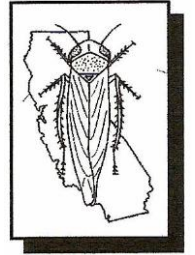


BEET CURLY TOP VIRUS

MONTHLY REPORT



CURLY TOP VIRUS CONTROL PROGRAM

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Report for January, 2015

Program-wide notice

- Some rainfall arrived in December 2014 and allowed for the germination of beet leafhopper (BLH) host plants, such as filaree and *Plantago*. Filaree is very widespread and abundant on the western hillsides and canyons. *Plantago* is also plentiful in some areas. Host plant surveys and monitoring of BLH populations began after the New Year. BLH and host plants were collected and sent to the lab for virus detection. The Program detected unusually high overwintering adult BLH populations in three areas. Those counts were high enough that the Program considered conducting a winter treatment. Winter treatment had not been performed since 2006. A grower alert was sent in early January.
- The winter treatment campaign began on January 23rd, 2015. One day of treatment was successfully conducted, but due to foggy weather conditions on January 24th and 25th, treatment was delayed and could not resume until January 26th. Again, one day of treatment was successfully conducted, but due to rain on January 27th treatment was once again delayed and could not resume until January 29th, 2015. A total of 13,000 acres were treated. (A winter treatment map is at the end of the report).
- Fifty-one (51) BLH host plant samples were collected throughout the month of January from Fresno, Kern, Kings, Merced, San Joaquin and Stanislaus Counties. Forty-four (44) of the samples were positive for curly top virus.
- Twelve (12) BLH samples were collected and sent for virus analysis. Eleven (11) were positive for curly top virus.

Fresno County

- Program personnel began monitoring BLH populations by conducting sweep surveys and host plant development surveys at the beginning of the month. Filaree was widespread and abundant in the Tumey Hills, Panoche Hills, Chevron and North Chevron areas. *Plantago* and pepper grass were observed in patches where the filaree wasn't completely covering the ground.
- Average BLH counts in the Tumey Hills, Panoche Hills, Chevron, and North Chevron properties were 2 adult BLH and zero nymphs per 10 sweeps.
- Nineteen (19) host plant samples were sent to the lab for virus detection. Sixteen (16) of those samples were positive for curly top virus.
- Three (3) BLH samples were collected prior to the winter treatment and sent for virus analysis. Two (2) were positive for curly top virus.

- BLH surveys in the “Big C” area of Coalinga and the Coalinga Nose had unusually high counts for winter. Averages were 7-8 adult BLH and zero nymphs per 10 sweeps. A typical average for winter would be 1-2 adult BLH per 10 sweeps. The above average BLH counts were a concern. Program staff began preparing in anticipation of a winter treatment application. The purpose of the winter treatment was to reduce the number of overwintering adult female BLH that are laying eggs at this time. If left unchecked, the possibility for a very large spring BLH population could occur, potentially similar to the high populations observed in the spring of 2013.
- Winter treatment was conducted in the Coalinga area, known as the “Big C” on January 29th, 2015. A total of 1,750 acres was treated. The Coalinga Nose area was not treated due to insufficient BLH counts during the week that treatment was underway.
- Post treatment application sweep counts were conducted 72 hours after treatment. Counts indicated a 92-98% reduction in BLH populations.
- Survey was conducted in some portions of the non-treatable properties. Unfortunately, foggy cold conditions prevented personnel from obtaining a good BLH sweep survey. Host plant samples were collected and sent for virus detection. Seven (7) samples were collected from the non-treatable property. Five of the seven were positive for curly top virus. This area has a lot of prime host plant material and could be a source of concern. Due to lack of property owner consent to survey, Program personnel are not able to monitor this area for BLH population development.
- A Caltrans encroachment permit was obtained by the Program. This will allow ground rig treatment applications along State Highway right-of-ways within Caltrans District 6, where roadside host plants and Russian thistle accumulate and often harbor BLH and the virus (District 6 encompasses Fresno County, Kern County, and Kings County). Treatment applications within the State Highway right-of-ways would be guided by treatment threshold counts, the Program’s EA and BLM restrictions and regulations, as well as Caltrans requirements.
- The operator I.D number for Fresno County was renewed.

Kern County

- Program personnel monitored BLH populations by conducting sweep surveys and host plant development surveys throughout January. Surveys were conducted in the Buena Vista hills, Elk hills, Hovey hills near Dustin Acres, Valley Acres, and Taft. The hills within Elkhorn Grade Road and Western Minerals Road near Maricopa were also surveyed.
- The southeastern sections around the Grapevine/Wheeler Ridge and the Arvin areas had average counts of less than one adult BLH and zero nymphs per 10 sweeps.
- Filaree was widespread and the dominant host plant. Patches of pepper grass and *Plantago* were observed.
- Fourteen (14) of the eighteen (18) host plant samples sent for virus analysis were positive for curly top virus. Personnel will continue to collect host plant samples for virus testing.
- Overall, sweep surveys averaged less than one adult BLH and zero nymphs per 10 sweeps. BLH seemed to be scattered and sweep survey counts were inconsistent.
- Only one BLH sample was obtained and sent for virus analysis. It was positive for curly top virus. Personnel will continue to conduct sweep surveys and collect BLH samples for virus testing.
- The operator I.D. number for Kern County was renewed.

