

Pink Bollworm Program

Silverleaf Whitefly Report

Sampling Period: 9/21/2020 – 10/02/2020

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Source: USDA-ARS

I. Introduction

The seventh round of sampling for the silverleaf whitefly (SLWF) surveys began on Monday, September 21, 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 seventh round of sampling, 120 leaves were collected from 12 sites within Kern County.

A total of 25 leaves from twelve sites contained SLWF nymphs:

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

A total of 28 leaves from twelve sites contained aphids:

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

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

III. Kings County

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

A total of 63 leaves from 32 sites contained SLWF nymphs:

- 31 sites had leaves within the 1-5 nymphs/leaf range;
- 13 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 96 leaves from 36 sites contained aphids:

- 35 sites had leaves within the 1-5 aphids/leaf range;

- 19 sites had leaves within the 6-49 aphids/leaf range; and
- four sites had leaves within the 50+ aphids/leaf range (**Table 2**).

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

IV. Tulare County

During the seventh round of sampling, 100 leaves were collected from ten sites within Tulare County. Leaves were not collected at one site due to defoliation and therefore, only 100 leaves were collected during the seventh round of sampling rather than the 110 leaves that were collected during previous rounds of sampling.

A total of 26 leaves from eight sites contained SLWF nymphs:

- eight sites had leaves within the 1-5 nymphs/leaf range;
- five 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 50 leaves from nine sites contained aphids:

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

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

V. Fresno County

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

A total of 117 leaves from 22 site contained SLWF nymphs:

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

A total of 65 leaves from 14 sites contained aphids:

- twelve sites had leaves within the 1-5 aphids/leaf range;

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

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

VI. Madera County

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

A total of four leaves from two sites contained SLWF nymphs:

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

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

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

VII. Merced County

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

A total of 122 leaves from 29 sites contained SLWF nymphs:

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

A total of 153 leaves from 35 sites contained aphids:

- 35 sites had leaves within the 1-5 aphids/leaf range; and
- ten sites had leaves within 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>		
Kern	12	95	15	8	2	120	21%
Kings	37	307	46	15	2	370	17%
Tulare	10	74	19	6	1	100	26%
Fresno	40	283	62	33	22	400	29%
Madera	2	16	3	1	0	20	20%
Merced	52	398	79	20	23	520	23%
Totals	153	1173	224	83	50	1530	23%

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	92	19	9	0	120	23%
Kings	37	274	63	27	6	370	26%
Tulare	10	50	25	17	8	100	50%
Fresno	40	335	37	18	10	400	16%
Madera	2	20	0	0	0	20	0%
Merced	52	367	117	36	0	520	29%
Totals	153	1,138	261	107	24	1,530	26%

