

Navel Orangeworm Pilot Project 2021 – Final Weekly Report 2021

Week Ending – December 31, 2021

California Department of Food & Agriculture
Plant Health and Pest Prevention Services
Integrated Pest Control Branch
5100 Douglas Avenue
Shafter, CA 93263
Phone: (661) 395-2914
Fax: (661) 399-1601

I. Project Updates

Navel Orangeworm Sterile Insect Technique

The Navel Orangeworm (NOW) Pilot Project (Project) utilizes NOW sterile insect technique (SIT) moths obtained from the United States Department of Agriculture (USDA) Phoenix, Arizona Rearing Facility. Quality Control (QC) tests are performed on every shipment of NOW SIT moths used for aerial releases.

The 2021 aerial NOW SIT releases began Wednesday, March 10, with one magazine released per day, 7 days per week. This magazine, identified as “Mag 1,” was released over the 2020 Area Wide Project site acreage.

On May 17, 2021, CDFA deployed traps to an additional approximately 1,600 acres of pistachio and almond orchards; expanding the Area Wide Project site acreage. As of June 16, 2021, a second magazine was released daily. This second magazine, identified as “Mag 2,” was released over 1,280 acres of the new acreage added to the Area Wide Project site, five times per week, Friday through Tuesday. Beginning on Thursday, June 24, Mag 2 was released over separate sites every Wednesday and Thursday for research purposes.

The 2021 aerial NOW SIT releases concluded on October 16, 2021, with the final two magazines being released. Aerial releases are expected to begin again sometime in early March 2022. The Navel Orangeworm Action Committee (NOWAC) will meet to discuss plans for the 2022 aerial NOW SIT season on Thursday, February 24, 2022.

Listed below are any circumstances which prevented regular aerial releases in 2021:

- Monday, March 15: no aerial release conducted due to severe weather conditions; magazine held an extra night in the cold room to be released the following day
- Tuesday, March 16: today’s magazine and magazine from previous day released
- Saturday, May 29: no magazines shipped due to airline schedule change
- Sunday, May 30: no aerial release conducted
- Sunday, July 4: no magazines shipped due to airline schedule during holiday
- Monday, July 5: no aerial releases conducted
- Sunday, July 11: no aerial release conducted for Mag 2 due to release aircraft issues
- Monday, July 12: no aerial release conducted due to ongoing release aircraft issues; moths from previous day’s Mag 2 destroyed

- Tuesday, July 13: Mag 1 and Mag 2 from previous day released over Area Wide Project Site Zones 1 & 3 and Zones 5 & 7, respectively
- Wednesday, July 14: no magazines shipped due to airline misplacing moth shipments; Mag 1 and Mag 2 from previous day released over Area Wide Project Site Zones 1 & 3 and Zones 5 & 7, respectively; Mag 1 from today released over research sites; Mag 2 from today released over Area Wide Project Site Zones 5 & 7
- Thursday, July 15: no aerial releases conducted
- Tuesday, August 10: no aerial release conducted for Mag 2 due to release aircraft issues; moths from Mag 2 destroyed
- Wednesday, August 11: there was a delay in takeoff time due to release aircraft issues. Mag 2 was eventually released, as normal, over the research sites; no aerial release conducted for Mag 1. Mag 1 was held an extra night in the cold room to be released the following day
- Thursday, August 12: Mag 1 from the previous day was released over Area Wide Project Site Zones 1 & 3; today's Mag 2 was released over research sites. Today's Mag 1 was held an extra night in the cold room to be released the following day
- Friday, August 13: Mag 1 from previous day was released over Area Wide Project Site Zones 1 & 3; today's Mag 2 was released over Area Wide Project Site Zones 5 & 7. The moths from today's Mag 1 were destroyed.
- Sunday, August 22: no magazines shipped due to shortage of shipping supplies
- Monday, August 23: no aerial releases conducted due to ongoing shortage of shipping supplies
- Tuesday, August 24: no aerial releases conducted due to ongoing shortage of shipping supplies
- Saturday, September 11 - Thursday, September 16: no aerial releases conducted due to staffing issues
- Saturday, September 18: no magazines shipped due to airline cancelation of flight
- Sunday, September 19: no aerial releases conducted
- Saturday, September 25: no magazines shipped due to airline cancelation of flight
- Sunday, September 26: no aerial releases conducted
- Saturday, October 2: no magazines shipped due to airline cancelation of flight
- Sunday, October 3: no aerial releases conducted

Navel Orangeworm Trapping

The NOW trapping program began May 5, 2020, with all traps being serviced on a weekly basis. This trapping schedule continued into 2021 using the previous year's Area Wide Project site containing four 640-acre orchards; two almond and two pistachio, located in Fresno County. The 2021 NOW Area Wide Project site includes the previous year's four zones and, as of May 17, 2021, it includes an additional four zones, designated as Zones 5 through 8. As with Zones 1-4, all traps in Zones 5-8 are serviced on a weekly basis. Listed below are any circumstances which prevented regular servicing in 2021:

- Week of January 29: Zones 1, 3, and 4 not serviced due to severe weather; only 40 of the 72 traps in Zone 2 were able to be serviced
- Week of February 5: Only 32 of the 72 traps in Zone 2 were able to be serviced due to poor field conditions from the severe weather during the previous week
- Week of March 12: Zone 4 not serviced due to severe weather
- Week of March 26: Zone 4 not serviced due to pesticide application on site
- Week of April 30: Zone 2 not serviced due to pesticide application on site
- Week of June 4: Zone 3 not serviced due to pesticide application on site
- Week of July 9: Zone 3 not serviced due to mandatory all staff meeting
- Week of July 30: Zone 3 not serviced due to pesticide application on site
- Week of August 20: 16 of the 72 traps in Zone 3 not serviced due to ongoing harvest operations
- Week of September 3: Zone 5 not serviced due to ongoing harvest operations
- Week of September 10: Zone 3 not serviced due to staffing issues
- Week of September 17: Only 32 of the 72 traps in Zone 2 serviced due to ongoing harvest operations
- Week of September 24: Zones 3, 4, and 7 not serviced due to staffing issues; only 12 of the 72 traps in Zone 5 serviced due to staffing issues
- Week of October 1: Zones 1, 2, 3, and 4 not serviced due to staffing issues
- Week of October 29: No traps were serviced due to severe weather
- Week of November 19: Only 48 of the 72 traps in Zone 3 were serviced due to pesticide application on site; only 40 of the 72 traps in Zone 4 were serviced due to trapping equipment issues
- Week of November 26: No traps were serviced in Zone 4 due to state holiday
- Week of December 10: No traps were serviced in Zone 4 due to severe weather
- Week of December 17: No traps were serviced in Zones 2, 3, 4, 5, 6, 7, and 8 due to severe weather
- Week of December 24: No traps were serviced in Zones 4 and 7 due to severe weather
- Week of December 31: No traps were serviced in Zones 2, 3, 4, 5, 6, 7, and 8; only 36 of the 72 traps were serviced in Zone 1 due to severe weather

II. Project Design

The NOW Area Wide Project site includes four 640-acre orchards located in Fresno County and identified as Zone 1, Zone 2, Zone 3, and Zone 4, where trapping and SIT operations have been underway since May 2020.

Zone #	Crop Type	Acres	Aerial SIT Release/Non-Release
Zone 1	Pistachio	640	Release
Zone 2	Pistachio	640	Non-Release
Zone 3	Almond	640	Release
Zone 4	Almond	640	Non-Release

As of May 17, 2021, the NOW Area Wide Project site has expanded to include two more 640-acre orchards and two 160-acre orchards located in Fresno County. These orchards are identified as Zone 5, Zone 6, Zone 7, and Zone 8.

Zone #	Crop Type	Acres	Aerial SIT Release/Non-Release
Zone 5	Pistachio	640	Release
Zone 6	Pistachio	160	Non-Release
Zone 7	Almond	640	Release
Zone 8	Almond	160	Non-Release

Each zone has a trap site ratio of approximately 1 trap site per 18 acres for a total of 36 trap sites for each 640-acre zone and 9 trap sites for each 160-acre zone. Trap sites include two traps: one trap baited with NOW pheromone/PPO lures and one trap baited with pistachio meal. All traps are serviced on a weekly basis.

III. Trap Results for Week Ending on December 31, 2021

Zone 1

Zone 1 is a pistachio orchard where aerial NOW SIT releases were conducted. A total of **36** traps were collected from Zone 1 on Monday, December 27, with **18** pistachio meal baited traps and **18** pheromone/PPO lure traps.

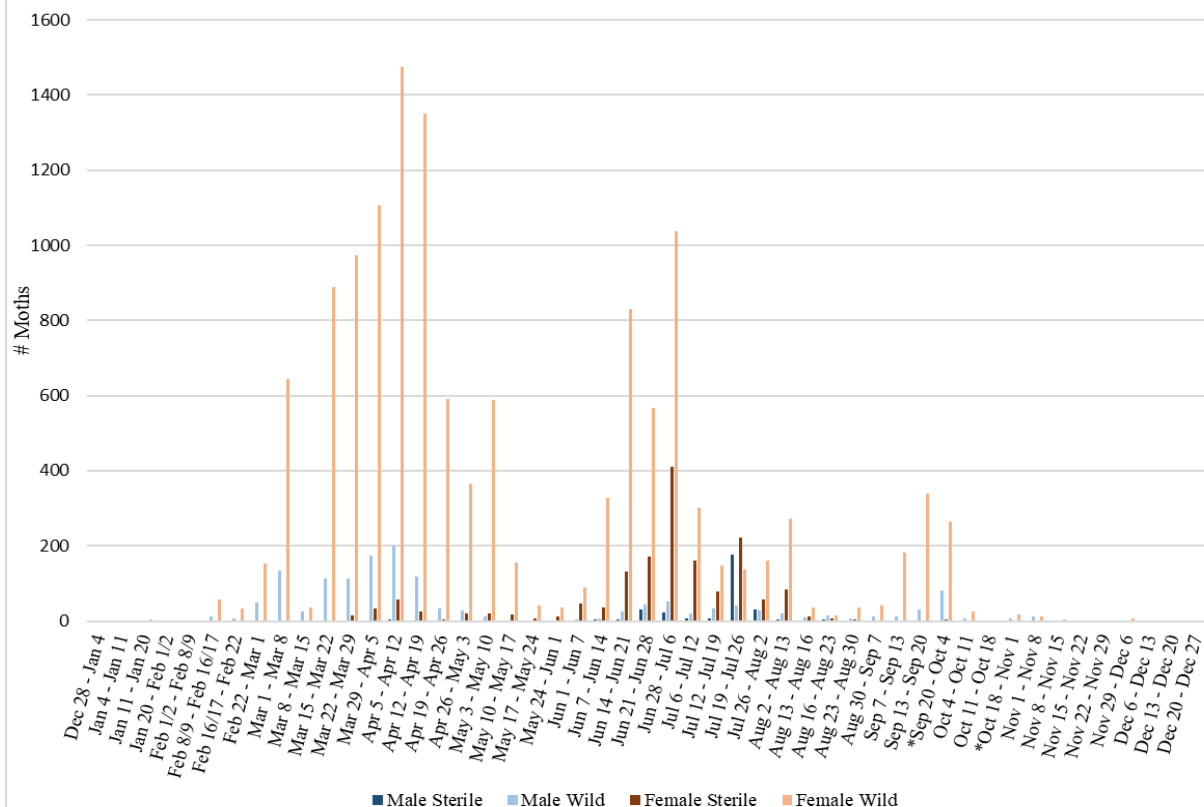
Zone 1 - Pistachio							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 28 - Jan 4	0	0	0	0	0	0	0
Jan 4 - Jan 11	0	0	0	0	0	0	0
Jan 11 - Jan 20	0	0	1	1	0	3	3
¹ Jan 20 - Feb 1/2	0	0	0	0	0	0	0
² Feb 1/2 - Feb 8/9	0	0	1	1	0	1	1
³ Feb 8/9 - Feb 16/17	0	0	13	13	0	56	56
Feb 16/17 - Feb 22	0	0	8	8	0	32	32
Feb 22 - Mar 1	0	0	50	50	0	152	152
Mar 1 - Mar 8	0	0	134	134	0	645	645
Mar 8 - Mar 15	5	0	25	25	0	36	36
Mar 15 - Mar 22	8	0	113	113	1	889	890
Mar 22 - Mar 29	8	0	113	113	14	974	988
Mar 29 - Apr 5	8	1	175	176	32	1105	1137

Apr 5 - Apr 12	8	3	200	203	58	1474	1532
Apr 12 - Apr 19	8	0	117	117	25	1351	1376
Apr 19 - Apr 26	8	0	34	34	5	592	597
Apr 26 - May 3	8	0	29	29	21	365	386
May 3 - May 10	8	0	13	13	20	588	608
May 10 - May 17	8	0	0	0	16	156	172
May 17 - May 24	8	0	0	0	7	40	47
May 24 - Jun 1	9	1	1	2	13	36	49
Jun 1 - Jun 7	7	0	3	3	46	90	136
Jun 7 - Jun 14	8	5	8	13	35	329	364
Jun 14 - Jun 21	8	5	25	30	131	829	960
Jun 21 - Jun 28	8	31	45	76	171	568	739
Jun 28 - Jul 6	8	22	52	74	411	1038	1449
Jul 6 - Jul 12	6	8	21	29	160	302	462
Jul 12 - Jul 19	6	8	34	42	79	147	226
Jul 19 - Jul 26	8	177	42	219	221	137	358
Jul 26 - Aug 2	8	30	29	59	57	160	217
Aug 2 - Aug 13	11	3	20	23	83	271	354
Aug 13 - Aug 16	4	0	9	9	11	35	46
Aug 16 - Aug 23	7	3	14	17	8	15	23
Aug 23 - Aug 30	6	1	7	8	5	35	40
Aug 30 - Sep 7	9	1	13	14	1	40	41
Sep 7 - Sep 13	4	0	11	11	1	183	184
Sep 13 - Sep 20	3	0	31	31	2	339	341
*Sep 20 - Oct 4	13	1	81	82	3	265	268
Oct 4 - Oct 11	8	0	7	7	2	24	26
Oct 11 - Oct 18	6	0	1	1	0	2	2
*Oct 18 - Nov 1	0	0	6	6	0	16	16
Nov 1 - Nov 8	0	0	11	11	0	13	13
Nov 8 - Nov 15	0	0	2	2	0	3	3
Nov 15 - Nov 22	0	0	1	1	0	2	2
Nov 22 - Nov 29	0	0	1	1	0	0	0
Nov 29 - Dec 6	0	0	1	1	0	8	8
Dec 6 - Dec 13	0	0	0	0	0	0	0
Dec 13 - Dec 20	0	0	0	0	0	0	0
⁴ Dec 20 - Dec 27	0	0	0	0	0	0	0
¹ 21 of the 36 traps serviced on <u>Feb 1</u> ; 15 of the 36 traps serviced on <u>Feb 2</u>							
² 19 of the 36 traps serviced on <u>Feb 8</u> ; 17 of the 36 traps serviced on <u>Feb 9</u>							
³ 12 of the 36 traps serviced on <u>Feb 16</u> ; 24 of the 36 traps serviced on <u>Feb 17</u>							
*All traps in field for two weeks							
⁴ 18 of the 36 traps serviced on Dec 27							

