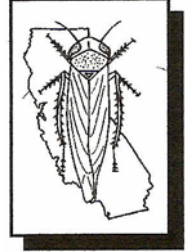


BEET CURLY TOP VIRUS MONTHLY REPORT



CURLY TOP VIRUS CONTROL PROGRAM

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Report for February, 2016

Program-wide notice

- There were two locations in Fresno County that the Program was considering for winter treatment. The overwintering adult females died off before treatment was needed. The Program continued to monitor those locations throughout February but did not need to treat.
- BLH host plants were abundant and widespread throughout each county. Filaree and *Plantago* were green and lush. The peppergrass in all locations surveyed was stressed and beginning to dry out after a few warm, dry weeks. BLH counts were low from the stressed peppergrass, but counts were higher from sweeps off of *Plantago*. When the *Plantago* begins to stress and dry out, the BLH population will increase.
- The first beetle leafhopper nymphs were observed the last week of February. Personnel observed high counts of sharp shooter nymphs, thrips, aphids, and non-target leafhoppers during sweep surveys.
- BLH and host plant samples submitted in February for virus analysis showed low levels of virus. About 25% of the samples tested for curly top virus have been positive and the virus titer was weak. Last year, samples were about 70% positive and virus titer was strong.
- There were numerous bee boxes scattered throughout the survey areas and in adjacent orchards. Numerous unidentified bee boxes were noted and information will be sent to the County for assistance in locating bee owners for treatment notification.
- Although bees were observed in bee boxes in nearby orchards, no bees were caught in sweep net surveys of BLH host plants.

Fresno County

- Surveys were conducted at the beginning of February in the "Big C" in Coalinga. There were widespread and abundant host plants such as filaree, peppergrass, and *Plantago*. BLH counts had been slightly higher at the end of January than in the February survey, with an average of 5-8 adult BLH per 10 sweeps. The Program had considered a winter treatment application, however, treatment was not conducted due to rain in the forecast. Counts dropped to 1-3 adult BLH per 10 sweeps after that rain event. By the end of February, BLH adults were significantly lower but newly hatched BLH nymphs were observed. Nymph counts were on average 10 per 10 sweeps. Aphids, sharpshooter, and non-target leafhoppers were abundant in sweep surveys. Vegetation remained green and lush, except for the peppergrass that was stressed and drying.
- Surveys within the "Coalinga's Nose" had minimal counts. BLH host and non-host vegetation was thick and widespread. BLH counts averaged 0-2 adults per 10 sweeps. No nymphs were observed at time of survey. Bees were observed within

- the nearby orchards but in the vegetation on the hillsides.
- West of Coalinga's Nose, an area known as Zwangs was surveyed. BLH host and non-host vegetation was dense and widespread. BLH counts were 0-2 adults per 10 sweeps and zero nymphs.
 - Surveys were conducted in Warthan Canyon. BLH host and non-host vegetation was widespread with peppergrass and filaree being the predominant host plants. BLH counts were low, with an average of 1-3 adults per 10 sweeps. No nymphs were observed at time of survey.
 - Surveys were conducted in Chevron and North Chevron properties. BLH host and non-host vegetation was abundant and widespread. BLH counts were not observed within areas with overgrown vegetation. Counts were on average 1-2 adult BLH per 10 sweeps. No nymphs were observed.
 - Surveys were conducted on the Domengine Ranch property. BLH host and non-host vegetation was very thick and lush, with widespread filaree, peppergrass, *Plantago*, and winter grasses. BLH counts were low, with 0-1 adult BLH per 10 sweeps. No nymphs were observed until the end of February. Bee boxes were present in surrounding orchards, however, no bees were observed in sweep surveys.
 - The Program was able to survey the non-treatable property in Cantua Creek. BLH host and non-host vegetation was thick and lush, with widespread filaree, peppergrass, and *Plantago*. BLH counts were low with an average 0-1 adult BLH per 10 sweeps. No nymphs were observed. High counts of sharpshooter, aphids, and non-target leafhoppers were observed in sweep surveys. The Program will continue to request survey access to monitor the BLH populations. Bee boxes were present in the surrounding orchards. No bees were observed in sweep surveys.
 - Surveys were conducted on the non-treatable property in Jacalitos and Plauger Canyon. BLH host and non-host vegetation was thick and lush, with widespread filaree, peppergrass, and *Plantago*. BLH counts were low, with an average of 1-2 adult BLH per 10 sweeps. BLH nymphs were observed at the northern end of Jacalitos, in Plauger Canyon. Counts were 0-2 nymphs per 10 sweeps. The Program will continue to request survey access to monitor the BLH populations.
 - Surveys conducted on Panoche Creek had thick vegetation and low BLH counts. BLH counts were on average less than 1 adult per 10 sweeps. Nymphs were observed toward the end of February. Counts were 10 nymphs per 10 sweeps. Aphids, sharpshooter, and non-target leafhoppers were abundant in sweep surveys. A large number of unidentified bee boxes were present near Panoche Creek. This information will be submitted to Fresno County.
 - Surveys were conducted on the east side of Tumey Hills. BLH host and non-host vegetation was thick and widespread. BLH counts were on average 1-2 adults per 10 sweeps. A few BLH nymphs were observed. Aphid and sharpshooter counts were abundant in sweep surveys. Bee boxes were present in nearby orchards. No bees were observed in sweep surveys.
 - Surveys were conducted on Krayhagen Ranch in Zapato's Canyon. BLH host and non-host vegetation was thick and widespread. BLH counts were low with an average of 2-3 adults per 10 sweeps. No BLH nymphs were observed. There were a lot of sharpshooter nymphs, aphids, thrips, and non-target leafhoppers observed in sweep surveys.
 - Fifty-two (52) host plant samples were collected and sent to the lab for virus analysis. Seven (7) were positive for curly top virus. Four (4) samples were not tested and results will be reported next month.
 - Twenty-seven (27) BLH samples were collected and sent to the lab for virus analysis. Eight (8) were positive for curly top virus. There were four (4) samples not tested and results will be reported next month.

