

Notes from the CEO

By John Krist

Ventura County's citrus industry has been a statewide leader in the battle against the Asian citrus psyllid. With leadership and financial support provided by Farm Bureau, among others, the industry has responded aggressively to the

threat and implemented several successful initiatives – formation of the Ventura County ACP-HLB Task Force, implementation of a broad-based public education campaign that began nearly a year before the first detections of the pest in yards or orchards, and coordination of commercial grove treatments in response to trap finds – well before they were implemented in other parts of the state.

All along, the objective has been to delay the introduction and spread of the pest for as long as possible. No citrus-growing region on the planet has ever stopped it, but with aggressive and forward-thinking

action, it should be possible to slow it. And by slowing the bug, we delay the eventual introduction and spread of the deadly bacterial disease it can transmit, Huanglongbing. With luck, that delay will buy sufficient time for science to find a cure, a treatment or an effective preventative mechanism to eliminate HLB as a threat.

There have been missteps along the way. One of the most fundamental mistakes was the decision by state and federal regulators to immediately place entire counties under quarantine as soon as the first ACP was confirmed in each. Over the span of a few months, that policy created an enormous contiguous quarantine zone that encompassed all of Southern California. That made it legally impossible to restrict the movement of plants and fruit from areas of high infestation to areas of low infestation within a seven-county region, almost certainly facilitating the bug's spread.

That approach was abandoned when ACP reached the San Joaquin Valley. New detections there result in more tightly focused 5-mile quarantine and eradication zones.

Nevertheless, the industry's aggressive response in Ventura County has paid dividends. The pace of ACP spread here has been much slower than in other citrus counties to our south, and the rate of homeowner refusal to allow treatments of urban host plants has been much lower than elsewhere in the region.

Unfortunately, ACP has continued to spread through Ventura County's citrus-production areas. By the middle of this year, the Santa Clara River Valley displayed clear evidence of breeding populations, with multiple detections of multiple life stages in some areas. Although some areas continue to show very light ACP influence – Moorpark, Somis and the Ojai Valley – the pace and number of detections in other areas is rising.

The workload on our grower liaison, who's responsible for coordinating treatment in commercial groves, has grown exponentially with the rapid increase in individual detections. In some instances, growers are being asked to treat multiple times over a relatively short span – imposing high costs, disrupting Integrated Pest Management programs, and perhaps risking development of pesticide resistance – which suggests the current approach is no longer effective. It has become clear that in at least some parts of the county, it is time to begin the process of transitioning from an eradication-style approach, based on individual trap detections, to an areawide treatment program aimed at suppressing the population.

An eradication strategy, which the Task Force has employed since the initial ACP detections in Ventura county, is appropriate when ACP is new to an area, and as long as populations remain low as indicated by sporadic trap detections. Once the population has increased to the point that multiple detections are occurring on traps throughout an area, including repeat finds within a few weeks or months after treatment, ACP should be regarded as established.

This is the situation we find in Ventura County, at least in some areas. Experts at the University of California and other research institutions recommend that under these conditions, the strategy should change from attempting to locally eradicate a small infestation to suppressing a larger and diffuse population as much as possible. This will minimize the opportunity for spread of HLB when it spreads to the area.

In order to conduct an effective areawide management program, growers in regions of contiguous citrus must all treat within a two-to-three-week time frame at least once and perhaps several times within the season (continued on page 2)

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Predators alone not as effective for lygus bug control

By Surendra Dara

Lygus bug, or western tarnished plant bug (*Lygus hesperus*), is a major pest of strawberries. Although conventional growers apply a variety of chemicals, organic growers have limited options. Various species of natural enemies occur in strawberries and could be important in managing various pests. To understand the occurrence of lygus bug and natural enemies in response to grower standard management practices in organic and conventional strawberries, a study was conducted in 2013.

Observations were made at weekly intervals from June 24 to July 15, in which 10 randomly selected plants from each of the four quadrants of a one-acre area were sampled using a beating tray. The number of young (1st-3rd instar) and mature nymphs (4th to 5th instar) and adults of lygus along with their natural enemies – big-eyed bugs (*Geocoris* spp.), minute pirate bugs (*Orius* spp.), green lacewings (unknown), damsel bugs (*Nabis* spp.), parasitic wasps (unknown), lady beetles (multiple species), and spiders (multiple species) – was recorded.

Among various materials that were applied in the conventional field, abamectin (Epi-Mek 0.15 EC applied once), sodium tetraborohydrate decahydrate (Prev-Am, applied thrice), and sulfur (Microthiol Dispress applied once) were primarily used as acaricides. Novaluron (Rimon 0.83EC) was applied on May 22, about one month prior to the first sampling. Aadjutant, pinene (polyterpenes) polymers (Miller Nu Film P) was also applied thrice between May 7 and June 22. In the organic field, neem oil (Trilogy) and alcohol ethoxylate (OROBOOST) were each applied thrice between May 1 and July 11.