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

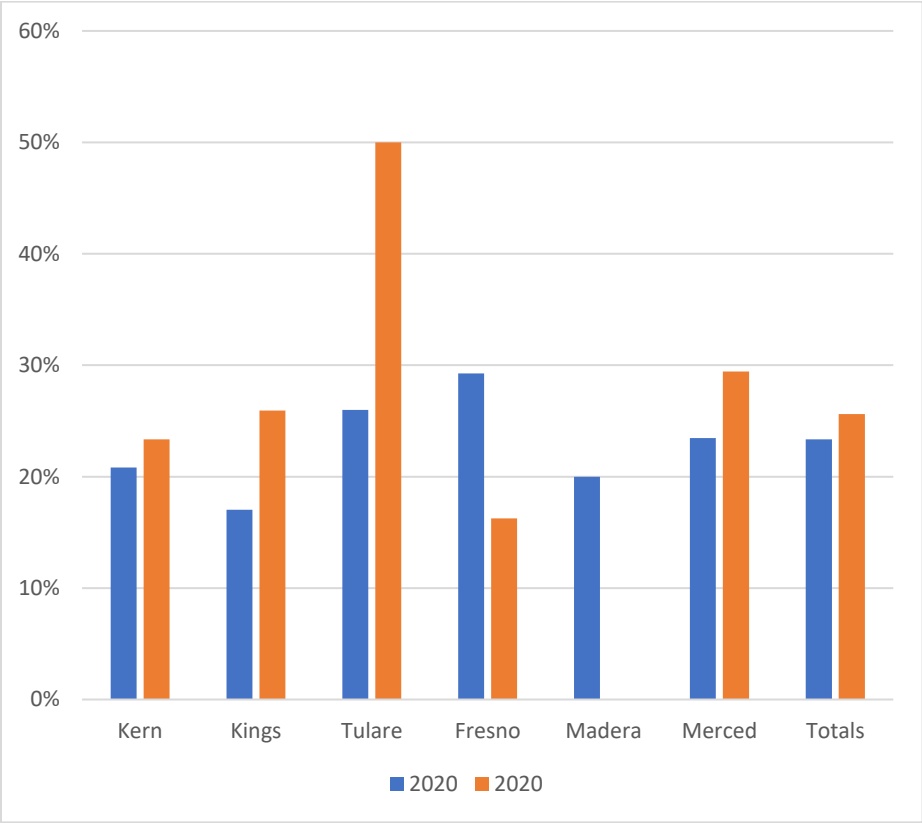


Figure 2: Comparison of Present and Past Years' Seventh Round of Sampling: Percent of Leaves Collected Containing SLWF

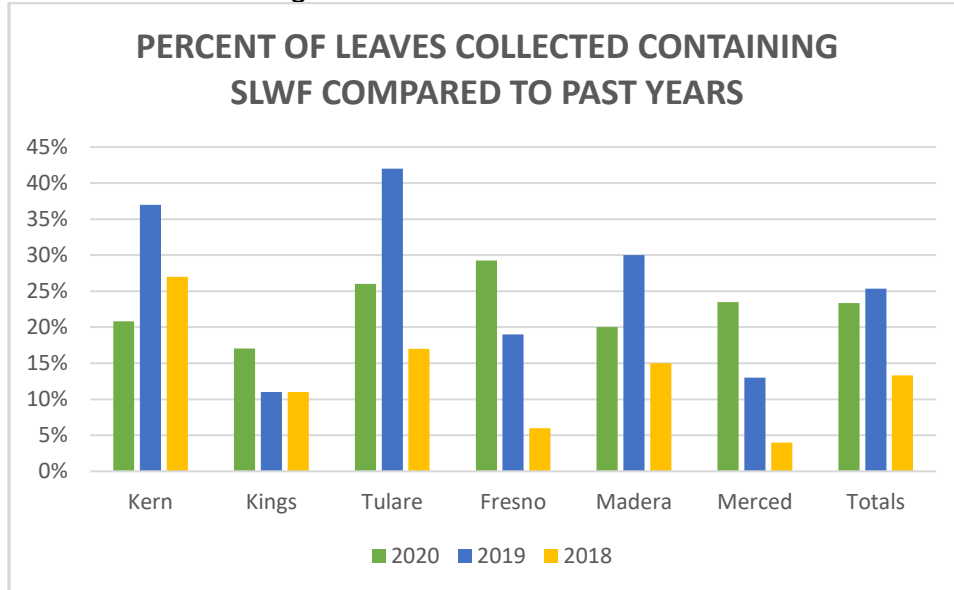


Figure 3: Comparison of Present and Past Years' Seventh Round of Sampling: Percent of Leaves Collected Containing Aphids

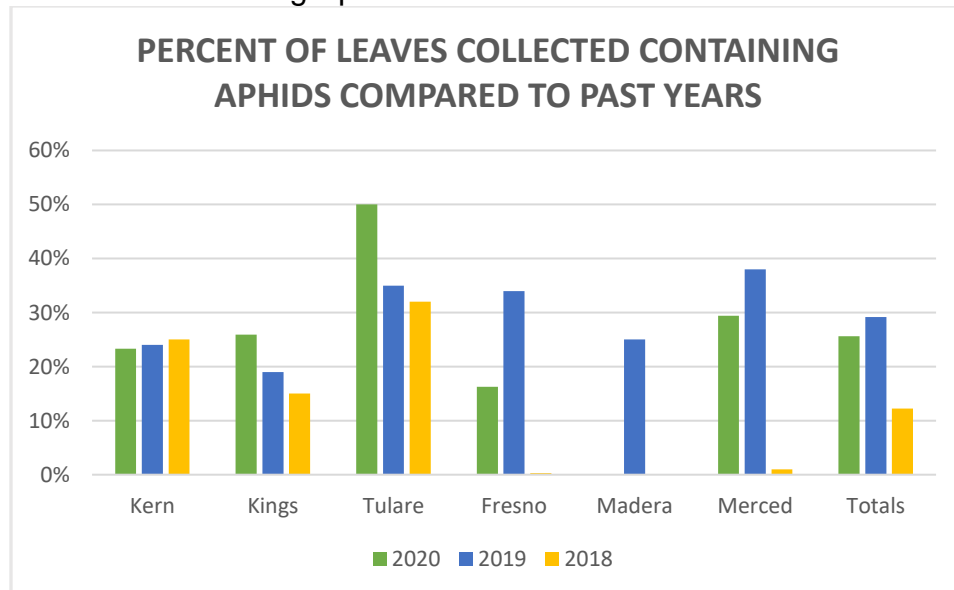


Table 3: Percent of Sample Sites Containing Leaves with Other Pests

<u>County</u>	<u>Other Whitefly</u>	<u>Mites</u>	<u>Armyworm</u>	<u>Honeydew</u>	<u>Sooty Mold</u>
Kern	0%	0%	0%	0%	0%
Kings	0%	0%	0%	0%	0%
Tulare	0%	0%	0%	0%	36%
Fresno	0%	0%	0%	0%	0%
Madera	0%	0%	0%	0%	0%
Merced	0%	0%	0%	0%	0%

