

# **Pink Bollworm Program**

## **Silverleaf Whitefly Report**

**Sampling Period: 8/24/2020 – 9/04/2020**

**Prepared By: Emily Schoenborn**



*Source: USDA-ARS*

## I. Introduction

The fifth round of sampling for the silverleaf whitefly (SLWF) surveys began on Monday, August 24, 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 fifth round of sampling, 120 leaves were collected from 12 sites within Kern County.

A total of 22 leaves from eight sites contained SLWF nymphs:

- eight sites had leaves within the 1-5 nymphs/leaf range;
- two sites had leaves within the 6-49 nymphs/leaf range; and
- one site had leaves within the 50+ nymphs/leaf range (**Table 1**).

A total of 12 leaves from nine sites contained aphids:

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

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

## III. Kings County

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

A total of 46 leaves from 17 sites contained SLWF nymphs:

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

A total of 87 leaves from 33 sites contained aphids:

- 33 sites had leaves in the 1-5 aphids/leaf range and

- ten sites had leaves in the 6-49 aphids/leaf range (**Table 2**).

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

#### **IV. Tulare County**

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

A total of 17 leaves from seven sites contained SLWF nymphs:

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

A total of 36 leaves from ten sites contained aphids:

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

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

#### **V. Fresno County**

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

A total of 67 leaves from 17 sites contained SLWF nymphs:

- 16 sites had leaves in the 1-5 nymphs/leaf range;
- two sites had leaves in the 6-49 nymphs/leaf range; and
- one site had leaves in the 50+ range (**Table 1**).

A total of 73 leaves from 15 sites contained aphids:

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

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

## **VI. Madera County**

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

One leaf from one site contained SLWF nymphs:

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

Zero of the two sites had leaves that contained aphids (**Table 2**).

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

## **VII. Merced County**

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

A total of 35 leaves from nine sites contained SLWF nymphs:

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

A total of 92 leaves from 29 sites contained aphids:

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

None of the 52 sites had leaves with honeydew or sooty mold. None of the 52 sites had leaves with mites, armyworm, or 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>		
<b>Kern</b>	12	98	15	6	1	120	18%
<b>Kings</b>	37	324	36	10	0	370	12%
<b>Tulare</b>	11	93	15	2	0	110	15%
<b>Fresno</b>	40	333	54	12	1	400	17%
<b>Madera</b>	2	19	1	0	0	20	5%
<b>Merced</b>	52	485	30	5	0	520	7%
<b>Totals</b>	<b>154</b>	1352	151	35	2	1540	12%

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>		
<b>Kern</b>	12	108	11	1	0	120	10%
<b>Kings</b>	37	283	67	20	0	370	24%
<b>Tulare</b>	11	74	27	8	1	110	33%
<b>Fresno</b>	40	327	43	30	0	400	18%
<b>Madera</b>	2	20	0	0	0	20	0%
<b>Merced</b>	52	428	87	5	0	520	18%
<b>Totals</b>	<b>154</b>	1,240	235	64	1	1,540	19%