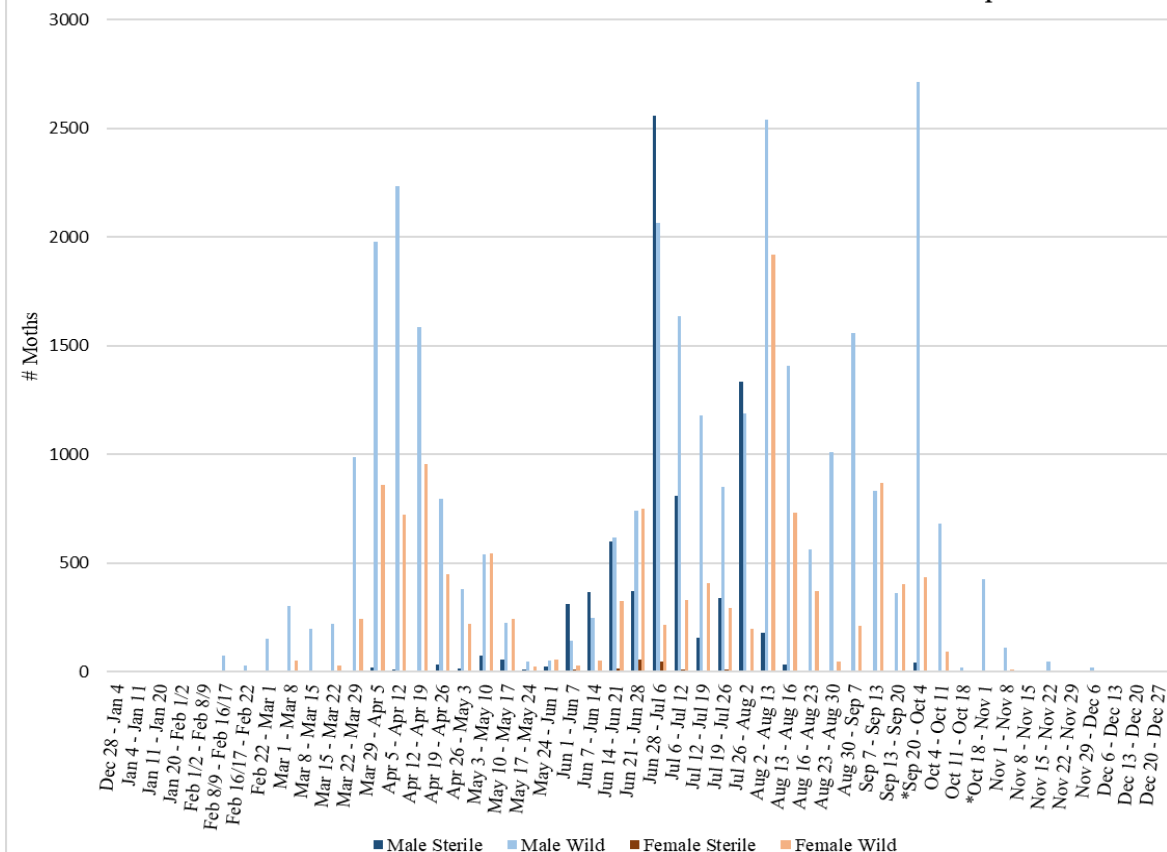
Zone 1 - Pistachio							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 28 - Jan 4	0	0	0	0	0	0	0
Jan 4 - Jan 11	0	0	3	3	0	0	0
Jan 11 - Jan 20	0	0	5	5	0	0	0
¹ Jan 20 - Feb 1/2	0	0	1	1	0	0	0
² Feb 1/2 - Feb 8/9	0	0	0	0	0	0	0
³ Feb 8/9 - Feb 16/17	0	0	74	74	0	0	0
Feb 16/17 - Feb 22	0	0	31	31	0	1	1
Feb 22 - Mar 1	0	0	152	152	0	3	3
Mar 1 - Mar 8	0	0	303	303	0	53	53
Mar 8 - Mar 15	5	1	199	200	0	7	7
Mar 15 - Mar 22	8	0	222	222	0	28	28
Mar 22 - Mar 29	8	0	988	988	0	242	242
Mar 29 - Apr 5	8	22	1980	2002	5	858	863
Apr 5 - Apr 12	8	13	2235	2248	4	722	726
Apr 12 - Apr 19	8	7	1588	1595	3	958	961
Apr 19 - Apr 26	8	35	798	833	0	448	448
Apr 26 - May 3	8	14	379	393	2	220	222
May 3 - May 10	8	75	542	617	1	546	547
May 10 - May 17	8	57	226	283	2	243	245
May 17 - May 24	8	10	46	56	3	24	27
May 24 - Jun 1	9	24	50	74	2	57	59
Jun 1 - Jun 7	7	314	142	456	9	27	36
Jun 7 - Jun 14	8	368	247	615	5	50	55
Jun 14 - Jun 21	8	602	620	1222	14	325	339
Jun 21 - Jun 28	8	370	740	1110	56	749	805
Jun 28 - Jul 6	8	2558	2064	4622	45	218	263
Jul 6 - Jul 12	6	810	1635	2445	13	332	345
Jul 12 - Jul 19	6	159	1180	1339	6	408	414
Jul 19 - Jul 26	8	338	851	1189	13	292	305
Jul 26 - Aug 2	8	1333	1187	2520	7	199	206
Aug 2 - Aug 13	11	180	2540	2720	6	1921	1927
Aug 13 - Aug 16	4	33	1406	1439	3	734	737
Aug 16 - Aug 23	7	4	562	566	3	371	374
Aug 23 - Aug 30	6	3	1010	1013	1	45	46
Aug 30 - Sep 7	9	2	1559	1561	0	213	213
Sep 7 - Sep 13	4	0	833	833	2	871	873
Sep 13 - Sep 20	3	0	364	364	0	404	404
*Sep 20 - Oct 4	13	43	2714	2757	0	436	436
Oct 4 - Oct 11	8	3	682	685	0	92	92
Oct 11 - Oct 18	6	1	20	21	0	7	7
*Oct 18 - Nov 1	0	1	426	427	0	1	1
Nov 1 - Nov 8	0	0	113	113	0	10	10
Nov 8 - Nov 15	0	0	6	6	0	1	1
Nov 15 - Nov 22	0	0	45	45	0	2	2
Nov 22 - Nov 29	0	0	8	8	0	0	0
Nov 29 - Dec 6	0	0	22	22	0	4	4
Dec 6 - Dec 13	0	0	2	2	0	0	0

Dec 13 - Dec 20	0	0	0	0	0	0	0
⁴ Dec 20 - Dec 27	0	0	0	0	0	0	0
¹ 21 of the 36 traps serviced on <u>Feb 1</u> ; 15 of the 36 traps serviced on <u>Feb 2</u>							
² 19 of the 36 traps serviced on <u>Feb 8</u> ; 17 of the 36 traps serviced on <u>Feb 9</u>							
³ 12 of the 36 traps serviced on <u>Feb 16</u> ; 24 of the 36 traps serviced on <u>Feb 17</u>							
*All traps in field for two weeks							
⁴ 18 of the 36 traps serviced on Dec 27							

Zone 1 - Pistachio Orchard - Pistachio Meal Baited Traps



Zone 1 - Pistachio Orchard - Pheromone/PPO Lure Baited Traps



Zone 2

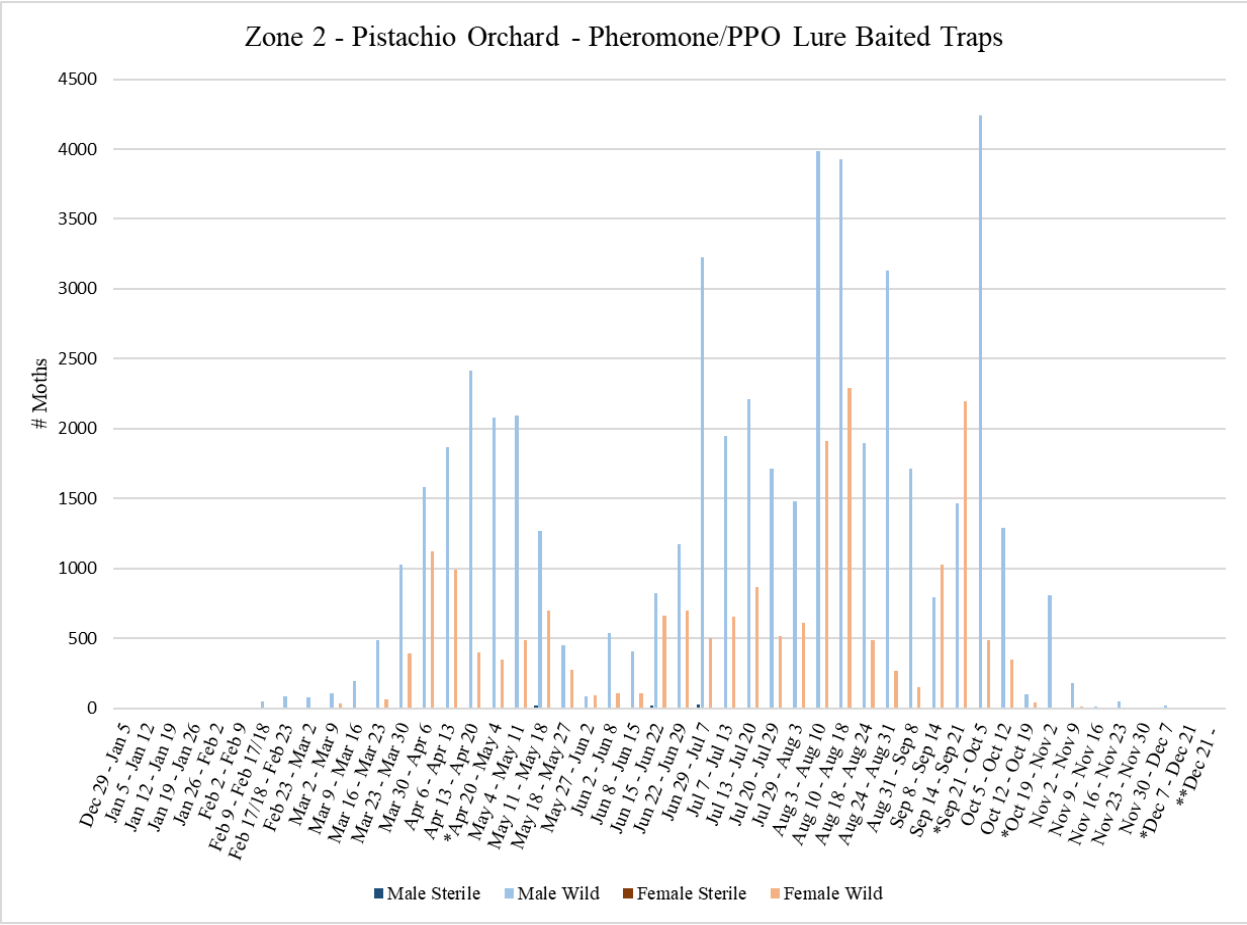
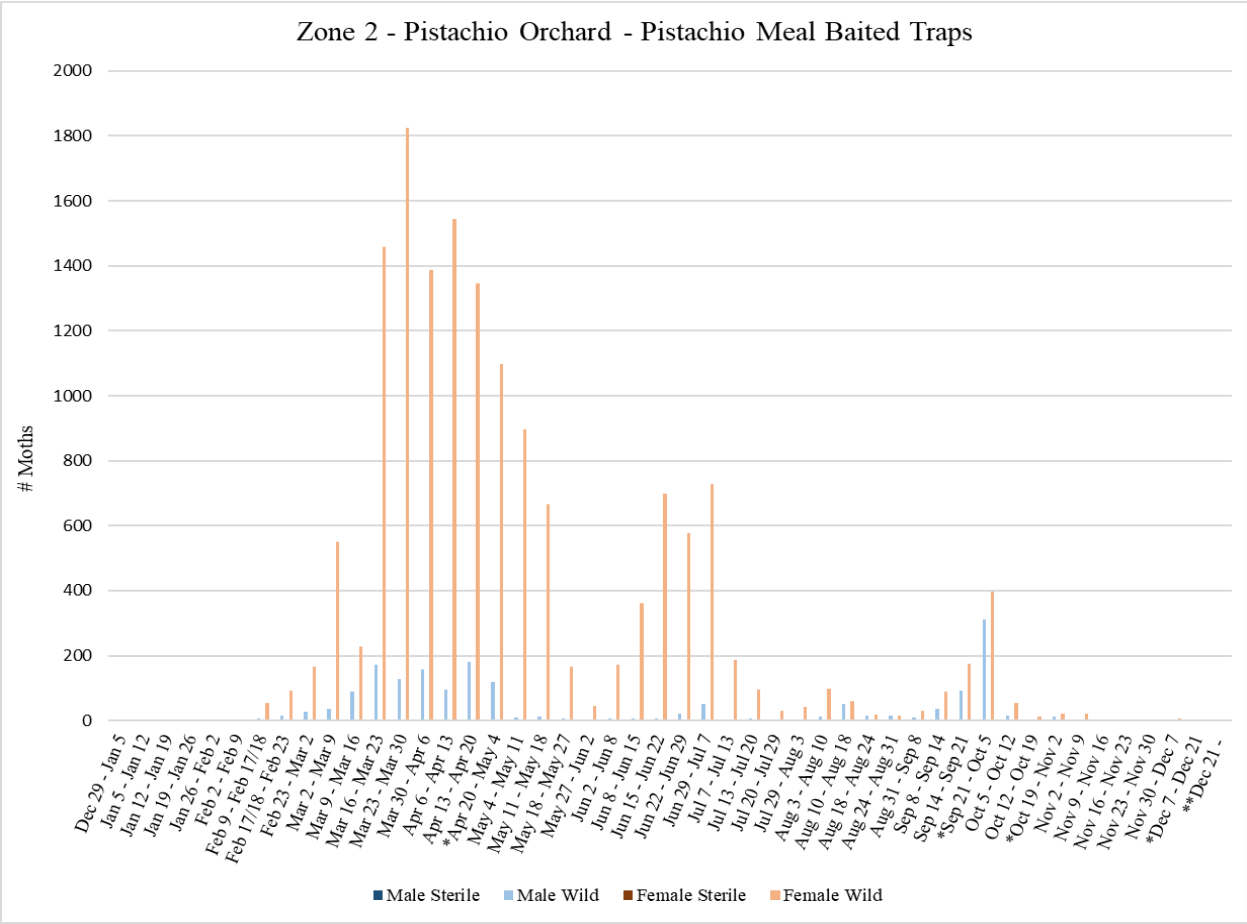
Zone 2 is a pistachio orchard where aerial NOW SIT releases were not conducted. No traps were collected in Zone 2 during the week of December 31 due to severe weather on site.

