# Beet Curly Top Virus Control Program Monthly Report

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May 2023

# **Program Update**

- In May, Beet Curly Top Virus Control Program (BCTVCP) personnel conducted beet leafhopper (BLH) and vegetation surveys in the foothills on the westside of the San Joaquin and Sacramento Valleys in Fresno, Kern, Kings, Yolo, Sutter, Solano, Glenn, Merced, Stanislaus, Butte, Sacramento, San Joaquin, Riverside, Imperial, and Colusa counties.
- BLH counts remained very low in the Northern and Southern districts, averaging (0-2) BLH per sweep. The Central District is seeing BLH population increases averaging 0-8 per sweep range. These areas are mapped for potential control operations.
- Hillside surveys have been concluded for spring due to high fire risk. The Program will continue to conduct BLH population surveys on the valley floor and roadsides. Mapping of fallow fields and roadside vegetation continues for future assessment and control operations.
- Host plants were primarily Bassia, London Rocket, Mallow, Russian Thistle, Lambs Quarter, Purslane, and Goosefoot. Die off is being observed in London Rocket with current estimates in the 50-70% range. A combination of vegetation die off and fallow field discing is resulting in a congregation of BLH on available host plant vegetation.
- Commodity surveys are currently showing low percentages of damage, averaging in the 0-1% range.
- On May 31, 2023, ground-rig and aerial control operations were performed in Fresno County in areas with high BLH counts (20-100 per sweep).
  - Aerial control operations were conducted on a fallow field located by W. Shields Ave. Ground-rig control operations were conducted around the fallow field and along W. Douglas Ave, W. Palmer Ave, and Phelps Ave.
  - Kill checks were conducted after treatment and saw a 98-100% reduction in BLH populations in the fallow field and along the roadsides.
- The Program would like to remind growers and PCA's that any fallow fields or weedy
  areas adjacent to susceptible crops should be inspected for BLH prior to disking or
  mowing. The Program can be available for BLH surveys and, if needed, control of

fallow fields and/or roadsides where BLH counts reach the control thresholds.

- Please visit the Program's webpage to view Program reports and alerts. https://www.cdfa.ca.gov/plant/ipc/curlytopvirus/ctv\_hp.htm
- The BCTVCP has deployed a Beet Leafhopper Sighting Report that industry can use
  to report BLH or CTV incidence in the field. This report is available using the following
  web browser link: <a href="https://arcg.is/O9LyK">https://arcg.is/O9LyK</a> or by downloading the ArcGIS Survey123
  app from the Google Play Store or Apple App Store and using the QR code below. A
  user guide for the BLH Sighting Report is available on the BCTVCP webpage.



• For program inquiries or questions regarding this report, please contact Kendra Tapia at <a href="mailto:kendra.tapia@cdfa.ca.gov">kendra.tapia@cdfa.ca.gov</a> or (916) 823-1169.

# 2023 Beet Curly Top Virus Sample Results

| January 2023 - BCTV Sample Results by County |               |  |  |  |
|--|---------------|--|--|--|
|  | <u>Fresno</u> |  |  |  |
| Positive BLH                                 | 1             |  |  |  |
| Negative BLH                                 | 2             |  |  |  |
|  |               |  |  |  |
| Positive Host Plant                          | 0             |  |  |  |
| Negative Host Plant                          | 3             |  |  |  |

| February 2023 - BCTV Sample Results by County |               |       |             |        |              |  |
|---|---------------|-------|-------------|--------|--------------|--|
|   | <u>Fresno</u> | Kings | <u>Kern</u> | Merced | <u>Glenn</u> |  |
| Positive BLH                                  | 6             | 1     | -           | 1      | 0            |  |
| Negative BLH                                  | 1             | 0     | -           | 1      | 1            |  |
| Awaiting Results BLH                          | -             | -     | -           | ı      | -            |  |
|   |               |       |             |        |              |  |
| Positive Host Plant                           | 1             | 0     | 0           | 0      | 0            |  |
| Negative Host Plant                           | 64            | 10    | 34          | 2      | 5            |  |
| Awaiting Results Host Plant                   | -             | -     | 1           | -      | -            |  |