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

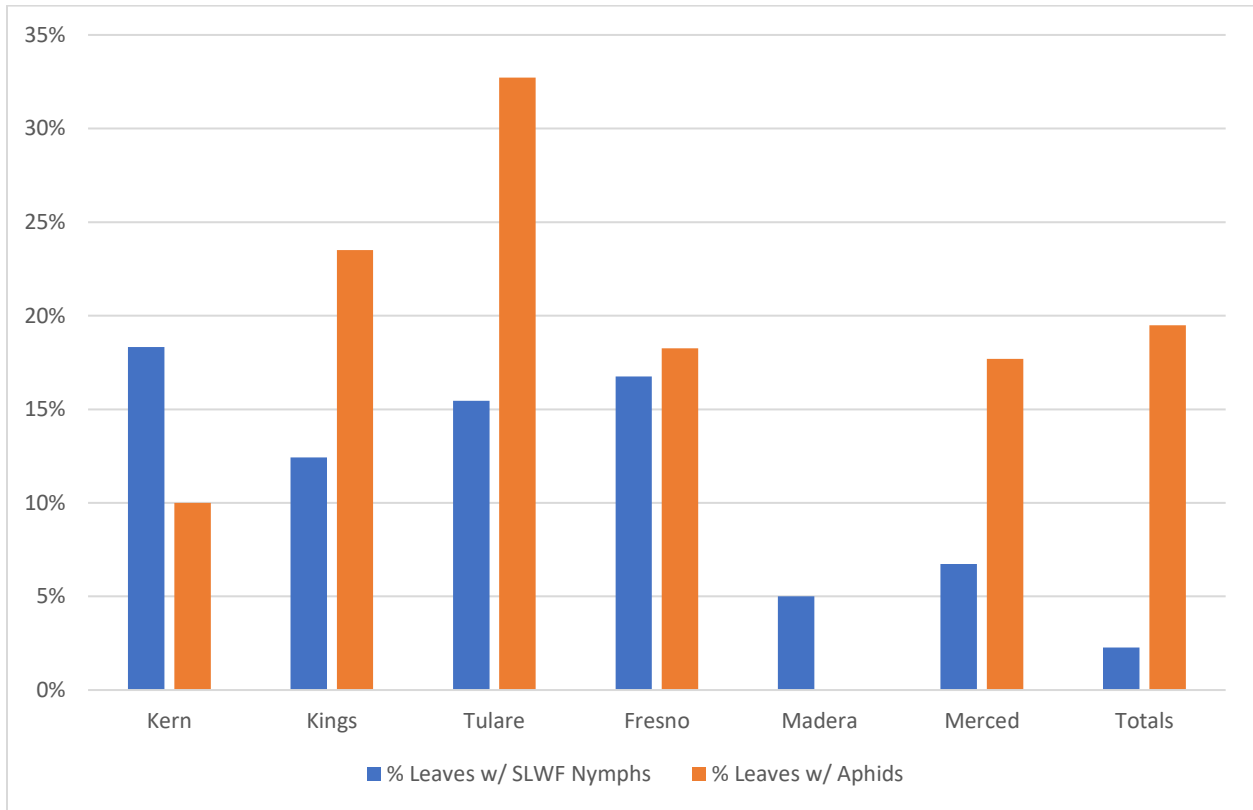


Table 3: Percent of Sample Sites Containing Leaves with Other Pests

<u>County</u>	<u>Other Whitefly</u>	<u>Mites</u>	<u>Armyworm</u>	<u>Honeydew</u>	<u>Sooty Mold</u>
<b>Kern</b>	0%	8%	0%	0%	8%
<b>Kings</b>	0%	5%	0%	3%	0%
<b>Tulare</b>	0%	0%	0%	9%	0%
<b>Fresno</b>	0%	5%	0%	0%	0%
<b>Madera</b>	0%	0%	0%	0%	0%
<b>Merced</b>	0%	0%	0%	0%	0%

