

Navel Orangeworm Program 2023 – Weekly Report

Week Ending – September 8, 2023

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I. Program Updates

Navel Orangeworm Area Wide Program – Multi-Phase Approach

Phase 1 – 2018-2022

Phase 1 was the Initial Phase of the Navel Orangeworm (NOW) Program (Program) with a focus on developing NOW sterile insect technique (SIT) moths, determining their viability during cold storage transfer, performing quality control (QC) on mating propensity and survivability of the sterile moths, developing a trap monitoring program, and collecting preliminary damage data from the orchards participating in the Program's project site.

Phase 2 – 2023

Phase 2 is the Data Phase of the NOW Program. The focus of this phase is controlling variables within the orchards participating in the Program's project site in order to increase the integrity of the field data being collected. During this phase a University of California Cooperative Extension (UCCE) coordinator will take over as a grower point of contact. They will be responsible for coordinating with growers and establishing orchards for the Phase 2 Program project site.

Navel Orangeworm Sterile Insect Technique

The Navel Orangeworm Program utilizes NOW SIT moths obtained from the United States Department of Agriculture (USDA) and California Department of Food and Agriculture's (CDFA) Phoenix, Arizona Rearing Facility. QC tests are performed on every shipment of NOW SIT moths used for aerial releases.

Aerial releases for 2023 began on Sunday, March 12, with one magazine of approximately 750,000 moths being released daily over two 640-acre orchards in Fresno County, designated as Zones 1 and 3. Beginning on Thursday, April 13, a second magazine of approximately 750,000 moths began being released daily over a single 640-acre orchard, designated as Zone 6. During the period of April 18 to April 23, the second magazine was released daily over two 640-acre orchards, designated as Zones 6 and 7. As of Monday, April 24, the second magazine began being released daily over two 640-acre orchards, designated as Zones 4 and 6. During select days each week, magazines are diverted to separate sites for research purposes.

Ground releases are conducted in lieu of aerial releases only when aerial releases are not possible. Ground releases are limited to one magazine released at one zone per day, along the north and west edges of the release zone.

Listed below are any circumstances which prevented regular releases in 2023:

March 10: No release conducted due to excessive rain preventing access to release sites via air or ground; moth shipment from March 9 held overnight for a second night for potential release on March 11

March 11: No release conducted due to excessive rain preventing access to release sites via air or ground; moth shipment from March 9 was destroyed; moth shipment from March 10 held overnight for a second night for potential release on March 12

March 12: Double release conducted over Zones 1 and 3 with moth shipments from March 10 and 11

March 14: No release conducted due to excessive rain preventing access to release sites via air or ground; moth shipment from March 13 held overnight for a second night for potential release on March 15

March 15: Double release conducted over Zones 1 and 3 with moth shipments from March 13 and 14

March 17: No release conducted due to mechanical issues with release aircraft; moth shipment from March 16 held overnight for a second night for potential release on March 18

March 18: Double release conducted over Zones 1 and 3 with moth shipments from March 16 and 17

April 20: First magazine unintentionally released over Zones 1 and 7 instead of Zones 1 and 3; the second magazine released, per schedule, over Zones 6 and 7

May 10: Ground release conducted at Zone 1 using Mag 1 while release aircraft underwent repairs; Mag 2 from May 9 held overnight for a second night for potential release on May 11; only one magazine transferred through airline for potential release on May 11

May 11: Aerial releases conducted per schedule; Mag 2 from May 9 released over Zones 4 and 6

May 30: Only Mag 1 shipped through airline due to issue at rearing facility

May 31: Single aerial release conducted using Mag 1 over Zones 1 and 3 only

June 6: No shipments sent through airline due to airline flight cancellations

June 7: No releases due to airline flight cancellations from previous day

June 13: No shipments sent through airline due to airline flight cancellations

June 14: No releases due to airline flight cancellations from previous day

June 18: No shipments received; shipments placed on incorrect flight

June 19: No releases due to shipments being placed on incorrect flight on previous day

June 20: No shipments sent through airline due to airline flight cancellations

June 21: No releases due to airline flight cancellations from previous day

June 26: Single ground release conducted at Zone 4 using Mag 2 from June 25 while release aircraft underwent repairs; Mag 1 from June 25 held overnight for potential release on June 27

June 27: Single ground release conducted at Zone 1 using Mag 1 from June 25 while release aircraft underwent repairs; both mags from June 26 held overnight for potential release on June 28; no shipments sent through airlines

June 28: Single ground release conducted at Zone 4 using Mag 2 from June 26; no shipments sent through airlines due to issue at rearing facility; Mag 1 from June 26 destroyed at Shafter facility

June 29: No releases; shipments not sent through airlines due to issue at rearing facility

June 30: No releases; shipments not sent through airlines due to issue at rearing facility

July 3: No shipments sent through airline due to airline flight cancellations

July 4: No releases due to airline flight cancellations from previous day; no shipments sent through airlines

July 5: No releases due to airline flight cancellations from previous day

July 27: No releases due to cold room malfunction at Shafter facility causing high mortality rates in magazines of moths

August 9: Single ground released conducted at Zone 4 using Mag 2 while aircraft underwent repairs

August 17: Single ground released conducted at Zone 6 using Mag 2 while aircraft underwent repairs

August 21: No releases due to hurricane weather; both mags from August 20 held overnight for potential release on August 22

August 22: Double aerial releases using both mags from August 20

Navel Orangeworm Trapping

During Phase 1 of the NOW Program, trap monitoring operations began May 5, 2020, with an area wide project site that included a total of four orchards in Fresno County: two 640-acre almond orchards and two 640-acre pistachio orchards. On May 17, 2021, the Area Wide Project site expanded to include four additional orchards in Fresno County: one 640-acre almond orchard, one 640-acre pistachio orchard, one 160-acre almond orchard, and one 160-acre pistachio orchard. All eight orchards, designated as Zones 1 through 8, were serviced on a weekly basis.