Kings County

- BLH surveys in the Kettleman Hills from Devil's Den road north to Highway 269 had areas of unusually high BLH counts for winter. Average BLH counts were 8-10 adult BLH and zero nymphs per 10 sweeps. A typical average for winter would be 1-2 adult BLH per 10 sweeps. The above average BLH counts were a concern. Program staff began preparing in anticipation of a winter treatment application. The purpose of the winter treatment would be to reduce the number of overwintering adult female BLH that are laying eggs at this time. If left unchecked, the possibility for a very large spring BLH population could occur, potentially similar to the high populations observed in the spring of 2013.
- Two (2) host plant samples were collected and sent for virus analysis. Both samples were positive for curly top virus.
- Two (2) BLH samples were collected prior to the winter treatment and sent for virus analysis. Both samples were positive for curly top virus.
- BCTV personnel were able to treat approximately two-thirds of the Kettleman Hills, north of Highway 41 to Highway 269 on January 23, 2015. Fog returned the following days and treatment was delayed until January 26, 2015. The Kettleman Hills south of Highway 41 was treated on January 26, 2015 with a total of 11,250 acres completed.
- Due to Blunt-nose leopard lizard (BNLL) habitat and conservation habitat in some portions of the Devil's Den area, environmental restrictions by BLM limit treatment applications to once a year. Therefore, the BNLL areas will not be treated until spring when application can be used to control the migrating spring adults and nymphs.
- Post treatment application sweep counts were conducted 72 hours after treatment. Counts indicated a 92-98% reduction in BLH populations.
- The operator I.D. number was renewed for Kings County.

Imperial County

- A Caltrans encroachment permit was obtained by the Program. This will allow ground rig treatment applications along State Highway right-of-ways within Caltrans District 11, where roadside host plants and Russian thistle accumulate and often harbor BLH and the virus (District 11 encompasses Imperial County). Treatment applications within the State Highway right-of-ways would be guided by treatment threshold counts, the Program's EA and BLM restrictions and regulations, as well as Caltrans requirements.
- Program personnel are planning a vegetation and BLH survey at the end of February.

Merced County

- Program personnel monitored BLH populations by conducting sweep surveys and host plant development surveys throughout January.
- Several sweep surveys were conducted within the western foothills of the County.
- Majority of the slopes were lush and overgrown with vegetation such as winter grass and filaree. *Plantago* and pepper grass were observed in sparse patches.
- Five (5) host plant samples were collected and sent for virus analysis. All five samples were positive for curly top virus.
- Beet leafhopper counts were minimal in all locations surveyed, with average sweep counts of 0-2 adult BLH and zero nymphs per 10 sweeps.
- Personnel will continue to monitor BLH populations and collect both host plant and BLH samples for virus analysis.

Riverside County

- A Caltrans encroachment permit was obtained by the Program. This will allow ground rig treatment applications along State Highway right-of-ways within Caltrans District 8, where roadside host plants and Russian thistle accumulate and often harbor BLH and the virus (District 8 encompasses Riverside County). Treatment applications within the State Highway right-of-ways would be guided by treatment threshold counts, the Program's EA and BLM restrictions and regulations, as well as Caltrans requirements.
- Program personnel are planning a vegetation and BLH survey at the end of February.

San Joaquin County

- Program personnel began monitoring BLH populations by conducting sweep surveys and host plant development surveys at the beginning of the month.
- Filaree was sparse, although it was the most common BLH host plant. Four (4) host plant samples were collected and sent for virus analysis. All four were positive for curly top virus.
- Average sweep counts were 2-3 adult BLH and zero nymphs per 10 sweeps.
- Six (6) BLH samples were submitted for virus analysis. All six samples were positive for curly top virus.
- Personnel will continue to monitor BLH populations and collect both host plant and BLH samples for virus analysis.

Stanislaus County

- Program personnel began monitoring BLH populations by conducting sweep surveys and host plant development surveys at the beginning of the month.
- Vegetation was thick and some south western facing slopes were completely overgrown. Filaree was the dominant host plant. Mallow, shepherds purse, and wild flowers make up the vegetation on the hillsides. Three (3) host plant samples were collected and sent for virus analysis. All three were positive for curly top virus.
- Personnel will continue to monitor BLH populations and collect both host plant samples and BLH samples for virus analysis.

