

August 15, 2014

Dear Citrus Industry Stakeholder:

Subject: Asian Citrus Psyllid and Huanglongbing Science Advisory Panel Report - Addendum

The California Department of Food and Agriculture's (CDFA) Asian Citrus Psyllid (ACP) and Huanglongbing (HLB) Ad Hoc Science Advisory Panel (SAP) met in December 2013 and provided a report that included recommendations on a series of non-regulatory questions vetted by CDFA and additional comments and recommendations for consideration in the development of ACP/HLB programs in California.

The SAP made recommendations affecting the citrus nursery industry, which necessitated the formation of an industry working group. Representatives from the nursery industry, CDFA, the United States Department of Agriculture and the SAP met on May 29, 2014 and reviewed portions of the SAP report. During the meeting new information was shared with the SAP which warranted an addendum to the February 3, 2014 SAP report. The addendum adds clarity to the initial report, which will aid the citrus industry in making science based decisions in regard to ACP and HLB.

If you have any questions or concerns, please do not hesitate to contact our Citrus Program Manager, Victoria Hornbaker at 916-654-0317 or via email at <u>Victoria.Hornbaker@cdfa.ca.gov</u>.

Sincerely.

Nick Condos Director

Draft 17 June 2014 Addendum to the 3 February 2014 Asian Citrus Psyllid / Huanglongbing Ad Hoc Science Advisory Panel Report

From SAP Members: Edwin Civerolo, Timothy Gottwald, Beth Grafton-Cardwell (co-chair), Mark Hoddle, Joseph Morse (co-chair), Mamoudou Setamou, and Georgios Vidalakis

Executive Secretary of the SAP: Jason Leathers Advisor to the SAP: Mathew Ciomperlik

#### Background:

The 3 February 2014 SAP report, Section F, listed a number of "Recommendations Affecting Citrus Nurseries". It was felt that a number of the issues raised were complex enough such that an industry working group should meet with representatives of USDA and CDFA to further develop recommendations that might be presented for their consideration.

On 29 May 2014, the Registration and Certification Protocol Committee of the California Citrus Nursery Board met at the Lindcove Research and Extension Center with representatives of USDA-APHIS-PPQ (Helene Wright, Mike Hennessey, others) and CDFA (Victoria Hornbaker, Nawal Sharma, Jason Leathers, Stephen Brown, Joshua Kress, others) as well as several SAP members (Hoddle, Morse, Vidalakis; Grafton-Cardwell for part of the meeting by phone).

After discussion and consideration of new information made available to the SAP by meeting participants, the SAP has the following additional / revised recommendations to suggest. Items are listed in relation to the letter/numbering for Section F in the SAP report.

### F1. Movement of propagative material.

In the 3 February 2014 SAP report, section F1 was titled "F1. Movement of tissue culture material and cuttings". Because there may be some confusion over other types of propagative material, we suggest a better title for this section would be "F1. Movement of propagative material".

Second, the term "propagative material" should be defined as including all of the following: seeds, cuttings, buds, budsticks, graft sticks, rootstock seedlings, or micropropagated materials taken from a citrus tree or citrus relatives that are similarly affected by movement restrictions.

A definition for "nursery stock" might include citrus plants (grafted or self-rooted) that have completed nursery production (i.e. germination, propagation, or rooting) and are ready for planting.

The SAP did not realize that some cuttings with leaves are needed to obtain good rooting success. After discussing this, we suggest that the movement of cuttings with leaves should result in low and acceptable risk as long as the cuttings are produced in an approved exclusionary facility and the movement is inside a sealed container. Thus, our recommendation is that movement of cuttings with leaves should be allowed under these conditions from one approved facility to another approved facility.

#### F2. Accelerate movement into protective structures.

The SAP did not realize that attempts to produce fruit and seeds on trees grown inside the types of currently available protective or approved structures have so far been unsuccessful. We also note that current scientific evidence does not support the early observations for low rates of CLas seed transmission. Therefore, the SAP

agrees with the conventional perspective that seed transmission of CLas does not occur and poses minimum risk for nursery production. Additionally, the few seeds that may harbor CLas have extremely low viability, i.e. seeds from Huanglongbing symptomatic fruit are typically aborted. For this reason, we delete our suggestion that a deadline for moving seed trees within approved protective structures should be recommended at this time (the 3 February 2014 report suggested a 1 January 2017 deadline for this). We recommend, however, that all possible measures be taken, including but not limited to visual inspections, insecticides applications, and laboratory testing, in order to prevent seed source trees from becoming ACP infested or CLas infected.

#### F3a. Storage and sale of citrus nursery trees at retail outlets.

Based on discussion at the 29 May 2014 meeting, the SAP suggests that the CDFA modify their "Approved Treatment Protocol for Intra Quarantine Movement of Regulated Nursery Stock" to require that an approved systemic pesticide be used no less than 7 days and no more than 30 days prior to movement and that an approved foliar pesticide be used no more than 10 days before such movement.

Based on the data reviewed by several SAP members (Grafton-Cardwell and Morse), the SAP continues to believe that systemic treatments remain effective against ACP early instar nymphs only for ca. 90 days following treatment.

## F3b. Interim plan for movement of nursery trees until all trees are inside protective structures.

In this section, the SAP listed 18 movement scenarios with respect to quarantine and non-quarantine regions and our suggestions for each movement scenario. We have the following suggested <u>revisions</u> to 2 of these scenarios based on additional information provided at the 29 May 2014 meeting as well as internal discussion amongst SAP members.

Movement of plants from an ACP quarantine area to a non-quarantine area

7. Approved structure to approved structure – trees need to be enclosed, pesticide treatments (both foliar, systemic) required (previously we said no pesticide treatment needed).

As pointed out to us by the APHIS subject matter expert, the approved structure is only one part of a systems approach. Given the current situation, we believe the addition of a pesticide treatment would be a good idea and an added protective measure to help insure clean stock for movement to a non-quarantine area.

Movement of plants from an ACP quarantine area to a non-quarantine area

8. Approved structure to ground – trees need to be enclosed and pesticide treatments (both foliar, systemic) are required (previously we said no pesticide treatment is needed).

The rationale for prophylactic pesticide applications is the same as for 7.

# F4. Harmonization of USDA and CDFA regulations.

Based on discussion at the 29 May 2014 meeting, the SAP modified their suggestion to note that an approved systemic pesticide should be used no less than 7 days and no more than 30 days prior to movement of nursery citrus trees and that an approved foliar pesticide should be used no more than 10 days before such movement. It is hoped that USDA might consider these changes and if possible, it would be easiest for nurseries if the USDA and CDFA requirements were the same to the degree possible.

#### F5. Use of solid systemics.

Data are now available that support the use of the CoreTect tablet as one of the approved imidacloprid treatments. Thus, we suggest this could remain on the list of approved systemic treatments.