| March 2023- BCTV Sample Results by County |               |              |             |             |               |        |               |              |                   |
|---|---------------|--------------|-------------|-------------|---------------|--------|---------------|--------------|-------------------|
|   | <u>Fresno</u> | <u>Kings</u> | <u>Kern</u> | <u>Yolo</u> | <u>Colusa</u> | Merced | <u>Sutter</u> | <u>Glenn</u> | <u>Stanislaus</u> |
| Positive BLH                              | -             | -            | -           | 0           | 0             | -      | -             | -            | -                 |
| Negative BLH                              | -             | -            | -           | 1           | 4             | -      | -             | -            | -                 |
| Awaiting Results BLH                      | -             | -            | -           | 0           | 0             | -      | -             | ı            | -                 |
|   |               |              |             |             |               |        |               |              |                   |
| Positive Host Plant                       | 1             | -            | -           | 0           | 0             | 0      |               | -            | -                 |
| Negative Host Plant                       | 32            | 11           | 53          | 2           | 5             | 4      | 4             | - 1          | -                 |
| Awaiting Results Host Plant               | 1             | -            | -           | -           | -             | -      | -             | -            | -                 |

| April 2023- BCTV Sample Results by County |               |              |             |       |             |        |        |               |                   |                    |
|---|---------------|--------------|-------------|-------|-------------|--------|--------|---------------|-------------------|--------------------|
|   | <u>Fresno</u> | <u>Kings</u> | <u>Kern</u> | Glenn | <u>Yolo</u> | Solano | Merced | <u>Colusa</u> | <u>Stanislaus</u> | <u>San Joaquin</u> |
| Positive BLH                              | 2             | 2            | -           | -     | -           | -      | -      | -             | -                 | -                  |
| Negative BLH                              | 5             | 1            | 1           | 1     | 3           | -      | -      | 1             | -                 | -                  |
| Awaiting Results BLH                      | -             | -            | 7           | -     | -           | -      | -      | -             | -                 | -                  |
|   |               |              |             |       |             |        |        |               |                   |                    |
| Positive Host Plant                       | -             | 1            | 1           | -     | -           | -      | -      | -             | -                 | -                  |
| Negative Host Plant                       | 33            | 4            | 94          | 5     | 6           | 6      | 6      | 1             | 3                 | 1                  |
| Awaiting Results Host Plant               | 3             | -            | 3           | -     | -           | -      | -      | -             | -                 | -                  |

|                             | May 2023- BCTV Sample Results by County |              |             |        |       |             |               |        |              |               |            |                 |                  |
|-----------------------------|---|--------------|-------------|--------|-------|-------------|---------------|--------|--------------|---------------|------------|-----------------|------------------|
|                             | <u>Fresno</u>                           | <u>Kings</u> | <u>Kern</u> | Merced | Glenn | <u>Yolo</u> | <u>Colusa</u> | Sutter | <u>Butte</u> | <u>Solano</u> | Sacramento | <u>Imperial</u> | <u>Riverside</u> |
| Positive                    |   |              |             |        |       |             |               |        |              |               |            |                 |                  |
| BLH                         | -                                       | -            | -           | -      | -     | -           | -             | -      | -            | -             | 1          | -               | -                |
| Negative                    |   |              |             |        |       |             |               |        |              |               |            |                 |                  |
| BLH                         | -                                       | -            | -           | -      | -     | -           | -             | -      | 7            | 5             | 3          | -               | -                |
| Awaiting<br>Results         |   |              |             |        |       |             |               |        |              |               |            |                 |                  |
| BLH                         | 14                                      | 1            | 11          | -      | 5     | 1           | -             | 7      | -            | -             | -          | -               | -                |
|                             |   |              |             |        |       |             |               |        |              | _             |            |                 |                  |
| Positive                    |   |              |             |        |       |             |               |        |              |               |            |                 |                  |
| Host                        |   |              |             |        |       |             |               |        |              |               |            |                 |                  |
| Plant                       | 1                                       | -            | 1           | -      | -     | -           | -             | -      | -            | -             | -          | -               | -                |
| Negative<br>Host            |   |              |             |        |       |             |               |        |              |               |            |                 |                  |
| Plant                       | 8                                       | -            | 18          | 1      | 9     | 6           | 9             | 8      | 8            | 8             | 6          | -               | -                |
| Awaiting<br>Results<br>Host |   |              |             |        |       |             |               |        |              |               |            |                 |                  |
| Plant                       | 15                                      | -            | 37          | -      | 5     | 10          | 4             | 8      | -            | 1             | -          | 5               | 2                |