Zone 2 - Pistachio							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 29 - Jan 5	0	0	0	0	0	0	0
Jan 5 - Jan 12	0	0	0	0	0	0	0
Jan 12 - Jan 19	0	0	0	0	0	0	0
Jan 19 - Jan 26	0	0	0	0	0	0	0
¹ Jan 26 - Feb 2	0	0	0	0	0	0	0
Feb 2 - Feb 9	0	0	1	1	0	1	1
² Feb 9 - Feb 17/18	0	0	7	7	0	55	55
Feb 17/18 - Feb 23	0	0	14	14	0	91	91
Feb 23 - Mar 2	0	0	26	26	0	165	165
Mar 2 - Mar 9	0	0	37	37	0	551	551
Mar 9 - Mar 16	0	0	88	88	0	229	229
Mar 16 - Mar 23	0	0	172	172	0	1458	1458
Mar 23 - Mar 30	0	0	129	129	0	1825	1825
Mar 30 - Apr 6	0	0	158	158	0	1387	1387
Apr 6 - Apr 13	0	0	95	95	0	1543	1543
Apr 13 - Apr 20	0	0	180	180	0	1347	1347
*Apr 20 - May 4	0	0	120	120	0	1097	1097
May 4 - May 11	0	0	10	10	0	897	897
May 11 - May 18	0	0	13	13	0	665	665
May 18 - May 27	0	0	7	7	0	167	167
May 27 - Jun 2	0	0	0	0	0	45	45
Jun 2 - Jun 8	0	0	8	8	1	173	174
Jun 8 - Jun 15	0	0	6	6	0	361	361
Jun 15 - Jun 22	0	0	8	8	0	698	698
Jun 22 - Jun 29	0	0	20	20	1	576	577
Jun 29 - Jul 7	0	0	52	52	0	728	728
Jul 7 - Jul 13	0	0	1	1	0	188	188
Jul 13 - Jul 20	0	0	8	8	0	94	94
Jul 20 - Jul 29	0	0	5	5	0	30	30
Jul 29 - Aug 3	0	0	2	2	0	41	41
Aug 3 - Aug 10	0	0	12	12	0	98	98
Aug 10 - Aug 18	0	0	50	50	0	59	59
Aug 18 - Aug 24	0	0	15	15	0	17	17
Aug 24 - Aug 31	0	0	16	16	0	15	15
Aug 31 - Sep 8	0	0	10	10	0	31	31
Sep 8 - Sep 14	0	0	37	37	0	88	88
Sep 14 - Sep 21	0	0	92	92	0	175	175
*Sep 21 - Oct 5	0	0	311	311	0	397	397
Oct 5 - Oct 12	0	0	14	14	0	53	53
Oct 12 - Oct 19	0	0	0	0	0	13	13
*Oct 19 - Nov 2	0	0	13	13	0	22	22
Nov 2 - Nov 9	0	0	3	3	0	22	22

Nov 9 - Nov 16	0	0	0	0	0	2	2
Nov 16 - Nov 23	0	0	0	0	0	5	5
Nov 23 - Nov 30	0	0	2	2	0	2	2
Nov 30 - Dec 7	0	0	1	1	0	8	8
*Dec 7 - Dec 21	0	0	0	0	0	0	0
**Dec 21 -							
¹ 20 traps unserviceable this week due to poor field conditions on site - 16 of these traps in field since <u>Jan 19</u> ; 4 of these traps in field since <u>Jan 26</u>							
² 5 of the 36 traps serviced on <u>Feb 17</u> ; 31 of the 36 traps serviced on <u>Feb 18</u>							
*All traps in field for two weeks							
³ Only 16 of the 36 traps serviced this week due to harvest operations							
**No traps serviced in Zone 2 this week due to severe weather on site							

Zone 2 - Pistachio							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 29 - Jan 5	0	0	0	0	0	0	0
Jan 5 - Jan 12	0	0	1	1	0	0	0
Jan 12 - Jan 19	0	0	6	6	0	0	0
Jan 19 - Jan 26	0	0	4	4	0	0	0
¹ Jan 26 - Feb 2	0	0	1	1	0	0	0
Feb 2 - Feb 9	0	0	0	0	0	0	0
² Feb 9 - Feb 17/18	0	0	46	46	0	0	0
Feb 17/18 - Feb 23	0	0	83	83	0	0	0
Feb 23 - Mar 2	0	0	78	78	0	4	4
Mar 2 - Mar 9	0	0	109	109	0	33	33
Mar 9 - Mar 16	0	0	192	192	0	3	3
Mar 16 - Mar 23	0	0	484	484	0	65	65
Mar 23 - Mar 30	0	0	1027	1027	0	389	389
Mar 30 - Apr 6	0	0	1584	1584	0	1124	1124
Apr 6 - Apr 13	0	0	1866	1866	0	992	992
Apr 13 - Apr 20	0	0	2416	2416	0	400	400
*Apr 20 - May 4	0	0	2081	2081	0	349	349
May 4 - May 11	0	0	2092	2092	0	484	484
May 11 - May 18	0	19	1268	1287	2	701	703
May 18 - May 27	0	0	450	450	0	276	276
May 27 - Jun 2	0	0	82	82	0	94	94
Jun 2 - Jun 8	0	3	541	544	0	110	110
Jun 8 - Jun 15	0	2	406	408	0	110	110
Jun 15 - Jun 22	0	16	820	836	0	662	662
Jun 22 - Jun 29	0	0	1171	1171	0	698	698
Jun 29 - Jul 7	0	24	3227	3251	0	501	501
Jul 7 - Jul 13	0	2	1947	1949	0	656	656
Jul 13 - Jul 20	0	0	2210	2210	0	864	864
Jul 20 - Jul 29	0	0	1716	1716	0	516	516
Jul 29 - Aug 3	0	3	1479	1482	0	614	614
Aug 3 - Aug 10	0	0	3983	3983	0	1910	1910
Aug 10 - Aug 18	0	1	3925	3926	0	2293	2293

Aug 18 - Aug 24	0	0	1899	1899	0	485	485
Aug 24 - Aug 31	0	0	3131	3131	0	269	269
Aug 31 - Sep 8	0	0	1714	1714	0	148	148
Sep 8 - Sep 14	0	0	792	792	0	1025	1025
Sep 14 - Sep 21	0	0	1464	1464	0	2198	2198
*Sep 21 - Oct 5	0	0	4239	4239	0	490	490
Oct 5 - Oct 12	0	0	1289	1289	0	345	345
Oct 12 - Oct 19	0	0	100	100	0	40	40
*Oct 19 - Nov 2	0	0	807	807	0	4	4
Nov 2 - Nov 9	0	0	179	179	0	12	12
Nov 9 - Nov 16	0	0	15	15	0	1	1
Nov 16 - Nov 23	0	0	48	48	0	0	0
Nov 23 - Nov 30	0	0	8	8	0	0	0
Nov 30 - Dec 7	0	0	19	19	0	2	2
*Dec 7 - Dec 21	0	0	8	8	0	0	0
**Dec 21 -							
¹ 20 traps unserviceable this week due to poor field conditions on site - 16 of these traps in field since <u>Jan 19</u> ; 4 of these traps in field since <u>Jan 26</u>							
² 5 of the 36 traps serviced on <u>Feb 17</u> ; 31 of the 36 traps serviced on <u>Feb 18</u>							
*All traps in field for two weeks							
³ Only 16 of the 36 traps serviced this week due to harvest operations							
**No traps serviced in Zone 2 this week due to severe weather on site							



Zone 3

Zone 3 is an almond orchard where aerial NOW SIT releases were conducted. No traps were collected in Zone 3 during the week of December 31 due to severe weather on site.

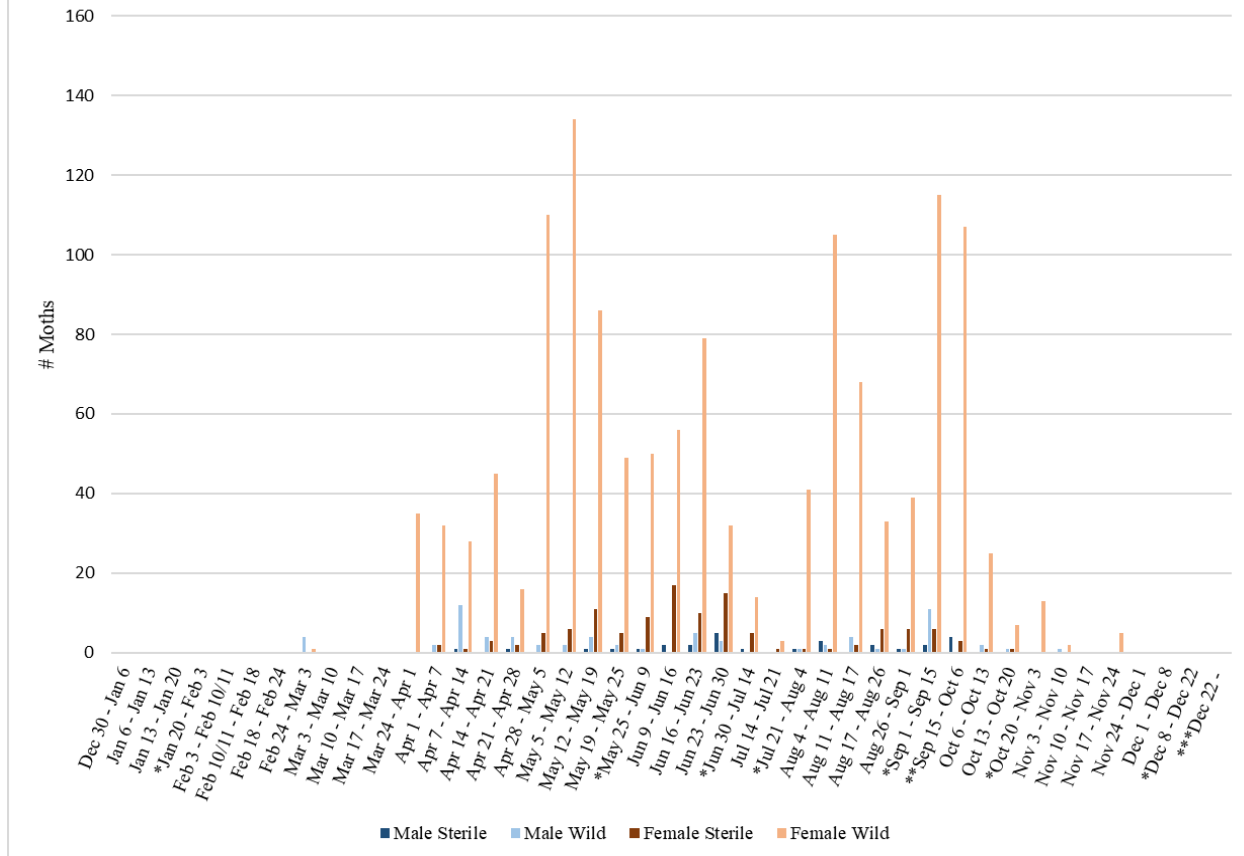
Zone 3 - Almond							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 30 - Jan 6	0	0	0	0	0	0	0
Jan 6 - Jan 13	0	0	0	0	0	0	0
Jan 13 - Jan 20	0	0	0	0	0	0	0
*Jan 20 - Feb 3	0	0	0	0	0	0	0
¹ Feb 3 - Feb 10/11	0	0	0	0	0	0	0
Feb 10/11 - Feb 18	0	0	0	0	0	0	0
Feb 18 - Feb 24	0	0	0	0	0	0	0
Feb 24 - Mar 3	0	0	4	4	0	1	1
Mar 3 - Mar 10	1	0	0	0	0	0	0
Mar 10 - Mar 17	8	0	0	0	0	0	0
Mar 17 - Mar 24	8	0	0	0	0	0	0
Mar 24 - Apr 1	8	0	0	0	0	35	35
Apr 1 - Apr 7	7	0	2	2	2	32	34
Apr 7 - Apr 14	8	1	12	13	1	28	29
Apr 14 - Apr 21	8	0	4	4	3	45	48
Apr 21 - Apr 28	8	1	4	5	2	16	18
Apr 28 - May 5	8	0	2	2	5	110	115
May 5 - May 12	8	0	2	2	6	134	140
May 12 - May 19	8	1	4	5	11	86	97
May 19 - May 25	7	1	2	3	5	49	54
*May 25 - Jun 9	16	1	1	2	9	50	59
Jun 9 - Jun 16	8	2	0	2	17	56	73
Jun 16 - Jun 23	8	2	5	7	10	79	89
Jun 23 - Jun 30	8	5	3	8	15	32	47
*Jun 30 - Jul 14	13	1	0	1	5	14	19
Jul 14 - Jul 21	7	0	0	0	1	3	4
*Jul 21 - Aug 4	15	1	1	2	1	41	42
Aug 4 - Aug 11	7	3	2	5	1	105	106
Aug 11 - Aug 17	6	0	4	4	2	68	70
Aug 17 - Aug 26	8	2	1	3	6	33	39
Aug 26 - Sep 1	7	1	1	2	6	39	45
*Sep 1 - Sep 15	10	2	11	13	6	115	121
**Sep 15 - Oct 6	17	4	0	4	3	107	110
Oct 6 - Oct 13	8	0	2	2	1	25	26
Oct 13 - Oct 20	4	0	1	1	1	7	8
*Oct 20 - Nov 3	0	0	0	0	0	13	13
Nov 3 - Nov 10	0	0	1	1	0	2	2
² Nov 10 - Nov 17	0	0	0	0	0	0	0
Nov 17 - Nov 24	0	0	0	0	0	5	5
Nov 24 - Dec 1	0	0	0	0	0	0	0
Dec 1 - Dec 8	0	0	0	0	0	0	0
*Dec 8 - Dec 22	0	0	0	0	0	0	0