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

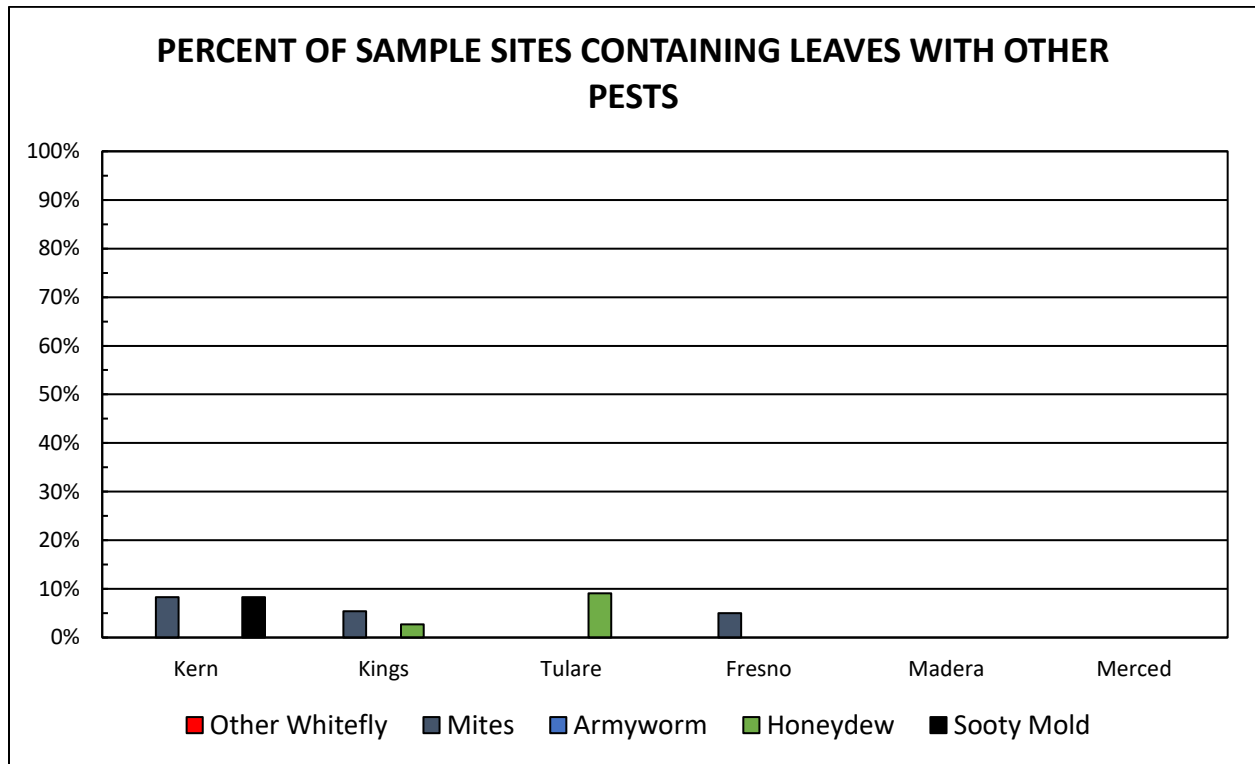


Figure 3: Percent of Leaves Containing SLWF and Aphids in Kern County

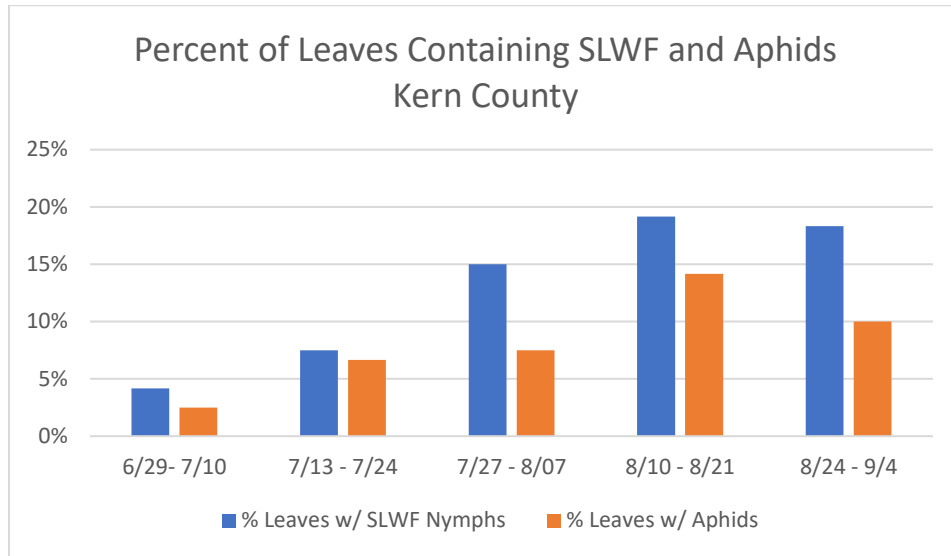


Figure 4: Percent of Leaves Containing SLWF and Aphids in Tulare County