# **County Reports**

# Fresno County

- BLH population surveys were conducted in fallow fields and roadsides throughout Fresno County from the Merced County line to Coalinga.
- Overall counts displayed low to high levels of BLH activity throughout the survey areas, averaging 0-7 BLH per sweep set. Roadsides and fallow fields in Firebaugh and Coalinga had higher levels of BLH activity (10-50 BLH per sweep).
- Host vegetation surveyed included London rocket, Russian thistle, Bassia, Goosefoot, Pigweed, and Mallow.
- A map identifying the location of the BLH counts is provided at the end of the report.

| Fresno County BLH Survey |           |                                |  |  |  |  |
|--------------------------|-----------|--------------------------------|--|--|--|--|
| Location                 | Date      | Average # of BLH per 10 sweeps |  |  |  |  |
| Coalinga                 | 5/2/2023  | 0.4                            |  |  |  |  |
| Firebaugh                | 5/2/2023  | 3.0                            |  |  |  |  |
| Huron                    | 5/8/2023  | 3.5                            |  |  |  |  |
| Cantua Creek             | 5/8/2023  | 0.9                            |  |  |  |  |
| Levis                    | 5/8/2023  | 1.8                            |  |  |  |  |
| Tranquillity             | 5/9/2023  | 0.4                            |  |  |  |  |
| Huron                    | 5/10/2023 | 1.2                            |  |  |  |  |
| Cantua Creek             | 5/10/2023 | 0.2                            |  |  |  |  |
| Five Points              | 5/11/2023 | 1.4                            |  |  |  |  |
| Coalinga                 | 5/15/2023 | 2.0                            |  |  |  |  |
| Panoche Junction         | 5/15/2023 | 0.4                            |  |  |  |  |
| Coalinga                 | 5/16/2023 | 6.7                            |  |  |  |  |
| Firebaugh                | 5/16/2023 | 4.2                            |  |  |  |  |
| Firebaugh                | 5/17/2023 | 4.7                            |  |  |  |  |
| Mendota                  | 5/18/2023 | 0.7                            |  |  |  |  |
| Kerman                   | 5/18/2023 | 1.0                            |  |  |  |  |
| Coalinga                 | 5/18/2023 | 2.0                            |  |  |  |  |
| Firebaugh                | 5/22/2023 | 5.4                            |  |  |  |  |
| Cantua Creek             | 5/23/2023 | 1.1                            |  |  |  |  |
| Coalinga                 | 5/24/2023 | 3.7                            |  |  |  |  |
| Turk                     | 5/24/2023 | 0.8                            |  |  |  |  |
| San Joaquin              | 5/24/2023 | 1.2                            |  |  |  |  |
| Firebaugh                | 5/24/2023 | 0.6                            |  |  |  |  |
| Staircase                | 5/25/2023 | 0.4                            |  |  |  |  |
| Five Points              | 5/25/2023 | 0.4                            |  |  |  |  |
| Huron                    | 5/25/2023 | 0.7                            |  |  |  |  |
| Coalinga                 | 5/25/2023 | 4.2                            |  |  |  |  |
| Mendota                  | 5/30/2023 | 0.3                            |  |  |  |  |

# Kern County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts displayed low to moderate levels of BLH activity throughout the survey areas, averaging 0-3 BLH per sweep set.
- Host vegetation surveyed included Russian thistle, Salt bush, Goosefoot, Mustard, and Peppergrass.
- A map identifying the location of the BLH counts is provided at the end of the report.