For Phase 2 of the NOW Program, the area wide project site will include eight 640-acre orchards; four pistachio and four almond, located in Fresno County. All eight orchards, designated as Zones 1 through 8, have been identified. Trapping is being conducted weekly in Zones 1 through 8.

Listed below are any circumstances which prevented regular trap servicing in 2023:

- Week of March 3: No traps were serviced due to excessive rain preventing access to trap sites
- Week of March 17: Only Zone 1 traps were serviced; Zones 2 - 6 traps not serviced due to excessive rain preventing access to trap sites
- Week of March 24: Only Zone 1 traps were serviced; Zones 2 - 6 traps not serviced due to excessive rain preventing access to trap sites
- Week of March 31: No traps were serviced in Zone 2 due to excessively muddy conditions preventing access to trap sites; trap sites 26 – 36 in Zone 4 were not serviced due to pesticide applications on site
- Week of May 5: No traps were serviced in Zone 7 due to excessively muddy conditions preventing access to trap sites
- Week of May 12: No traps were serviced in Zones 2 and 5 due to pesticide applications on site
- Week of June 9: No traps were serviced in Zone 2 due to pesticide applications on site
- Week of June 23: Trap sites 20 – 36 not serviced in Zone 3 due to pesticide applications on site; Trap sites 10 – 36 not serviced in Zone 6 due to pesticide applications on site
- Week of June 30: No traps were serviced in Zone 8 due to pesticide applications on site
- Week of July 7: Trap sites 17 – 36 not serviced in Zone 6 due to pesticide applications on site; No traps were serviced in Zone 7 due to staff shortage; No traps serviced in Zone 8 due to pesticide applications on site

- Week of July 28: No traps were serviced in Zones 2 and 8 due to pesticide applications on site
- Week of August 11: Trap sites 19 – 36 not serviced in Zone 4 due to pesticide applications on site; No traps were serviced in Zone 7 due to pesticide applications on site
- Week of August 18: No traps were serviced in Zones 4 and 8 due to pesticide applications on site
- Week of August 25: No traps were serviced in Zones 4 and 5 due to staffing issues

II. Project Design

The 2023 Area Wide Project site is being restructured in preparation for Phase 2 of the Program, which will establish more standardized and consistent approaches to mating disruption, sanitation, pesticide usage, and other cultural practices for more comparable data between each orchard set (release site/control site).

Listed below is information related to each orchard within the Program's Phase 2 project site for 2023:

| Zone # | Crop Type | Acres | Release/Non-release Site | Magazine Designation | Date Added to Area Wide Project |
|--------|-----------|-------|--------------------------|----------------------|---------------------------------|
| Zone 1 | Pistachio | 640 | Release | Mag 1 | February 2023 |
| Zone 2 | Pistachio | 640 | Non-release | | February 2023 |
| Zone 3 | Almond | 640 | Release | Mag 1 | February 2023 |
| Zone 4 | Almond | 640 | Release | Mag 2 | February 2023 |
| Zone 5 | Pistachio | 640 | Non-release | | March 2023 |
| Zone 6 | Pistachio | 640 | Release | Mag 2 | March 2023 |
| Zone 7 | Almond | 640 | Non-release | | April 2023 |
| Zone 8 | Almond | 640 | Non-release | | April 2023 |

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. Each trap site has one trap baited with pistachio meal bait and one trap baited with NOW pheromone/PPO lures. All traps are serviced on a weekly basis. Servicing includes collecting trap bottoms and replacing with new trap bottoms. Bait/lure changes occur once a month, and trap tops are replaced as needed. Counts are performed on each trap collected to determine number of wild versus sterile captures and male versus female captures.

