# BEET CURLY TOP VIRUS MONTHLY REPORT

**CURLY TOP VIRUS CONTROL PROGRAM** 

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Report for May 2021

# **Program Wide Update**

- Curly Top Virus (CTV) Control Program (Program) staff reported reduced beet leafhopper (BLH) activity across the San Joaquin and Sacramento Valleys. Additionally, limited CTV-related crop damage has been reported. BLH and crop damage surveys are being conducted on an ongoing basis.
- Since late April, the Program has conducted plant damage surveys on CTV-susceptible commodities. Surveys focused on tomato crops in California Districts Two, Three, and Four across: Kern, Kings, Fresno, Merced, Monterey, Yolo, Colusa, and Glenn Counties.
- Program staff surveyed tomato crops looking for plants showing CTV symptoms.
   Specifically, the purpling and curling of leaves, stunted growth, and premature fruit ripening.
- For the most part, observed tomato crop damage was at or below two percent damage for most surveyed fields. There was an exception in Colusa County, where there was one field which had 10-15 percent damage.
- Tissue samples were collected from symptomatic tomato plants. Samples will be tested for CTV by the California Department of Food and Agriculture's Plant Diagnostic Laboratory in Sacramento. Results will be shared as they are received.
- Ground-rig treatments in Fresno and Kern Counties were completed in May. Roadsides and fallow fields will continue to be monitored for BLH activity; treatments will take place as needed.
  - In Fresno County, 800 acres of roadsides were treated between May 4 and May 17.
  - In Kern County, 320 acres of fallow fields were treated between May 24 and May 25.
- CTV pathology results for samples collected April 2021 are on the following page.
- Program personnel are also monitoring BLH sticky traps set by PCAs, and/or growers on their properties. If you need help processing sticky traps with BLH or tomato tissue samples, please feel free to contact Samuel Krasnobrod at Samuel.Krasnobrod@cdfa.ca.gov.

# May Ground Rig Treatments

- 5/4/2021: Fresno County, 160 Acres

   Merced Ave at Lost Hills Rd: 80 Acres

  - Phelps Ave west of Hwy 33: 40 Acres El Dorado south of Phelps Ave: 40 Acres
- 5/5/2021: Fresno County, 160 Acres
  - Sutter Ave between Jane and Hwy 33: 40 Acres
    Calaveras between Jane and Hwy 33: 40 Acres

  - Oil City Rd at Palmer Ave: 80 Acres
- 5/6/2021: Fresno County, 80 Acres
  - Monterey Ave, Gale Ave, Derick Ave, Los Gatos Ave: 80 Acres
- 5/11/2021: Fresno County, 80 Acres
  O Derick Ave north of Hwy 33 to I-5: 40 Acres
  - Mt Whitney Ave from Yuba to Napa: 30 Acres
  - Colusa north of Mt Whitney for 1 mile: 10 Acres
- 5/12/2021: Fresno County, 80 Acres

  o Kamm Ave from El Dorado to two miles east of Butte: 16 Acres

  - Mt Whitney from Sonoma to Harlan: 16 Acres Mountain View from San Mateo to Hwy 33: 16 Acres Floral from San Mateo to Calaveras: 16 Acres

  - Calaveras from Manning to Floral: 16 Acres
- 5/13/2021: Fresno County, 80 Acres

  O Manning Ave from Calaveras to I-5: 80 Acres
- 5/17/2021: Fresno County, 160 Acres

   Fairfax from McKinley to Bullard: 20 Acres
   Adams from San Mateo to Hwy 33: 20 Acres
   Belmont from one mile west of Hwy 33 to San Diego: 20 Acres
   Fairfax from Bullard to Herndon: 20 Acres
   Herndon from Fairfax to Jerrold: 14 Acres
   Jerrold from Herndon to Shaw: 14 Acres
   Bullard one mile west of Douglas: 13 Acres

  - Douglas from Shaw to Bullard: 13 Acres Shaw from Douglas to Lyon: 13 Acres

  - Bullard from Davidson to Fairfax: 13 Acres
- 5/24-5/25: Kern, 320 Acres

  - North Gardner Field Road: 160 AcresSouth Gardner Field Road: 135 Acres
  - Basic School Road: 25 Acres

### Pathology Results

- May 2021:
  - Kern County Sample Results
    - BLH: 2 Positive; 0 Negative
    - Plant: 0 Positive; 6 Negative
  - Fresno County Sample Results
    - BLH: 1 Positive; 8 Negative
    - Plant: 0 Positive; 1 Negative
  - Kings County Sample Results
    - BLH: **1 Positive**; 60 Negative
    - Plant: 0 Positive; 0 Negative

# **County Reports:**

## **Glenn County**

- Tomato Crop Survey, Willows, 5/25/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Minimal crop damage observed in Glenn County. Samples collected in fields located on Road 60 and Road B.

### **Colusa County**

- Tomato Crop Survey, Williams, 5/26/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - o Surveys conducted near the I-5 between Williams and Dunnigan.
- Tomato Crop Survey, West of Williams, 5/26/2021
  - Damage: Above threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - One field west of Williams had tomato damage above 10 percent (10%). This field was located in close proximity to overwintering foothills. Samples were sent in for CTV analysis.

## **Yolo County**

- Tomato Crop Survey, Davis, 5/24/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Observed damage was more common than in the San Joaquin Valley. Surveys were conducted to the west of I-5; samples were collected near Russel Ave.
- Tomato Crop Survey, Dunnigan, 5/26/2021
  - Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Limited crop damage was observed between Dunnigan and Woodland, and in fields along the Old River Highway toward I-5.