| Kern County BLH Survey |             |                                |  |  |  |  |  |
|------------------------|-------------|--------------------------------|--|--|--|--|--|
| <u>Location</u>        | <u>Date</u> | Average # of BLH per 10 sweeps |  |  |  |  |  |
| Buttonwillow           | 5/1/2023    | 0.6                            |  |  |  |  |  |
| Devils Den             | 5/8/2023    | 2.1                            |  |  |  |  |  |
| San Emidio             | 5/8/2023    | 0.4                            |  |  |  |  |  |
| Antelope Valley        | 5/9/2023    | 3.3                            |  |  |  |  |  |
| Devils Den             | 5/10/2023   | 0.3                            |  |  |  |  |  |
| Maricopa Flat          | 5/11/2023   | 3.3                            |  |  |  |  |  |
| Lost Hills             | 5/11/2023   | 0.3                            |  |  |  |  |  |
| Kern Lake              | 5/16/2023   | 1.2                            |  |  |  |  |  |
| North Belridge         | 5/16/2023   | 0.5                            |  |  |  |  |  |
| Missouri Triangle      | 5/16/2023   | 1.2                            |  |  |  |  |  |
| Missouri Triangle      | 5/17/2023   | 0.5                            |  |  |  |  |  |
| Spicer City            | 5/17/2023   | 0.5                            |  |  |  |  |  |
| Dustin Acres           | 5/24/2023   | 0.3                            |  |  |  |  |  |
| Buttonwillow           | 5/30/2023   | 0.7                            |  |  |  |  |  |
| Buttonwillow           | 5/31/2023   | 0.4                            |  |  |  |  |  |

# Kings County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts displayed low to moderate levels of BLH activity throughout the survey areas, averaging 0-4 BLH per sweep set.
- Host vegetation surveyed included Bassia, London rocket, Russian thistle, and Mallow.
- A map identifying the location of the BLH counts is provided at the end of the report.

| Kings County BLH Survey |             |                                |  |  |  |  |
|-------------------------|-------------|--------------------------------|--|--|--|--|
| <u>Location</u>         | <u>Date</u> | Average # of BLH Per 10 sweeps |  |  |  |  |
| Kettleman City          | 5/1/2023    | 2.6                            |  |  |  |  |
| Kettleman City          | 5/8/2023    | 1.3                            |  |  |  |  |
| Kettleman City          | 5/9/2023    | 2.1                            |  |  |  |  |
| Utica Ave               | 5/18/2023   | 2.5                            |  |  |  |  |
| Utica Ave               | 5/22/2023   | 4.4                            |  |  |  |  |
| Kettleman City          | 5/23/2023   | 3.8                            |  |  |  |  |
| Vanguard                | 5/24/2023   | 0.5                            |  |  |  |  |
| 30th Ave                | 5/30/2023   | 1.1                            |  |  |  |  |
| Utica Ave               | 5/30/2023   | 3.6                            |  |  |  |  |

#### Merced County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained low throughout survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Mallow and London rocket.
- A map identifying BLH counts is provided at the end of the report.

| Merced County BLH Survey |             |                                |  |  |  |
|--------------------------|-------------|--------------------------------|--|--|--|
| <u>Location</u>          | <u>Date</u> | Average # of BLH per 10 sweeps |  |  |  |
| Gustine                  | 5/11/2023   | 0.4                            |  |  |  |

# San Joaquin County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills on May 22<sup>nd</sup> and 23<sup>rd</sup>.
- No BLH were observed during surveys in San Joaquin County.
- Host vegetation surveyed included Russian thistle and London rocket.

#### Colusa County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained very low throughout the survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Filaree.
- A map identifying BLH counts is provided at the end of the report.

| Colusa County BLH Survey |             |                                |  |  |  |
|--------------------------|-------------|--------------------------------|--|--|--|
| <u>Location</u>          | <u>Date</u> | Average # of BLH per 10 sweeps |  |  |  |
| Olgert Canyon            | 5/4/2023    | 0.4                            |  |  |  |

#### Yolo County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained very low throughout the survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Mallow.
- A map identifying BLH counts is provided at the end of the report.

| Yolo County BLH Survey |             |                                |  |  |
|------------------------|-------------|--------------------------------|--|--|
| <u>Location</u>        | <u>Date</u> | Average # of BLH per 10 sweeps |  |  |
| Davis                  | 5/24/2023   | 0.8                            |  |  |

#### Sutter County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained low throughout survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Filaree and Mallow.
- A map identifying BLH counts is provided at the end of the report.

| Sutter County BLH Survey |             |                                |  |  |  |  |
|--------------------------|-------------|--------------------------------|--|--|--|--|
| <u>Location</u>          | <u>Date</u> | Average # of BLH per 10 sweeps |  |  |  |  |
| Joesphine                | 5/10/2023   | 0.6                            |  |  |  |  |
| Oswald                   | 5/10/2023   | 0.4                            |  |  |  |  |
| Subaco                   | 5/11/2023   | 1.6                            |  |  |  |  |