III. Trap Results for Week Ending on September 8, 2023

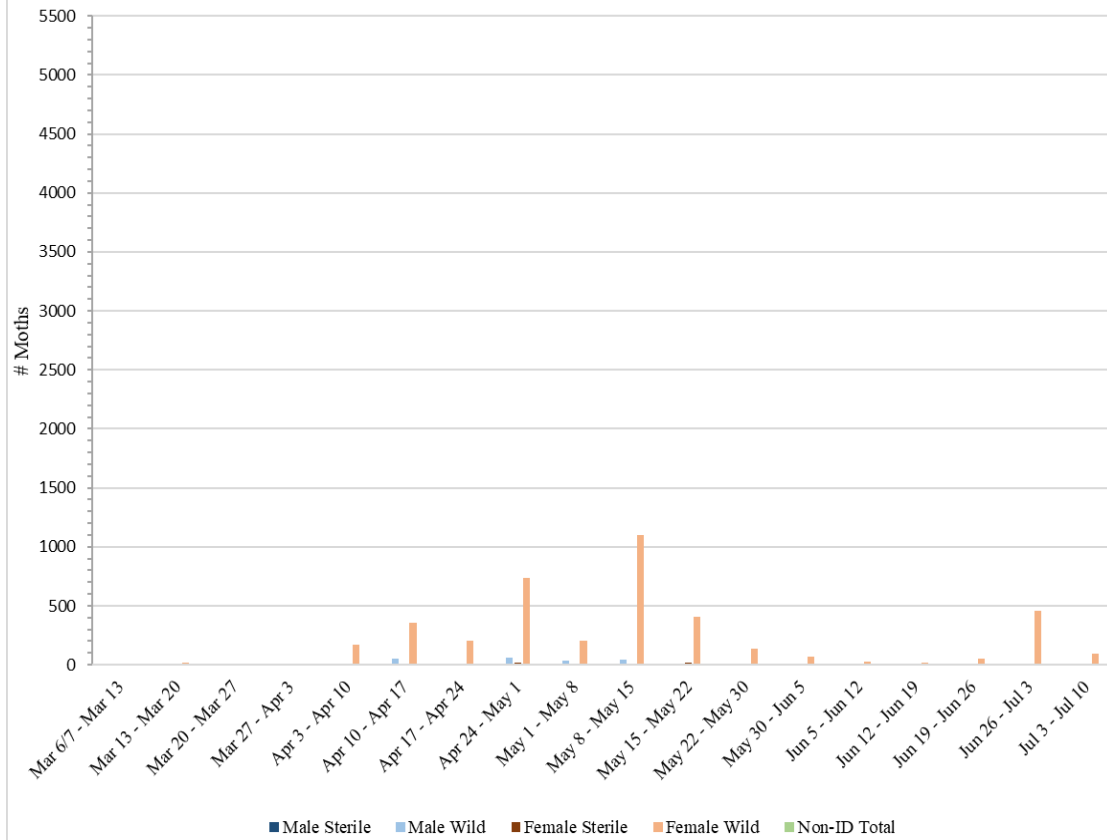
Zone 1 – Pistachio Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 1 on Tuesday, September 5.

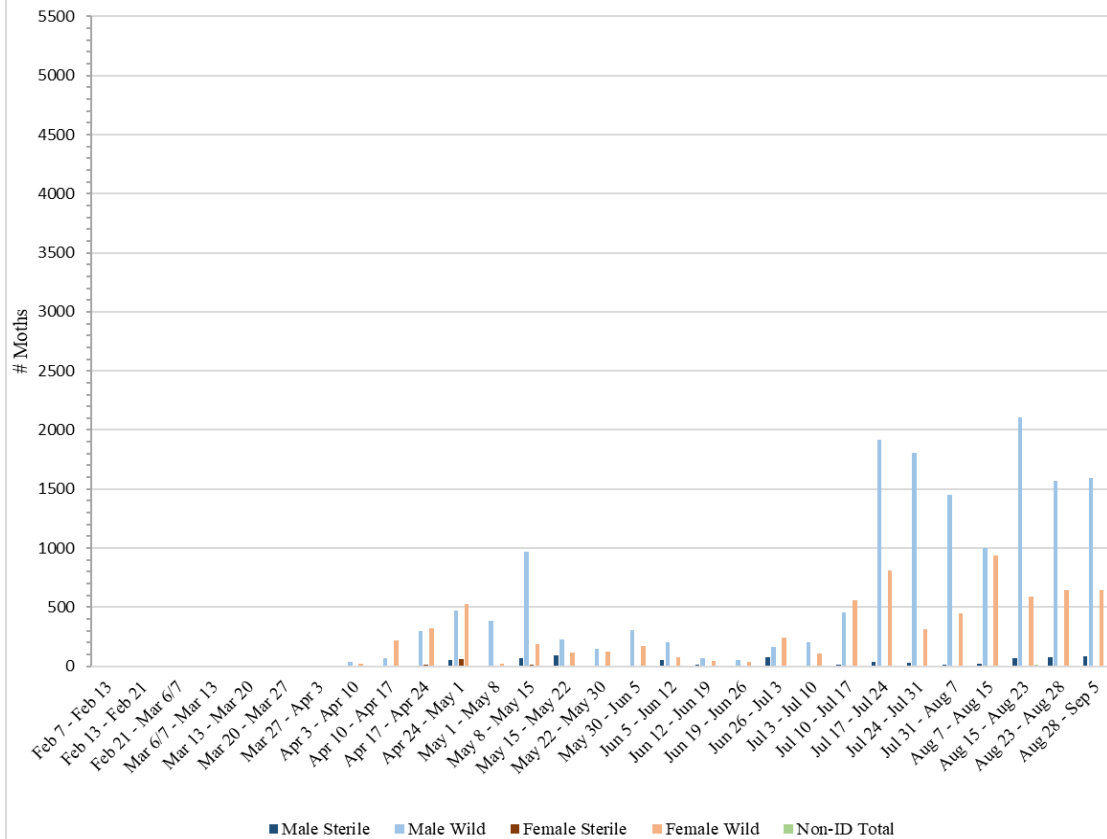
| Zone 1 – Pistachio | | | | | | | | |
|--|----------------------------------|--------------|-----------|------------|----------------|-------------|--------------|--------------|
| Meal Baited Traps | | | | | | | | |
| Dates Traps in Field | # of Releases During Trap Period | Male Sterile | Male Wild | Male Total | Female Sterile | Female Wild | Female Total | Non-ID Total |
| ² Mar 6/7 – Mar 13 | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 0 |
| Mar 13 – Mar 20 | 8 | 0 | 6 | 6 | 0 | 14 | 14 | 0 |
| Mar 20 – Mar 27 | 8 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Mar 27 – Apr 3 | 8 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Apr 3 – Apr 10 | 8 | 0 | 13 | 13 | 0 | 174 | 174 | 0 |
| Apr 10 – Apr 17 | 8 | 3 | 51 | 54 | 12 | 352 | 364 | 1 |
| Apr 17 – Apr 24 | 8 | 0 | 0 | 0 | 1 | 206 | 207 | 0 |
| Apr 24 – May 1 | 8 | 0 | 59 | 59 | 16 | 740 | 756 | 0 |
| May 1 – May 8 | 8 | 0 | 35 | 35 | 1 | 206 | 207 | 0 |
| May 8 – May 15 | 8 | 3 | 43 | 46 | 12 | 1101 | 1113 | 2 |
| May 15 – May 22 | 8 | 0 | 1 | 1 | 15 | 406 | 421 | 1 |
| May 22 – May 30 | 9 | 1 | 7 | 8 | 1 | 138 | 139 | 1 |
| May 30 – Jun 5 | 7 | 1 | 3 | 4 | 0 | 70 | 70 | 0 |
| Jun 5 – Jun 12 | 7 | 0 | 0 | 0 | 0 | 24 | 24 | 0 |
| Jun 12 – Jun 19 | 6 | 1 | 1 | 2 | 2 | 22 | 24 | 0 |
| Jun 19 – Jun 26 | 5 | 0 | 7 | 7 | 0 | 55 | 55 | 0 |
| Jun 26 – Jul 3 | 4 | 3 | 2 | 5 | 7 | 456 | 463 | 3 |
| ³ Jul 3 – Jul 10 | 6 | 0 | 2 | 2 | 2 | 96 | 98 | 1 |
| ² Traps 1-18 placed on March 6; Traps 19-36 placed on March 7 | | | | | | | | |
| ³ All meal traps removed from Zone 1 on July 10 | | | | | | | | |

