

Pink Bollworm Program

Silverleaf Whitefly Report

Sampling Period: 9/07/2020 – 9/18/2020

Prepared By: Emily Schoenborn



Source: USDA-ARS

I. Introduction

The sixth round of sampling for the silverleaf whitefly (SLWF) surveys began on Monday, September 7, 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 sixth round of sampling, 120 leaves were collected from 12 sites within Kern County.

A total of 19 leaves from ten sites contained SLWF nymphs:

- ten 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 23 leaves from eleven sites contained aphids:

- eleven sites had leaves within the 1-5 aphids/leaf range;
- four sites had leaves within the 6-49 aphids/leaf range (**Table 2**).

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

III. Kings County

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

A total of 53 leaves from 19 sites contained SLWF nymphs:

- 19 sites had leaves within the 1-5 nymphs/leaf range;
- seven sites had leaves within the 6-49 nymphs/leaf range; and
- four sites had leaves within the 50+ nymphs/leaf range (**Table 1**).

A total of 97 leaves from 34 sites contained aphids:

- 33 sites had leaves within the 1-5 aphids/leaf range;
- 14 sites had leaves within the 6-49 aphids/leaf range; and
- two sites had leaves within the 50+ aphids/leaf range (**Table 2**).

One of the 37 sites had leaves with sooty mold, whereas none of the sites had leaves with honeydew. One of the sites had leaves with armyworm, whereas none of the sites had leaves with mites or other whitefly species (**Table 3**).

IV. Tulare County

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

A total of 21 leaves from nine site contained SLWF nymphs:

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

A total of 37 leaves from eleven sites contained aphids:

- eleven sites had leaves within the 1-5 aphids/leaf range;
- six sites had leaves within the 6-49 aphids/leaf range; and
- two site had leaves within the 50+ 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 sixth round of sampling, 400 leaves were collected from 40 sites within Fresno County.

A total of 93 leaves from 23 site contained SLWF nymphs:

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

A total of 119 leaves from 29 sites contained aphids:

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

One of the 40 sites had leaves with honeydew, whereas none of the sites had leaves with sooty mold. None of the sites had leaves with mites, other whitefly species, or armyworm (**Table 3**).

VI. Madera County

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

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

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

A total of nine leaves from one site had leaves that contained aphids:

- one site had leaves within the 1-5 aphids/leaf range; and
- one site had leaves within the 6-49 aphids/leaf range (**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 sixth round of sampling, 520 leaves were collected from 52 sites within Merced County.

A total of 62 leaves from 19 sites contained SLWF nymphs:

- 18 sites had leaves within the 1-5 nymphs/leaf range;
- 7 sites had leaves within the 6-49 nymphs/leaf range; and
- Two sites had leaves within the 50+ range (**Table 1**).

A total of 162 leaves from 34 sites contained aphids:

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

None of the 52 sites had leaves with honeydew or sooty mold. One of the 52 sites had leaves with mites and armyworm, 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	101	15	2	2	120	16%
Kings	37	317	34	15	4	370	14%
Tulare	11	89	20	1	0	110	19%
Fresno	40	307	57	35	1	400	23%
Madera	2	12	8	0	0	20	40%
Merced	52	458	41	17	4	520	12%
Totals	154	1284	175	70	11	1540	17%

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	97	18	5	0	120	19%
Kings	37	273	66	23	8	370	26%
Tulare	11	73	20	13	4	110	34%
Fresno	40	281	86	23	10	400	30%
Madera	2	11	8	1	0	20	45%
Merced	52	357	103	56	3	519	31%
Totals	154	1,092	301	121	25	1,539	29%