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

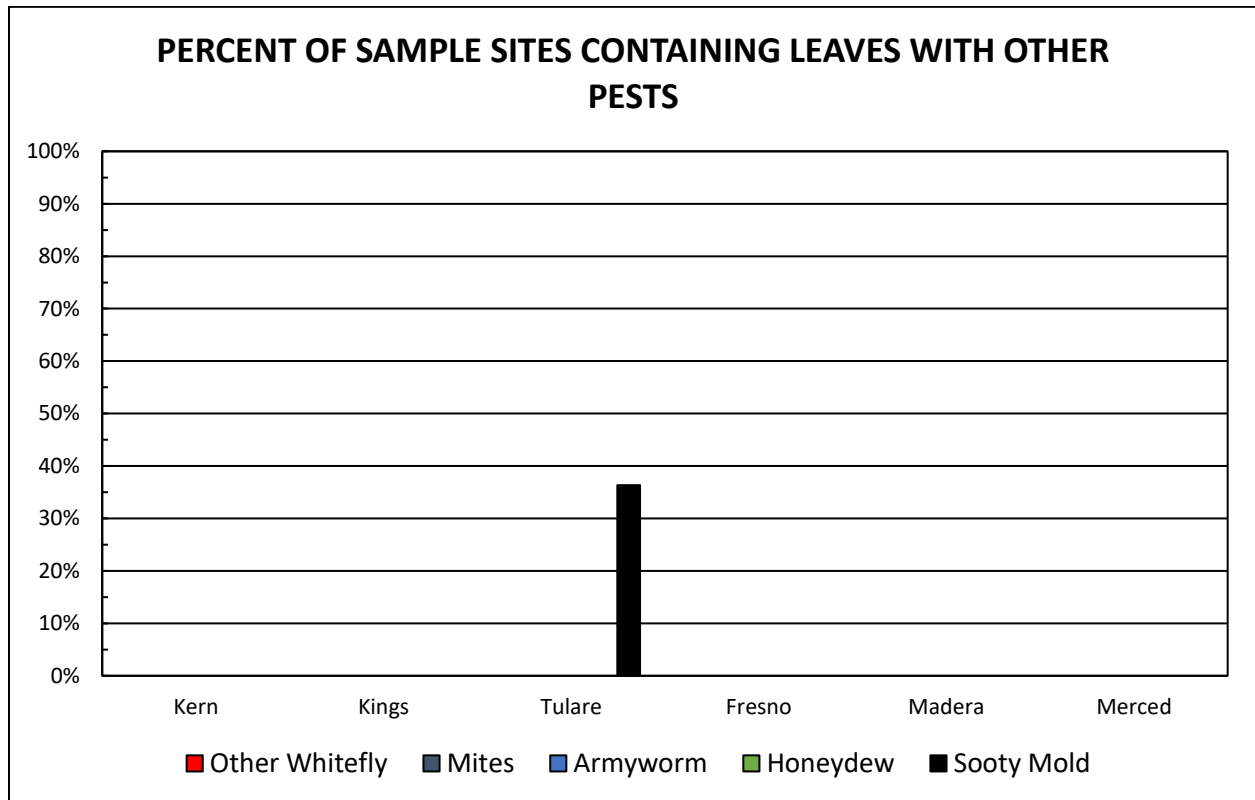


Figure 5: Percent of Leaves Containing SLWF and Aphids in Kern County

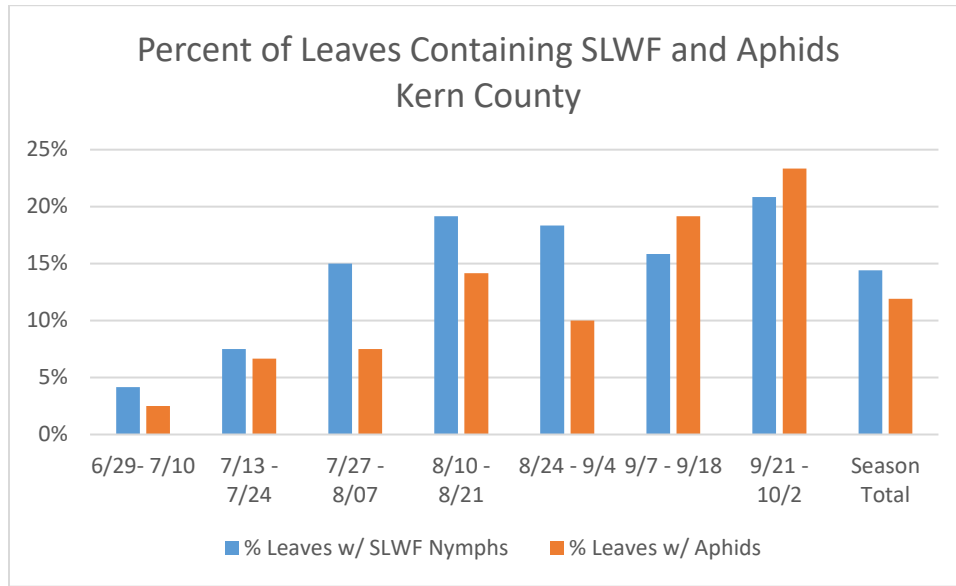


Figure 6: Percent of Leaves Containing SLWF and Aphids in Tulare County