***Dec 22 -							
*All traps in field for two weeks							
¹ 7 of the 36 traps serviced on <u>Feb 10</u> ; 29 of the 36 traps serviced on <u>Feb 11</u>							
**All traps in field for three weeks							
² Only 24 of the 36 traps were serviced this week due to pesticide applications on site							
***No traps serviced in Zone 3 this week due to severe weather on site							

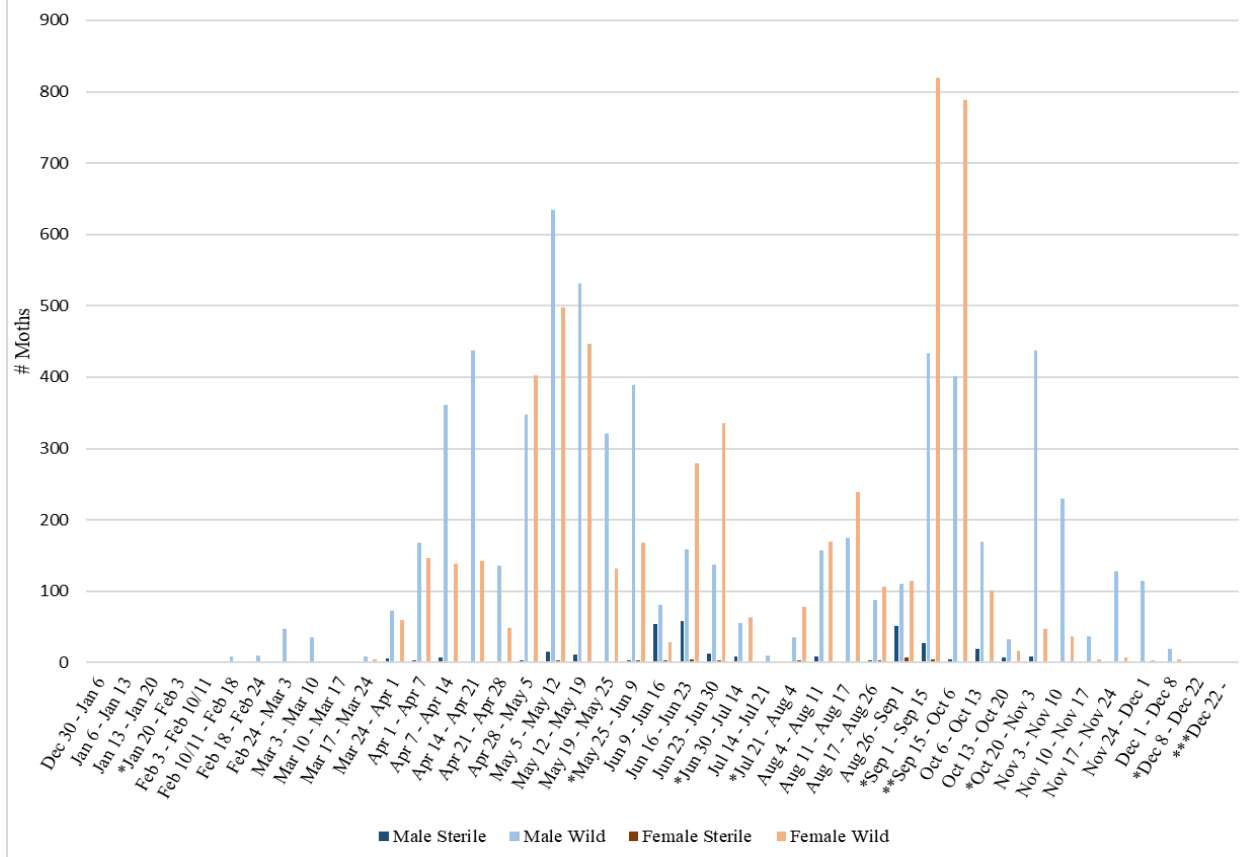
Zone 3 - Almond							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 30 - Jan 6	0	0	0	0	0	0	0
Jan 6 - Jan 13	0	0	0	0	0	0	0
Jan 13 - Jan 20	0	0	0	0	0	0	0
*Jan 20 - Feb 3	0	0	0	0	0	0	0
¹ Feb 3 - Feb 10/11	0	0	0	0	0	0	0
Feb 10/11 - Feb 18	0	0	9	9	0	0	0
Feb 18 - Feb 24	0	0	10	10	0	0	0
Feb 24 - Mar 3	0	0	47	47	0	0	0
Mar 3 - Mar 10	1	0	35	35	0	0	0
Mar 10 - Mar 17	8	0	1	1	0	0	0
Mar 17 - Mar 24	8	0	8	8	0	4	4
Mar 24 - Apr 1	8	6	73	79	0	59	59
Apr 1 - Apr 7	7	3	168	171	0	147	147
Apr 7 - Apr 14	8	7	361	368	0	138	138
Apr 14 - Apr 21	8	0	437	437	0	143	143
Apr 21 - Apr 28	8	2	136	138	0	49	49
Apr 28 - May 5	8	3	348	351	1	403	404
May 5 - May 12	8	15	634	649	3	498	501
May 12 - May 19	8	11	531	542	0	447	447
May 19 - May 25	7	2	321	323	1	132	133
*May 25 - Jun 9	16	3	389	392	3	168	171
Jun 9 - Jun 16	8	54	81	135	3	28	31
Jun 16 - Jun 23	8	58	158	216	4	279	283
Jun 23 - Jun 30	8	12	137	149	3	335	338
*Jun 30 - Jul 14	13	9	56	65	0	64	64
Jul 14 - Jul 21	7	0	10	10	0	2	2
*Jul 21 - Aug 4	15	0	35	35	3	78	81
Aug 4 - Aug 11	7	9	157	166	2	169	171
Aug 11 - Aug 17	6	0	175	175	0	239	239
Aug 17 - Aug 26	8	3	88	91	3	107	110
Aug 26 - Sep 1	7	51	110	161	7	114	121
*Sep 1 - Sep 15	10	27	433	460	5	819	824
**Sep 15 - Oct 6	17	4	401	405	1	789	790
Oct 6 - Oct 13	8	19	169	188	0	101	101
Oct 13 - Oct 20	4	7	32	39	0	17	17
*Oct 20 - Nov 3	0	8	438	446	0	47	47
Nov 3 - Nov 10	0	0	230	230	0	36	36
¹ Nov 10 - Nov 17	0	0	37	37	0	5	5

Nov 17 - Nov 24	0	0	128	128	0	7	7
Nov 24 - Dec 1	0	0	114	114	0	3	3
Dec 1 - Dec 8	0	0	19	19	0	5	5
*Dec 8 - Dec 22	0	0	2	2	0	0	0
***Dec 22 -							
*All traps in field for two weeks							
¹ 7 of the 36 traps serviced on <u>Feb 10</u> ; 29 of the 36 traps serviced on <u>Feb 11</u>							
**All traps in field for three weeks							
² Only 24 of the 36 traps were serviced this week due to pesticide applications on site							
***No traps serviced in Zone 3 this week due to severe weather on site							

Zone 3 - Almond Orchard - Pistachio Meal Baited Traps



Zone 3 - Almond Orchard - Pheromone/PPO Lure Baited Traps



Zone 4

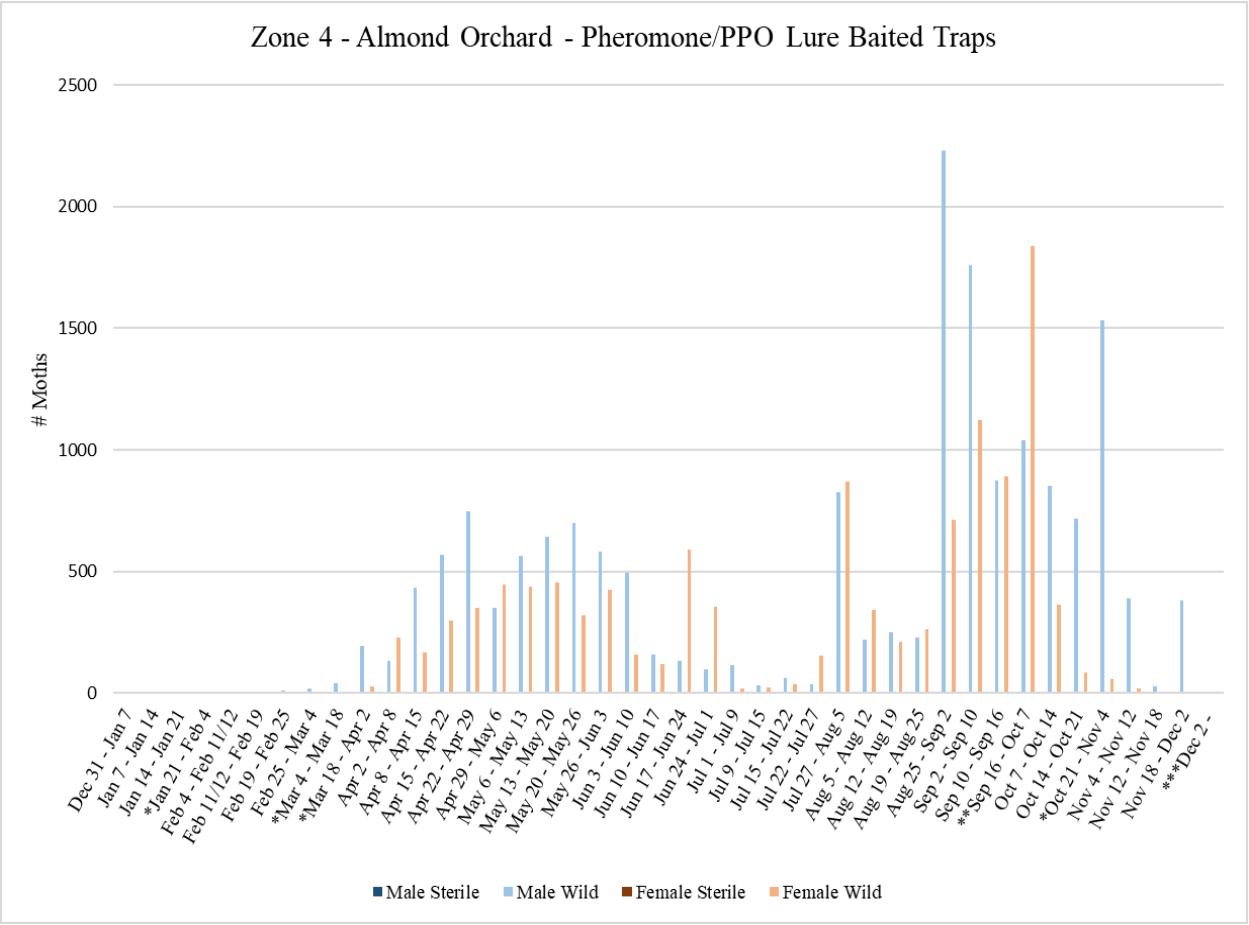
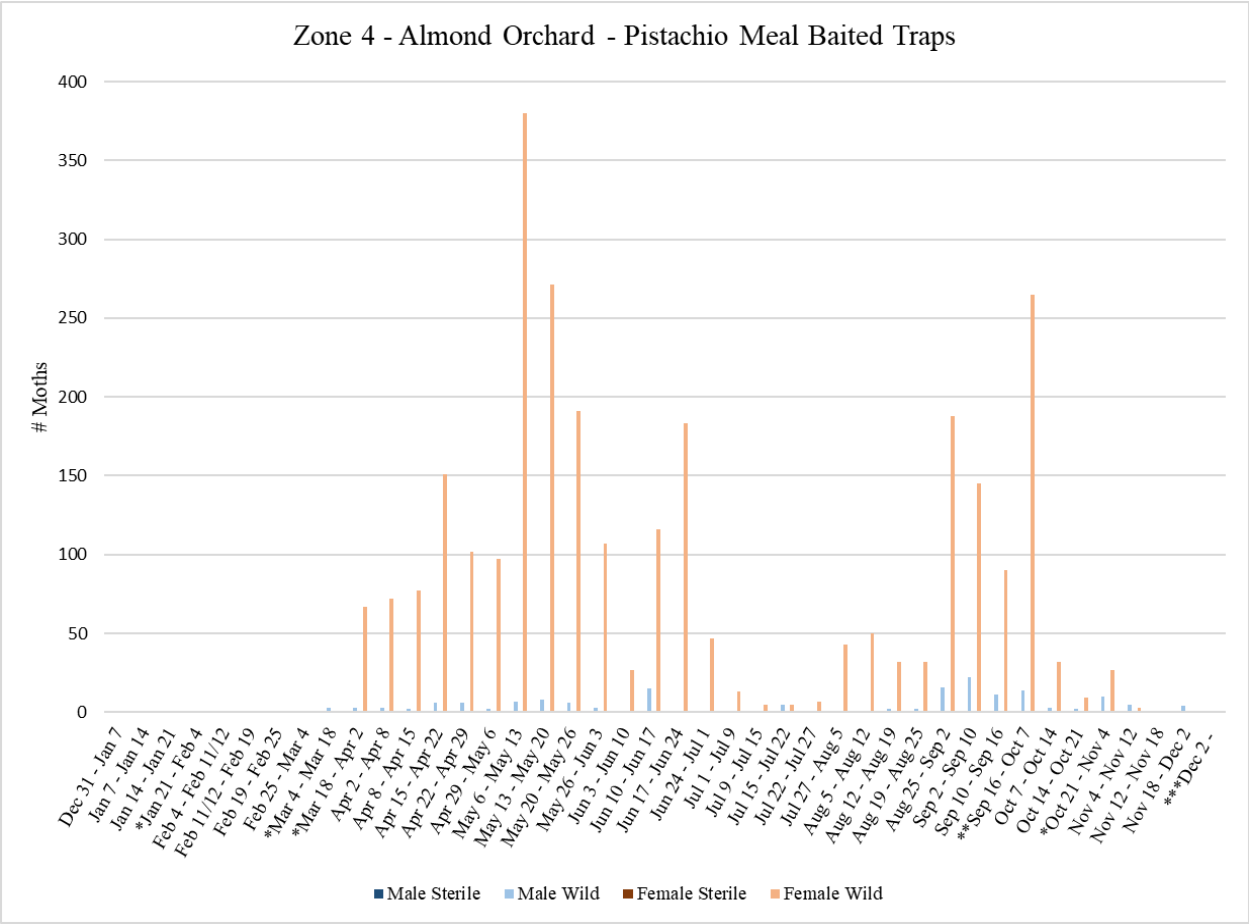
Zone 4 is an almond orchard where aerial NOW SIT releases were not conducted. No traps were collected in Zone 4 during the week of December 31 due to severe weather on site.