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

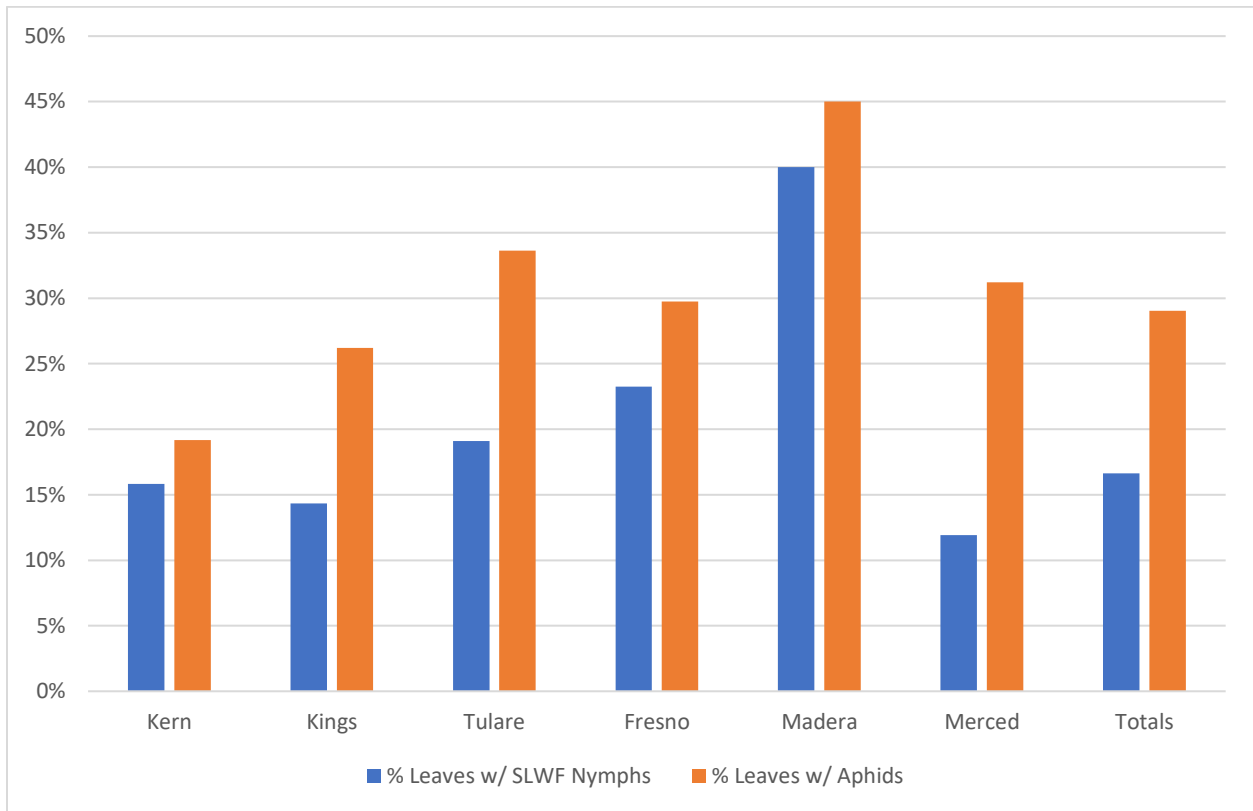


Figure 2: Comparison of Present and Past Years' Sixth Round of Sampling: Percent of Leaves Collected Containing SLWF