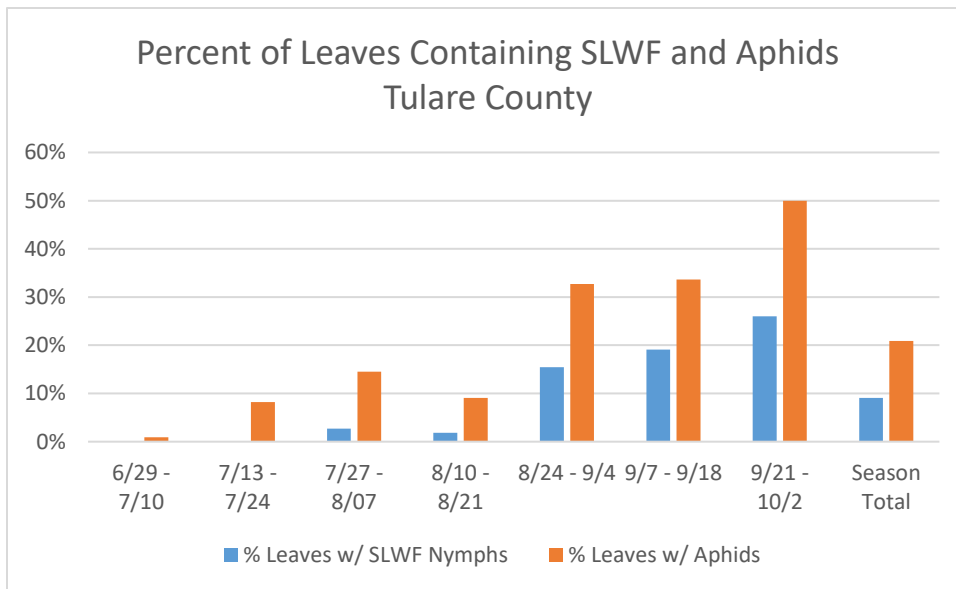


Figure 7: Percent of Leaves Containing SLWF and Aphids in Kings County

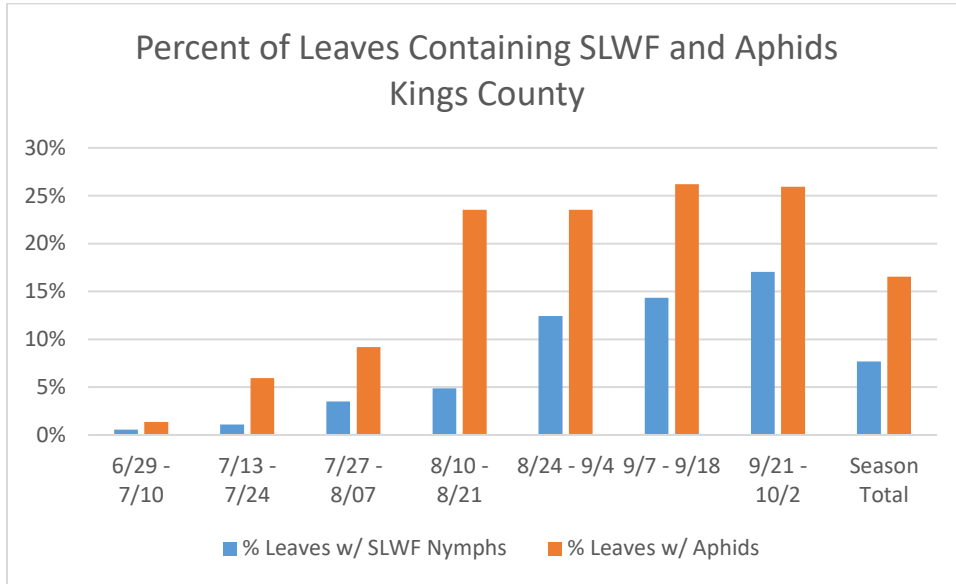


Figure 8: Percent of Leaves Containing SLWF and Aphids in Fresno County