Zone 4 - Almond							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 31 - Jan 7	0	0	0	0	0	0	0
Jan 7 - Jan 14	0	0	0	0	0	0	0
Jan 14 - Jan 21	0	0	0	0	0	0	0
*Jan 21 - Feb 4	0	0	0	0	0	0	0
¹ Feb 4 - Feb 11/12	0	0	0	0	0	0	0
Feb 11/12 - Feb 19	0	0	0	0	0	0	0
Feb 19 - Feb 25	0	0	0	0	0	0	0
Feb 25 - Mar 4	0	0	1	1	0	0	0
*Mar 4 - Mar 18	0	0	3	3	0	0	0
*Mar 18 - Apr 2	0	0	3	3	0	67	67
Apr 2 - Apr 8	0	0	3	3	0	72	72
Apr 8 - Apr 15	0	0	2	2	0	77	77
Apr 15 - Apr 22	0	0	6	6	0	151	151
Apr 22 - Apr 29	0	0	6	6	0	102	102
Apr 29 - May 6	0	0	2	2	0	97	97
May 6 - May 13	0	0	7	7	0	380	380
May 13 - May 20	0	0	8	8	0	271	271
May 20 - May 26	0	0	6	6	0	191	191
May 26 - Jun 3	0	0	3	3	0	107	107
Jun 3 - Jun 10	0	0	1	1	0	27	27
Jun 10 - Jun 17	0	0	15	15	0	116	116
Jun 17 - Jun 24	0	0	1	1	0	183	183
Jun 24 - Jul 1	0	0	0	0	1	47	48
Jul 1 - Jul 9	0	0	0	0	0	13	13
Jul 9 - Jul 15	0	0	0	0	0	5	5
Jul 15 - Jul 22	0	0	5	5	0	5	5
Jul 22 - Jul 27	0	0	0	0	0	7	7
Jul 27 - Aug 5	0	0	1	1	0	43	43
Aug 5 - Aug 12	0	0	0	0	0	50	50
Aug 12 - Aug 19	0	0	2	2	0	32	32
Aug 19 - Aug 25	0	0	2	2	0	32	32
Aug 25 - Sep 2	0	0	16	16	0	188	188
Sep 2 - Sep 10	0	0	22	22	0	145	145
Sep 10 - Sep 16	0	0	11	11	0	90	90
**Sep 16 - Oct 7	0	0	14	14	0	265	265
Oct 7 - Oct 14	0	0	3	3	0	32	32
Oct 14 - Oct 21	0	0	2	2	0	9	9
*Oct 21 - Nov 4	0	0	10	10	0	27	27
Nov 4 - Nov 12	0	0	5	5	0	3	3
² Nov 12 - Nov 18	0	0	0	0	0	0	0
³ Nov 18 - Dec 2	0	0	4	4	0	0	0
***Dec 2 -							

*All traps in field for two weeks							
¹ 18 of the 36 traps serviced on <u>Feb 11</u> ; 18 of the 36 traps serviced on <u>Feb 12</u>							
**All traps in field for three weeks							
² Only 20 of the 36 traps were serviced this week due to trapping equipment issues							
³ 20 of the previously serviced traps in field for two weeks; 16 of the previously unserviced traps in field for three weeks							
***No traps serviced in Zone 4 since 12/2/21 due to severe weather on site							

Zone 4 - Almond							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
Dec 31 - Jan 7	0	0	0	0	0	0	0
Jan 7 - Jan 14	0	0	0	0	0	0	0
Jan 14 - Jan 21	0	0	0	0	0	0	0
*Jan 21 - Feb 4	0	0	0	0	0	0	0
¹ Feb 4 - Feb 11/12	0	0	0	0	0	0	0
Feb 11/12 - Feb 19	0	0	4	4	0	0	0
Feb 19 - Feb 25	0	0	9	9	0	0	0
Feb 25 - Mar 4	0	0	20	20	0	0	0
*Mar 4 - Mar 18	0	0	38	38	0	0	0
*Mar 18 - Apr 2	0	0	192	192	0	26	26
Apr 2 - Apr 8	0	0	131	131	0	229	229
Apr 8 - Apr 15	0	0	431	431	0	165	165
Apr 15 - Apr 22	0	0	570	570	0	299	299
Apr 22 - Apr 29	0	0	745	745	0	351	351
Apr 29 - May 6	0	0	352	352	0	445	445
May 6 - May 13	0	0	564	564	0	439	439
May 13 - May 20	0	0	643	643	0	454	454
May 20 - May 26	0	0	697	697	0	318	318
May 26 - Jun 3	0	0	582	582	0	424	424
Jun 3 - Jun 10	0	0	496	496	0	159	159
Jun 10 - Jun 17	0	0	160	160	0	120	120
Jun 17 - Jun 24	0	0	130	130	0	590	590
Jun 24 - Jul 1	0	0	96	96	0	355	355
Jul 1 - Jul 9	0	0	113	113	0	18	18
Jul 9 - Jul 15	0	0	31	31	0	23	23
Jul 15 - Jul 22	0	0	64	64	0	34	34
Jul 22 - Jul 27	0	0	36	36	0	154	154
Jul 27 - Aug 5	0	0	826	826	0	867	867
Aug 5 - Aug 12	0	0	217	217	0	342	342
Aug 12 - Aug 19	0	0	251	251	0	212	212
Aug 19 - Aug 25	0	0	227	227	0	262	262
Aug 25 - Sep 2	0	0	2231	2231	0	712	712
Sep 2 - Sep 10	0	0	1760	1760	0	1122	1122
Sep 10 - Sep 16	0	0	872	872	0	892	892
**Sep 16 - Oct 7	0	0	1041	1041	0	1838	1838
Oct 7 - Oct 14	0	0	850	850	0	364	364
Oct 14 - Oct 21	0	0	716	716	0	84	84

*Oct 21 - Nov 4	0	0	1534	1534	0	59	59
Nov 4 - Nov 12	0	0	387	387	0	19	19
² Nov 12 - Nov 18	0	0	29	29	0	4	4
³ Nov 18 - Dec 2	0	0	380	380	0	7	7
***Dec 2 -							
*All traps in field for two weeks							
¹ 18 of the 36 traps serviced on <u>Feb 11</u> ; 18 of the 36 traps serviced on <u>Feb 12</u>							
**All traps in field for three weeks							
² Only 20 of the 36 traps were serviced this week due to trapping equipment issues							
³ 20 of the previously serviced traps in field for two weeks; 16 of the previously unserviced traps in field for three weeks							
***No traps serviced in Zone 4 since 12/2/21 due to severe weather on site							

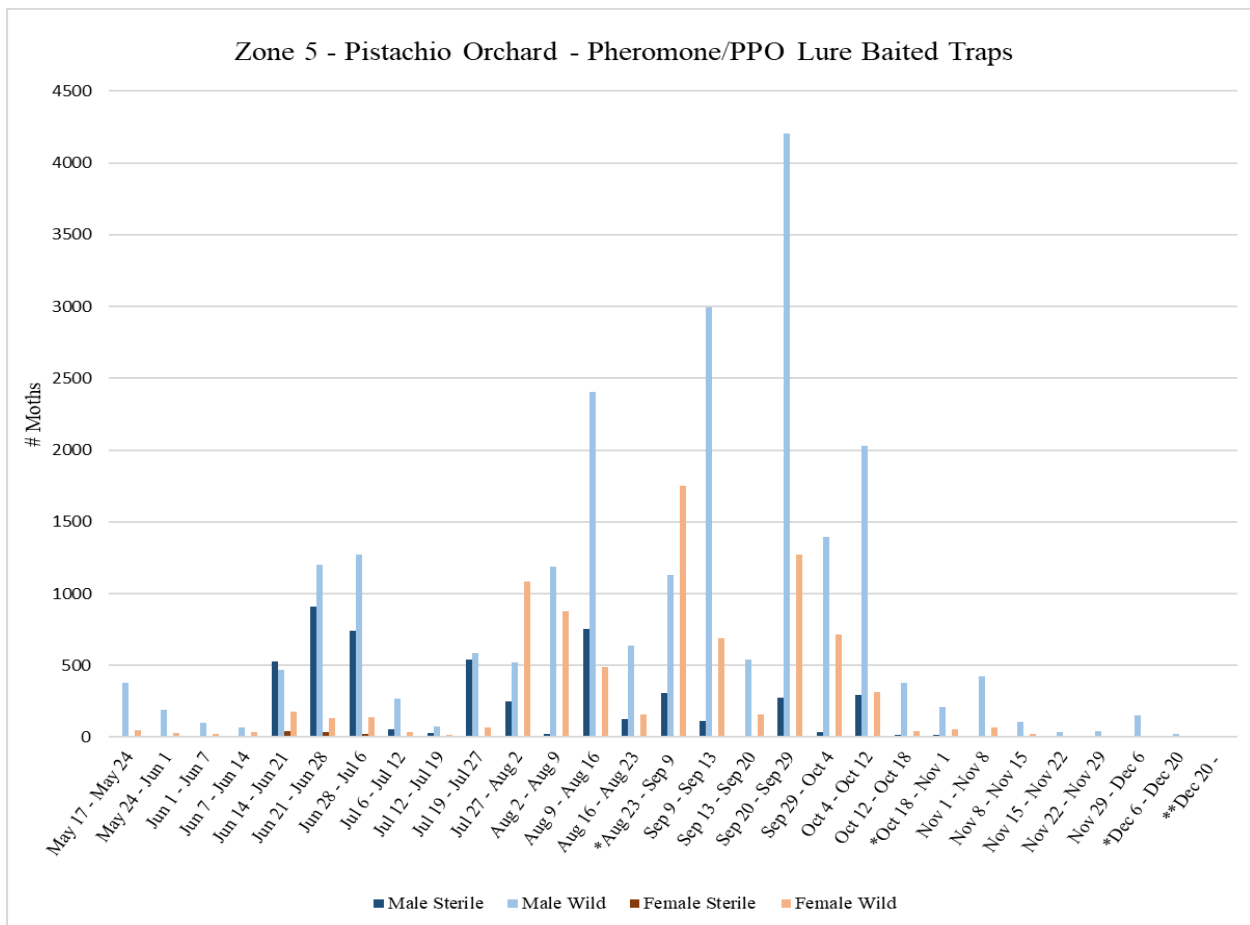
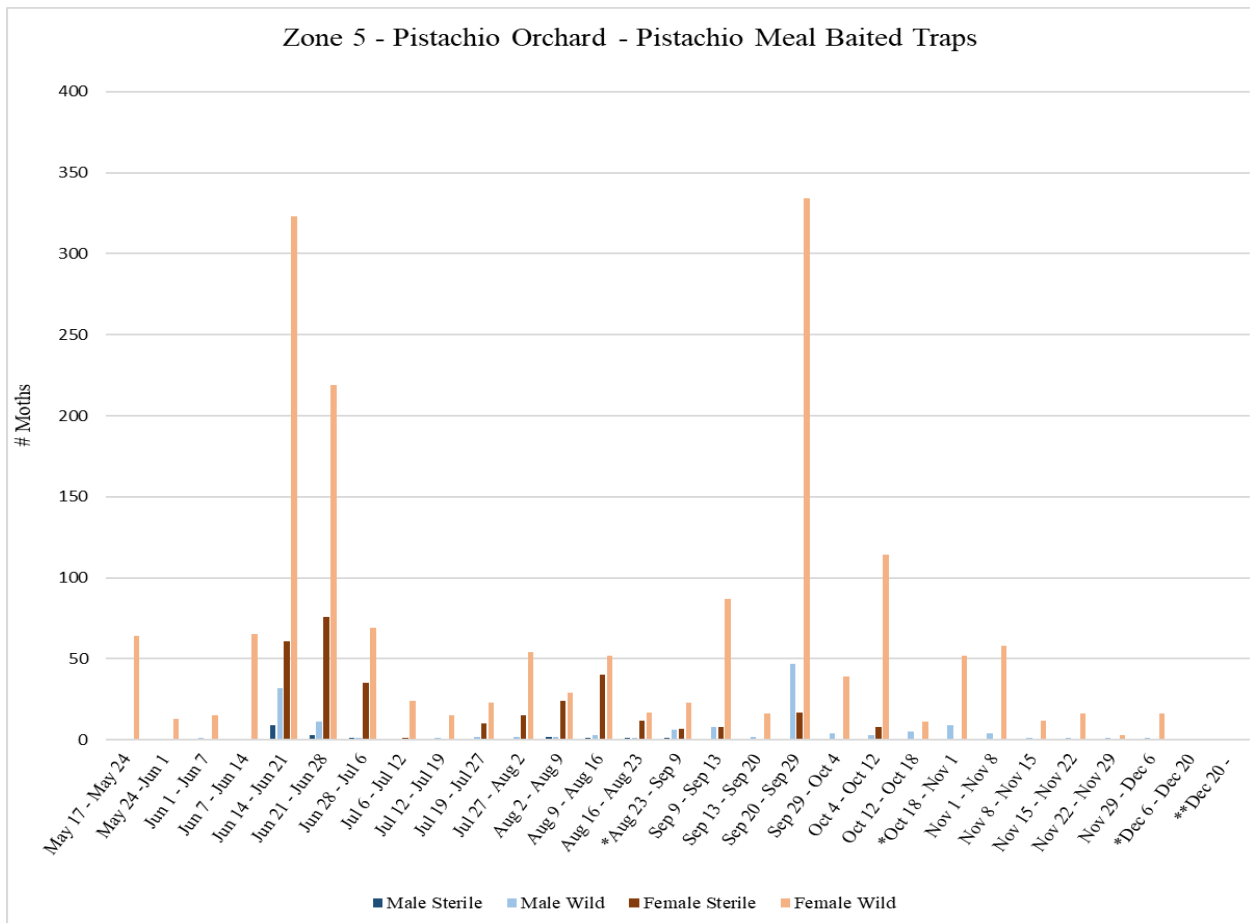


Zone 5

Zone 5 is a pistachio orchard where aerial NOW SIT releases were conducted. No traps were collected in Zone 5 during the week of December 31 due to severe weather on site.

