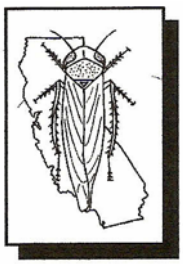
BEET CURLY TOP VIRUS MONTHLY REPORT



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

Monthly Report for March, 2014

Fresno County

- The late rain in February allowed the winter annual host plants to germinate. Inspection of rain gauges on the Westside showed approximately 1.5" of rain.
- Host plant vegetation survey was conducted in the Tumey Hills and Panoche Creek properties. Winter annuals were more widespread. Filaree was the dominant host plant.
- Sweep surveys conducted in Panoche Creek produced, on average, less than 1 adult BLH per 10 sweeps. Sweeps in Tumey Hills produced, on average, less than 1 adult BLH per 10 sweeps. No nymphs were detected.
- Surveys were conducted within the Domengine Ranch property. Host vegetation was widespread with filaree being the dominant host plant. This area had high BLH counts last year, however this year, zero BLH were detected. Program personnel made approximately 250 total sweeps during that survey, with no BLH detected.
- Survey was conducted in the Narbeitz area. 1 adult BLH was found in 10 sweeps. The leafhopper was inspected for eggs and 5-7 eggs were detected.
- In mid March, the Panoche Hills north of Panoche Creek were surveyed. The area surveyed has typically been a hot spot. Sweeps produced 5 adult BLH and 4 third instar nymphs, per 10 sweeps. These were the first nymphs detected in Fresno County. Other sweeps conducted in the area produced 2-4 adult BLH and 0-1 nymph per 10 sweeps.
- Sweep surveys were conducted in the "Big C" of Coalinga and the Coalinga Nose. There was good host plant development, primarily filaree and some pepper grass. BLH counts were less than 1 adult per sweep and zero nymphs.
- Jacalitos Creek in the Coalinga area, one of the non-treatable areas, was surveyed for beet leafhopper populations and host plants. A total of 2,450 sweeps were conducted throughout Jacalitos and Plauger Canyon in various locations. Only 23 adult BLH were identified and zero nymphs. Host plant vegetation was good with a mix of filaree and pepper grass. Surveys will be conducted again next month.
- The Cantua Creek area of the other non-treatable property was surveyed for BLH populations and host plants. There was a good mix of filaree, plantago, and pepper grass. Out of the 1,700 sweeps conducted only 6 adult BLH were identified and zero nymphs. Surveys will be conducted again next month.
- In the Warthan Canyon area, sweep counts were less than 1 adult BLH per sweep and zero nymphs.
- Program personnel inspected and serviced the trap line. Ten traps that the Beet Curly Top Virus Program (BCTV) deployed were sent in for testing. Each trap averaged 1 adult BLH per trap. Eight of the 10 beet leafhoppers tested positive for Curly Top Virus. These submitted traps were from Fresno and Kings Counties. Traps will continue to be sent in for testing and results will be included in the next monthly report.

- Sweep surveys at the end of March north of Panoche Creek and Tumey Hills areas have had a BLH hatch and nymphs have been identified.
- North of Panoche Creek survey produced 5-7 nymphs per 10 sweeps and 1-2 adults. Samples were collected and results indicate strong levels of both Beet Severe and Beet Mild Curly Top Virus.
- Tumey Hills on the south side of Manning Avenue was surveyed and there is evidence of a new hatch. Counts are 7-9 2nd and 3rd instar nymphs and 1-3 adult BLH per 10 sweeps.
- Vegetation is stressing and beginning to dry from the warm dry weather.

Imperial County

- Roadside vegetation survey and beet leafhopper population survey was conducted mid March. Overall, the desert was void of any significant annual host plants. *Chenopodium sp.* was the dominant host plant. London Rocket, cheese weed, and Shepherd's purse were also present. Sweep surveys produced 5-20 adult beet leafhoppers (BLH) per 10 sweeps, on average.
- Around the Mount Signal area near the Mexican border (State Highway 98), sweep surveys conducted produced an average of 15 nymphs and 5 adult BLH per 10 sweeps.
- The middle section of the Imperial Valley had less host plant vegetation and counts decreased. Average number of BLH was 5-10 per 10 sweeps. Approximately, 25% of those sweeps contained nymphs in the 2nd-3rd instar and 75% adult BLH.
- The northern sections of Imperial County (Calipatria and Niland) also had less host plant vegetation, except along the state highways. *Chenopodium* was common along the highway and near alfalfa and other farm commodities. Sweep counts were on average 4-5 adult BLH per 10 sweeps. No nymphs were detected in this area.
- Beet leafhopper samples were obtained and sent in for virus testing. Eleven samples were sent for testing and five were positive for Curly Top Virus.

