

Pink Bollworm Program

Silverleaf Whitefly Report

Sampling Period: 8/10/2020 – 8/21/2020

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Source: USDA-ARS

I. Introduction

The fourth round of sampling for the silverleaf whitefly (SLWF) surveys began on Monday, August 10, 2020. Program personnel collected samples from designated sites at 10 percent of all cotton fields in each county of the San Joaquin Valley. The Program has a total of 154 SLWF sampling sites with 12 sites in Kern County, 37 sites in Kings County, 11 sites in Tulare County, 40 sites in Fresno County, 2 sites in Madera County, and 52 sites in Merced County. At each site one leaf sample from 10 different cotton plants was collected for a total of 10 leaves per site.

II. Kern County

During the fourth round of sampling, 120 leaves were collected from 12 sites within Kern County.

A total of 23 leaves from eight sites contained SLWF nymphs:

- seven sites had leaves within the 1-5 nymphs/leaf range; and
- four sites had leaves within the 6-49 nymphs/leaf range (**Table 1**).

A total of 17 leaves from eight sites contained aphids:

- eight sites had leaves in the 1-5 aphids/leaf range; and
- one site had leaves in the 6-49 aphids/leaf range (**Table 2**).

None of the 12 sites had leaves with sooty mold, whereas one site had leaves with honeydew. None of the sites had leaves with mites, armyworm, or other whitefly species (**Table 3**).

III. Kings County

During the fourth round of sampling, 370 leaves were collected from 37 sites within Kings County.

A total of 18 leaves from twelve sites contained SLWF nymphs:

- twelve sites had leaves within the 1-5 nymphs/leaf range and
- three sites had leaves within the 6-49 nymphs/leaf range (**Table 1**).

A total of 44 leaves from 22 sites contained aphids:

- 22 sites had leaves in the 1-5 aphids/leaf range; and
- two sites had leaves in the 6-49 aphids/leaf range; and

- one site had leaves within the 50+ aphids/leaf range (**Table 2**).

None of the 37 sites had leaves with honeydew or sooty mold. Mites were found at one site, whereas armyworm or other whitefly species were not found on leaves at any of the 37 sites (**Table 3**).

IV. Tulare County

During the fourth round of sampling, 110 leaves were collected from 11 sites within Tulare County.

A total of two leaves from one site contained SLWF nymphs:

- one site had leaves within the 1-5 nymphs/leaf range (**Table 1**).

A total of ten leaves from six sites contained aphids:

- six sites had leaves in the 1-5 aphids/leaf range (**Table 2**).

None of the 11 sites had leaves with honeydew or sooty mold. None of the sites had leaves with mites, armyworm, or other whitefly species (**Table 3**).

V. Fresno County

During the fourth round of sampling, 400 leaves were collected from 40 sites within Fresno County.

One leaf from one site had leaves that contained SLWF nymphs (**Table 1**).

A total of 49 leaves from 13 sites contained aphids:

- 13 sites had leaves in the 1-5 aphids/leaf range;
- three sites had leaves in the 6-49 aphids/leaf range: and
- one site had leaves in the 50+ range (**Table 2**).

Of the 40 sites, 19 sites had leaves with honeydew and six of the 40 sites had sooty mold. Mites were found at three sites, whereas none of the sites had leaves with other whitefly species or armyworm (**Table 3**).

VI. Madera County

During the fourth round of sampling, 20 leaves were collected from two sites within Madera County.

Zero of the two sites had leaves that contained SLWF nymphs (**Table 1**) and zero of the two sites had leaves that contained aphids (**Table 2**).

One site had leaves with honeydew and one site had leaves with sooty mold. None of the sites had leaves with mites, armyworm, or other whitefly species (**Table 3**).

VII. Merced County

During the fourth round of sampling, 520 leaves were collected from 52 sites within Merced County.

Six leaves from two sites contained SLWF nymphs:

- The two sites had leaves within the 1-5 nymphs/leaf range (**Table 1**).

A total of 63 leaves from 21 sites contained aphids:

- 20 sites had leaves in the 1-5 aphids/leaf range and
- five sites had leaves in the 6-49 aphids/leaf range (**Table 2**).

16 of the 52 sites had leaves with honeydew and five of the 52 sites had leaves with sooty mold. Mites were found at two sites and armyworm was found at one site, whereas none of the sites had leaves with other whitefly species (**Table 3**).