Zone 5 - Pistachio							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 17 - May 24	0	0	0	0	0	64	64
May 24 - Jun 1	0	0	0	0	0	13	13
Jun 1 - Jun 7	0	0	1	1	0	15	15
Jun 7 - Jun 14	0	0	0	0	0	65	65
Jun 14 - Jun 21	4	9	32	41	61	323	384
Jun 21 - Jun 28	6	3	11	14	76	219	295
Jun 28 - Jul 6	6	1	1	2	35	69	104
Jul 6 - Jul 12	3	0	0	0	1	24	25
Jul 12 - Jul 19	6	0	1	1	0	15	15
Jul 19 - Jul 27	7	0	2	2	10	23	33
Jul 27 - Aug 2	5	0	2	2	15	54	69
Aug 2 - Aug 9	6	2	2	4	24	29	53
Aug 9 - Aug 16	^6	1	3	4	40	52	92
Aug 16 - Aug 23	^6	1	1	2	12	17	29
*Aug 23 - Sep 9	^11	1	6	7	7	23	30
Sep 9 - Sep 13	0	0	8	8	8	87	95
¹ Sep 13 - Sep 20	3	0	2	2	0	16	16
Sep 20 - Sep 29	6	0	47	47	17	334	351
Sep 29 - Oct 4	3	0	4	4	0	39	39
Oct 4 - Oct 12	7	0	3	3	8	114	122
Oct 12 - Oct 18	4	0	5	5	0	11	11
*Oct 18 - Nov 1	0	0	9	9	0	52	52
Nov 1 - Nov 8	0	0	4	4	0	58	58
Nov 8 - Nov 15	0	0	1	1	0	12	12
Nov 15 - Nov 22	0	0	1	1	0	16	16
Nov 22 - Nov 29	0	0	1	1	0	3	3
Nov 29 - Dec 6	0	0	1	1	0	16	16
*Dec 6 - Dec 20	0	0	0	0	0	0	0
**Dec 20 -							
^Extra moths from Mag 2 released over Zone 5 on select Thursdays							
*All traps in field for two weeks							
¹ Only 6 of the 36 traps serviced this week due to staffing issues							
**No traps serviced in Zone 5 this week due to severe weather on site							

Zone 5 - Pistachio							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 17 - May 24	0	0	381	381	0	50	50
May 24 - Jun 1	0	0	188	188	0	26	26
Jun 1 - Jun 7	0	0	100	100	0	23	23
Jun 7 - Jun 14	0	0	70	70	0	38	38
Jun 14 - Jun 21	4	525	467	992	44	176	220
Jun 21 - Jun 28	6	907	1198	2105	37	132	169
Jun 28 - Jul 6	6	739	1274	2013	21	136	157
Jul 6 - Jul 12	3	57	271	328	2	33	35
Jul 12 - Jul 19	6	27	75	102	7	17	24
Jul 19 - Jul 27	7	540	585	1125	9	69	78
Jul 27 - Aug 2	5	252	521	773	4	1085	1089
Aug 2 - Aug 9	6	24	1185	1209	4	875	879
Aug 9 - Aug 16	^6	756	2403	3159	8	490	498
Aug 16 - Aug 23	^6	125	640	765	4	159	163
*Aug 23 - Sep 9	^11	304	1129	1433	5	1748	1753
Sep 9 - Sep 13	0	111	2992	3103	3	687	690
¹ Sep 13 - Sep 20	3	2	542	544	0	160	160
Sep 20 - Sep 29	6	274	4202	4476	4	1272	1276
Sep 29 - Oct 4	3	38	1394	1432	0	715	715
Oct 4 - Oct 12	7	294	2026	2320	0	316	316
Oct 12 - Oct 18	4	19	378	397	0	40	40
*Oct 18 - Nov 1	0	17	210	227	0	53	53
Nov 1 - Nov 8	0	3	421	424	0	70	70
Nov 8 - Nov 15	0	0	105	105	0	24	24
Nov 15 - Nov 22	0	0	37	37	0	3	3
Nov 22 - Nov 29	0	0	44	44	0	3	3
Nov 29 - Dec 6	0	0	152	152	0	4	4
*Dec 6 - Dec 20	0	0	25	25	0	0	0
**Dec 20 -							
^Extra moths from Mag 2 released over Zone 5 on select Thursdays							
*All traps in field for two weeks							
¹ Only 6 of the 36 traps serviced this week due to staffing issues							
**No traps serviced in Zone 5 this week due to severe weather on site							

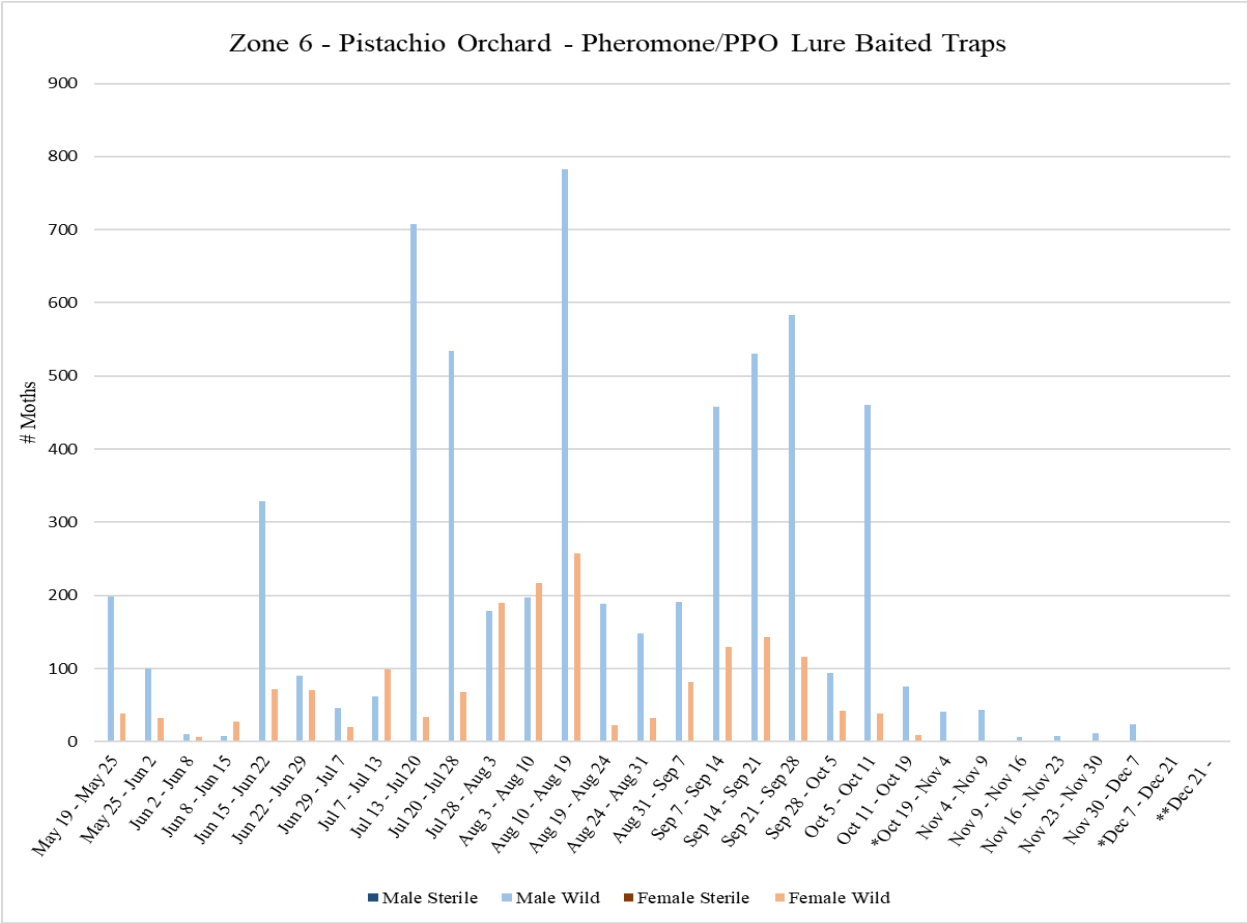
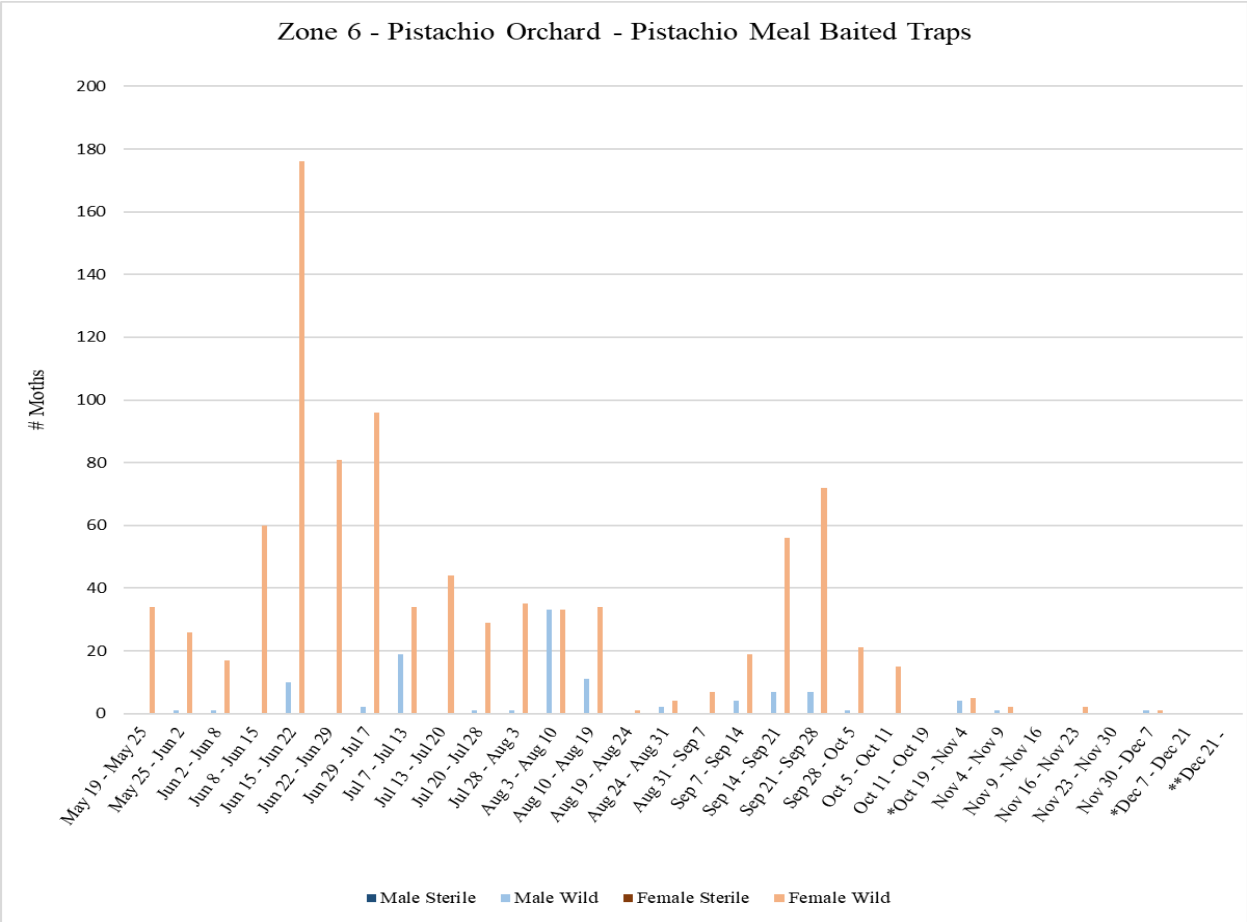


Zone 6

Zone 6 is a pistachio orchard where aerial NOW SIT releases were not conducted. No traps were collected in Zone 6 during the week of December 31 due to severe weather on site.

Zone 6 - Pistachio							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 19 - May 25	0	0	0	0	0	34	34
May 25 - Jun 2	0	0	1	1	0	26	26
Jun 2 - Jun 8	0	0	1	1	0	17	17
Jun 8 - Jun 15	0	0	0	0	0	60	60
Jun 15 - Jun 22	0	0	10	10	0	176	176
Jun 22 - Jun 29	0	0	0	0	0	81	81
Jun 29 - Jul 7	0	0	2	2	0	96	96
Jul 7 - Jul 13	0	0	19	19	0	34	34
Jul 13 - Jul 20	0	0	0	0	0	44	44
Jul 20 - Jul 28	0	0	1	1	0	29	29
Jul 28 - Aug 3	0	0	1	1	0	35	35
Aug 3 - Aug 10	0	0	33	33	0	33	33
Aug 10 - Aug 19	0	0	11	11	0	34	34
Aug 19 - Aug 24	0	0	0	0	0	1	1
Aug 24 - Aug 31	0	0	2	2	0	4	4
Aug 31 - Sep 7	0	0	0	0	0	7	7
Sep 7 - Sep 14	0	0	4	4	0	19	19
Sep 14 - Sep 21	0	0	7	7	0	56	56
Sep 21 - Sep 28	0	0	7	7	0	72	72
Sep 28 - Oct 5	0	0	1	1	0	21	21
Oct 5 - Oct 11	0	0	0	0	0	15	15
Oct 11 - Oct 19	0	0	0	0	0	0	0
*Oct 19 - Nov 4	0	0	4	4	0	5	5
Nov 4 - Nov 9	0	0	1	1	0	2	2
Nov 9 - Nov 16	0	0	0	0	0	0	0
Nov 16 - Nov 23	0	0	0	0	0	2	2
Nov 23 - Nov 30	0	0	0	0	0	0	0
Nov 30 - Dec 7	0	0	1	1	0	1	1
*Dec 7 - Dec 21	0	0	0	0	0	0	0
**Dec 21 -							
*All traps in field for two weeks							
**No traps serviced in Zone 6 this week due to severe weather on site							

