DEPARTMENT OF FOOD AND AGRICULTURE

PROPOSED CHANGES IN THE REGULATIONS

Title 3, California Code of Regulations

Section 3435 Subsections (b)

Asian Citrus Psyllid 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.

Specific Purpose and Factual Basis

The specific purpose of Section 3435 is to provide authority to the State to regulate the movement of hosts and possible carriers of Asian citrus pysllid (ACP), *Diaphorina citri*, within or from the regulated area.

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

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 and June 24, 2008. On July 14, 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.

On June 27, 2008, APHIS provided notification that ACP was confirmed in Tijuana, Mexico. The ACPs were first collected from a residential property located approximately two miles from Mexico's border with California. In response to the detections in Tijuana, Mexico, on July 14, 2008, the Department developed draft "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).

These guidelines include detection protocols that are designed to enhance the statewide protocols for urban, rural residential, cropland, and nursery survey with intensified survey protocols being proposed in those counties bordering Mexico (San Diego, Imperial). The Department proposes to immediately conduct intensified survey activities in San Diego County within a five mile band north of the California Mexico border. The immediate survey plans have two major components, an Urban and Rural Residential Detection Survey and a Nursery Detection Survey.

The Urban and Rural Residential Detection Survey use yellow panel traps at a density of five traps per square miles, serviced weekly and the traps will be replaced and relocated every six weeks to another host at least 500 feet away (if other hosts are available). Additionally, visual surveys and the use of sweep nets will be conducted once at each trapping site when the trap is placed or relocated at that site. Finally, twenty sites per square mile will be visually inspected and sweep-netted each month. These sites will be rotated each month if hosts are available at alternate sites.

The Nursery Detection Survey use yellow panel traps at a density of five traps per acre, traps will be placed in or near hosts and in and around holding areas designated for incoming shipments. The traps will be serviced weekly, will not be rotated and will be replaced every six weeks or sooner if needed. A monthly visual survey will also be conducted.

In order to know what to inspect, the Department combined the ACP host list contained in the Federal Order issued on July 14, 2008 with the ACP host list sent to Florida nurseries on September 14, 2005, by the Florida Department of Agriculture and Consumer Services.

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 was 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 met the criteria for further expanding the regulated area into Riverside County as it is indicative of an additional incipient infestation in this area. This detection was just inside Imperial County and was within the regulated area at that time.

The effect of the amendment of this regulation was 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 was immediately necessary to implement quarantine actions in order to prevent the artificial spread of ACP to the uninfested areas of California. The area added to the existing regulated area (approximately 5,131 square miles) was approximately 875 square miles. The total proposed regulated area is now approximately 6,006 square miles.

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. 71No.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 estimated 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.

When ACP interceptions occur, insect and/or plant samples are collected and sent to a diagnostic laboratory (either USDA or the Department) for insect identification and and/or analysis for CG-associated bacteria. To date, no plant material has tested positive for CG-associated bacteria.

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 USDA cannot regulate less than the entire State unless the State has a quarantine regulation which is substantially the same as the existing federal quarantine requirements. Therefore, it was necessary to amend this regulation as an emergency action to prevent the entire State from being regulated by the USDA for ACP.

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 3435 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.

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 3435.

The cost impact of the changes in the regulations on private persons and businesses are expected to be insignificant.

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:

The Department has determined there are no nurseries located within the new regulated area which carry host material. There are approximately 11,500 licensed nurseries in the entire State. Of these, less than a tenth (754) are located within the entire regulated area.

The United States Department of Agriculture's Federal Domestic Quarantine Order for ACP only restricts the interstate movement of host commodities produced in portions of the California counties of Imperial, Riverside and San Diego. The emergency amendment to Section 3435 was necessary to ensure the State's regulation continued to be substantially the same as the federal order. If the State's regulation is not substantially the same as the federal order, the USDA cannot regulate less than the entire State.

The Department has also determined there are approximately three fruit harvesters/host haulers, five host packers and 13 growers. The Department is not aware of any increased costs of compliance for these affected businesses.

Based on the preceding information, it was determined that the amendment of Section 3435, will not have a significant adverse economic impact on California businesses.

Assessment

The Department has made an assessment that the repeal of the 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 and less burdensome to affected private persons than the proposed action.

Information Relied Upon

The Department relied upon the following studies, reports, and documents in the proposed adoption of Section 3435:

Email dated July 1, 2009, from Nick Condos to Stephen Brown.

Letter dated March 13, 2009, from John Snyder to A.G. Kawamura.

California Pest and Damage Record #1263773, dated March 4, 2009, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

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.

"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.