

Silverleaf Whitefly Report for the Central Valley

2025 Season - Monthly Report

August 5, 2025– August 14, 2025

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Source: USDA-ARS

I. Introduction

The sampling period for the silverleaf whitefly (SLWF) surveys started on August 05, 2025, and ended on August 14, 2025. Program personnel collected samples from designated sites at 10 percent of all cotton fields in each county of the San Joaquin Valley. The Program had a total of 118 SLWF sampling sites, with 12 sites in Kern County, 27 sites in Kings County, 5 sites in Tulare County, 24 sites in Fresno County, 1 site in Madera County, 46 sites in Merced County, and 3 sites in Glenn County. At each site, one leaf sample from 10 different cotton plants was collected for a total of 10 leaves per site. However, during the entire sampling period, not all sites could be sampled in Kern and Kings Counties.

II. Kern County

During the first cycle of the 2025 cotton growing season, out of the total 12 sample sites in Kern County, one site was inaccessible. None of the 11 accessible sites contained leaves with SLWF nymphs or adults. A total of 110 leaves were collected, of which 0 leaves (0%) contained SLWF nymphs or adults (Table 1). Out of the 11 accessible sample sites, none of the sites had at least one leaf containing aphids during the first sampling cycle of the season. Out of the 110 leaves collected, 0 leaves (0%) contained aphids (Table 2). Honeydew and sooty mold were not found at any sites. Mites were found at six sites, but armyworms and other whitefly species were not found at any site.

III. Kings County

During the first cycle of the 2025 cotton growing season, out of the total 27 sample sites in Kings County, two sites were inaccessible. Of the 25 accessible sites, 8 sites had at least one leaf containing SLWF nymphs or adults. A total of 250 leaves were collected, of which 18 leaves (7%) contained SLWF nymphs and adults (Table 1).

Out of the 25 accessible sample sites, 4 sites had at least one leaf containing aphids during the first sampling cycle of the season. Out of the 250 leaves collected, 20 leaves (8%) contained aphids (Table 2). Honeydew was found at three sites and sooty mold was found at one site. Mites were found at six sites, but only one site had armyworms and other whitefly species were not found at any site.

IV. Tulare County

Out of the 5 sample sites in Tulare County, 1 site had at least one leaf containing SLWF nymphs or adults during first sampling cycle of the 2025 cotton growing season. A total of 50 leaves were collected, of which 1 leaf (2%) contained SLWF nymphs or adults (Table 1).

During the first sampling cycle of the season, none of the 5 sample sites had at least one leaf containing aphids. Out of the 50 leaves collected, zero leaves (0%) contained aphids, as shown in Table 2. Honeydew and sooty mold were not found on any site. Mites were found at two sites, whereas none of the sites had leaves with armyworms or other whitefly species.

V. Fresno County

Out of the 24 sample sites in Fresno County, 6 sites had at least one leaf containing SLWF nymphs or adults during the 2025 cotton growing season. A total of 240 leaves were collected, of which 10 leaves (4%) contained SLWF nymphs or adults (Table 1).

Out of the 24 sample sites, 2 sites had at least one leaf containing aphids during the first sampling cycle of the season. Out of the 240 leaves collected, 6 leaves (3%) contained aphids (Table 2). Honeydew was found at two sample sites, sooty mold was not found at two sample sites, mites were found at nine sites, and other whitefly species and armyworms were not found at any of the sites.

VI. Madera County

Out of the 1 sample sites in Madera County, none had at least one leaf containing SLWF nymphs or adults during the first cycle of the 2025 cotton growing season. A total of 10 leaves were collected, of none of the sites (0%) contained SLWF nymphs or adults (Table 1). There were no aphids found on any site. Out of the 10 leaves collected, none of the samples (0%) contained aphids (Table 2). Honeydew and sooty mold were not found at any of the sites. Mites, other whitefly species, and armyworms were not found at any of the sites.

VII. Merced County

Out of the 46 sample sites in Merced County, 6 sites had at least one leaf containing SLWF nymphs or adults during the first cycle of 2025 cotton growing season.

A total of 460 leaves were collected, of which 8 leaves (2%) contained SLWF nymphs or adults (Table 1).

Out of the 46 sample sites, 9 sites had at least one leaf containing aphids during the first sampling cycle of the season. Out of the 460 leaves collected, 54 leaves (12%) contained aphids (Table 2). Honeydew was found at 10 sites, sooty mold was found at 3 sites, mites were found at 15 sites, other whitefly species were not found, and armyworms were found at 4 sites.

VIII. Glenn County

Out of the 3 sample sites in Glenn County, 2 sites had at least one leaf containing SLWF nymphs or adults during the first sampling cycle of the 2025 cotton growing season. A total of 30 leaves were collected, of which 2 leaves (7%) contained SLWF nymphs or adults (Table 1).

Out of the 3 sites, 2 sites had at least one leaf containing aphids during the first sampling cycle of the season. Out of the 30 leaves collected, 15 leaves (50%) contained aphids (Table 2). Honeydew was found at 1 site, sooty mold was not found, mites were found in 2 sites, and armyworms were not found, while other whitefly species were found at one site.