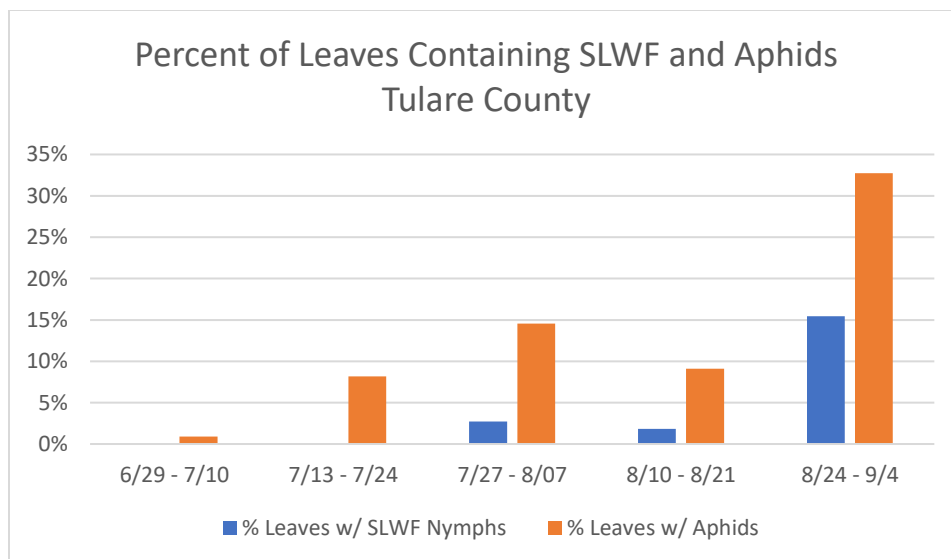




Figure 5: Percent of Leaves Containing SLWF and Aphids in Kings County

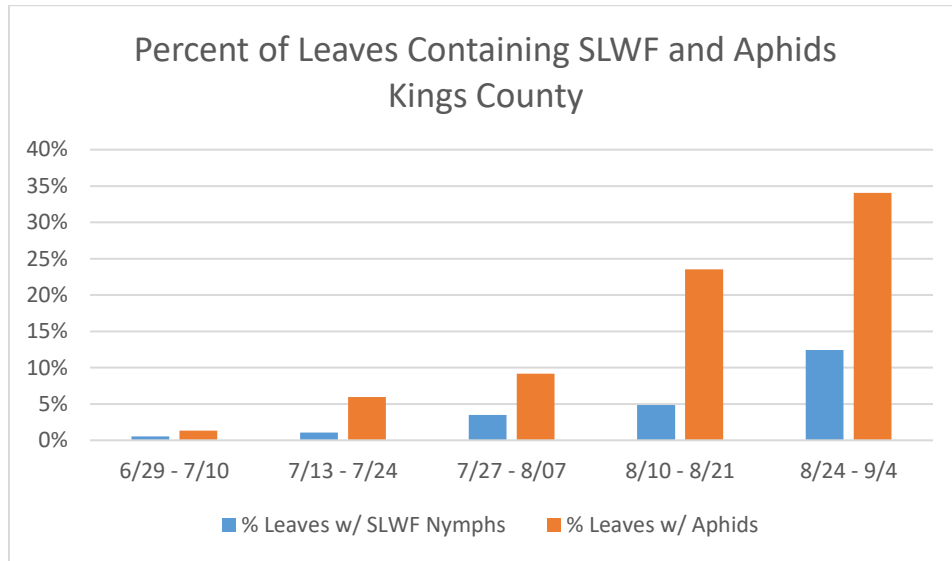


Figure 6: Percent of Leaves Containing SLWF and Aphids in Fresno County