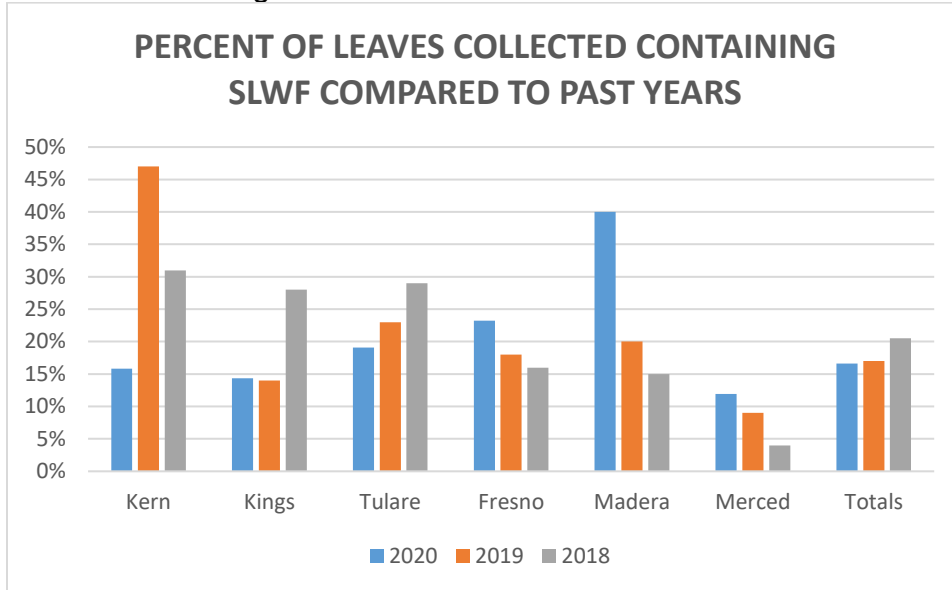


Figure 3: Comparison of Present and Past Years' Sixth Round of Sampling: Percent of Leaves Collected Containing Aphids

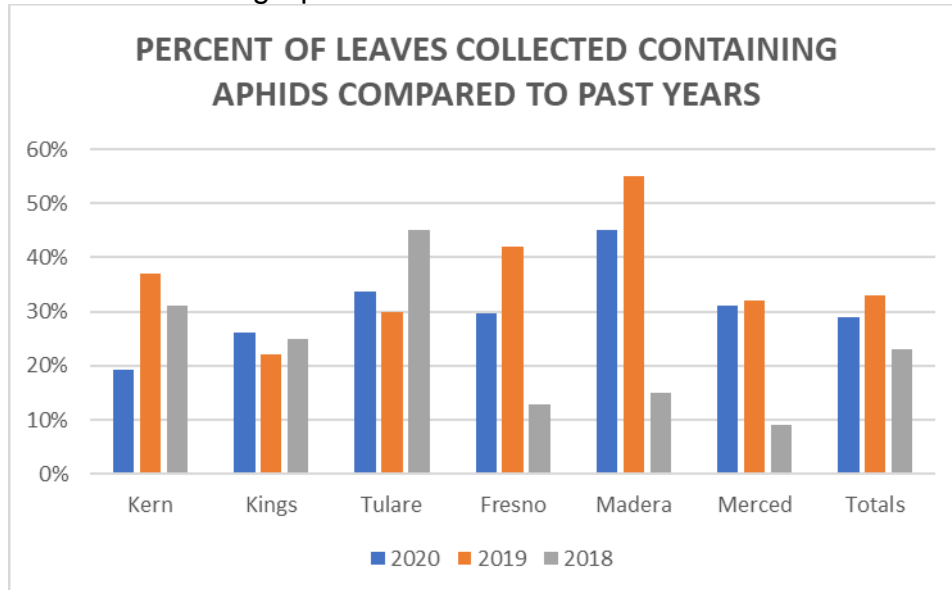


Table 3: Percent of Sample Sites Containing Leaves with Other Pests

<u>County</u>	<u>Other Whitefly</u>	<u>Mites</u>	<u>Armyworm</u>	<u>Honeydew</u>	<u>Sooty Mold</u>
Kern	0%	0%	8%	0%	0%
Kings	0%	0%	3%	0%	3%
Tulare	0%	0%	0%	0%	0%
Fresno	0%	0%	0%	3%	0%
Madera	0%	0%	0%	0%	0%
Merced	0%	2%	2%	0%	0%

