

Pink Bollworm Program

Silverleaf Whitefly Report for the San Joaquin Valley

July 11, 2017 – September 29, 2017



UC Statewide IPM Project
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Silverleaf Whitefly Report
Sampling Period: 7/11/2017 – 9/29/2017
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Introduction

This period of sampling for the silverleaf whitefly (SLWF) surveys includes all samples collected during the 2017 cotton growing season. Program personnel collected samples from pink bollworm (PBW) trap sites at 5% of all cotton fields in each county. The Program has a total of 109 SLWF sampling sites with 29 sites in Fresno County, 13 sites in Kern County, 24 sites in Kings County, 1 site in Madera County, 31 sites in Merced County, and 11 sites in Tulare County. At each site 1 leaf sample from 10 different cotton plants was collected for a total of 10 leaves/site.

Kern County:

All thirteen sample sites (100%) were positive for both SLWF and aphids at some point during this year's growing season. A total of 650 leaves were collected, of which 365 leaves (56%) were infested with SLWF, and 374 leaves (58%) were infested with aphids. All thirteen of the sites positive for SLWF (100%) had leaves in the 1-5 nymphs/leaf range and 6-49 nymphs/leaf range, while three sites (23%) had leaves in the 50 or more nymphs/leaf range. All thirteen of the sites positive for aphids (100%) had leaves in the 1-5 aphids/leaf range, while eleven sites (85%) had leaves in the 6-49 aphids/leaf range, and seven sites (54%) had leaves in the 50 or more aphids/leaf range. All thirteen of the sites (100%) had leaves with honeydew and twelve sites (92%) had leaves with sooty mold. Mites were found at twelve sites (92%), armyworm at three sites (23%), and four of the sample sites (31%) had leaves with other whitefly species.

Kings County:

Twenty-three of the twenty-four samples sites (96%) were positive for SLWF and all of the twenty-four sites (100%) were positive for aphids at some point during this year's growing season. A total of 1,170 leaves were collected, of which 210 leaves (18%) were infested with SLWF and 579 leaves (49%) were infested with aphids. All twenty-three of the sites positive for SLWF (100%) had leaves in the 1-5 nymphs/leaf range, while eleven of the sites (48%) had

leaves in the 6-49 nymphs/leaf range, and only one of the sites (4%) had leaves in the 50 or more nymphs/leaf range. All twenty-four of the sites positive for aphids (100%) had leaves in the 1-5 aphids/leaf range, while twenty of the sites (83%) had leaves in the 6-49 aphids/per leaf range, and twelve of the sites (50%) had leaves in the 50 or more aphids/leaf range. Seventeen of the twenty-four sample sites (71%) had leaves with honeydew and twenty-one of the sites (88%) had leaves with sooty mold. Mites were found at twenty-three sites (96%), armyworm at five of the sites (21%), and seven of the sites (29%) had leaves with other whitefly species.

Tulare County:

All eleven of the sample sites (100%) were positive for SLWF and aphids at some point during this year's growing season. A total of 560 leaves were collected, of which 176 leaves (31%) were infested with SLWF, and 280 leaves (50%) were infested with aphids. All eleven sites (100%) that were positive for SLWF had leaves in the 1-5 nymphs/leaf range, while five of the sites (45%) had leaves in the 6-49 nymphs/leaf range, and one of the sites (9%) had a leaf in the 50 or more nymphs/leaf range. All eleven of the sites positive for aphids (100%) had leaves in the 1-5 aphids/leaf range, while ten of the sites (91%) had leaves in the 6-49 aphids/leaf range, and three of the sites (13%) had leaves in the 50 or more aphids/leaf range. Seven of the eleven sample sites (64%) had leaves with honeydew and ten of the sites (91%) had leaves with sooty mold. Mites were found at ten of the sites (91%), armyworm at three of the sites (27%), and four of the sites (36%) had leaves with other whitefly species.