VIII. Tables and Graphs

Table 1: SLWF Leaf Count for the Sampling Period

<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>		
Kern	12	97	17	6	0	120	19%
Kings	37	352	15	3	0	370	5%
Tulare	11	108	2	0	0	110	2%
Fresno	40	399	1	0	0	400	0%
Madera	2	20	0	0	0	20	0%
Merced	52	514	6	0	0	520	1%
Totals	154	1490	41	9	0	1540	2%

Table 2: Aphids Leaf Count for the Sampling Period

<u>County</u>	<u>Sample Sites</u>	<u>No. Leaves in Each Range of Aphids Per Leaf</u>				<u># Leaves</u>	<u>% Leaves w/ aphids</u>
		<u>0</u>	<u>1 - 5</u>	<u>6 - 49</u>	<u>50+</u>		
Kern	12	103	15	2	0	120	14%
Kings	37	326	33	9	2	370	12%
Tulare	11	100	10	0	0	110	9%
Fresno	40	351	31	17	1	400	12%
Madera	2	20	0	0	0	20	0%
Merced	52	457	54	9	0	520	12%
Totals	154	1,357	143	37	3	1,540	12%

Figure 1: Percent of Leaves Collected with SLWF and Aphids for Sampling Period

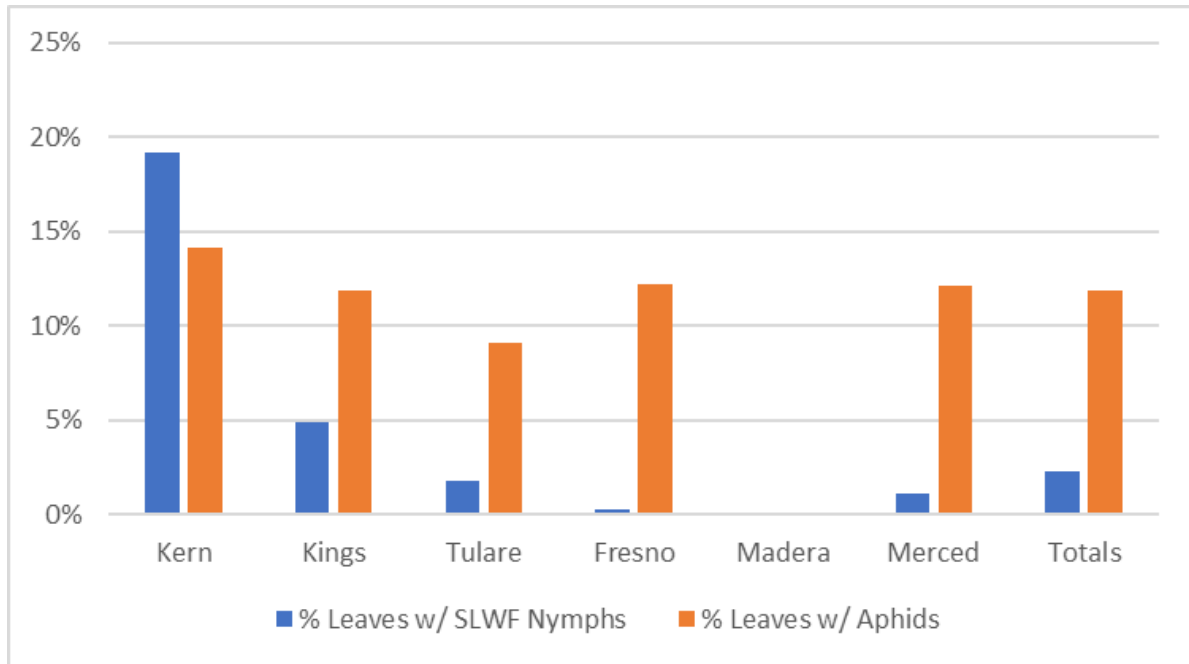


Table 3: Percent of Sample Sites Containing Leaves with Other Pests

<u>County</u>	<u>Other Whitefly</u>	<u>Mites</u>	<u>Armyworm</u>	<u>Honeydew</u>	<u>Sooty Mold</u>
Kern	0%	0%	0%	8%	0%
Kings	0%	3%	0%	0%	0%
Tulare	0%	0%	0%	0%	0%
Fresno	0%	8%	0%	48%	15%
Madera	0%	0%	0%	50%	50%
Merced	0%	4%	2%	31%	10%