Figure 4: Percent of Sample Sites Containing Leaves with Other Pests

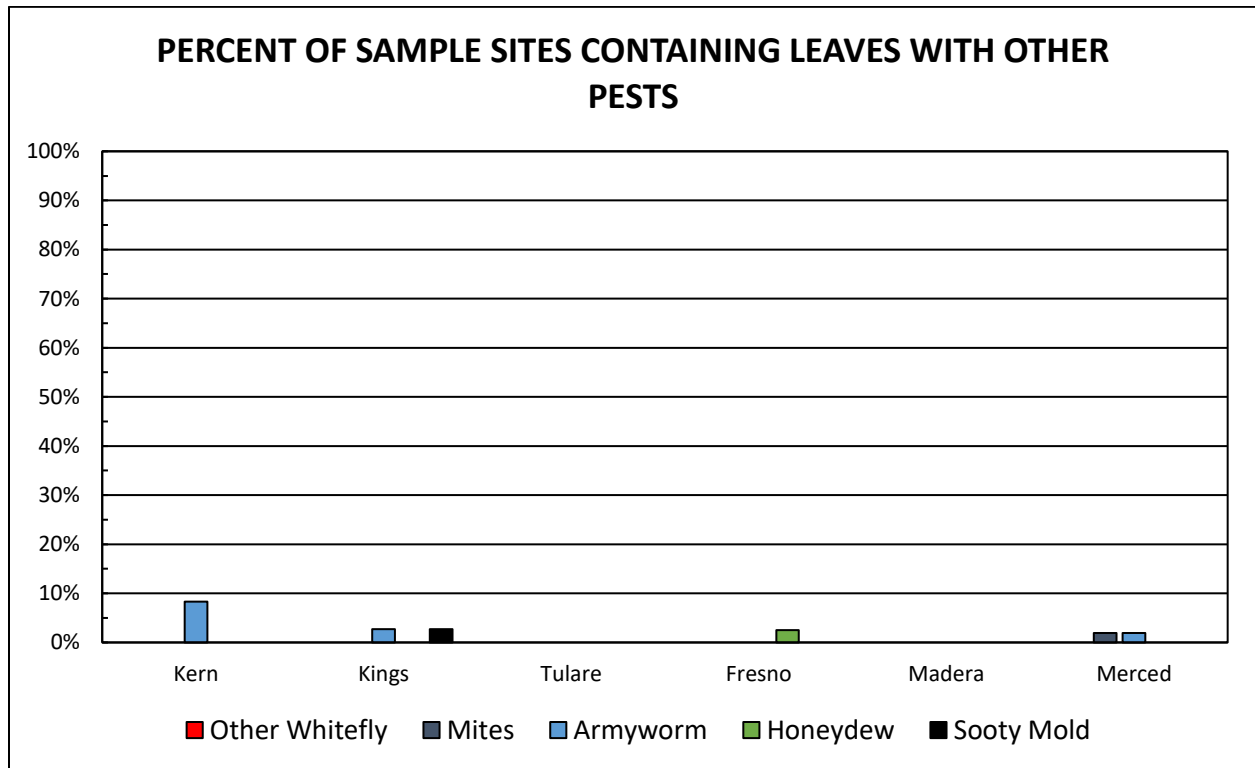


Figure 5: Percent of Leaves Containing SLWF and Aphids in Kern County

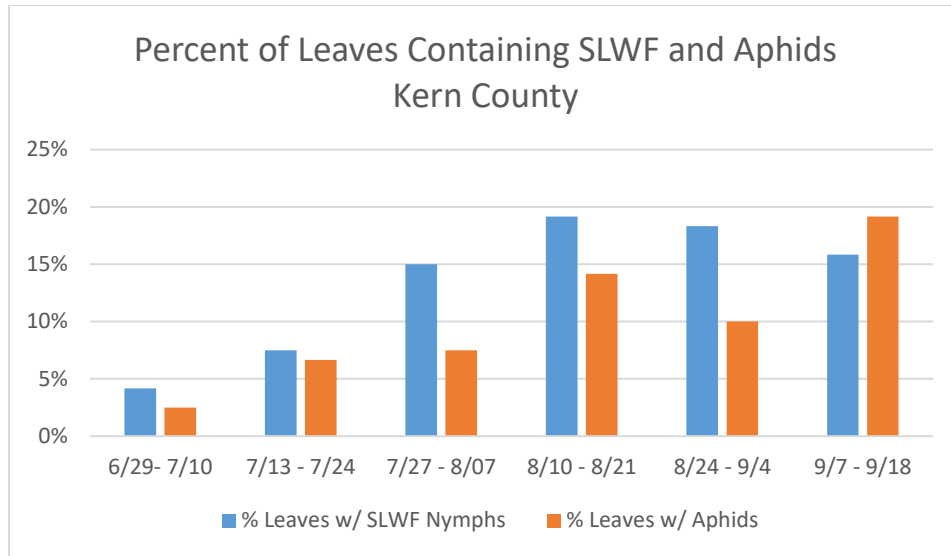


