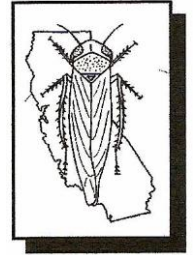


BEET CURLY TOP VIRUS MONTHLY REPORT



CURLY TOP VIRUS CONTROL PROGRAM

2895 N. Larkin, Suite A
Fresno, CA 93727
PHONE: (559) 294-2031
FAX: (559) 294-2037

Report for July, 2014

Program-wide notice

- The Beet Curly Top Virus Control Program (BCTVCP) would like to remind growers to treat any fallow fields and roadside host plants before disking or mowing, to prevent movement of beet leafhoppers into neighboring tomato fields. The program would also like to point out that almonds, pistachios and vineyards often have BLH host plants growing in the middles of each row. In one survey, BLH counts were 20+ (adults and nymphs) on Russian thistle that was growing in the middle of an almond orchard. When those host plants get mowed, it is likely the BLH will move through nearby tomato fields, potentially causing BCTV infection. It is in good practice to treat the host plant weeds with an insecticide prior to mowing or disking.
- As of August 1, 2014 treatment totals are as follows:
 - Fresno County: 22,370 acres (aerial)/ 1,600 gallons used of tank mixed Malathion by ground.
 - Kern County: 2,385 acres (aerial)/ 2,640 gallons used of tank mixed Malathion by ground.
 - Kings County: 1,950 acres (aerial)/ 480 gallons used of tank mixed Malathion by ground.
 - Merced County: 125 gallons used of tank mixed Malathion by ground
 - San Joaquin County: 80 gallons used of tank mixed Malathion by ground
 - Total acres treated by air: 26,705
 - Total gallons by ground: 4,925

Fresno County

- Roadside treatment was conducted in the Coalinga area along Palmer, Calaveras, Phelps, and El Dorado. There was an abundance of Russian thistle, London rocket, and *Bassia* with BLH counts averaging 30 adults per sweep. A total of 320 gallons of tank mixed Malathion was used.
- Program personnel began the process of mapping fallow fields with abundant Russian thistle to support significant BLH populations. These fields will be monitored for BLH counts and Russian thistle development as potential fall treatment preparations commence. Waivers based on mapped fields were prepared and distributed.
- Mapping of fallow fields will continue with additions and subtractions as the fall treatment campaign draws closer.
- Fallow fields were mapped in the Mendota and Three Rocks area from Belmont Avenue to Manning Avenue. Mapping was also conducted in Five Points, Coalinga, and one small field was mapped in the town of Burrell, near Jameson and Elkhorn.
- The Westlands property, on Derrick Avenue and Manning Avenue, was also surveyed for BLH counts. Russian thistle and other host plants were plentiful along roadsides and within fallow fields. Some of the fallow field Russian thistle was in the

process of being shredded. BLH counts were low with 3-5 adults and 0-2 nymphs per sweep.

- Purslane was identified along the perimeter of a garlic field that was being prepared for harvest. The BLH counts on the purslane was 8-12 adults and 20-25 nymphs per sweep. When the field is plowed, the beet leafhoppers will move onto other hosts nearby, such as the Russian thistle.

Imperial/Riverside Counties

- Program personnel surveyed the desert areas of Imperial and Riverside Counties late July. Areas surveyed included the natural desert areas, surrounding land basins, and the agricultural/non-agricultural lands of El Centro, Brawley, Travertine Point, Blythe, and Bard.
- The desert areas were very dry and lacked annual host vegetation. High temperatures and the lack of any measureable rainfall for more than 90 days may be factors for the absence host vegetation.
- Very sparse host vegetation was observed along roadsides. BLH counts were low, averaging less than 1 adult per sweep.
- Cultivated fields and perimeters are free of any substantial vegetation. Highway shoulders and medians did not have significant vegetation.
- One vacant lot within a residential area contained irregular clusters of Russian thistle and lambsquarter. BLH counts from the thistle was zero per sweep, while the lambsquarter produced 10-30 BLH per sweep. BLH samples were collected and sent for testing. Results will be included in the next report.
- Two fallow fields with dense Russian thistle, approximately 30 acres each, located east of Calexico produced zero BLH per sweep.
- The Pale Verde Valley around Blythe was similar to Imperial County, with little to no annual host vegetation along roadsides or perimeters of cultivated fields. The area was very dry with high temperatures.
- A beet leafhopper sample was collected from roadside vegetation that was found south of Blythe. Sweep counts produced low numbers of BLH.
- No BLH activity was observed in the Bard and Winterhaven areas.
- The areas around Pear Blossom and Kern County west of Rosemond produced some BLH activity. Adults and nymphs were found on Russian thistle. BLH samples and Russian thistle samples were collected and sent for testing. Results will be included with the next report.