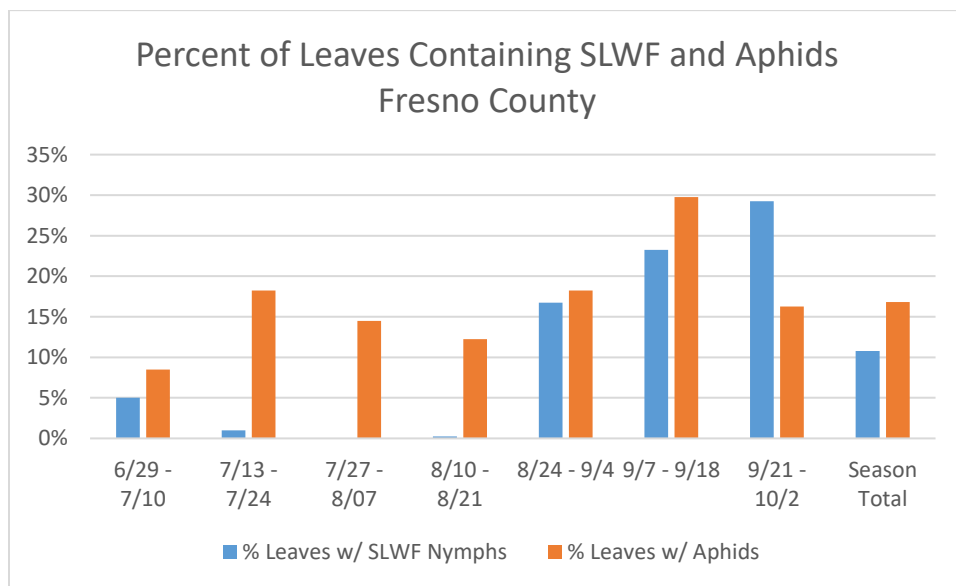


Figure 9: Percent of Leaves Containing SLWF and Aphids in Madera County

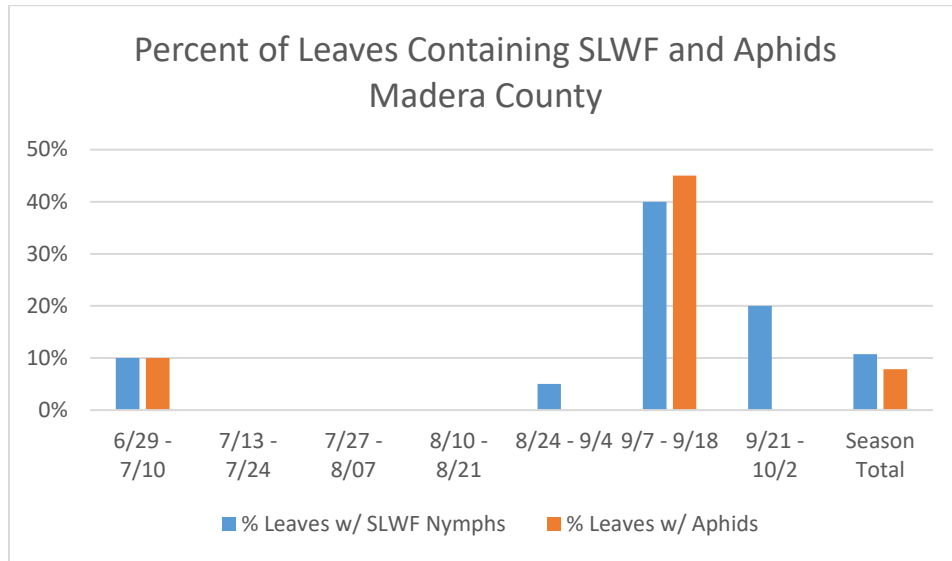


Figure 10: Percent of Leaves Containing SLWF and Aphids in Merced County

