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 believes 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 also 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 11349.6(b).

Description of Specific Facts Which Constitute the Emergency

On September 16, 2005, the United States Department of Agriculture (USDA), Animal and Plant Health Service (APHIS), issued a Federal Order to impose restrictions on the interstate movement of Asian citrus psyllid (ACP), *Diaphorina citri*, host material and citrus greening (CG) host material from quarantined areas in Florida in order to prevent the artificial spread of CG and ACP. APHIS subsequently issued revised Federal Orders on May, 3, 2006, October 30, 2007, November 2, 2007, January 11, 2008, June 5, 2008, June 24, 2008 and July 14, 2008. On August 6, 2008, APHIS issued its last Federal Order as a result of finding ACP and CG in Louisiana. Under this last Federal Order, 1) the entire State of Florida and Orleans Parish, Louisiana are regulated for CG; 2) portions of the States of Texas and Louisiana for ACP; and, 3) the entire States of Florida and Hawaii, entire Territory of Guam, and the Commonwealth of Puerto Rico, for ACP.

CG is also referred to as Huanglongbing (HLB), which is associated with several species of the genus *Candidatus* Liberibacter, a phloem-limited, uncultured bacteria. HLB is also referred to as "yellow dragon disease" and "yellow shoot disease." The spread of the CG-associated bacteria is primarily via the insect vectors, the ACP and the African citrus psyllid (*Trioza erytreae*). Once a psyllid acquires the bacterium, it retains it for life. The ACP is of most concern to California citrus growers because it is established in Florida, Louisiana, Texas, Hawaii and Mexico and poses a more immediate threat of introduction from these areas. It also occurs elsewhere, such as Brazil, China, Cuba and the Caribbean. The African citrus psyllid is found in eastern Africa, Saudi Arabia, Yemen, and occasionally in the Canary Islands and Madeira.

The Federal Order prohibits the interstate movement of nursery stock host material from an ACP regulated area to any other citrus-producing state. Additionally, all host fruit must be cleaned, washed and packed at a packing facility located with the regulated area prior to its being eligible for interstate shipment. The USDA cannot regulate less than an entire state which has an ACP infestation unless the affected state adopts its own regulation pertaining to the intrastate movement requirements which are substantially the same as the federal restrictions pertaining to the interstate movement requirements. Texas has already adopted an ACP quarantine and Louisiana is in the process of adopting a regulation.

Once infected, there is no cure for the CG-infected citrus trees, which decline and die within a few years. Additionally, the fruit produced by infected trees is not suitable for either the fresh market or juice processing due to the significant increase in acidity and bitter taste. For these reasons, CG is considered the most devastating of all citrus diseases and is even listed as a "select agent" under federal regulation.

In response to ACP detections in Tijuana, Mexico, the Department adopted an Asian Citrus Pysllid Eradication Area regulation which was effective on July 24, 2008. Since that time, the Department implemented its "ACP Detection, Delimitation, and Treatment Guidelines."

These guidelines are based in part on the USDA New Pest Response Guidelines for Citrus Greening Disease (Floyd and Krass 2008) and the Department's Glassy-Winged Sharpshooter Statewide Survey & Delimitation Protocols as of 2002 [Revised March 2008] (CDFA 2008). Additional information came from Grafton-Cardwell et al. (2006). The immediate survey plans have two major components, an Urban and Rural Residential Detection Survey and a Nursery Detection Survey.

Effective September 5, 2008, an emergency adoption of an ACP Interior Quarantine, Section 3435, added a portion of San Diego County. Effective September 17, 2008, the regulated area was expanded by approximately 630 square miles due to an ACP infestation in the Dulzura area of San Diego County. Due to ACP finds in Imperial County, effective October 29, 2008, the regulated area was again expanded by approximately 1,953 square miles bringing the total regulated area to approximately 3,764 square miles. Effective December 4, 2008, due to ACP finds in Imperial County, approximately 1,367 square miles was added to the regulated area. The total regulated area is now approximately 5,131 square miles.

On March 4, 2009 (Pest and Damage Record #1263773) five ACP adults and several nymphs were detected in the Niland area of Imperial County. This meets the criteria for further expanding the regulated area in Riverside County as it is indicative of an additional incipient infestation in this area. This detection is just inside Imperial County and is within the current regulated.