# **Monterey County**

- Roadside Survey, Salinas Valley, 5/24/2021
  - o BLH Present: No
  - o Primary BLH Host Vegetation: Filaree
  - Clean roadsides were observed between San Ardo and San Lucas. No tomato crops were found in this area.
- Roadside and Fallow Field Survey, Salinas Valley, 5/25-26/2021
  - o Adult BLH Count: 1 per single net sweep
  - o Nymph: N/A
  - o Primary BLH Host Vegetation: Russian thistle, filaree, goosefoot

- A fallow field was found northeast of Greenfield. The field had BLH host vegetation present, with an accompanying population of BLH. Samples were collected and sent for CTV testing.
- o No tomato fields were found near Greenfield, Soledad, or Chular.

# **Merced County**

- Tomato Crop Survey, Merced, 5/19/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Samples collected in fields near Hwy 152 at Indiana Ave, Aubrey at Linden Ave, and Hwy 152 at Britto Ave near Los Banos.

# Fresno County

- Tomato Crop Survey, Manning Ave at I-5, 5/10/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
- Tomato Crop Survey, Firebaugh, 5/18/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Samples were collected near Nees Ave at Fairfax Ave, Herndon Ave at Oxford Ave, Bullard Ave at San Diego, and southwest of Shaw Ave at Washoe Ave.
- Tomato Crop Survey, Five Points, 5/19/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Survey conducted near Hwy 269 at Hwy 198. Minimal damage observed across twenty fields.
- Tomato Crop Survey, Three Rocks, 5/20/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Survey conducted near Manning Ave at I-5 up towards Firebaugh.
- Tomato Crop Survey, East of Coalinga, 5/20/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Samples collected near El Dorado Ave at Phelps Ave, and Hwy 198 at El Dorado Ave.
- Fallow Field Survey near Mendota, 5/3/2021
  - o Primary BLH Host Vegetation: London rocket
  - BLH population survey of roadsides and fallow fields. Only one area out of seven had BLH activity; however, the field contained sheep.
- Fallow Field Survey, Manning Ave at I-5, 5/10/2021

- Adult BLH Count: 2-3 per 10 sweeps
- o Nymph: N/A
- o Primary BLH Host Vegetation: Russian thistle, London rocket

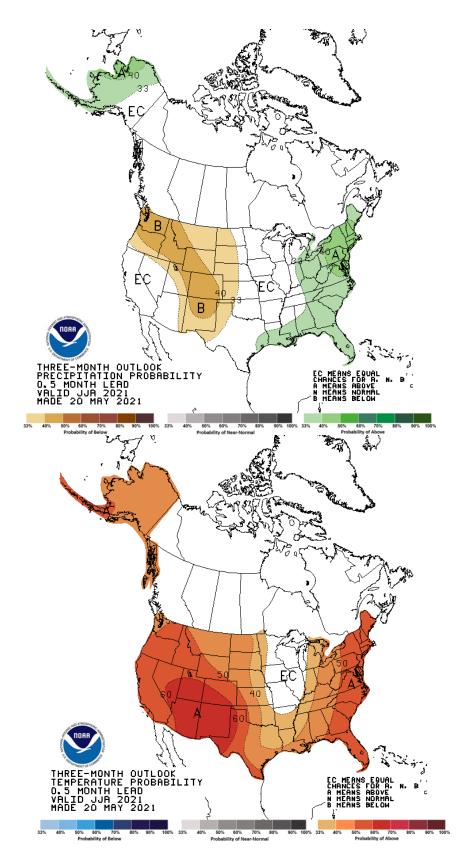
# Kings County

- Tomato Crop Survey, 10th Ave at Utica, 5/10/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
- Tomato Crop Survey, Kettleman, 5/12/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - Survey conducted near Stratford at Lemoore; southwest of Jackson at 21<sup>st</sup>, Avenal Cutoff at Lincoln, and Avenal Cutoff at Kansas
- Tomato Crop Survey, Huron, 5/13/2021
  - o Damage: Below threshold
  - o Samples Taken: Yes, symptomatic leaf tissue
  - o BLH Present: No
  - o Survey conducted near Gale at Butte Ave, and Hwy 269 at Mitchell Ave

### **Kern County**

- Tomato Crop Survey, Taft, 5/19/2021
  - o Damage: Below threshold
  - Samples Taken: No
  - o BLH Present: No
  - Minimal tomato damage observed in Kern County.
- Roadside and Fallow Field Survey, South Lake Rd, 5/5/2021
  - Adult BLH Count: 8 per 10 sweeps
  - o Nymph: N/A
  - o Primary Host Vegetation: Russian thistle, lambsquarter, *Chenopodium*.
  - Fallow field near Taft continues to be monitored for BLH activity.
- Fallow Field Survey, Taft, 5/6/2021
  - o Adult BLH Count: 10 per 10 sweeps
  - o Nymph: N/A
  - o Primary Host Vegetation: Russian thistle, London rocket
  - o Property owners were contacted to arrange treatment of the field.
    - \*Update, 5/11/2021
    - Adult BLH Count: 25 per 10 sweeps
    - Nymph: N/A
    - Primary Host Vegetation: Russian thistle, London rocket, Chenopodium
    - Waiting on response from property owners before treatment.
  - \*Update, 5/24/2021
  - o Adult BLH Count: 40+ per 10 sweeps
  - Successful treatment of fallow field took place between 5/24 and 5/26. A total of approximately 320 acres was treated.
- Fallow Field Survey, Brown Material Rd, 5/13/2021

- o Adult BLH Count: 1 per 10 sweeps
- o Nymph: N/A
- o Primary Host Vegetation: Russian thistle, mustard
- o Property owners were contacted to arrange treatment of the field.
- Fallow Field Survey, GP Rd, 5/13/2021
  - Adult BLH Count: 3 per 10 sweeps
  - o Nymph: N/A
  - o Primary Host Vegetation: Russian thistle, Bassia



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