

Cotton Pest Control Program

Silverleaf Whitefly Report for the San Joaquin Valley

August 23, 2021 – September 3, 2021



Source: USDA-ARS

Silverleaf Whitefly Report
Sampling Period: 8/23/2021 – 9/3/2021
Prepared By: Emily Schoenborn

I. Introduction

The fifth round of sampling for the silverleaf whitefly (SLWF) surveys began on Monday, August 23, 2021. 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 125 SLWF sampling sites with 10 sites in Kern County, 30 sites in Kings County, 11 sites in Tulare County, 27 sites in Fresno County, 2 sites in Madera County, and 45 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, 100 leaves were collected from 10 sites within Kern County.

A total of 12 leaves from five sites had leaves that contained SLWF nymphs:

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

A total of 18 leaves from five sites contained aphids:

- five 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 10 sites had leaves with honeydew or sooty mold. Mites, armyworm, and other whitefly species were not found at any sites (**Table 3**).

III. Kings County

During the fifth round of sampling, 300 leaves were collected from 30 sites within Kings County.

A total of 33 leaves from nine sites contained SLWF nymphs:

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

A total of 39 leaves from 17 sites contained aphids:

- 17 sites had leaves within the 1-5 aphids/leaf range and

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

None of the 10 sites had leaves with honeydew or sooty mold. Mites, armyworm, and other whitefly species were not found at any 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 three leaves from two sites contained SLWF nymphs:

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

A total of 12 leaves from six sites contained aphids:

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

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

V. Fresno County

During the fifth round of sampling, 270 leaves were collected from 27 sites within Fresno County.

A total of 34 leaves from seven sites contained SLWF nymphs:

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

A total of 28 leaves from nine sites contained aphids:

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

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

VI. Madera County

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

A total of five leaves from two sites 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 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 fifth round of sampling, 450 leaves were collected from 45 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 nymph/leaf range (**Table 1**).

A total of 88 leaves from 27 sites contained aphids:

- 27 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 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**).

VIII. Tables and Graphs

Table 1: SLWF Leaf Count for 8/23/21 - 9/3/21

<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	10	88	12	0	0	100	12%
Kings	30	267	32	1	0	300	11%
Tulare	11	107	3	0	0	110	3%
Fresno	27	236	14	20	0	270	13%
Madera	2	15	5	0	0	20	25%
Merced	45	415	30	5	0	450	8%
Totals	125	1,128	96	26	0	1,250	10%

Table 2: Aphids Leaf Count for 8/23/21 - 9/3/21

<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	10	82	14	4	0	100	18%
Kings	30	261	33	6	0	300	13%
Tulare	11	98	12	0	0	110	11%
Fresno	27	242	16	12	0	270	10%
Madera	2	20	0	0	0	20	0%
Merced	45	362	83	5	0	450	20%
Totals	125	1,065	158	27	0	1,250	15%