The ACP adults are small (three to four mm) with mottled brown wings and typically survive one to two months depending upon temperature. The ACP can transmit the CG-associated bacteria from the fourth nymphal instar through the adult stage with a latent period as short as one day or as long as 25 days. The bacterium is thought to replicate in the psyllid.

The ACP completes its life cycle on *Citrus* species and close rutaceous (citrus) relatives. All life stages (eggs, nymphs, and adults) can be found on the new growth or shoot tips. Adult psyllids typically lay their eggs on the tips of growing shoots or in the crevices of unfolded feather-flush leaves. Eggs are almond-shaped and bright yellow-orange. There are five nymphal instar stages. Adults feed on the underside of leaves. Their feeding behavior is characteristic with their bodies lifted at about a 45^{o} angle from the leaf surface. During feeding, large amounts of plant sap are extracted and subsequently excreted as honeydew or waxy tubules. As this insect feeds, it injects a salivary toxin that causes the developing shoots to be malformed, twisted, curled, or laterally notched. In severe cases, the shoot tip will die. In addition, infested leaves may be covered with white waxy deposits from the psyllids and sooty mold that grows on the large amounts of honeydew excreted by the psyllids. In Florida, the ACP was found before symptoms of CG were observed, and this could certainly occur in California.

ACP is found on four continents and numerous islands. It is widespread in southern China, Southeast Asia, India, Indonesia, and New Guinea. On the African continent, it is limited to Saudi Arabia. In South America, ACP is well established in Brazil and is also found in Paraguay, Venezuela, Bolivia and up through Central America. On the mainland of the United States ACP is well established in Florida and Texas. There are large populations in Hawaii on the islands of Hawaii, Maui and Oahu. In addition, it is known to occur in over 15 states in Mexico and in Cuba.

The probability is high that a private citizen, tourist or immigrant will introduce the CG-associated bacterium into California through the inadvertent movement of plant material including fruit from their homeland or areas visited to their backyard in a residential area. CG-infected trees do not live long and this scenario may be self-eliminating, at least until the psyllid arrives. One possible explanation for the Florida situation is that numerous backyard citrus trees had been infected with CG but in the absence of a vector, it went unnoticed. Once the ACP became established, it moved the CG-associated bacteria from

backyards into commercial groves. The movement of both CG-associated bacteria and the ACP appear to have been accelerated through the movement of *Murraya* and citrus plants through retail nurseries and garden centers, especially of the nationwide chain stores.

California is the number one economic citrus state in the nation, with the USDA putting the value of California citrus at $1,131,851,000 (Federal Register Vol. 71 No.83; published May 1, 2006; pg 25487). A 2002 report by the Arizona State University School of Business indicates that there is at least $825.6 million of direct economic output and another $1.6 billion when all upstream suppliers and downstream retailers are included. This represents over 25,000 direct and indirect employees. To protect this source of revenue, California must do everything possible to exclude both CG-associated pathogens and ACP from the state.

For 2008 in Florida, the estimated increased production costs for citrus range from $266 to $332 million. There are approximately 600,000 acres of citrus in production in Florida. This translates into increased production costs of $443 to $553 per acre. This estimate is based upon an eight dollar per tree replacement cost. In California, the estimated cost to replace a tree is from $10 to $20. Using a cost of $15 per tree would push the projected production costs up to $450 to $550 per acre. The estimated citrus acreage in 2008 in California is approximately 290,000 acres. The projected increased citrus production costs in California would be at least $130.5 to $159.5 million.

In 2007, the California Institute for Specialty Crops determined that California citrus growers absorb production inputs and state mandated costs greater than producers anywhere else in the nation or the world. To maintain a competitive opportunity, the California citrus industry has to produce a consistently better piece of fruit in greater volume. If the quality of California citrus deteriorates, the California producer loses export opportunity and domestic shelf space. For every 1,000 acres of orange productivity lost, losses of $1.7 million in output and over $3.4 million in total state economic activity, including $1 million in

employment income, would result. Should CG-associated bacteria become established throughout California, not just citrus growers but California's economy as a whole would suffer. Further, Federal, State and County regulatory personnel would have increased duties and program costs should survey and eradication activities be implemented. This would further strain an already-impacted State budget.

It should be noted that citrus acreage in Florida has decreased from approximately 858,000 acres in 2005 when HLB was initially detected, to approximately 600,000 acres in 2008. The lost acreage was due to a combination of HLB, citrus canker, hurricanes and real estate investment. However, whatever losses were due to HLB will be even greater in California because most citrus produced is destined for the fresh market, rather than juice as it is in Florida.