Figure 6: Percent of Leaves Containing SLWF and Aphids in Tulare County

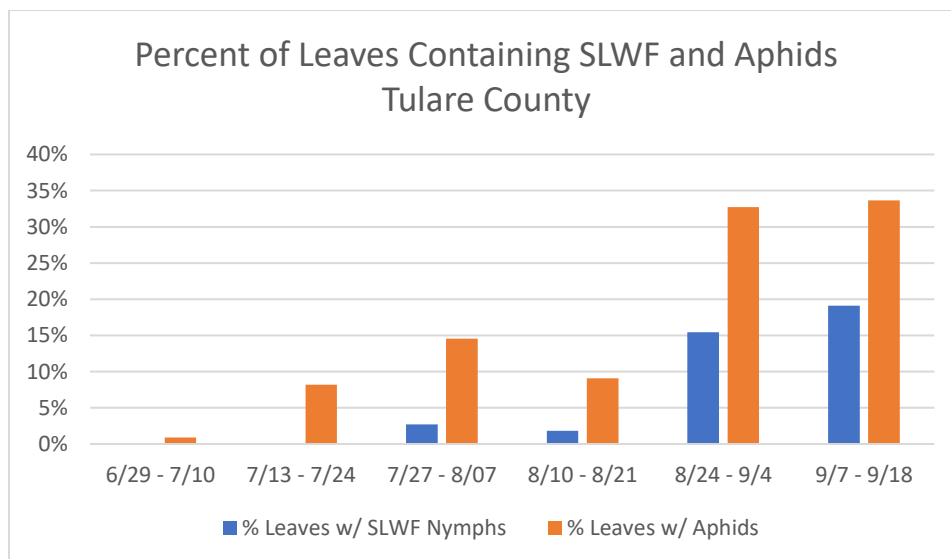


Figure 7: Percent of Leaves Containing SLWF and Aphids in Kings County

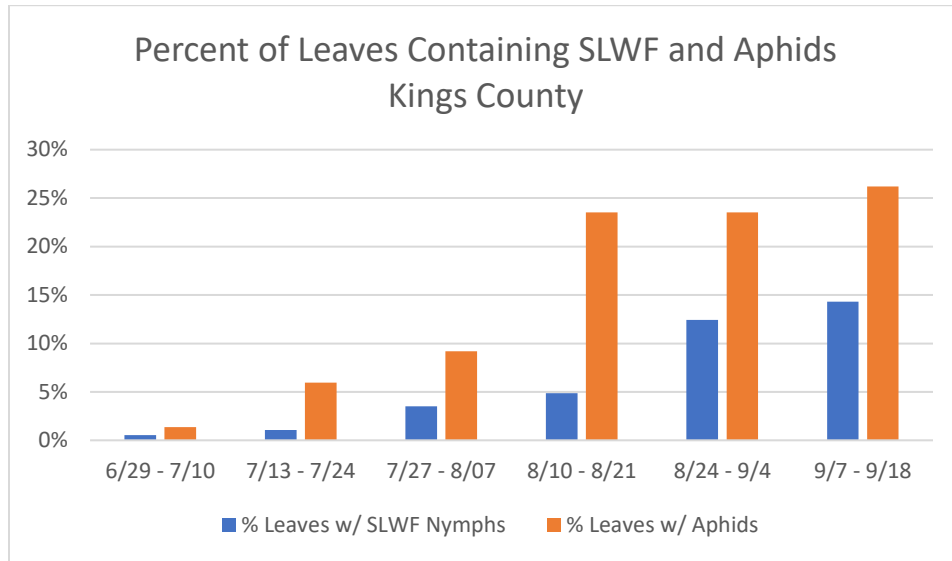


Figure 8: Percent of Leaves Containing SLWF and Aphids in Fresno County