| 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 | Non-ID Total |
| Feb 7 - Feb 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Feb 13 - Feb 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Feb 21 - Mar 6/7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mar 6/7 - Mar 13 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Mar 13 - Mar 20 | 8 | 0 | 7 | 7 | 1 | 1 | 2 | 0 |
| Mar 20 - Mar 27 | 8 | 0 | 1 | 1 | 0 | 2 | 2 | 0 |
| Mar 27 - Apr 3 | 8 | 0 | 2 | 2 | 0 | 0 | 0 | 0 |
| Apr 3 - Apr 10 | 8 | 3 | 37 | 40 | 0 | 19 | 19 | 0 |
| Apr 10 - Apr 17 | 8 | 0 | 72 | 72 | 0 | 220 | 220 | 0 |
| Apr 17 - Apr 24 | 8 | 5 | 296 | 301 | 10 | 325 | 335 | 8 |
| Apr 24 - May 1 | 8 | 52 | 468 | 520 | 63 | 528 | 591 | 7 |
| May 1 - May 8 | 8 | 0 | 383 | 383 | 0 | 21 | 21 | 0 |
| May 8 - May 15 | 8 | 72 | 967 | 1039 | 14 | 187 | 201 | 4 |
| May 15 - May 22 | 8 | 95 | 225 | 320 | 5 | 117 | 122 | 5 |
| May 22 - May 30 | 9 | 2 | 147 | 149 | 0 | 121 | 121 | 1 |
| May 30 - Jun 5 | 7 | 5 | 303 | 308 | 0 | 168 | 168 | 1 |
| Jun 5 - Jun 12 | 7 | 54 | 201 | 255 | 1 | 73 | 74 | 0 |
| Jun 12 - Jun 19 | 6 | 14 | 72 | 86 | 8 | 42 | 50 | 1 |
| Jun 19 - Jun 26 | 5 | 5 | 51 | 56 | 7 | 34 | 41 | 0 |
| Jun 26 - Jul 3 | 4 | 80 | 160 | 240 | 4 | 244 | 248 | 7 |
| Jul 3 - Jul 10 | 6 | 4 | 205 | 209 | 0 | 108 | 108 | 0 |
| Jul 10 - Jul 17 | 8 | 11 | 458 | 469 | 0 | 558 | 558 | 0 |
| Jul 17 - Jul 24 | 8 | 40 | 1920 | 1960 | 0 | 812 | 812 | 1 |
| Jul 24 - Jul 31 | 7 | 31 | 1805 | 1836 | 0 | 310 | 310 | 5 |
| Jul 31 - Aug 7 | 7 | 15 | 1447 | 1462 | 3 | 451 | 454 | 1 |
| Aug 7 - Aug 15 | 9 | 23 | 999 | 1022 | 8 | 940 | 948 | 0 |
| Aug 15 - Aug 23 | 7 | 66 | 2107 | 2173 | 1 | 587 | 588 | 11 |
| Aug 23 - Aug 28 | 6 | 77 | 1573 | 1650 | 0 | 643 | 643 | 1 |
| Aug 28 - Sep 5 | 8 | 87 | 1594 | 1681 | 1 | 642 | 643 | 0 |
| ¹ No traps were serviced in Zone 1 during the week of March 3 due to excessive rain preventing access | | | | | | | | |
| ² Traps 1-18 serviced/placed on March 6; Traps 19-36 serviced/placed on March 7 | | | | | | | | |