Figure 2: Percent of Sample Sites Containing Leaves with Other Pests

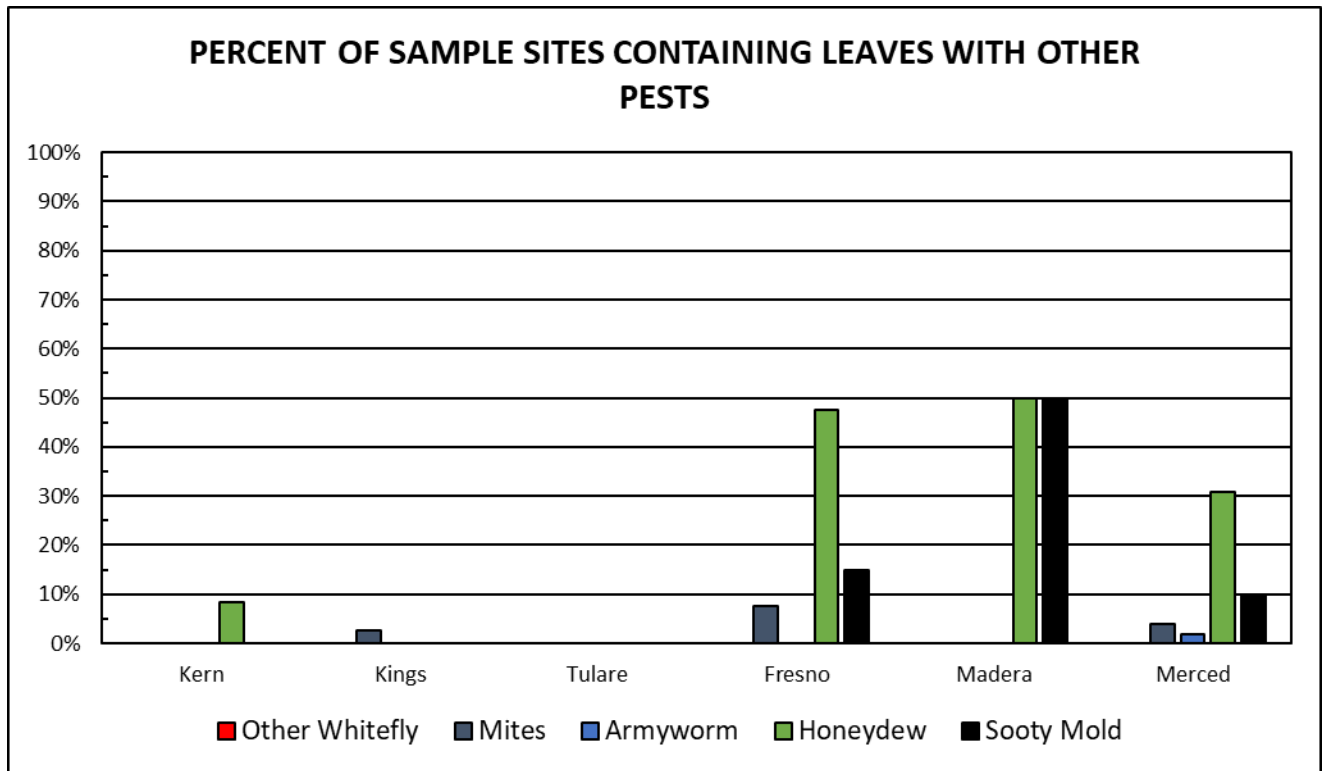


Figure 3: Percent of Leaves Containing SLWF and Aphids in Kern County

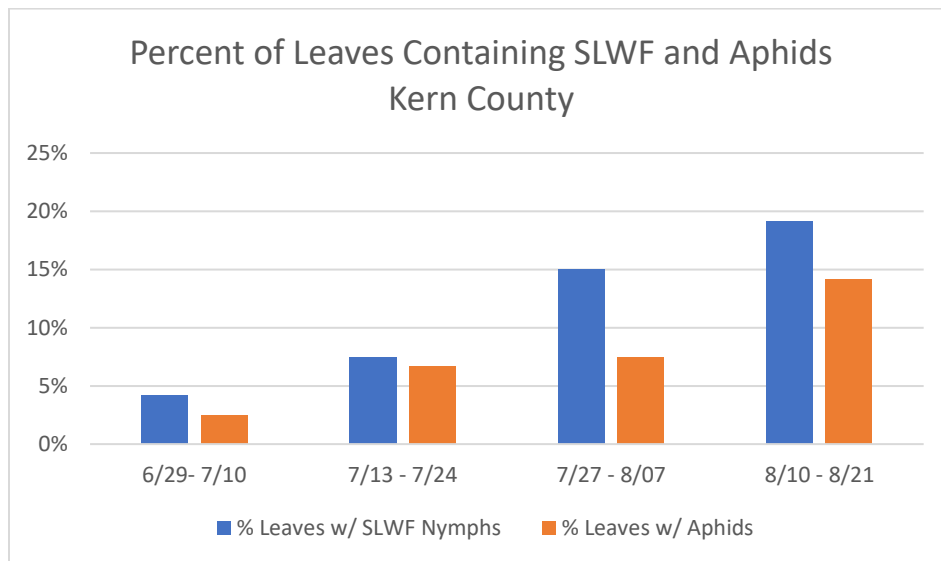


