BEET CURLY TOP VIRUS MONTHLY REPORT

CURLY TOP VIRUS CONTROL PROGRAM

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Monthly Report for October, 2013

The Beet Curly Top Virus Control Program (BCTVCP) held a board meeting on October 11, 2013. The Board discussed research proposals and the fall treatment campaign. The Board elected to fund several projects on the biology and dynamics of the leafhopper, the virus, and their host plants, both wild and cultivated. They also funded a small study on the biological control of Russian thistle.

The BCTVCP continued population surveys, adjustments to potential treatment maps, and finalized treatment campaign preparations. During the BCTV staff safety meeting on October



17, it was decided to start the fall treatment campaign on October 21. Staff noted that beet leafhopper (BLH) counts in Kern County were well below normal at less than 1 BLH per sweep. Staff decided that aerial treatment in Kern County would be delayed two weeks, with continued survey of BLH numbers. When counts remained low two weeks later, aerial treatment in Kern County was cancelled.

Fall treatments began in Kings and Fresno Counties on October 22 and were completed on October 24, 2013. Weather conditions were very good. Morning temperatures were cool (upper 40's and low 50's) and warmed up to the low 70's as treatment applications concluded each day. The wind was minimal and was not an inhibiting factor. There was a total of 19,404 potential treatment acres combined for Fresno, Kern, Kings, and Tulare Counties; however, only 9,100 acres was actually treated. The reduction in treated acreage was the result of disked fields and very low beet leafhopper counts in areas such as Kern. In treated areas, counts were moderate at 8-15 hoppers per sweep. Post treatment checks were conducted with an average of 90% mortality rate. Please see attached treatment map.

Fresno County

Fallow field surveys were conducted each week prior to treatment. Treatment acreage consistently declined in the weeks before treatment due to disking, grazing, sparse host plant development, and low BLH counts. Pre-treatment counts were conducted to ensure consistency and justify treatment. Fields that were treated had on average 8-15 adult BLH per sweep, with 2-4 nymphs. Fields with the highest BLH counts were most often adjacent to a newly disked field. The Coalinga oil fields were eliminated from treatment due to below normal BLH counts, at less than 1 per sweep.

In early host surveys, a maximum of 8,426 acres in Fresno County had large enough populations of host plants to be considered for treatment. A total of 2,758 acres were finally treated, after decreases due to disking, etc.

After the treatment campaign concluded, maintenance on the ground rigs was conducted. Ground rig treatment applications will be conducted from November 1-15, 2013, as needed.

Imperial/Riverside County

Beet Leafhopper survey and host plant survey is scheduled for November and will be reported next month.

Kern County

BLH populations remained below normal through October, at less than 1 BLH per sweep in all areas considered for treatment. Many fields were also disked. These factors eliminated the need for aerial treatment. Some roadside thistle surveys have low but variable BLH counts and the viability of the remaining Russian thistle is deteriorating. Ground rig treatment applications will be conducted only if BLH populations increase.

Kings County

Fallow field surveys were conducted each week prior to treatment. Counts at the beginning of the month were on average 3-5 adult BLH with 1-2 nymphs in the Utica Avenue and Interstate 5 area. A nymph hatch was identified in that same area a week later, resulting in BLH counts that on average had 12-15 adult BLH, and 3-5 nymphs per sweep. Surveys just before treatment showed counts consistent with earlier surveys. There was a total of 6,296 acres considered for treatment. Actual total area treated for Kings County was 6,342 acres. The slight increase in acreage was due to BLH surveys just before treatment. An unmapped field with Russian thistle was found adjacent to an already mapped field, with BLH counts of 5-7 adult BLH and 1-2 nymphs per sweep. We therefore treated that additional area.

Post-treatment BLH population counts were conducted 72 hours after treatment and showed an average of less than 1 BLH per sweep. Ground rig treatment applications will be conducted from November 1-15, as needed.

Merced County

Treatment was not warranted for this county because of low BLH counts. BLH population and host plant surveys will resume after ground rig treatment applications are completed in Fresno and Kings Counties.

San Joaquin County

Treatment was not warranted for this county. BLH population and host plant surveys will resume after ground rig treatment applications are completed in Fresno and Kings Counties.

Stanislaus County

Treatment was not warranted for this county. BLH population and host plant surveys will resume after ground rig treatment applications are completed in Fresno and Kings Counties.

Tulare County

A few fallow fields were identified and waivers were sent out. The BCTVCP obtained a Tulare County operator ID number to spray those fields. There was a total of 960 acres considered for treatment; however, no treatment was conducted. Returned waivers identified some fields as organic and were removed from treatment maps. Other fields had below normal BLH counts at less than 1 BLH per sweep, which did not warrant treatment.