Zone 1 - Pistachio Orchard - Meal Baited Traps



Zone 1 - Pistachio Orchard - Pheromone/PPO Baited Traps

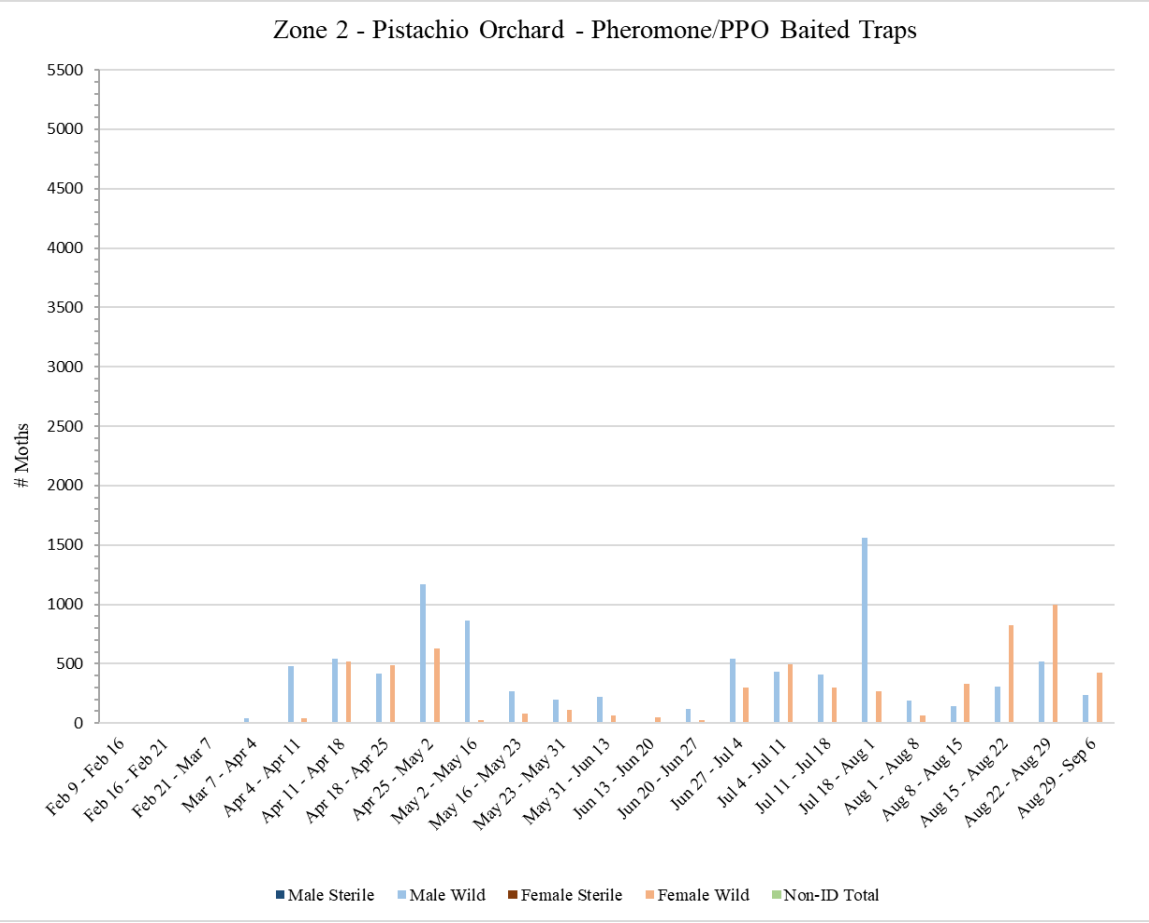
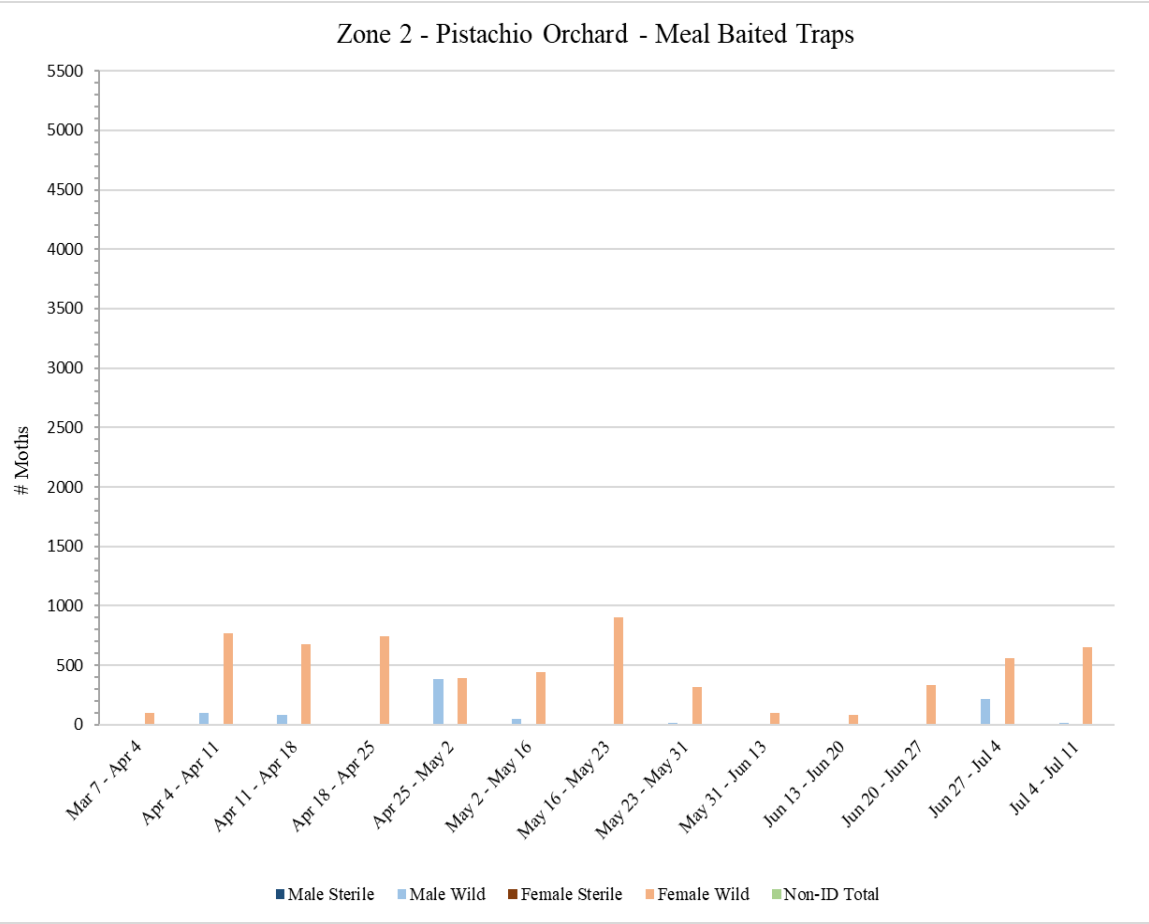