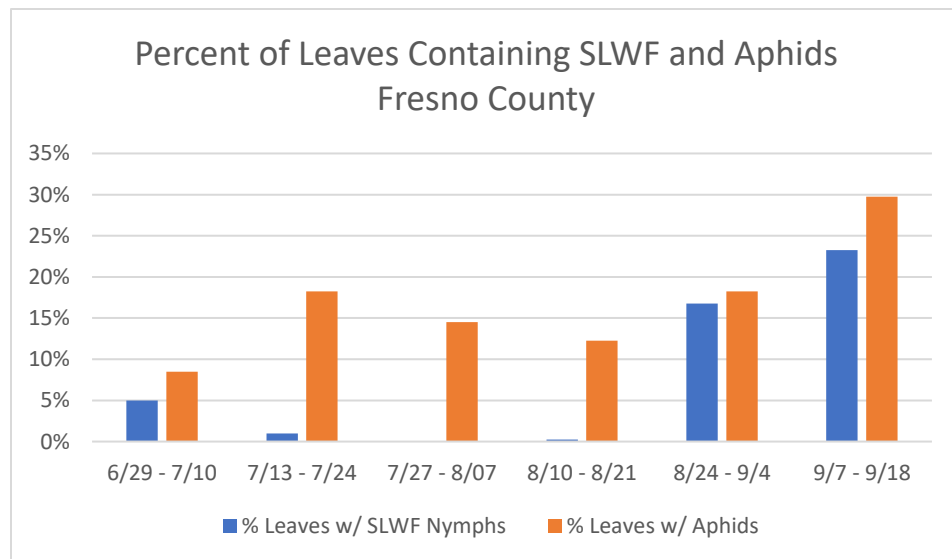


Figure 9: Percent of Leaves Containing SLWF and Aphids in Madera County

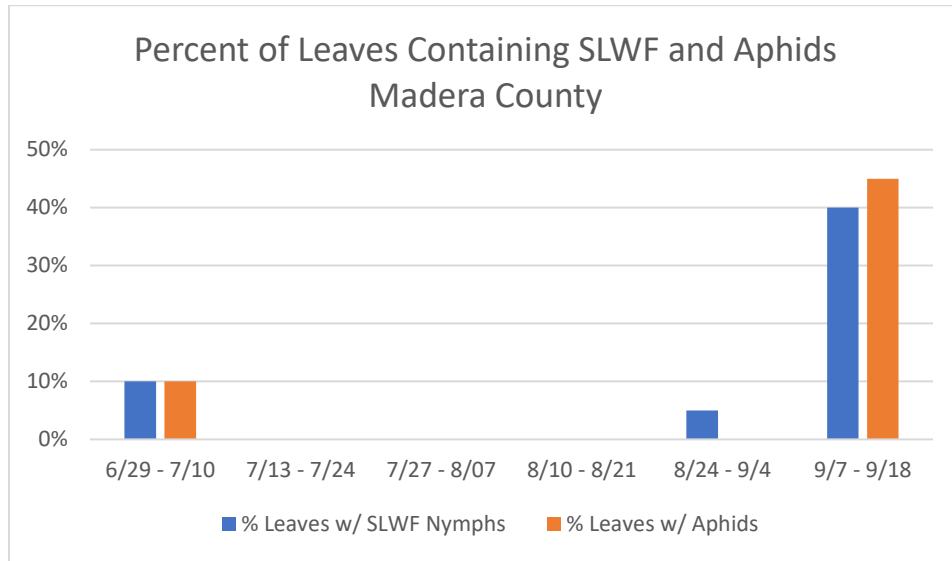


Figure 10: Percent of Leaves Containing SLWF and Aphids in Merced County