Fresno County:

Twenty-seven of the twenty-nine sample sites (93%) were positive for SLWF and all twenty-nine sites (100%) were positive for aphids at some point during this year's growing season. A total of 1,630 leaves were collected, of which 270 leaves (17%) were infested with SLWF, and 668 leaves (41%) were infested with aphids. All twenty-two of the sites positive for SLWF (100%) had leaves in the 1-5 nymphs/leaf range, while twelve of the sites (44%) had leaves in the 6-49 nymphs/leaf range, and four of the sites (15%) had leaves in the 50 or more nymphs/leaf range. All twenty-nine of the sites positive for aphids (100%) had leaves in the 1-5 aphids/leaf range, while twenty-seven of the sites (93%) had leaves in the 6-49 aphids/leaf

range, and fourteen of the sites (28%) had leaves in the 50 or more aphids/leaf range. Thirteen of the twenty-nine sample sites (45%) had leaves with honeydew and eight of the sites (28%) had leaves with sooty mold. Mites were found at twenty-seven of the sites (93%), armyworm at seven sites (24%), and eight of the sites (28%) had leaves with other whitefly species.

Madera County:

The one sample site (100%) was positive for both SLWF and aphids at some point during this year's growing season. A total of 50 leaves were collected, of which three leaves (6%) were infested with SLWF, and eight leaves (16%) were infested with aphids. All three leaves from this site that were infested with SLWF were in the 1-5 nymphs/leaf range. Of the eight leaves from this site that were infested with aphids, six of the leaves were in the 1-5 aphids/leaf range and two of the leaves were in the 6-49 aphids/leaf range. This site did contain leaves with mites and other whitefly species, but had zero leaves with armyworm, honeydew, and sooty mold.

Merced County:

Twenty-four of the thirty-one samples sites (77%) were positive for SLWF, and twenty-nine of the sites (94%) were positive for aphids at some point during this year's growing season. A total of 1,650 leaves were collected, of which 187 leaves (11%) were infested with SLWF, and 476 leaves (29%) were infested with aphids. All twenty-four sites positive for SLWF (100%) had leaves in the 1-5 nymphs/leaf range, while four of the sites (17%) had leaves in the 6-49 nymphs/leaf range, and only one of the sites (4%) had leaves in the 50 or more nymphs/leaf range. All twenty-nine of the sites positive for aphids (100%) had leaves in the 1-5 aphids/leaf range, while twenty-two of the sites (76%) had leaves in the 6-49 aphids/leaf range, and twelve of the sites (41%) had leaves in the 50 or more aphids/leaf range. Ten of the thirty-one sample sites (32%) had leaves with honeydew, and twenty of the sites (65%) had leaves with sooty mold. Mites were found at twenty-nine sites (94%), armyworm at four sites (13%), and six of the sites (19%) had leaves with other species of whitefly.

SLWF - Leaf Counts - 2017 Survey

7/11/17 - 9/29/17

No. Leaves in Each Range of Nymphs Per Leaf							
County	Sample Sites	0	1 - 5	6 - 49	50+	# Leaves	Total Sites Infested
Kern	13	285	186	132	47	650	13
Kings	24	960	178	31	1	1170	23
Tulare	11	384	147	28	1	560	11
Fresno	29	1360	174	82	14	1630	27
Madera	1	47	3	0	0	50	1
Merced	31	1463	147	39	1	1650	24
Totals	109	4499	835	312	64	5710	99