Zone 2 – Pistachio Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 2 on Wednesday, September 6.

| Zone 2 - 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 | Non-ID Total |
| ² Mar 7 – Apr 4 | 0 | 0 | 6 | 6 | 0 | 97 | 97 | 0 |
| Apr 4 – Apr 11 | 0 | 0 | 102 | 102 | 0 | 765 | 765 | 0 |
| Apr 11 – Apr 18 | 0 | 0 | 81 | 81 | 0 | 674 | 674 | 0 |
| Apr 18 – Apr 25 | 0 | 0 | 0 | 0 | 0 | 744 | 744 | 6 |
| Apr 25 – May 2 | 0 | 4 | 382 | 386 | 6 | 392 | 398 | 5 |
| ³ May 2 – May 16 | 0 | 0 | 51 | 51 | 0 | 441 | 441 | 2 |
| May 16 – May 23 | 0 | 0 | 4 | 4 | 0 | 900 | 900 | 0 |
| May 23 – May 31 | 0 | 0 | 11 | 11 | 0 | 317 | 317 | 0 |
| ⁴ May 31 – Jun 13 | 0 | 0 | 7 | 7 | 0 | 97 | 97 | 0 |
| Jun 13 – Jun 20 | 0 | 0 | 0 | 0 | 1 | 80 | 81 | 0 |
| Jun 20 – Jun 27 | 0 | 0 | 5 | 5 | 0 | 331 | 331 | 0 |
| Jun 27 – Jul 4 | 0 | 0 | 214 | 214 | 0 | 558 | 558 | 0 |
| ⁵ Jul 4 – Jul 11 | 0 | 0 | 15 | 15 | 0 | 651 | 651 | 3 |
| ² No traps were serviced in Zone 2 during the weeks of March 17, March 24, and March 31 due to excessive rain and muddy conditions preventing access | | | | | | | | |
| ³ No traps were serviced in Zone 2 during the week of May 12 due to pesticide applications on site | | | | | | | | |
| ⁴ No traps were serviced in Zone 2 during the week of June 9 due to pesticide applications on site | | | | | | | | |
| ⁵ All meal traps removed from Zone 2 on July 11 | | | | | | | | |

| 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 | Non-ID Total |
| Feb 9 - Feb 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Feb 16 – Feb 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ¹ Feb 21 – Mar 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ² Mar 7 – Apr 4 | 0 | 0 | 38 | 38 | 0 | 9 | 9 | 0 |
| Apr 4 – Apr 11 | 0 | 0 | 482 | 482 | 0 | 44 | 44 | 0 |
| Apr 11 – Apr 18 | 0 | 0 | 542 | 542 | 0 | 521 | 521 | 0 |
| Apr 18 – Apr 25 | 0 | 1 | 413 | 414 | 0 | 487 | 487 | 6 |
| Apr 25 – May 2 | 0 | 0 | 1168 | 1168 | 0 | 630 | 630 | 6 |
| ³ May 2 – May 16 | 0 | 0 | 860 | 860 | 0 | 23 | 23 | 1 |
| May 16 – May 23 | 0 | 0 | 269 | 269 | 0 | 81 | 81 | 0 |
| May 23 – May 31 | 0 | 0 | 196 | 196 | 0 | 115 | 115 | 0 |
| ⁴ May 31 – Jun 13 | 0 | 0 | 221 | 221 | 0 | 64 | 64 | 1 |
| Jun 13 – Jun 20 | 0 | 0 | 10 | 10 | 0 | 45 | 45 | 0 |
| Jun 20 – Jun 27 | 0 | 0 | 120 | 120 | 0 | 22 | 22 | 2 |
| Jun 27 – Jul 4 | 0 | 0 | 543 | 543 | 0 | 303 | 303 | 6 |
| Jul 4 – Jul 11 | 0 | 0 | 435 | 435 | 0 | 492 | 492 | 4 |
| Jul 11 – Jul 18 | 0 | 0 | 410 | 410 | 0 | 302 | 302 | 0 |
| ⁶ Jul 18 – Aug 1 | 0 | 0 | 1557 | 1557 | 0 | 265 | 265 | 11 |
| Aug 1 – Aug 8 | 0 | 0 | 191 | 191 | 0 | 64 | 64 | 0 |
| Aug 8 – Aug 15 | 0 | 0 | 139 | 139 | 0 | 331 | 331 | 0 |
| Aug 15 – Aug 22 | 0 | 0 | 304 | 304 | 0 | 822 | 822 | 0 |
| Aug 22 – Aug 29 | 0 | 0 | 517 | 517 | 0 | 994 | 994 | 1 |
| Aug 29 – Sep 6 | 0 | 0 | 240 | 240 | 0 | 428 | 428 | 1 |
| ¹ No traps were serviced in Zone 2 during the week of March 3 due to excessive rain preventing access | | | | | | | | |
| ² No traps were serviced in Zone 2 during the weeks of March 17, March 24, and March 31 due to excessive rain and muddy conditions preventing access | | | | | | | | |
| ³ No traps were serviced in Zone 2 during the week of May 12 due to pesticide applications on site | | | | | | | | |
| ⁴ No traps were serviced in Zone 2 during the week of June 9 due to pesticide applications on site | | | | | | | | |
| ⁶ No traps were serviced in Zone 2 during the week of July 28 due to pesticide applications on site | | | | | | | | |