Figure 1: Percent of Leaves Collected Containing SLWF and Aphids for 8/23 - 9/3

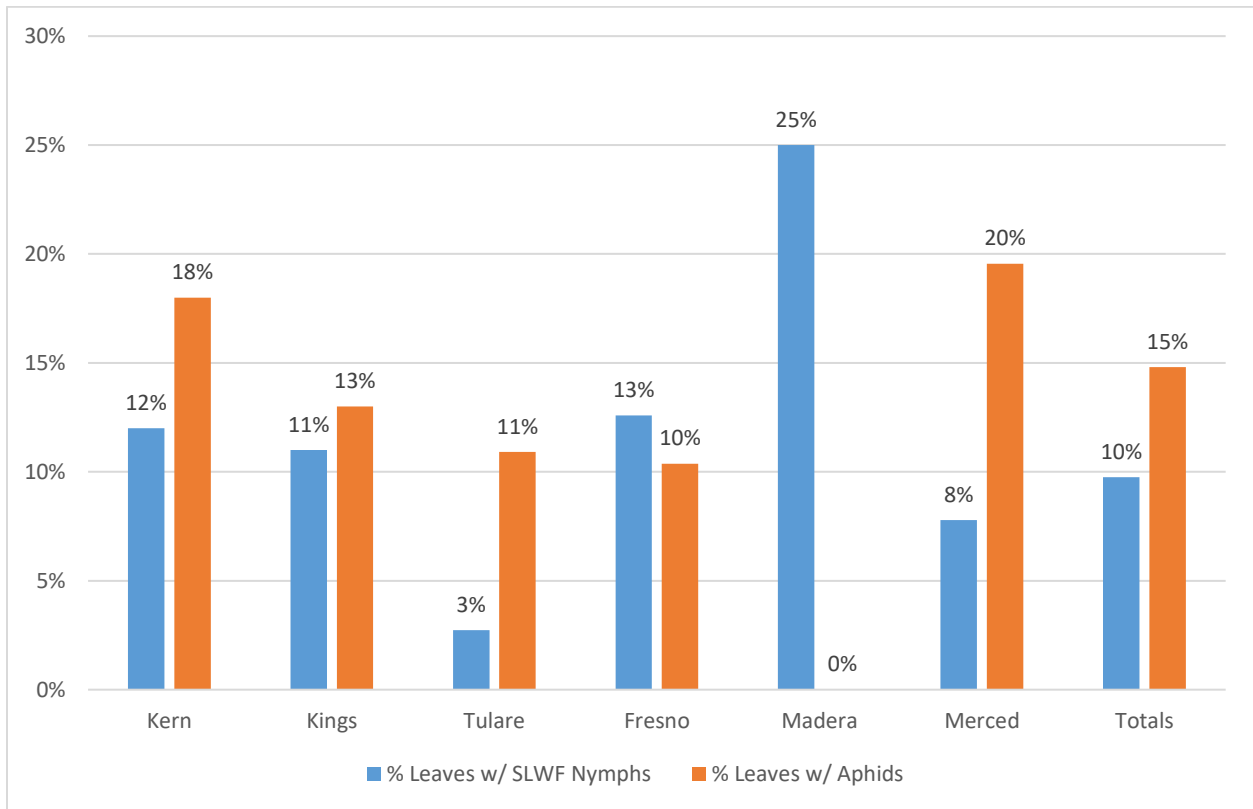


Figure 2: Comparison of Present and Past Years' Fifth Round of Sampling: Percent of Leaves Collected Containing SLWF