Zone 6 - Pistachio							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 19 - May 25	0	0	198	198	0	39	39
May 25 - Jun 2	0	0	100	100	0	33	33
Jun 2 - Jun 8	0	0	10	10	0	6	6
Jun 8 - Jun 15	0	0	8	8	0	27	27
Jun 15 - Jun 22	0	0	329	329	0	72	72
Jun 22 - Jun 29	0	0	90	90	0	70	70
Jun 29 - Jul 7	0	0	46	46	0	20	20
Jul 7 - Jul 13	0	0	62	62	0	99	99
Jul 13 - Jul 20	0	0	707	707	0	34	34
Jul 20 - Jul 28	0	0	534	534	0	68	68
Jul 28 - Aug 3	0	0	179	179	0	190	190
Aug 3 - Aug 10	0	0	197	197	0	217	217
Aug 10 - Aug 19	0	0	783	783	0	257	257
Aug 19 - Aug 24	0	0	189	189	0	22	22
Aug 24 - Aug 31	0	0	148	148	0	32	32
Aug 31 - Sep 7	0	0	191	191	0	82	82
Sep 7 - Sep 14	0	0	458	458	0	129	129
Sep 14 - Sep 21	0	0	531	531	0	143	143
Sep 21 - Sep 28	0	0	583	583	0	116	116
Sep 28 - Oct 5	0	0	94	94	0	42	42
Oct 5 - Oct 11	0	0	460	460	0	38	38
Oct 11 - Oct 19	0	0	76	76	0	9	9
*Oct 19 - Nov 4	0	0	41	41	0	1	1
Nov 4 - Nov 9	0	0	44	44	0	1	1
Nov 9 - Nov 16	0	0	7	7	0	1	1
Nov 16 - Nov 23	0	0	8	8	0	1	1
Nov 23 - Nov 30	0	0	11	11	0	0	0
Nov 30 - Dec 7	0	0	24	24	0	1	1
*Dec 7 - Dec 21	0	0	2	2	0	0	0
**Dec 21 -							
*All traps in field for two weeks							
**No traps serviced in Zone 6 this week due to severe weather on site							

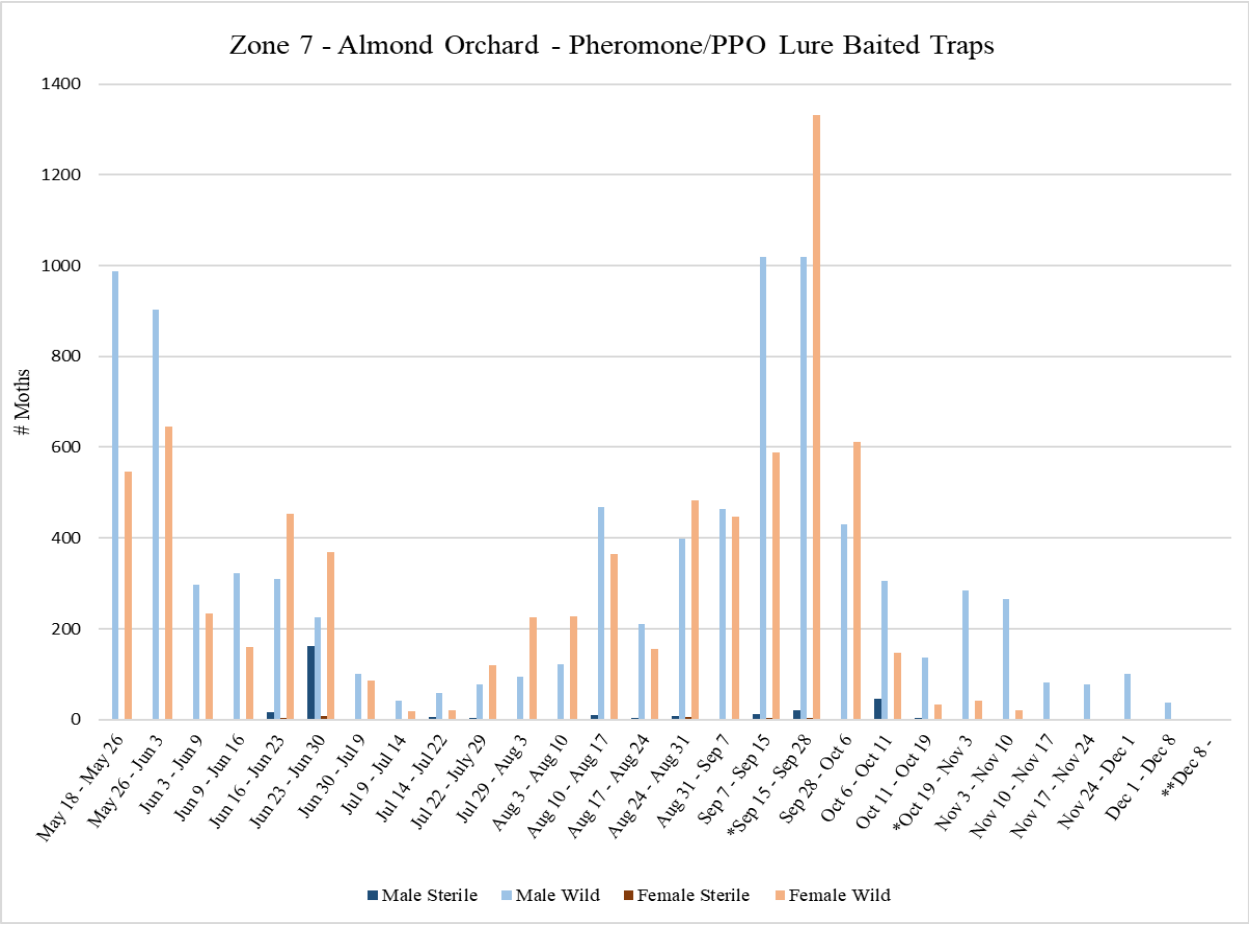
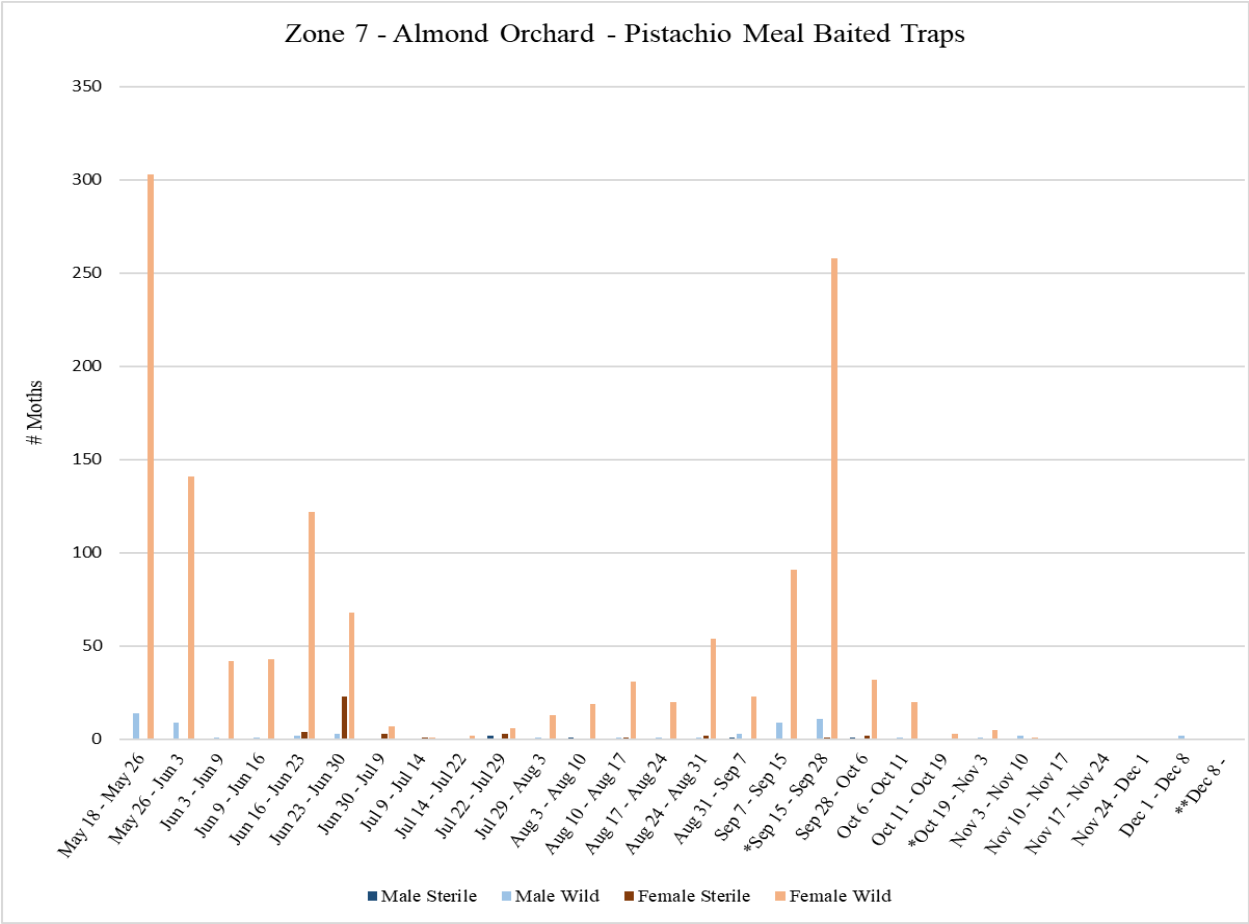


Zone 7

Zone 7 is an almond orchard where aerial NOW SIT releases were conducted. No traps were collected in Zone 7 during the week of December 31 due to severe weather on site.

Zone 7 - Almond							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 18 - May 26	0	0	14	14	0	303	303
May 26 - Jun 3	0	0	9	9	0	141	141
Jun 3 - Jun 9	0	0	1	1	0	42	42
Jun 9 - Jun 16	0	0	1	1	0	43	43
Jun 16 - Jun 23	5	0	2	2	4	122	126
Jun 23 - Jun 30	6	0	3	3	23	68	91
Jun 30 - Jul 9	7	0	0	0	3	7	10
Jul 9 - Jul 14	^5	0	0	0	1	1	2
Jul 14 - Jul 22	^9	0	0	0	0	2	2
Jul 22 - Jul 29	^6	2	0	2	3	6	9
Jul 29 - Aug 3	5	0	1	1	0	13	13
Aug 3 - Aug 10	^6	1	0	1	0	19	19
Aug 10 - Aug 17	5	0	1	1	1	31	32
Aug 17 - Aug 24	4	0	1	1	0	20	20
Aug 24 - Aug 31	5	0	1	1	2	54	56
Aug 31 - Sep 7	^7	1	3	4	0	23	23
Sep 7 - Sep 15	2	0	9	9	0	91	91
*Sep 15 - Sep 28	^9	0	11	11	1	258	259
Sep 28 - Oct 6	5	1	0	1	2	32	34
Oct 6 - Oct 11	^5	0	1	1	0	20	20
Oct 11 - Oct 19	4	0	0	0	0	3	3
*Oct 19 - Nov 3	0	0	1	1	0	5	5
Nov 3 - Nov 10	0	0	2	2	0	1	1
Nov 10 - Nov 17	0	0	0	0	0	0	0
Nov 17 - Nov 24	0	0	0	0	0	0	0
Nov 24 - Dec 1	0	0	0	0	0	0	0
Dec 1 - Dec 8	0	0	2	2	0	0	0
**Dec 8 -							
^Extra moths from Mag 2 released over Zone 7 on select Thursdays							
*All traps in field for two weeks							
**No traps serviced in Zone 7 since 12/8/21 due to severe weather on site.							

Zone 7 - Almond							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 18 - May 26	0	0	988	988	0	546	546
May 26 - Jun 3	0	0	902	902	0	646	646
Jun 3 - Jun 9	0	0	296	296	0	233	233
Jun 9 - Jun 16	0	0	322	322	0	160	160
Jun 16 - Jun 23	5	17	309	326	3	453	456
Jun 23 - Jun 30	6	161	226	387	8	369	377
Jun 30 - Jul 9	7	0	100	100	0	86	86
Jul 9 - Jul 14	^5	0	42	42	0	18	18
Jul 14 - Jul 22	^9	5	59	64	1	20	21
Jul 22 - July 29	^6	4	78	82	0	119	119
Jul 29 - Aug 3	5	0	95	95	0	225	225
Aug 3 - Aug 10	^6	0	121	121	0	227	227
Aug 10 - Aug 17	5	9	469	478	0	364	364
Aug 17 - Aug 24	4	4	211	215	0	155	155
Aug 24 - Aug 31	5	8	398	406	5	483	488
Aug 31 - Sep 7	^7	0	463	463	0	447	447
Sep 7 - Sep 15	2	13	1019	1032	3	589	592
*Sep 15 - Sep 28	^9	21	1019	1040	3	1332	1335
Sep 28 - Oct 6	5	1	429	430	1	612	613
Oct 6 - Oct 11	^5	45	306	351	2	147	149
Oct 11 - Oct 19	4	4	137	141	0	33	33
*Oct 19 - Nov 3	0	0	285	285	0	42	42
Nov 3 - Nov 10	0	0	265	265	0	20	20
Nov 10 - Nov 17	0	0	81	81	0	0	0
Nov 17 - Nov 24	0	0	77	77	0	0	0
Nov 24 - Dec 1	0	0	100	100	0	0	0
Dec 1 - Dec 8	0	0	37	37	0	1	1
**Dec 8 -							
^Extra moths from Mag 2 released over Zone 7 on select Thursdays							
*All traps in field for two weeks							
**No traps serviced in Zone 7 since 12/8/21 due to severe weather on site.							