A higher number of lygus bugs were seen in the organic field than in the conventional field throughout the observation period. While the older nymphs and adults stayed at or below the treatment threshold, younger nymphs were consistently above the threshold (2.5 to 4 per 20 plants) in the conventional field. In the organic field, they were consistently above the treatment thresholds during the observation period.

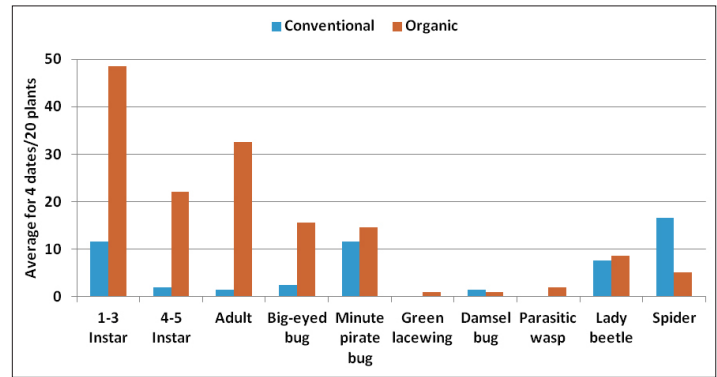
When the average number of natural enemies for the observation period was considered, the organic field had more big-eyed bugs than the conventional field. The organic

field also had slightly higher numbers of minute pirate bug and lady beetles.

Very low numbers of lacewings or parasitic wasps were present only in the organic field. In general, damsel bug numbers were also very low, but they were slightly higher in the conventional field.

A higher number of spiders were seen in the conventional field compared to the organic field.

Although some key species of natural enemies were present at higher numbers in the organic field, they were not able to keep the lygus populations under control. On average, there were 10 natural enemies of all species per 20 plants in the conventional field and 12 in the organic field during the observation period. Applying novaluron at the right time appeared to control lygus bug nymphs and



Occurrence of lygus bug and various species of natural enemies in conventional and organic strawberries.

prevented population build up there after in the conventional field. While natural enemies generally play a significant role, this study suggests the importance of other options such as pesticides for managing lygus bugs.

— Surendra Dara is strawberry and vegetable crops advisor and affiliated IPM advisor for the University of California Cooperative Extension in San Luis Obispo, Santa Barbara, and Ventura counties. Contact him by phone at (805) 781-5940 or by email at skdara@ucanr.edu.

Notes from the CEO (cont'd from front page)

to achieve maximum ACP suppression. Such programs are being used effectively in Florida and Texas, and planning is under way to establish them in the San Joaquin Valley and other California counties.

Areawide management will require that the county be divided into Psyllid Management Areas (PMAs). A treatment schedule must be established, and a communication protocol must be implemented to coordinate grower treatment within each PMA. Because the transition eventually will require communication with and cooperation by every citrus grower in the county, areawide management represents a significant increase in the scope and complexity of the industry response.

Over the past four years, the Ventura County ACP-HLB Task Force has established itself as the local leader in planning, coordinating and executing an effective communication and suppression strategy, and has pioneered program elements since adopted for the entire state. It remains the logical coordinator of such efforts as the strategy evolves to address changing circumstances.

With the state and its private contractors assuming responsibility for community outreach in Ventura County, the Task Force is free to discontinue financial support and oversight of such activities so it can focus exclusively on industry coordination and communication. Likewise, the membership of the Task Force must evolve to bring the necessary expertise and experience to the task of developing and implementing an areawide treatment program. This requires that community members who have been such valued partners through the early stages of the battle be replaced by growers, packinghouse managers, pest-control advisors and pest control operators with direct experience in planning and executing pest suppression activities.

That transition process has begun, with a reconfigured Task Force ready to begin tackling some of the difficult questions that must be answered and challenges that must be overcome. As soon as we have some of the details worked out, we will convene an industry-wide meeting to share that information and answer questions. We look forward to the continued

(continued on next page)

Water bond makes it to the ballot

By Kate Campbell

Voters will have a chance to decide the fate of a \$7.5 billion water bond measure when they head to the polls on Nov. 4. The measure reflects years of hard work by many stakeholders, including the California Farm Bureau Federation, and participants in the discussion said it's a key step in addressing the critical need to upgrade the state's broken water system.

"The severe water shortages we're currently experiencing result from 30 years of neglecting our water-storage system," CFBF President Paul Wenger said. "That neglect is magnified by the drought, and it's time to reverse that pattern of neglect. Placing this water bond on the November ballot gives Californians a chance to provide more water for our cities, for food production and for the environment."

CFBF Administrator Rich Matteis said passage of the water bond bill, which the governor signed Aug. 13, marked the end of more than five years of sustained effort.

"Farm Bureau has been involved in this is-

sue since the beginning, working for a bond that would maximize the investment in new water storage for California," Matteis said. "But as much as the passage of the bond bill marked the end of that process, it also signaled the beginning of a campaign to show Californians the essential need to invest in our state's water system."

