

October 2013

Asian Citrus Psyllid Popping Up in San Joaquin Valley

It shouldn't be news to local citrus growers and industry people that the Asian citrus psyllid (ACP) is being found with increasing frequency in the southern San Joaquin Valley. If this is news to you please follow the website at <http://www.cdfa.ca.gov/plant/acp/> and/or sign up for U.C. entomologist Dr. Beth Grafton-Cardwell's blog at;

<http://ucanr.edu/blogs/ucanrorgblogscitruspest/>.

Go to Beth's website and in the upper right corner you can subscribe and receive the blog each time she sends one out. She also has a twitter account 'ucanrbethge' that you can follow. This blog covers more than just ACP and is a great source of information on citrus IPM and citrus entomology. At the CDFA website, or through links to the site at Dr. Grafton-Cardwell's blog, you can find maps delineating quarantine areas around new ACP finds, such as the one surrounding the recent find in the Wasco area (see attached map as an example). Regulations related to what needs to be done related to harvesting fruit and selling nursery trees growing within the quarantine zone can be found at:

http://www.cdfa.ca.gov/plant/pe/interiorexclusion/acp_quarantine_sjv.html

So far, there is no sign of HLB disease in the San Joaquin Valley, but that can change on short notice. Where ACP shows up, HLB disease (spread by a bacterium) is usually only a few years behind.

Talking to Dennis Seaton – Inventorying Yellow Leaves

I had a chance to talk to PCA Dennis Seaton a few weeks back. During the farm call, he mentioned that he was making a survey of leaf 'yellowing' in his clients' citrus orchards. He explained that he thought this would help him in the future, should HLB disease show up, in distinguishing the yellowing associated with HLB, from the other things, both biological and abiotic, that currently cause leaves to yellow in Kern County. This project sounded like a good idea to me. Currently, every time a new article appears in our local Bakersfield paper related to ACP and HLB, my phone is busy with homeowners concerned with yellow leaves. Unfortunately, we have always had a lot of 'yellow' leaves on Kern County citrus trees. A list of a few things (not complete) that can cause leaf yellowing is as follows:

Citrus stubborn disease - caused by a mycoplasma – also produces small, hard, green, lopsided fruit

Root rots (e.g. *Phytophthora* species, *Fusarium* species)

Alkaline soil - iron deficiency

Excessive irrigation

Gas leaks, oil-field waste oil in soil

Sunburn, heat stress (tends to be on older leaves)

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Nutrient deficiency – iron, zinc, manganese,
Nutrient toxicity – boron, arsenic, sodium, chloride
Trifoliolate and citrange tree decline
Pre-emergent herbicide uptake
Mite feeding, citrus leaf miner feeding, citrus thrips feeding
Chemical toxicity from foliar sprays (e.g. Biuret toxicity)
Tristeza disease – caused by a virus

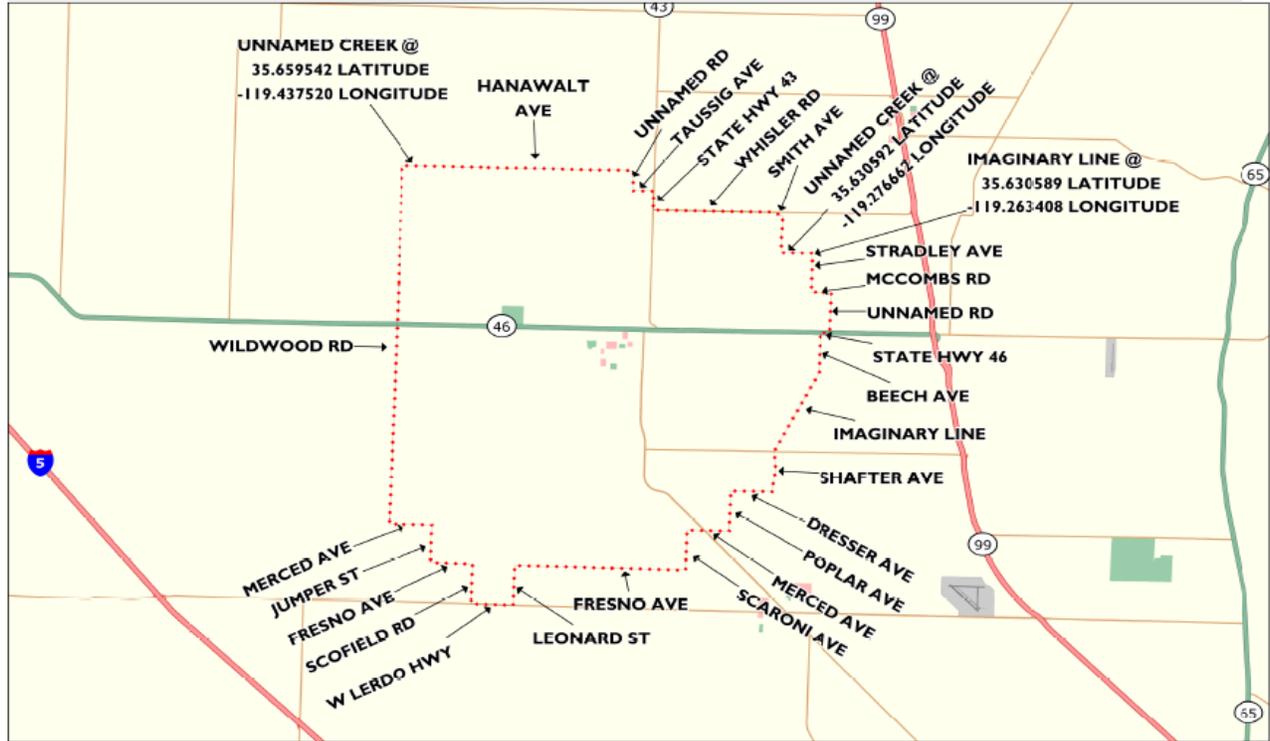
For those who really want to try to diagnose HLB from yellow leaves, pictures of leaves with HLB can be found at the following webs address; <http://www.californiacitrusthreat.org/huanglongbing-citrus-greening.php> .

If we mentally divide a leaf with HLB symptoms in half, longwise, along the midrib, the yellowing is more asymmetric than is the case with other factors that can yellow leaves. That is, one half of the leaf will have yellow areas in different locations than the other half. Yellowing from zinc deficiency, on the other hand, looks pretty similar between halves. HLB leaf yellowing often affects individual branches or shoots more than neighboring branches or shoots. If you see leaf yellowing, always look for the presence of ACP nymphs on new, young leaves. The nymphs, about the size of aphids, produce distinctive waxy tubules. See the website at www.californiacitrusthreat.org for pictures of the nymphs and adults of ACP. The insects themselves are much better indicators of possible HLB infection than leaf yellowing. The production of small, hard, greenish-yellow, sour fruit is another indication of HLB infection (but not definitive).

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**2013 Asian Citrus Psyllid
Kern County**



 Quarantine Boundary 09/20/2013
(88 sq miles)

Map Printed 09/20/2013
MapInfo 12.0.1 09/08/10 v.2012.1z

