; Santa Cruz-$125,974; Solano-$8,928 and Sonoma-$1,074,119.

The total known decrease in the costs for compliance for all the deregulated areas is at least $1,935,638, annually.

For Sonoma County the grape acreage inside the quarantine area in 2011 was 117,558 acres. This regulatory action removed 8,275 acres of grapes from Sonoma County.

Costs and Benefits of EGVM Regulation

Direct costs to growers, such as costs associated with control measures and regulatory compliance, negatively impact growers and their industries. Most of these costs are likely to be absorbed by growers and not be passed on to the next level of the supply chain. Considering the dominant position of California and the regulated counties in the production of the regulated products, continued reduced production revenue would negatively impact the areas' already depressed economy further.

The federal and State regulation and a systematic detection and control program are necessary for maintaining intrastate, interstate and international commerce. A successful quarantine program coupled with an eradication program for EGVM has already freed many growers and other affected businesses and will eventually free all businesses and governments from the control programs and activities related to regulatory compliance.

Potential elimination of EGVM from California will require a continuation of the control programs and activities at least through fiscal year (FY) 2013, including systematic trapping and monitoring and regulatory compliance by all impacted entities, and assumes EGVM does not spread beyond the areas currently known to be infested. If

eradication is not achieved, costly control measures will continue in those areas under regulation.

The costs and benefits of controlling and eventually eliminating EGVM extend beyond the immediate economic impacts. There are environmental costs (impacts to non-target organisms and ecosystems, potential impacts to air, soil, water quality, etc.) and social costs (potential health impacts to workers and neighboring property owners, negative community perceptions, etc.) that also need to be considered when evaluating and comparing alternative courses of action.

Assessment

The Department has made an assessment that the adoption of this regulation would not 1) create or eliminate jobs within California; 2) create new business or eliminate existing businesses with California; or 3) affect the expansion of businesses currently doing business with California.

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.

Information Relied Upon

Email dated June 8, 2012, from Paul Turano to Colleen Murphy.

Email dated June 4, 2012, from Nawal Sharma to Stephen Brown.

Email dated June 1, 2012, from Melinda Mochel to Stephen Brown and its attachments.

For Information and Action, DA-2012-07, dated February 27, 2012, from Animal and Plant Health Inspection Service and its attachment.

Email dated February 1, 2012, from Melinda Mochel to Stephen Brown and its attachments.

Report of the International Technical Working Group for the European Grape Vine Moth in California, dated December 13-15, 2011.

Pest and Damage Records:

Napa/Solano/Sonoma Counties

1615821, 1586945, 1586930, 1586929, 1611343, 1615760, 1586354, 1615233, 1588070, 1597130, 1597438, 1615850, 1615151, 1615525, 1602983, 1602526, 1615594, 1615470, 1602525, 1588035, 1643916, 1615872, 1615587, 1490387, 1629423 and 1602884

Nevada County

1585400, 1402320 and 1402319

Santa Clara County

1512021, 1512022, 1512020, 1483678, 1483676 and 1483677

Santa Cruz County

1549662

Sonoma County

1597129, 1586323, 1586336, 1586335, 1586317, 1586303, 1586325, 1598627 and 1586210

"Movement of Grapes and Other Regulated Articles from the European Grapevine Moth (*Lobesia botrana*) Quarantine Zone," Environmental

Assessment dated June 2010, Animal & Plant Health Inspection Service, United States Department of Agriculture.

“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.