The new ACP detections in the northern portion of Imperial County will require the expansion of the regulated area into the southern portion of Riverside County. Due to the ACP ability to disperse over long distances, for developing the boundary of the regulated area, the Department has used an approximate 20 mile buffer area surrounding each ACP infestation epicenter. The introduction of ACP has imposed federal quarantine requirements on the interstate movement of regulated commodities from the regulated areas of California. Therefore, the new quarantine boundary expansion for Riverside County was developed in cooperation with the USDA and the Riverside County Agricultural Commissioner. This proposed boundary was also based upon the existing survey data the Department and counties had generated on knowing where ACP does not occur.

The California citrus industry has taken a great deal of responsibility in preparing for the introduction and establishment of CG-associated bacteria and psyllid vectors. Funding has been allocated towards research on easy, early (i.e., pre-clinical) detection methods (i.e., one primer set to detect all strains rather than primer sets specific for each known strain; host systemic responses) and the identification of CG-associated bacterial strains, and

vector relationships. In addition, a public relations firm has been hired to determine the most effective and efficient methods to educate the general public and make them feel as though they are part of the solution. Industry leaders (research and marketing boards) are involved in procuring federal funds for national research programs in the areas of host plant resistance, etiological agents and variants of CG, specific native and exotic natural enemies of the insect vectors, and pesticide efficacy and new chemistries.

California citrus industry leaders recognized how Florida was at a loss of ample supplies of CG-free citrus stock when the pathogen was detected in 2005. As a result, plans are underway to expand the screenhouse facility at the UC Lindcove Research and Extension Center that houses the industries pathogen-free budwood source to allow for the protection of additional varieties. Other alternatives are being considered to protect valuable citrus propagation sources, germplasm, and breeding material such as isolated and/or protected locations and tissue culture. For long-term survey and management, the industry may pursue the formation of pest control districts.

In Florida and countries where CG exists, insecticides have been a first line of defense to eliminate the psyllid vector, thereby reducing the spread of the CG-associated pathogens. Applying insecticide sprays at critical flushing periods in order to kill psyllid nymphs may be an effective method of CG control should CG be introduced into California. Since insecticide use registrations vary between crops and urban areas and between fruit trees and ornamentals, any eradication treatment program will need to be tailored to each situation.

A number of registered insecticides, including insect growth regulators and biocontrol agents of unknown efficacy for ACP control should be evaluated for potential use:

1. Commercial citrus: methomyl, formetanate, malathion, piperonyl butoxide + pyrethrins, pyrethrins, pyriproxyfen and *Beauveria bassiana* (a fungal biocontrol agent).

2. Nursery citrus: bifenthrin, permethrin, acephate, dinotefuran, Imidacloprid + cyfluthrin, azadirachtin, *B*. *bassiana*, pyriproxyfen, pyrethrin + rotenone, Kryocide and dinotefuran.

3. Ornamentals: permethrin and acephate.

The implementation of biological control methods (the use of beneficial organisms to attack pest populations) will be an important component of an integrated pest management program to reduce populations of the ACP. As there are no known psyllids in California citrus, exotic natural enemies from the pest's area of origin may need to be imported into the United States or from Florida under strict quarantine protocols. There may be some generalist predators such as the coccinellid beetles that will come into citrus from other habitats but to what extent these would be effective is not known at this time. Natural enemies obtained from commercial sources or mass reared by government or industry personnel can be periodically released into field situations once the psyllid becomes established.

Populations of ACP in Florida are fed upon by many generalist arthropod predators such as spiders, lacewings, hover flies or syrphids, and minute pirate bugs, and are attacked by a number of parasites. The coccinellids exert the greatest amount of control. Two lady beetles, *Olla v-nigrum*, which is native to California and *Harmonia axyridis* are the most important predators of ACP nymphal stages in Florida. *H. axyridis* was imported from Japan to control the pecan aphid and is established in parts of California. Two tiny parasitic wasps have been imported and released in Florida. *Tamarixia radiata* was imported from Taiwan and Vietnam, and *Diaphorencyrtus aligarhensis* was imported from Taiwan.