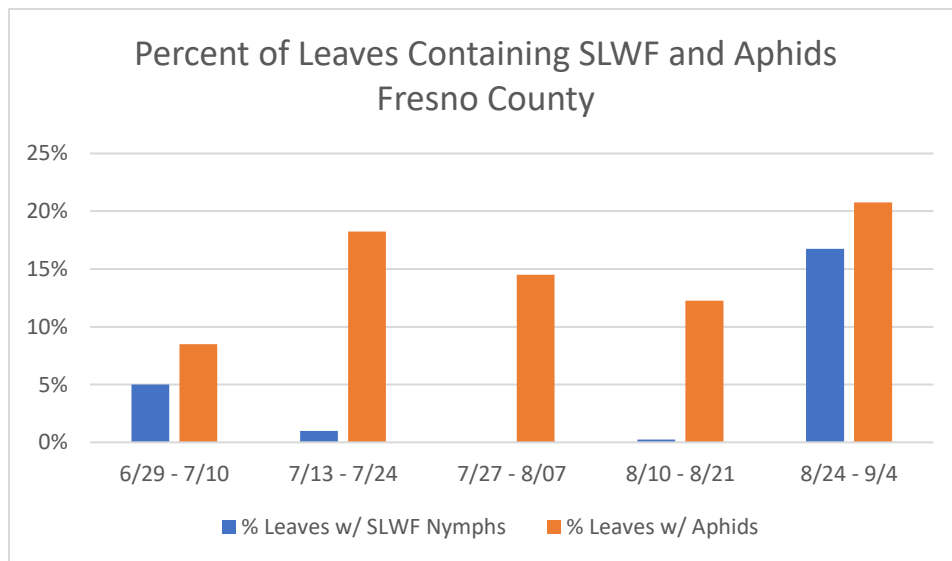


Figure 7: Percent of Leaves Containing SLWF and Aphids in Madera County

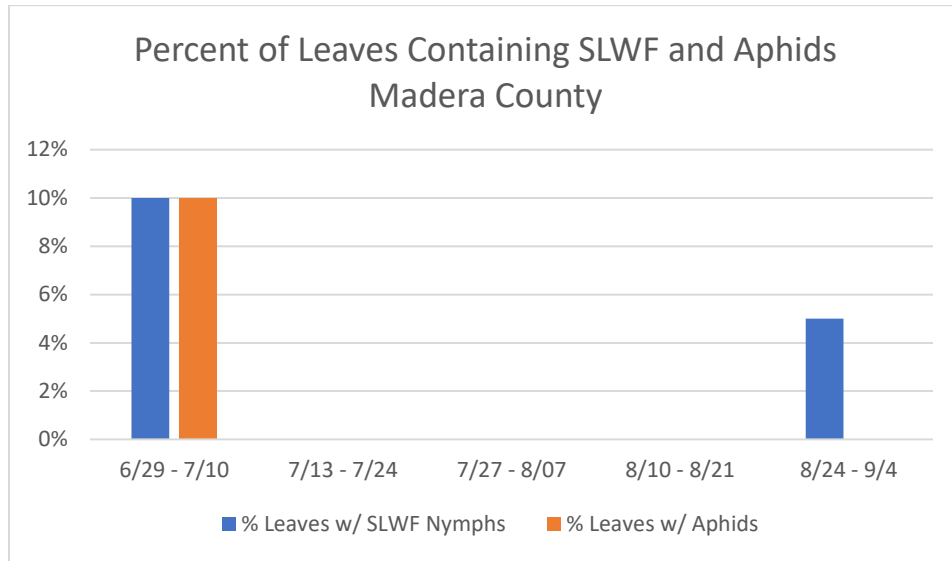


Figure 8: Percent of Leaves Containing SLWF and Aphids in Merced County