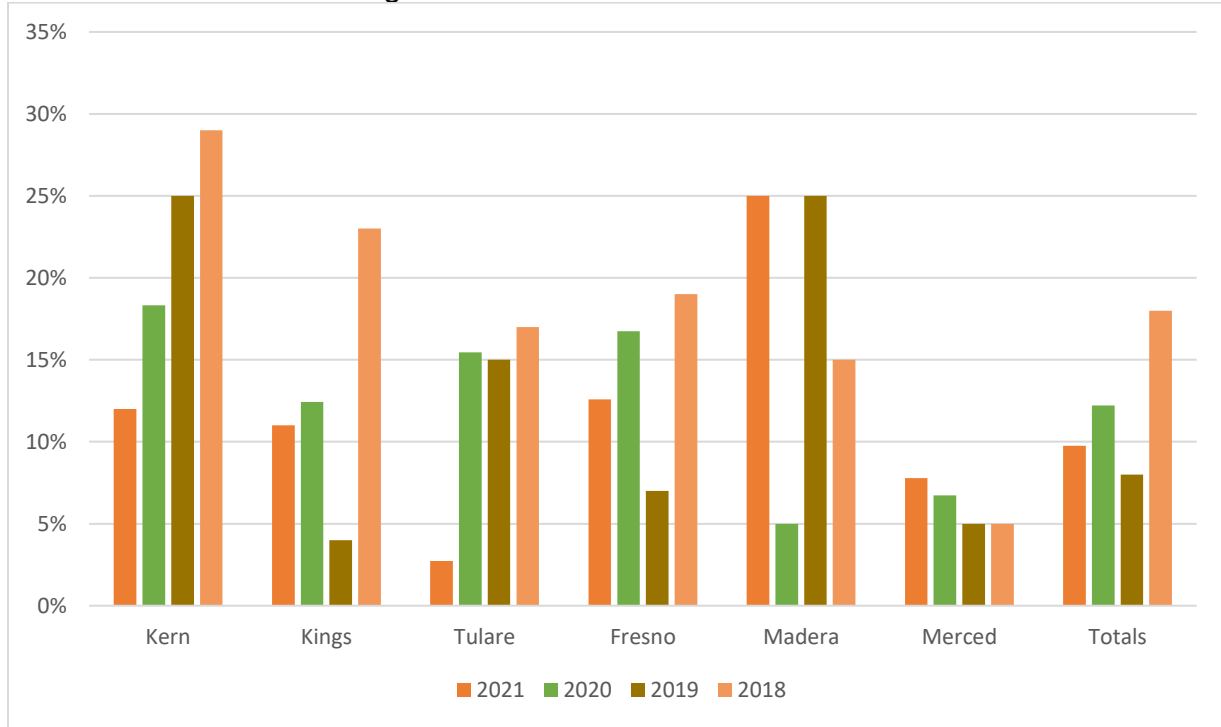


Figure 3: Comparison of Present and Past Years' Fifth Round of Sampling: Percent of Leaves Collected Containing Aphids

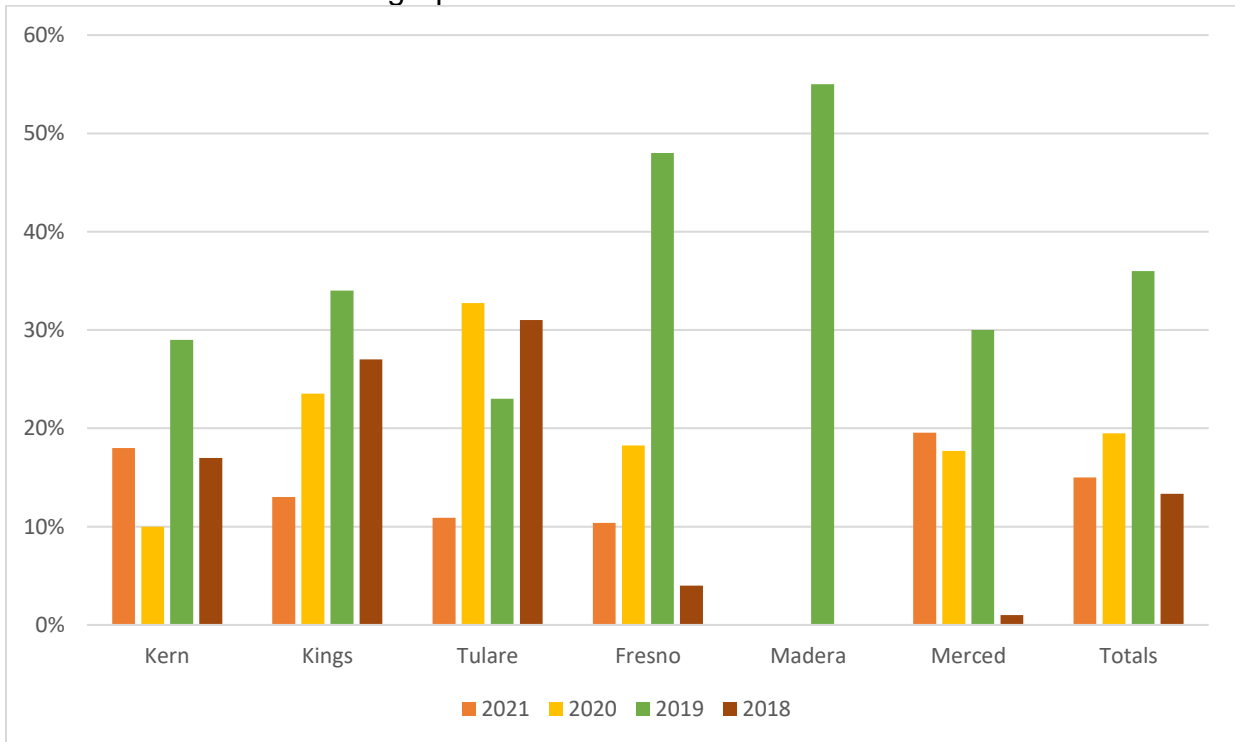


Table 3: Percent of Sample Sites Containing Leaves with Other Pests

<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%	0%
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 for 8/23 - 9/3