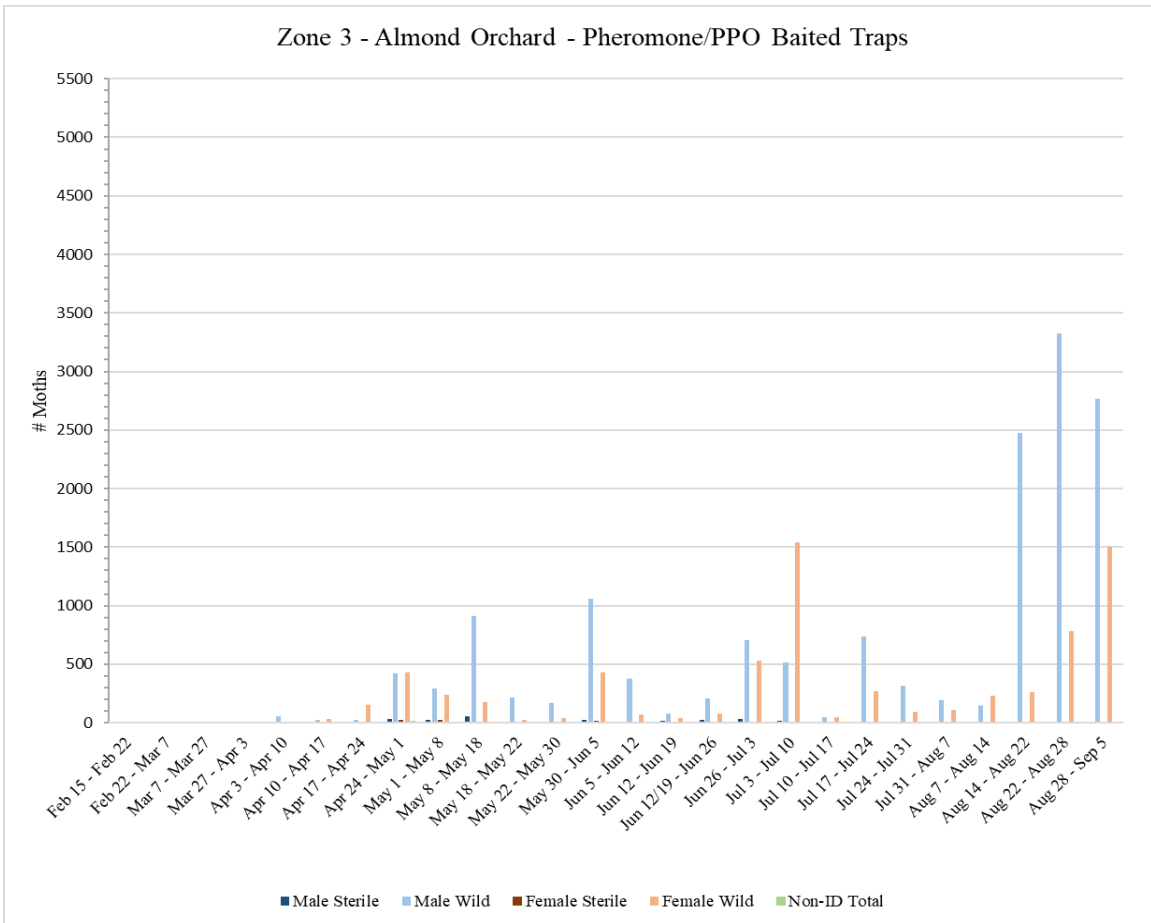
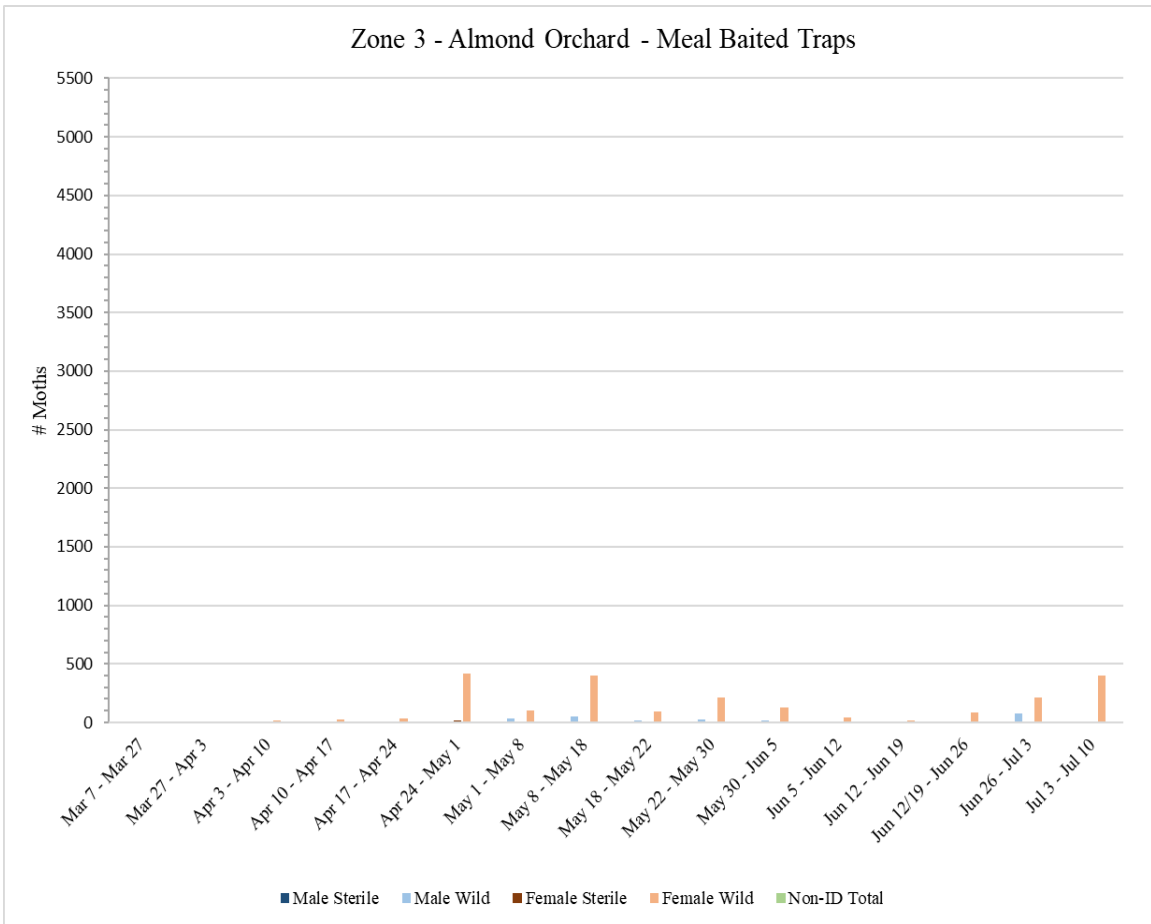