# Solano County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained low throughout survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Filaree, Mallow, and Peppergrass.
- A map identifying BLH counts is provided at the end of the report.

| Solano County BLH Survey |             |                                |
|--------------------------|-------------|--------------------------------|
| <u>Location</u>          | <u>Date</u> | Average # of BLH per 10 sweeps |
| Winters                  | 5/16/2023   | 1.4                            |
| Dixon                    | 5/17/2023   | 0.8                            |
| Howard Landing           | 5/18/2023   | 0.2                            |

# Stanislaus County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained low throughout survey areas, averaging 0-3 BLH per sweep set.
- Host vegetation surveyed included London rocket.
- A map identifying BLH counts is provided at the end of the report.

| Stanislaus County BLH Survey |             |                                |
|------------------------------|-------------|--------------------------------|
| <u>Location</u>              | <u>Date</u> | Average # of BLH per 10 sweeps |
| Empire                       | 5/26/2023   | 3.0                            |

#### Glenn County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained low throughout the survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Filaree.
- A map identifying BLH counts is provided at the end of the report.

| Glenn County BLH Survey |             |                                |
|-------------------------|-------------|--------------------------------|
| <u>Location</u>         | <u>Date</u> | Average # of BLH per 10 sweeps |
| Grapit                  | 5/8/2023    | 1.2                            |
| Glenn                   | 5/9/2023    | 1.5                            |
| Glenn                   | 5/11/2023   | 0.4                            |

# **Butte County**

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained low throughout the survey areas, averaging 0-2 BLH per sweep set.
- Host vegetation surveyed included Filaree and Mallow.

A map identifying BLH counts is provided at the end of this report.

| Butte County BLH Survey |             |                                |
|-------------------------|-------------|--------------------------------|
| <u>Location</u>         | <u>Date</u> | Average # of BLH per 10 sweeps |
| Clark Rd                | 5/15/2023   | 1.0                            |
| Dayton                  | 5/15/2023   | 2.3                            |
| Biggs                   | 5/17/2023   | 1.0                            |

# Sacramento County

- BLH population surveys were conducted in fallow fields and roadsides within five miles of the foothills.
- Overall counts remained low throughout the survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Filaree and Mallow.
- A map identifying BLH counts is provided at the end of the report.

| Sacramento County BLH Survey |             |                                |
|------------------------------|-------------|--------------------------------|
| <u>Location</u>              | <u>Date</u> | Average # of BLH per 10 sweeps |
| Lambert                      | 5/16/2023   | 0.4                            |
| Bruceville                   | 5/18/2023   | 0.8                            |

# Riverside County

- BLH population surveys were conducted in fallow fields and roadsides from the Imperial County line to Blythe.
- Overall counts remained low throughout the survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Salt bush, Pigweed, and Bassia.
- A map identifying BLH counts is provided at the end of the report.

| Riverside County BLH Survey |             |                                |
|-----------------------------|-------------|--------------------------------|
| <u>Location</u>             | <u>Date</u> | Average # of BLH per 10 sweeps |
| Ripley                      | 5/22/2023   | 0.2                            |
| Blythe                      | 5/23/2023   | 0.2                            |
| Southwest Ripley            | 5/23/2023   | 0.3                            |

# Imperial County

- BLH population surveys were conducted in fallow fields and roadsides from the Border of Mexico to Calipatria.
- Overall counts remained low throughout the survey areas, averaging 0-1 BLH per sweep set.
- Host vegetation surveyed included Salt bush, and Goosefoot.
- A map identifying BLH counts is provided at the end of the report.

| Imperial County BLH Survey |             |                                |
|----------------------------|-------------|--------------------------------|
| <u>Location</u>            | <u>Date</u> | Average # of BLH per 10 sweeps |
| Calipatria                 | 5/23/2023   | 0.1                            |
| Rockwood                   | 5/24/2023   | 0.5                            |
| Wiest                      | 5/24/2023   | 0.1                            |
| Sandia                     | 5/24/2023   | 0.1                            |
| Rico                       | 5/24/2023   | 0.1                            |

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