The ACP has the capability of causing significant irreparable harm to California's agricultural industry, especially if CG is also introduced. 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 regulation, for the reasons already set forth, constitutes a specific act necessary to prevent or mitigate an emergency as authorized by Public Resources Code Section 21080, subdivision (b) (4) and Title 14, California Code of Regulations Section 15269, subdivision (c). The regulation is also an action required for the preservation of the environment and natural resources as authorized by Title 14, California Code of Regulations, sections 15307 and 15308.

The effect of the amendment of this regulation will be to implement the State's authority to perform quarantine activities against the ACP in this additional area of Riverside County. Any quarantine actions undertaken by the Department will be in cooperation and coordination with the USDA and the Riverside County Agricultural Commissioner. It is immediately necessary to implement quarantine actions in order to prevent the artificial spread of ACP to the uninfested areas of California. The proposed area to be added to the existing regulated area (approximately 5,131 square miles) is approximately 875 square miles. The total proposed regulated area would then be approximately 6,006 square miles.

The USDA cannot regulate less than the entire State unless the State has first adopted a quarantine regulation which is substantially the same as the existing federal quarantine requirements. Now that the USDA has confirmation of ACP in California, additional federal quarantine restrictions are imminent. Therefore, it is necessary to amend this regulation as an emergency action.

The Department also relied upon the following documents for this proposed emergency

action:

Letter dated November 26, 2008, from Stephen L. Birdsall to A.G. Kawamura.

Letter dated October 24, 2008, from Stephen L. Birdsall to A.G. Kawamura.

Letter dated October 23, 2008, from Robert G. Atkins to A.G. Kawamura.

Letter dated September 3, 2008, from Robert G. Atkins to A.G. Kawamura.

Email dated September 2, 2008, from Steven Spalla to Robert Leavitt (et.al.).

“Establishment of Asian Citrus Psyllid Quarantine Areas in Alabama, Georgia, Mississippi, and South Carolina, and the Expansion of the Quarantine Area in Texas,” dated September 12, 2008, DA 2008-61, Rebecca A. Bech, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine and the attached Federal Order.

Email dated July 21, 2008, from John Connell to Stephen Brown and its attachments.

“Dangerous Pest Threatens Availability of California-Grown Citrus, Homeowners’ Ability to Grow Citrus in Backyards, dated July 17, 2008, Business Wire.

“Bug at border worries California citrus growers,” dated July 17, 2008, Chico Enterprise Record.

“Bug at border worries California citrus growers,” dated July 17, 2008, Sacramento

Bee.

Email dated July 16, 2008, from Nick Condos to Stephen Brown.

“Asian Citrus Psyllid (ACP) Detection, Delimitation, Treatment, and Quarantine Guidelines,” dated July 14, 2008, California Department of Food and Agriculture.

Asian Citrus Psyllid Quarantine, Rule Section 19.410, Texas Administrative Code, printed July 14, 2008.

Federal Domestic Quarantine Order: Citrus Greening Disease (CG) and Asian Citrus Psyllid (ACP), dated July 11, 2008, United States Department of Agriculture, Animal and Plant Health Inspection Service.

“Questions and Answers: USDA’s Federal Order to Prevent the Spread of Citrus Greening and the Asian Citrus Psyllid,” dated July 2008, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

“Confirmation of Asian Citrus Psyllid in Tijuana, Mexico,” dated June 27, 2008, DA-2008-28, Rebecca A. Bech, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

Federal Domestic Quarantine Order: Citrus Greening Disease (CG) and Asian Citrus Psyllid (ACP), dated June 24, 2008, United States Department of Agriculture, Animal and Plant Health Inspection Service.

“Confirmation of Citrus Greening (CG) in Louisiana,” dated June 13, 2008, DA-2008-

24, Rebecca A. Bech, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

“Detection of Asian citrus psyllid, *Diaphorina citri*, Kuwayama, in Louisiana,” dated June 5, 2008, DA-2008-23, Rebecca A. Bech, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

“New Pest Response Guidelines, Citrus Greening Disease,” dated June 2, 2008, United States Department of Agriculture, Animal and Plant Health Inspection Service.

“Huanglongbing (HLB) or Citrus Greening and the Vectors of HLB-associated Bacteria: *Diaphorina citri,* the Asian Citrus Psyllid (AC), and *Trioza erytreae,* the African Citrus Psyllid,” Draft Action Plan for California, dated June 1, 2008, HLB Task Force 2007.