Kern County

- Western Kern County remains very dry and void of substantial winter vegetation.
- Sweeps on *Atriplex* continue to produce very low BLH counts. Less than 1 adult BLH per 10 sweeps.
- In the Maricopa area, Elkhorn Grade had slightly more vegetation than other areas of the Westside, however, it was immature and drying out. BLH counts were less than 1 adult per 10 sweeps. No nymphs were detected.
- The eastern portion of Kern, along the southern end of Kern (Grapevine area) had viable host plant development. Counts were less than 1 adult BLH per 10 sweeps. A population of *Agallia's* continues to persist in that area, with counts averaging 6-8 *Agallia's* per 10 sweeps.

Kings County

- The late rain in February allowed the winter annual host plants to germinate around the Devil's Den/McGlashen Ranch areas. Filaree was the dominate host plant. Sweep surveys conducted resulted in zero BLH.
- The Kettleman hills were dry during the month of March. Minimal BLH host plants developed in this area and was stressing by the end of the month due to the dry warm weather conditions. BLH counts were less than 1 adult per sweep, and zero nymphs.
- BLH population survey and host plant survey was conducted on the north western hills of Highway 41/33. Vegetation and south west slopes was suitable habitat for beet leafhoppers. Filaree was the dominant host plant. Out of 600 sweeps over the area, zero BLH were identified.

Los Angeles County

- Due to heavy rains in the area, program personnel noticed abundant and widespread BLH host plants along the high desert in Antelope Valley (Lake Los Angeles, Lancaster, and Rosamond). Filaree and pepper grass were the dominant hosts.
- Sweep survey counts vary from 3-4 adult BLH in the Lake Los Angeles area to 5-15 BLH (mix of adults and nymphs) west of Highway 41 near Lancaster.
- Out of the 8,000 acres mapped and surveyed, BLH counts remained marginal. 5-6 adult BLH on average, per 10 sweeps.
- This area is not covered in the Program's environmental permits and therefore, the BCTV program cannot treat.

Merced County

- Roadside vegetation surveys and BLH population monitoring was conducting along the following roads:
- Pole Line Road has significant filaree and London Rocket development. Sweeps were conducted with zero adult BLH and zero nymphs identified.
- Canyon Road and Alvarado Trail has significant filaree and other host plants, however, zero adult BLH and zero nymphs were identified.
- Sweep surveys around the Los Banos Reservoir also had good host plant development and zero BLH.
- Bay View Drive just west of Highway 33 had good filaree development. Zero BLH were identified.
- McCabe Road west of Highway 33 had good filaree development. Zero BLH were identified.
- Butts Road west of Whitworth Road had a good mix of host plant development. Sweep surveys yielded zero BLH.
- Orchard Road north of Snyder Road had a good mix of host plant development. Sweep surveys produced zero BLH.

Riverside County

- Roadside vegetation survey and beet leafhopper population survey was conducted mid March. Conditions were very similar to that of Imperial County. Host plant vegetation was sparse. *Chenopodium* was the dominant host plant. London Rocket, cheese weed, and Shepherd's purse were also present.
- Sweep surveys conducted produced, on average, 5-10 BLH per 10 sweeps. Nymphs between the 3rd and 4th instar accounted for approximately 25% and adult BLH approximately 75%.
- Beet leafhopper samples were obtained and sent for virus testing. Results will be reported on next month.

San Joaquin County

- South Bird Road west of Highway 580 had good filaree development. Zero BLH were identified during sweep surveys.
- South Bird Road north of West Lehman Road had London Rocket and mallow. Zero BLH were identified during sweep surveys.
- Blewett Road east of South Bird Road had a good mix of mallow and filaree. Zero BLH were identified during sweep surveys.
- Howard Road east of Interstate 5 had a good mix of host plants. Zero BLH were identified during sweep surveys.
- McCracken Road south of West Hamilton Road had good filaree and mallow. Zero BLH were identified during sweep surveys.