VIII. Tables and Graphs

Table 1: 2025 Percentage of SLWF Survey Total Leaf Count

| <u>County</u> | <u>Sample Sites</u> | <u>No. Leaves in Each Range of Nymphs Per Leaf</u> | | | | <u># Leaves</u> | <u>% Leaves w/ SLWF nymphs</u> |
|---------------|---------------------|--|--------------|---------------|------------|-----------------|--------------------------------|
| | | <u>0</u> | <u>1 - 5</u> | <u>6 - 49</u> | <u>50+</u> | | |
| Glenn | 3 | 28 | 2 | 0 | 0 | 30 | 7% |
| Kern* | 11 | 110 | 0 | 0 | 0 | 110 | 0% |
| Kings* | 25 | 232 | 10 | 8 | 0 | 250 | 7% |
| Tulare | 5 | 49 | 1 | 0 | 0 | 50 | 2% |
| Fresno | 24 | 230 | 10 | 0 | 0 | 240 | 4% |
| Madera | 1 | 10 | 0 | 0 | 0 | 10 | 0% |
| Merced | 46 | 452 | 8 | 0 | 0 | 460 | 2% |
| Totals | 115 | 1,111 | 31 | 8 | 0 | 1,150 | 3% |

* During the entire sampling period, not all sites could be sampled in Kern and Kings Counties.

Table 2: 2025 Percentage of Aphids Survey Total Leaf Count

| <u>County</u> | <u>Sample Sites</u> | <u>No. Leaves in Each Range of Aphids Per Leaf</u> | | | | <u># Leaves</u> | <u>% Leaves with Aphids</u> |
|---------------|---------------------|--|--------------|---------------|------------|-----------------|-----------------------------|
| | | <u>0</u> | <u>1 - 5</u> | <u>6 - 49</u> | <u>50+</u> | | |
| Glenn | 3 | 15 | 5 | 10 | 0 | 30 | 50% |
| Kern* | 11 | 110 | 0 | 0 | 0 | 110 | 0% |
| Kings* | 25 | 230 | 10 | 10 | 0 | 250 | 8% |
| Tulare | 5 | 50 | 0 | 0 | 0 | 50 | 0% |
| Fresno | 24 | 234 | 6 | 0 | 0 | 240 | 3% |
| Madera | 1 | 10 | 0 | 0 | 0 | 10 | 0% |
| Merced | 46 | 406 | 27 | 27 | 0 | 460 | 12% |
| Totals | 115 | 1,055 | 48 | 47 | 0 | 1,150 | 8% |

* During the entire sampling period, not all sites could be sampled in Kern and Kings Counties.

Figure 1: Percent of Leaves Collected Containing SLWF and Aphids - 2025 Survey

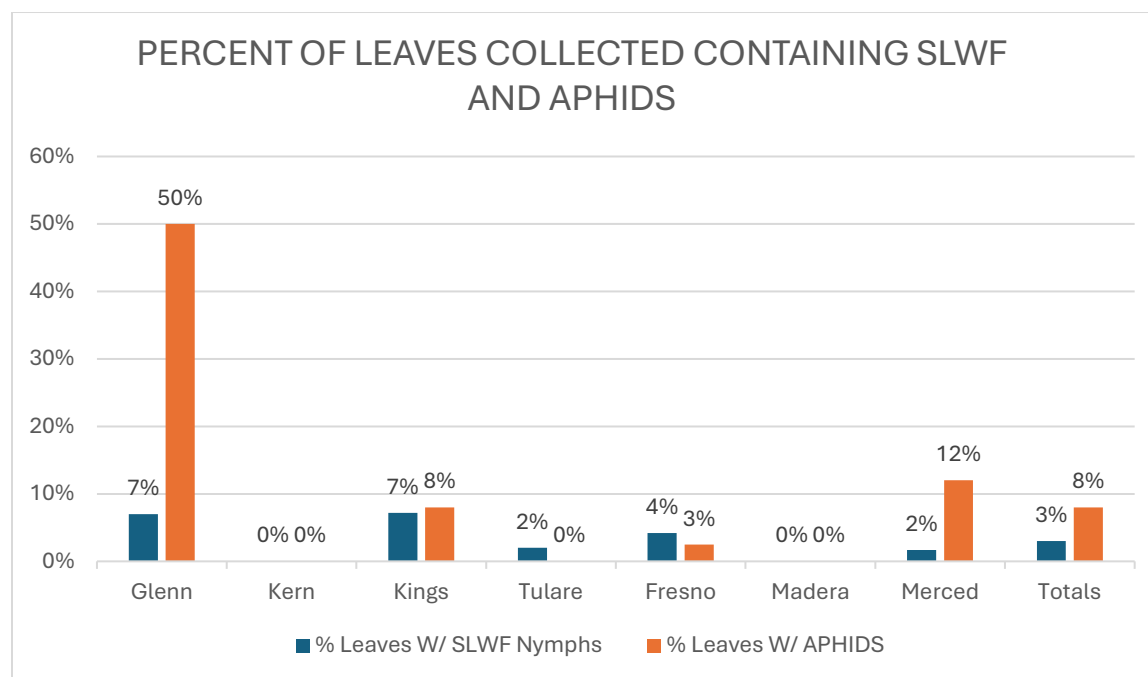


Table 3: Percent of total Sample Sites Containing Leaves with Other Pests and Pest Indicators

| <u>County</u> | <u>Other Whitefly</u> | <u>Mites</u> | <u>Armyworm</u> | <u>Honeydew</u> | <u>Sooty Mold</u> |
|----------------------|------------------------------|---------------------|------------------------|------------------------|--------------------------|
| Glenn | 33% | 67% | 0% | 33% | 0% |
| Kern | 0% | 55% | 0% | 0% | 0% |
| Kings | 0% | 24% | 4% | 12% | 4% |
| Tulare | 0% | 40% | 0% | 0% | 0% |
| Fresno | 0% | 38% | 0% | 8% | 8% |
| Madera | 0% | 0% | 0% | 0% | 0% |
| Merced | 0% | 33% | 9% | 28% | 7% |

Figure 2: Percent of Sample Sites Containing Leaves with Other Pests and Pest Indicators – 2025 Survey Total