Figure 5: Percent of Leaves Containing SLWF and Aphids in Kern County in 2021

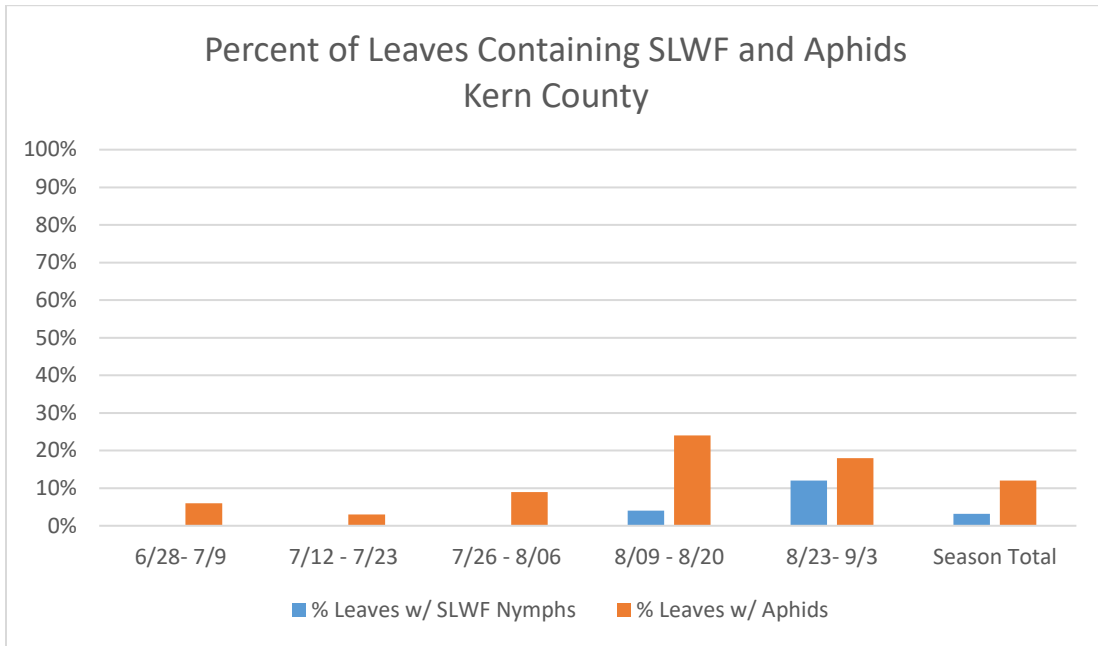


Figure 6: Percent of Leaves Containing SLWF and Aphids in Tulare County in 2021

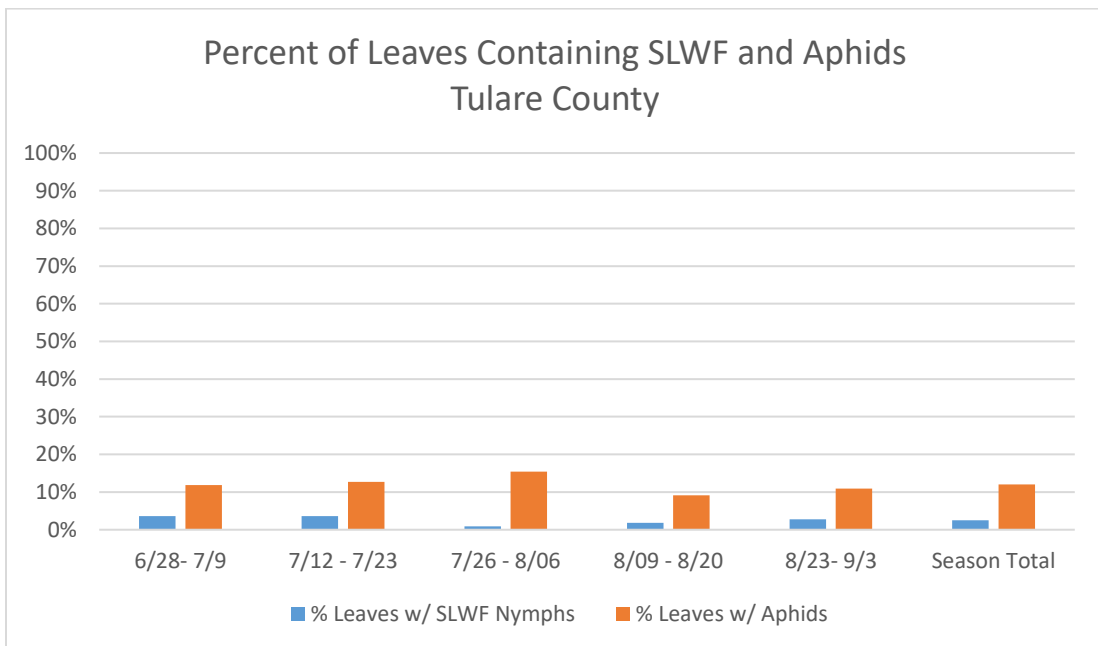