“Pest and Damage Record #1317305,” dated May 9, 2008, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Citrus Greening Summit Findings and National Plan Development,” dated April 9, 2008.

“Occurrence and Spread of *Candidatus* Liberibacter Asiaticus, the Casual Agent of HUANGLONGBING Disease of Citrus in Malaysia,” dated April 2008, Khairulmazmi Ahmad, Kamaruzaman Sijam, Habibuddin. H., Jugah Kadir and Syed Omar Syed Rastan.

“Detection of ‘*Candidatus* Liberibacter asiaticus’ in *Diaphorina citri* and Its

Importance in the Management of Citrus Huanglongbing in Florida," dated April 2008, Phytopathology, K.L. Manjunath, S.E. Halbert, C. Ramadugu, S. Webb, and R.F. Lee.

"Citrus Industry Update," dated March/April 2008, University of Florida, Institute of Food and Agricultural Sciences.

"Pest and Damage Record #1309321," dated February 20, 2008, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

"Pest and Damage Record #1308175," dated January 31, 2008, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

Federal Domestic Quarantine Order: Citrus Greening Disease (CG) and Asian Citrus Psyllid (ACP), dated January 11, 2008, United States Department of Agriculture, Animal and Plant Health Inspection Service.

"Pest and Damage Record #1464311," dated October 12, 2007, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

Mail Interception Notice, dated August 15, 2007, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

"Pest and Damage Record #1463970," dated August 2, 2007, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

"Citrus Greening: Questions and Answers," dated March 2007, United States

Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

“Disease threatens Fla. Citrus industry,” dated 2007, USA Today.

Citrus Acreage, Production and Value, 1997-2006, dated 2007, California Agricultural Resource Directory.

“Citrus Huanglongbing: Understanding the Vector-Pathogen Interaction for Disease Management,” dated December 2007, R.H. Briansky and M.E. Rodgers, University of Florida, Institute of Food and Agricultural Sciences.

Federal Domestic Quarantine Order for Citrus Greening or Huanglongbing), *Candidatus* Liberibacter asiaticus; Interstate Movement Restrictions of Nursery Stock Hosts of both the Disease and Asian Citrus Psyllid, dated May 3, 2006, DA# 2006-19, Richard L. Dunkle, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

“Asian Citrus Psyllid,” dated 2006, Publication 8205, University of California, Division of Agriculture and Natural Resources.

“Huanglongbing of Citrus,” dated 2006, Journal of Plant Pathology.

“New Federal Restrictions to Prevent Movement of Citrus Greening,” dated September 16, 2005, Richard L. Dunkle, United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

Memorandum dated September 14, 2005, from Richard D. Gaskalla to Registered

Florida Nurseries.

Rule 5B-63.001, Citrus Health Response Program, Florida Department of Agriculture and Consumer Services.

“Huanglongbing disease of citrus trees,” dated June 2005, Pest Advisory Leaflet No. 45, Plant Protection Service, Secretariat of the Pacific Community.

“Asian Citrus Psyllids (Sternorrhyncha: Psyllidae) and Greening Disease of Citrus: A Literature Review and Assessment of Risk in Florida,” dated September 2004, Susan E Halbert and Keremane L. Manjunath, Florida Entomologist 87(3).

“Citrus Industry Biosecurity Plan, Pest Risk Review,” dated March 2004, Plant Health Australia.

“Citrus psyllid (*Diaphorina citri*) and “*Candidatus* Liberibacter asiaticus,” cause of citrus huanglongbing (ex-greening) disease, detected in Papua New Guinea,” dated January 2003, Pest Alert No. 28, Plant Protection Service, Secretariat of the Pacific Community.

Glassy-winged Sharpshooter Statewide Survey & Delimitation Protocols as of 2002, revised March 2008, California Department of Food and Agriculture.

“Asian Citrus Psyllid and Huanglongbing Disease Information,” undated, B. Grafton-Cardwell and G. Vidalkis.

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).

Section 3435. Asian Citrus Psyllid Interior Quaratine.

The amendment of Section 3435 will expand the existing regulated area approximately 875 square miles in a portion of Riverside County. The effect of the amendment of this regulation is to provide authority for the State to perform quarantine activities against ACP within these additional areas.

Mandate on Local Agencies or School Districts

The Department of Food and Agriculture has determined that Section 3435 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 Imperial County Agricultural Commissioner requested that these changes to the regulation be made.

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.