Figure 4: Percent of Leaves Containing SLWF and Aphids in Tulare County

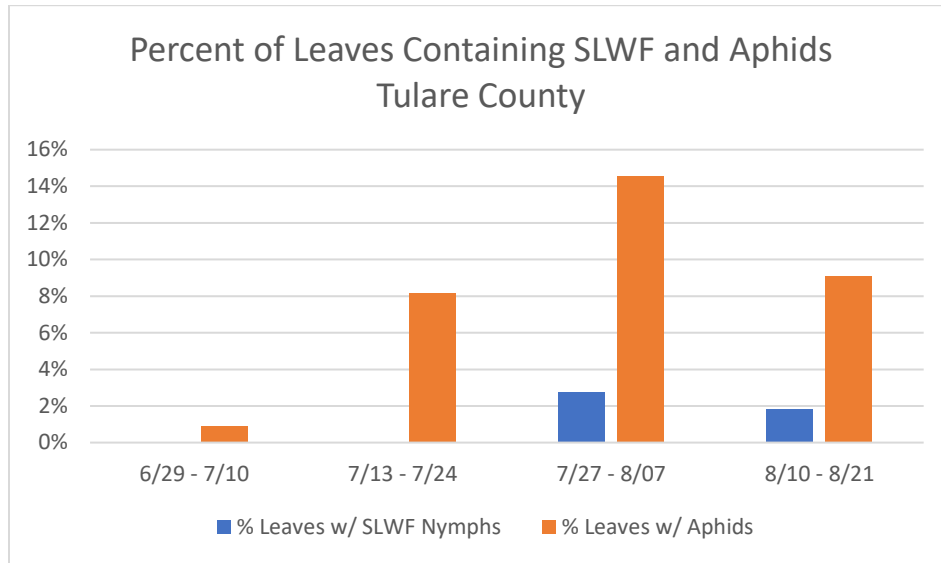


Figure 5: Percent of Leaves Containing SLWF and Aphids in Kings County

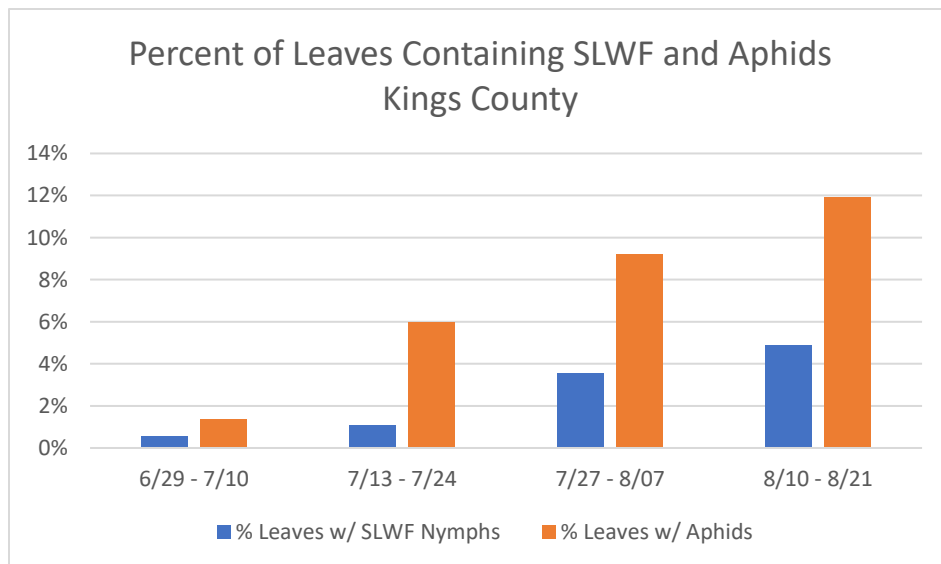


Figure 6: Percent of Leaves Containing SLWF and Aphids in Fresno County