Figure 7: Percent of Leaves Containing SLWF and Aphids in Kings County in 2021

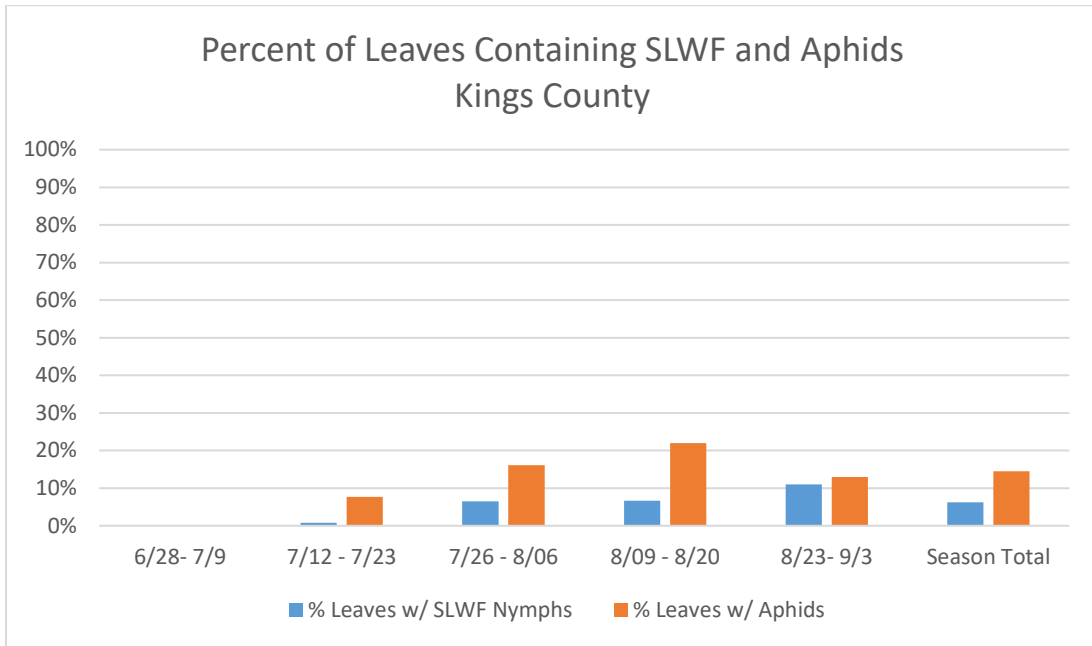


Figure 8: Percent of Leaves Containing SLWF and Aphids in Fresno County in 2021