Kern County

- Aerial treatment was conducted in early July near Lost Hills, north of Blackwell's corner on two fallow fields. Russian thistle was abundant with BLH counts as high as 100 per sweep (60:40 ratio of adults to nymphs). A total of 1,060 acres was treated by air. To date, a grand total of 2,385 acres have been aerially treated.
- A recently pulled orchard harbored large amounts of Russian thistle, most of which was along the perimeter. 90 gallons of tank mixed product was used to treat the entire perimeter of the field and the western portion of the field's interior. The pulled trees were blocking the rows on the east.
- Program personnel began the process of mapping fallow fields with sufficient Russian thistle. These fields will be monitored for BLH counts and Russian thistle development as potential fall treatment preparations commence. Waivers based on mapped fields were prepared and distributed.
- Other beet leafhopper samples and Russian thistle samples were collected and sent for virus testing later in the month. Those results will be included in the next report.

Kings County

- Aerial treatment was conducted in early July within two separate fallow fields, both containing abundant Russian thistle. One field was between 25th Avenue and Highway 33, off of Devil's Den Road. BLH counts were 10-12 per sweep with a 60:40 ratio of adults to nymphs. The second field was located just east of Highway 41 and York Avenue. BLH counts were 8-10 per sweep with a 50:50 ratio of adults to nymphs. A total of 1,500 acres were treated.
- Ground rig treatment applications continued in July. A total of 340 gallons of tank mixed Malathion was used on roadside host plants along Utica Avenue east of Interstate 5, and along roadsides in Stratford west of Highway 41 and Nevada Avenue.
- Program personnel began the process of mapping fallow fields for potential fall

treatment. These fields will be monitored for BLH counts and Russian thistle development as potential fall treatment preparations commence. Waivers based on mapped fields were prepared and distributed.

- Mapping of fallow fields will continue with additions and subtractions as the fall treatment campaign draws closer.

Merced County

- Ground rig treatment applications were conducted along roadsides. 80 gallons of tank mixed Malathion was used.
- Surveys found a young almond orchard along Gun Club Road and Hunt Road that had a lot of goosefoot, Russian thistle, and stressing purslane. BLH counts from the purslane were as high as 10-15 adults and 30-40 nymphs per sweep. A BLH sample was collected and sent for testing. Results will be included in the next report. Contact with the almond orchard owner was made, and neighboring tomato fields were notified.

Sacramento Valley

- Survey personnel collected seventeen tomato samples from Yolo, Colusa, and Sutter Counties last month. All samples were negative for BCTV. Three samples were positive for tomato spotted wilt virus (TSWV).

San Joaquin County

- Sweep surveys were conducted in various locations. Beet leafhopper counts were minimal in all locations surveyed, despite having suitable host plants.
- Over 200 sweep surveys were conducted at various roadside locations, and zero BLH were identified.
- Near the Tracy Defense Depot, roadside hosts appeared to have been sprayed with an herbicide, causing the BLH to move onto the thistle along the railroad tracks. BLH counts on the thistle averaged 5-7 adults and 3-5 nymphs per sweep. 80 gallons of tank mixed Malathion was used to ground rig the Russian thistle along the railroad tracks.
- The only other area to produced BLH was a fallow field on Los Reis Road and S. Manthey Road. It had abundant mature Russian thistle. BLH counts were 2-3 adults and 6-8 nymphs per sweep. Program personnel was trying to obtain permission to conduct ground rig treatment at that site. The field was plowed before it could be treated.

Stanislaus County

- Fallow field, tomato crop, roadside host vegetation and BLH population surveys were conducted. Tomatoes appear healthy and in good condition so far.
- Numerous sweep surveys were conducted at various locations. BLH counts remain minimal. Counts were 0-2 adult BLH and 0-1 nymph per sweep on average.
- A tomato field off of Hale Road north of Sturh Road was monitored again this month. Purslane is very abundant on the west side of the field. BLH counts were 7-12 adults and 20-30 nymphs per sweep from the stressing purslane. The same fields were monitored the following week. The tomato fields with green purslane looked good. The tomato fields with stressed purslane didn't look as good, probably because the BLH were moving off of it and through the tomatoes looking for a new host. Sweep counts produced 20-25 adult BLH and 10-12 nymphs per sweep. Personnel will continue to monitor and collect samples with the next survey.
- A walnut orchard on Loquat Road east of Sycamore Road has a lot of purslane within the rows. At time of survey, the rows were being mowed. BLH counts were 4 adults and 3 nymphs per sweep.
- A plum orchard on Rogers Road southwest of Highway 33 has a lot of purslane. This orchard is adjacent to a couple tomato fields. BLH counts were 5 adults and 3 nymphs per sweep.
- Sweeps conducted on Russian thistle and goosefoot haven't produced any beet leafhoppers. The BLH that have been found in the County have all been from stressed purslane.