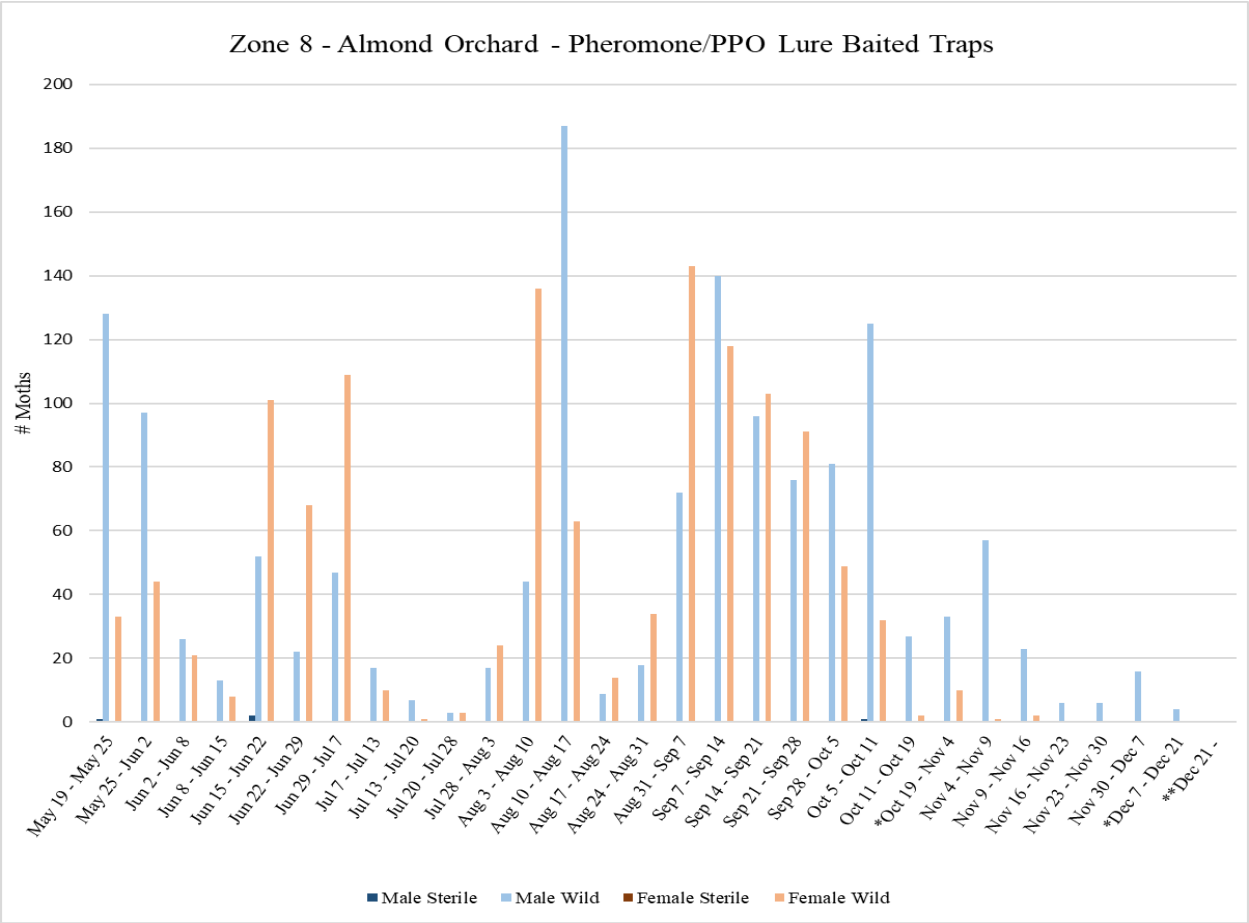
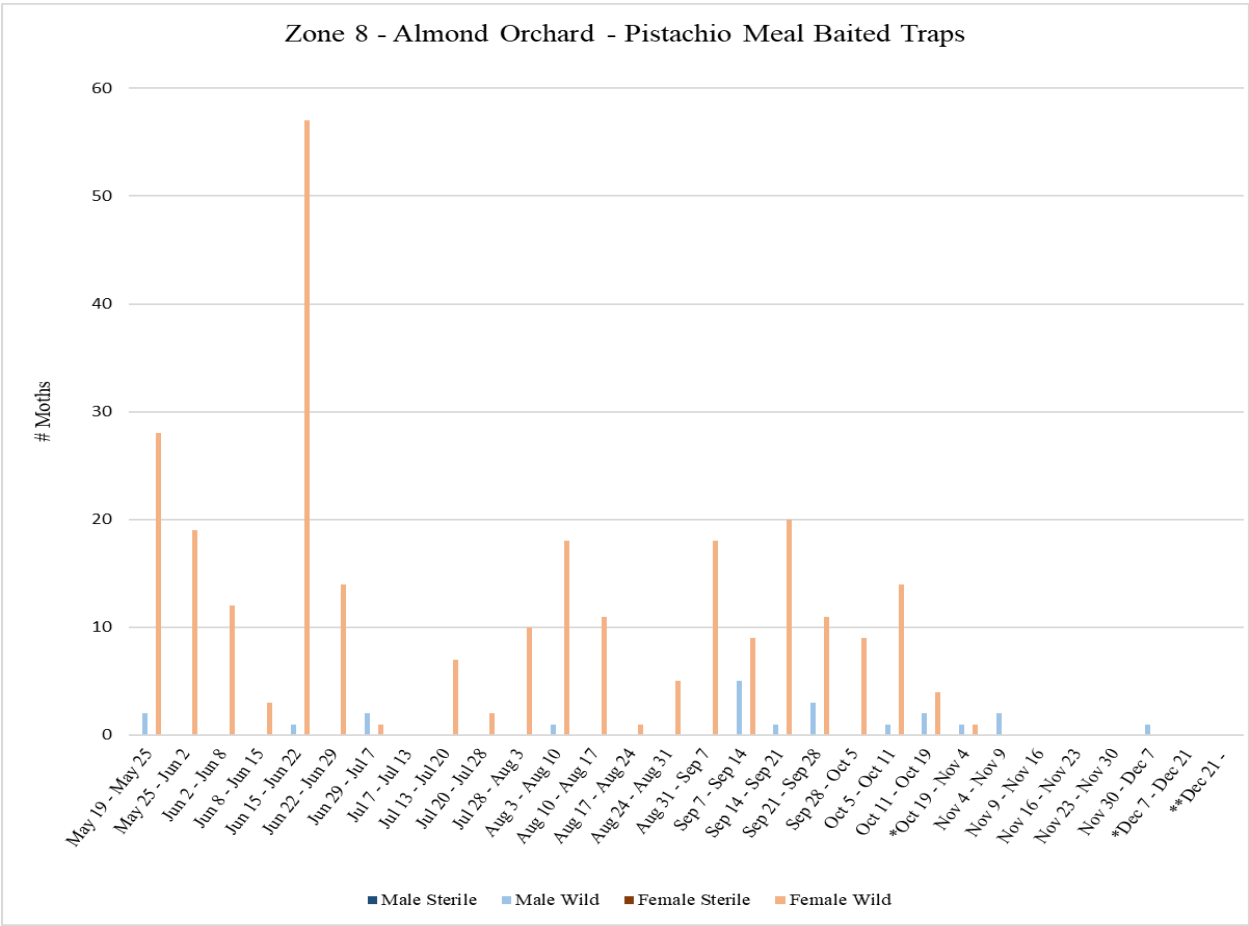


Zone 8

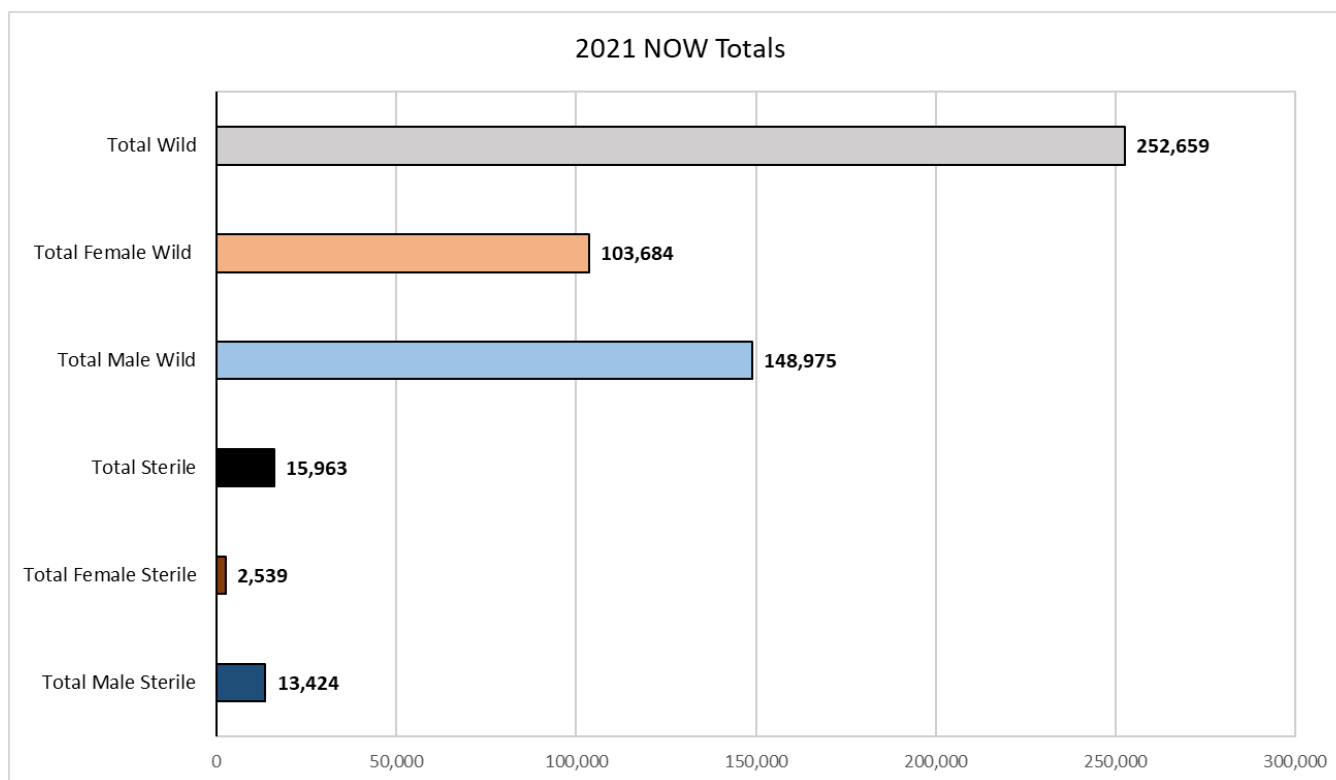
Zone 8 is an almond orchard where aerial NOW SIT releases were not conducted. No traps were collected in Zone 8 during the week of December 31 due to severe weather on site.

Zone 8 - Almond							
Pistachio Meal Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 19 - May 25	0	0	2	2	0	28	28
May 25 - Jun 2	0	0	0	0	0	19	19
Jun 2 - Jun 8	0	0	0	0	0	12	12
Jun 8 - Jun 15	0	0	0	0	0	3	3
Jun 15 - Jun 22	0	0	1	1	0	57	57
Jun 22 - Jun 29	0	0	0	0	0	14	14
Jun 29 - Jul 7	0	0	2	2	0	1	1
Jul 7 - Jul 13	0	0	0	0	0	0	0
Jul 13 - Jul 20	0	0	0	0	0	7	7
Jul 20 - Jul 28	0	0	0	0	0	2	2
Jul 28 - Aug 3	0	0	0	0	0	10	10
Aug 3 - Aug 10	0	0	1	1	0	18	18
Aug 10 - Aug 17	0	0	0	0	0	11	11
Aug 17 - Aug 24	0	0	0	0	0	1	1
Aug 24 - Aug 31	0	0	0	0	0	5	5
Aug 31 - Sep 7	0	0	0	0	0	18	18
Sep 7 - Sep 14	0	0	5	5	0	9	9
Sep 14 - Sep 21	0	0	1	1	0	20	20
Sep 21 - Sep 28	0	0	3	3	0	11	11
Sep 28 - Oct 5	0	0	0	0	0	9	9
Oct 5 - Oct 11	0	0	1	1	0	14	14
Oct 11 - Oct 19	0	0	2	2	0	4	4
*Oct 19 - Nov 4	0	0	1	1	0	1	1
Nov 4 - Nov 9	0	0	2	2	0	0	0
Nov 9 - Nov 16	0	0	0	0	0	0	0
Nov 16 - Nov 23	0	0	0	0	0	0	0
Nov 23 - Nov 30	0	0	0	0	0	0	0
Nov 30 - Dec 7	0	0	1	1	0	0	0
*Dec 7 - Dec 21	0	0	0	0	0	0	0
**Dec 21 -							
*All traps in field for two weeks							
**No traps serviced in Zone 8 this week due to severe weather on site							

Zone 8 - Almond							
Pheromone/PPO Lure Baited Traps							
Dates Traps in Field	# of Releases During Trap Period	Male Sterile	Male Wild	Male Total	Female Sterile	Female Wild	Female Total
May 19 - May 25	0	1	128	129	0	33	33
May 25 - Jun 2	0	0	97	97	0	44	44
Jun 2 - Jun 8	0	0	26	26	0	21	21
Jun 8 - Jun 15	0	0	13	13	0	8	8
Jun 15 - Jun 22	0	2	52	54	0	101	101
Jun 22 - Jun 29	0	0	22	22	0	68	68
Jun 29 - Jul 7	0	0	47	47	0	109	109
Jul 7 - Jul 13	0	0	17	17	0	10	10
Jul 13 - Jul 20	0	0	7	7	0	1	1
Jul 20 - Jul 28	0	0	3	3	0	3	3
Jul 28 - Aug 3	0	0	17	17	0	24	24
Aug 3 - Aug 10	0	0	44	44	0	136	136
Aug 10 - Aug 17	0	0	187	187	0	63	63
Aug 17 - Aug 24	0	0	9	9	0	14	14
Aug 24 - Aug 31	0	0	18	18	0	34	34
Aug 31 - Sep 7	0	0	72	72	0	143	143
Sep 7 - Sep 14	0	0	140	140	0	118	118
Sep 14 - Sep 21	0	0	96	96	0	103	103
Sep 21 - Sep 28	0	0	76	76	0	91	91
Sep 28 - Oct 5	0	0	81	81	0	49	49
Oct 5 - Oct 11	0	1	125	126	0	32	32
Oct 11 - Oct 19	0	0	27	27	0	2	2
*Oct 19 - Nov 4	0	0	33	33	0	10	10
Nov 4 - Nov 9	0	0	57	57	0	1	1
Nov 9 - Nov 16	0	0	23	23	0	2	2
Nov 16 - Nov 23	0	0	6	6	0	0	0
Nov 23 - Nov 30	0	0	6	6	0	0	0
Nov 30 - Dec 7	0	0	16	16	0	0	0
*Dec 7 - Dec 21	0	0	4	4	0	0	0
**Dec 21 -							
*All traps in field for two weeks							
**No traps serviced in Zone 8 this week due to severe weather on site							



IV. 2021 Trapping Season Totals (December 28, 2020 – December 31, 2021)



V. Quality Control

QC tests are performed on samples taken from each shipment of sterile NOW moths. These tests include: zero-hour mortality rates, zero-hour mating dissections, forty-eight-hour mating dissections, seven-day longevity monitoring, and crush tests. Throughout the span of a week, Monday through Sunday, the results of each test are averaged. Below are the 2021 SIT season's average QC results for Mag 1 and Mag 2 from the period of Wednesday, March 10, 2021 to Saturday, October 16, 2021.

- 2% of moths from samples found dead at zero hour
- 1% of moths from samples found to have mated at zero hour
- 36% of moths from samples found to have mated after forty-eight hours
- 84% of moths from samples remained alive after seven days in BioChamber
- 83% of moths from samples found to have distinct red dye markings