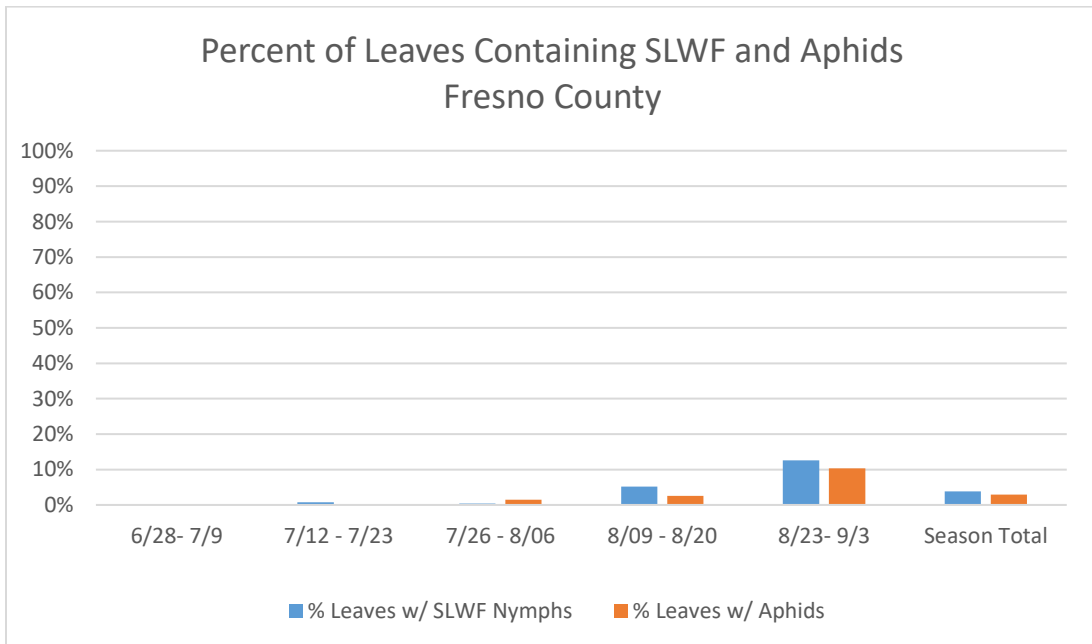


Figure 9: Percent of Leaves Containing SLWF and Aphids in Madera County in 2021

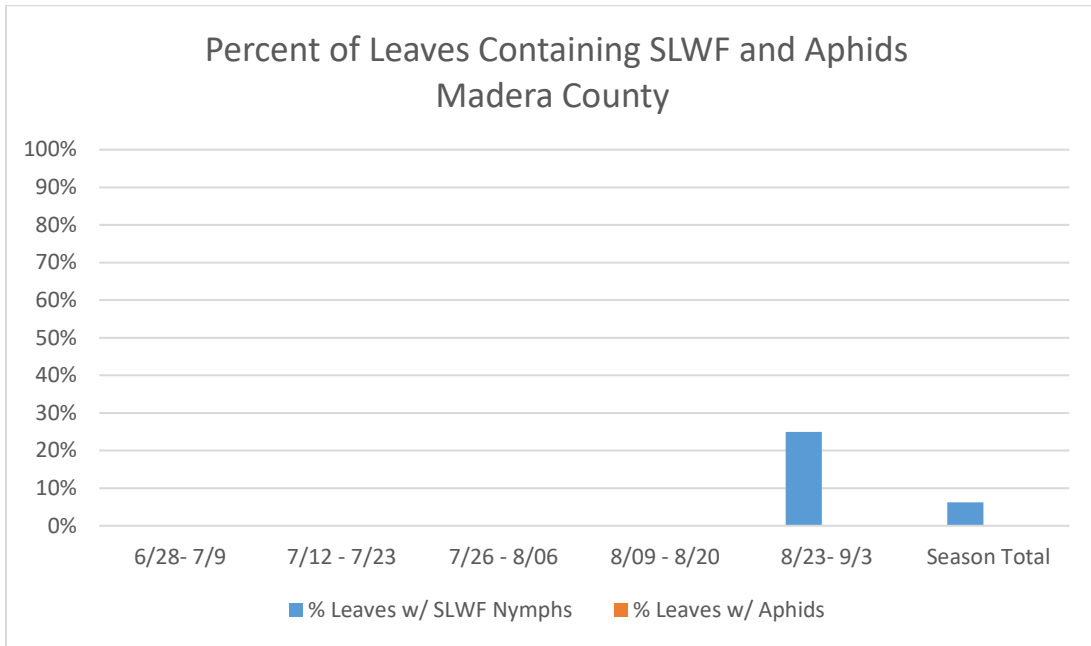


Figure 10: Percent of Leaves Containing SLWF and Aphids in Merced County in 2021