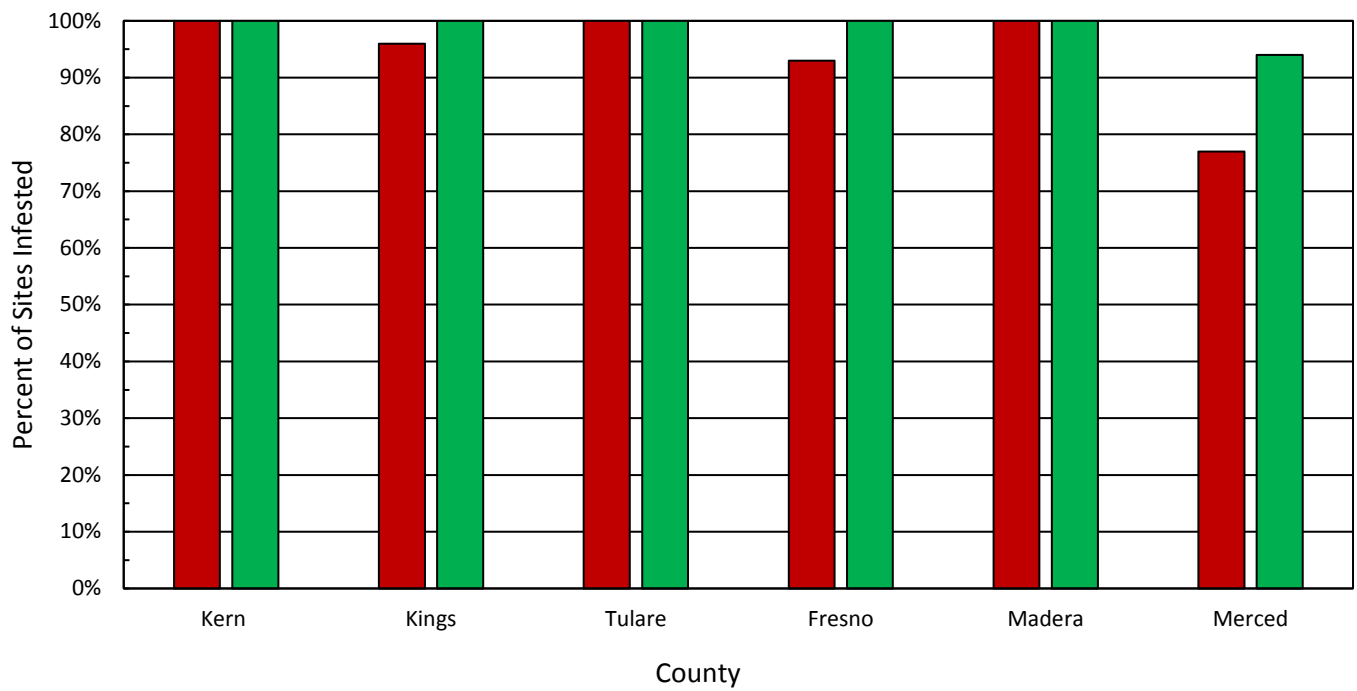
APHID - Leaf Counts - 2017 Survey

7/11/17 - 9/29/17

No. Leaves in Each Range of Aphids Per Leaf							
County	Sample Sites	0	1 - 5	6 - 49	50+	# Leaves	Total Sites Infested
Kern	13	276	230	105	39	650	13
Kings	24	591	246	211	122	1170	24
Tulare	11	280	203	74	3	560	11
Fresno	29	962	355	223	90	1630	29
Madera	1	42	6	2	0	50	1
Merced	31	1174	261	142	73	1650	29
Totals	109	3325	1301	757	327	5710	107

PERCENT OF INFESTED SAMPLE SITES IN EACH COUNTY

■ SLWF ■ APHIDS



Percent of Sample Sites Infested with Other Pests - 2017 Survey

7/11/17 - 9/29/17

County	Other Whitefly	Mites	Armyworm	Honeydew	Sooty Mold
Kern	31%	92%	23%	100%	92%
Kings	29%	96%	21%	71%	88%
Tulare	36%	91%	27%	64%	91%
Fresno	28%	93%	24%	45%	28%
Madera	100%	100%	0%	0%	0%
Merced	19%	94%	13%	32%	65%

PERCENT OF SITES INFESTED WITH OTHER COTTON PESTS

■ Other Whitefly
 ■ Mites
 ■ Armyworm
 ■ Honeydew
 ■ Sooty Mold