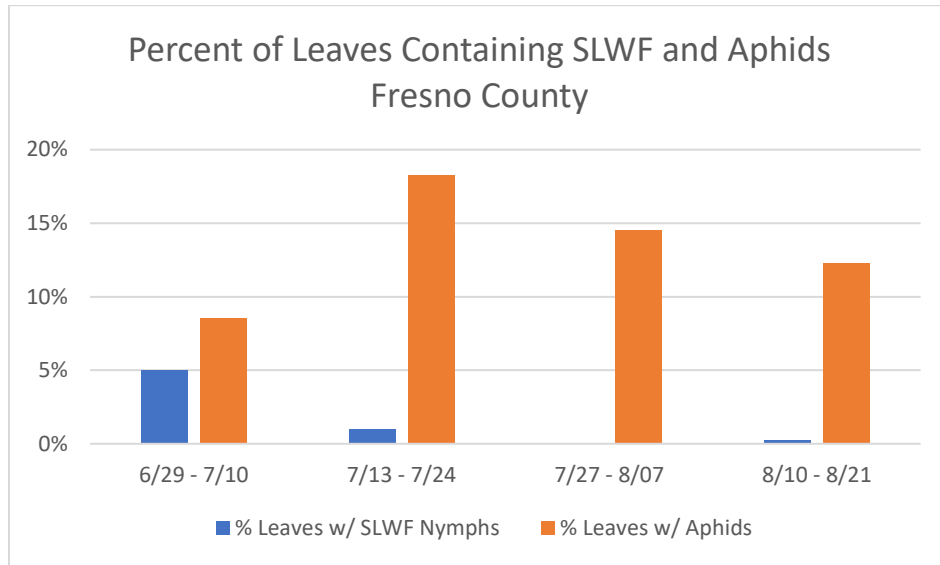


Figure 7: Percent of Leaves Containing SLWF and Aphids in Madera County

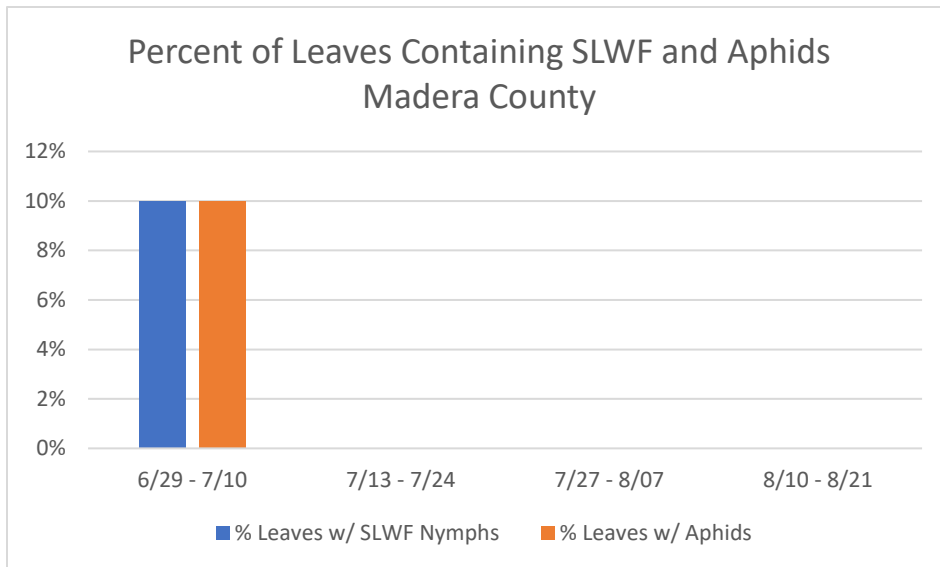


Figure 8: Percent of Leaves Containing SLWF and Aphids in Merced County