Kern County

- Western Mineral and Elkhorn were surveyed for host plants and BLH populations. Filaree, peppergrass, and *Plantago* were the predominant host plants. BLH counts were on average 1-2 adults per 10 sweeps in Western Mineral and 2-3 adults per 10 sweeps in Elkhorn. No nymphs were observed.
- In 36 Hills, host plants were primarily filaree, peppergrass, and *Plantago*. BLH counts were less than 1 adult per 10 sweeps. No nymphs were observed.
- Surveys were conducted within Elk Hills south of Highway 119 around the golf course and the south flats along Midway Road. Host plant development varied throughout the property. Some areas had well developed plants with dense coverage and some were just beginning to emerge with sparse coverage. The

- average BLH count was 0-1 adult per 10 sweeps. No nymphs were observed.
- Surveys were conducted in the Buttonwillow and McKittrick areas. Host plants included well developed filaree and peppergrass. The average BLH count was less than 1 adult per 10 sweeps and zero nymphs. There were bee boxes nearby, however, no bees were observed in sweep surveys.
- Surveys were conducted in the "Triple Fives" BLH counts were less than 1 adult per 10 sweeps.
- Surveys were conducted in the Buena Vista hills, east of the canal. Host plants were filaree and peppergrass. BLH counts were 0-1 adult per 10 sweeps and zero nymphs. Bee boxes were nearby, however, no bees were observed in sweep surveys.
- Surveys were conducted in the Kitty Care and the "No Names" areas. Host plants included filaree, peppergrass, and *Plantago*. BLH counts were less than 1 adult per 10 sweeps. No bees were observed.
- Surveys were conducted around 36 Hills. Host plants were filaree and peppergrass. BLH counts were less than 1 adult per 10 sweeps.
- Surveys were conducted along Reserve Valley Road. BLH were less than 1 adult per 10 sweeps.
- The yellow panel sticky traps were installed along the same trap line as the previous year and serviced once. BLH counts on the traps were very low. One trap had 4 BLH, while the majority did not have any BLH. Results will be reported next month.
- Seventy-one (71) host plant samples were collected and sent for virus analysis. Twenty (20) were positive for curly top virus.
- Seventeen (17) BLH samples were obtained and sent for virus analysis. Five (5) were positive for curly top virus.

Kings County

- Surveys were conducted in the Kettleman Hills north of Highway 41 near Kettleman City. There was an abundance of filaree and peppergrass with some patches of *Plantago*. BLH counts ranged from 1-2 adults and zero nymphs to 7-10 adults per 10 sweeps and 5-7 nymphs. No bees were observed in sweep surveys.
- Surveys were conducted in the Kettleman Hills south of Highway 41 to the Kern County line. BLH counts were on average 1-3 adults per 10 sweeps increasing to 5 adults and 5-7 nymphs per 10 sweeps by the end of the month. High counts of sharpshooter, aphids, thrips, and non-target leafhoppers were observed in sweep surveys. Host plants included filaree, peppergrass, and *Plantago*. The peppergrass was showing signs of stress after the warm, dry weather. Bee boxes were in nearby orchards along Interstate 5, however, no bees were observed in sweep surveys.
- Surveys were conducted near Utica Avenue, west of the Aquaduct. *Plantago* was the predominant host plant. BLH counts were 9-10 adults per 10 sweeps.
- Several ideal slopes south of Highway 41 and north of Devil's Den Road were surveyed. The vegetation was thick with filaree, peppergrass, and *Plantago*. BLH counts were 0-2 adults per 10 sweeps. One slope with a lot of *Plantago* produced BLH counts of 6-7 adults per 10 sweeps. No nymphs were observed. Bees were not observed in sweep surveys.
- McGlashen Ranch near Devil's Den Road was surveyed. Some of the south western slopes were beginning to dry and the peppergrass was stressed. However, the filaree was green and widespread. BLH counts were on average 0-2 adults per 10 sweeps and zero nymphs. No bees were observed during sweep surveys.
- Fourteen (14) host plant samples were collected and sent for virus analysis. One (1) sample was positive for curly top virus.
- Nineteen (19) BLH sample was collected and sent for virus analysis. Three (3) samples were positive for curly top virus.

Merced County

- Surveys were conducted near the San Luis Reservoir. Vegetation was predominantly winter grasses mixed with some filaree. There were no BLH adults or nymphs observed on the hillsides. There were a lot of sharpshooters and non-target leafhoppers. There were no bees observed in sweep surveys.
- Personnel will continue to monitor BLH populations and collect both host plant and BLH samples for virus analysis.

Stanislaus County

- Surveys took place on the Simon Newman Conservation property. BLH host and non-host vegetation was thick and widespread. There was some peppergrass already showing signs of stress. There were no BLH adults or nymphs observed at time of survey. There were a lot of sharpshooters and non-target leafhoppers.
- Personnel will continue to monitor BLH populations and collect both host plant and BLH samples for virus analysis

For a map of historical locations surveyed, please use the link below:

<https://www.cdfa.ca.gov/plant/ipc/curlytopvirus/pdfs/HistoricalBLHsurveylocations.pdf>

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