The revised bond measure includes \$2.7 billion for water storage projects and that money will be continuously appropriated, Matteis noted, meaning that future Legislatures will not be able to redirect it to other uses.

In addition to new surface and groundwater storage projects, proceeds from the sale of bonds — if approved by voters — would be used for regional water reliability, sustainable groundwater management and cleanup, water recycling, water conservation, watershed protection and safe drinking water, particularly for disadvantaged communities.

— Kate Campbell is an assistant editor of *Ag Alert*, where a version of this story first appeared. She may be contacted at kcampbell@cfbf.com.

Notes from the CEO *(cont'd from page 2)*

cooperation of our growers, packinghouses and pest-control advisors and applicators.

More personnel changes

One of the most important programs FBVC manages is the Ventura County Agricultural Irrigated Lands Group (VCAILG), which helps growers comply with state and federal water-quality regulations. As FBVC's water quality program manager for the past five and half years, Dale Zurawski has played a key role in helping VCAILG members understand the program and in organizing the comprehensive education program we have conducted. She's also been our point of contact with the many other agencies and organizations we partner with to deliver information, manage monitoring and reporting efforts, develop grant applications and regional policies, and a host of other activities.

Unfortunately, she's also decided that it is time for her to move on and explore other opportunities. Her last day with us was Aug. 15, and I will soon be posting the job

opening. Much has changed in the world of water since 2009, and the scope of work for our water quality program manager needs to evolve as well. As soon as I and the FBVC board finalize our requirements and expectations for the position, I'll begin the hiring process.

Dale has been an integral and valued member of the FBVC/VCAILG team, and has represented us admirably in many arenas. We'll miss her, and we wish her well in whatever adventures she undertakes next.

Save the date

Farm Bureau is now officially 100 years old, and we'll be celebrating that milestone with a family barbecue for our members. Formal invitations will go out soon, but mark your calendar for Saturday, Oct. 4. We've reserved a picnic area at Soule Park in Ojai, and lined up the services of our Young Farmers & Ranchers Committee's crack grilling team to supply the meal.

— John Krist is chief executive officer of the Farm Bureau of Ventura County. Contact him at john@farmbureauvc.com.

Member Benefits

TICKETS & DISCOUNTS

Farm Bureau members qualify for discounts on admission to many of Southern California's most popular theme parks and other attractions. To take advantage of any of these special offers, drop by the Farm Bureau office at 5156 McGrath St. in Ventura. You can also place an order and pay by phone, and have the tickets mailed to you. For more information, contact Cissy Perez-Haas at (805) 289-0155. Have your membership number handy. We accept Visa and MasterCard.

Aquarium of the Pacific — Adult (12+ yrs): \$19.95 (save \$9); Child (3-11 yrs): \$11.95 (save \$3). *Valid thru 12/31/14 except 12/25 2014.*

California Adventure and Disneyland 1-day Park Hopper — Adult (10+ yrs): \$144 (save \$6); Child (3-9 yrs): \$126 (save \$4). *Valid through 12/31/14.*

Cinemark Theatres — Platinum ticket, valid any show time at all Cinemark & Century locations: \$8.25 (savings \$2.75). *Additional premiums may be applied for specially priced films and/or events priced higher than normal box office. No expiration.*

Knott's Berry Farm — Buena Park/Palm Springs. Adult (12+ yrs) \$34.95 (save \$27.05); Junior (3-11 yrs) Senior (62+ yrs) \$29.95 (save \$3.05). *Valid thru 12/31/2014.*

Six Flags Magic Mountain — General use ticket (3+ yrs): \$40.95 (save \$27.04). *Valid thru 9/28/14.*

Regal Cinemas — Unrestricted tickets \$8.25 (regularly \$9.50 Sun.-Thurs, \$10 Fri.-Sat). *Good at Edwards, Regal, Signature and United Artists Theaters. No expiration.*

San Diego Sea World — 2nd Day Free. Adult (10+ yrs.) \$63.95 (savings \$20.05); Child (3-9 yrs.) \$63.95 (savings \$14.05). *Valid thru 12/25/14.*

San Diego Safari Park — (Formerly Wild Animal Park) Adult-African Tram Safari : \$39 (save \$7) (12+ yrs); Child-African Tram Safari: \$31 (save \$5) (3-11 yrs). *Africa Tram Safari includes admission, unlimited rides on the Africa Tram, and all shows & exhibits. Valid through 01/31/15.*

San Diego Zoo — Adult (12+ yrs): \$39 (save \$7). Child (3-11 yrs): \$31 (save \$5). *Includes admission, unlimited use of Guided Bus Tour, Express Bus, Skyfari Aerial Tram and all shows & exhibits. Valid through 01/31/15.*

See's Candy gift certificate — One-pound box \$14.95 (Save \$2.05). *No expiration.*

"E Tickets" are available for certain amusement parks.

FARM BUREAU OF VENTURA COUNTY

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