Zone 3 – Almond Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 3 on Tuesday, September 5.

| Zone 3 - Almond | | | | | | | | |
|---|----------------------------------|--------------|-----------|------------|----------------|-------------|--------------|---------------|
| Meal Baited Traps | | | | | | | | |
| Dates Traps in Field | # of Releases During Trap Period | Male Sterile | Male Wild | Male Total | Female Sterile | Female Wild | Female Total | *Non-ID Total |
| ² Mar 7 – Mar 27 | 17 | 0 | 0 | 0 | 4 | 0 | 4 | 0 |
| Mar 27 – Apr 3 | 8 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| Apr 3 – Apr 10 | 8 | 0 | 0 | 0 | 0 | 13 | 13 | 0 |
| Apr 10 – Apr 17 | 8 | 0 | 0 | 0 | 0 | 22 | 22 | 0 |
| Apr 17 – Apr 24 | 7 | 0 | 0 | 0 | 3 | 34 | 37 | 0 |
| Apr 24 – May 1 | 8 | 4 | 12 | 16 | 20 | 413 | 433 | 1 |
| May 1 – May 8 | 8 | 0 | 32 | 32 | 0 | 105 | 105 | 0 |
| May 8 – May 18 | 10 | 0 | 47 | 47 | 11 | 397 | 408 | 2 |
| May 18 – May 22 | 5 | 1 | 20 | 21 | 0 | 92 | 92 | 0 |
| May 22 – May 30 | 9 | 0 | 27 | 27 | 5 | 214 | 219 | 0 |
| May 30 – Jun 5 | 7 | 0 | 13 | 13 | 1 | 126 | 127 | 0 |
| Jun 5 – Jun 12 | 7 | 0 | 4 | 4 | 2 | 41 | 43 | 1 |
| ³ Jun 12 – Jun 19 | 6 | 1 | 1 | 2 | 2 | 19 | 21 | 0 |
| ⁴ Jun 12/19 – Jun 26 | 5 | 0 | 7 | 7 | 5 | 88 | 93 | 0 |
| Jun 26 – Jul 3 | 3 | 1 | 77 | 78 | 1 | 210 | 211 | 0 |
| ⁵ Jul 3 – Jul 10 | 6 | 0 | 4 | 4 | 0 | 397 | 397 | 0 |
| ² No traps were serviced in Zone 3 during the weeks of March 17 and March 24 due to excessive rain preventing access | | | | | | | | |
| ³ Traps 20 – 36 not serviced in Zone 3 during the week of June 23 due to pesticide applications on site | | | | | | | | |
| ⁴ Traps 20 – 36 in field since June 12 | | | | | | | | |
| ⁵ All meal traps removed from Zone 3 on July 10 | | | | | | | | |

| 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 | *Non-ID Total |
| Feb 15 - Feb 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ¹ Feb 22 – Mar 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ² Mar 7 – Mar 27 | 17 | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| Mar 27 – Apr 3 | 8 | 0 | 12 | 12 | 0 | 0 | 0 | 0 |
| Apr 3 – Apr 10 | 8 | 1 | 53 | 54 | 0 | 1 | 1 | 0 |
| Apr 10 – Apr 17 | 8 | 1 | 25 | 26 | 1 | 29 | 30 | 3 |
| Apr 17 – Apr 24 | 7 | 3 | 26 | 29 | 2 | 152 | 154 | 0 |
| Apr 24 – May 1 | 8 | 32 | 420 | 452 | 25 | 429 | 454 | 14 |
| May 1 – May 8 | 8 | 22 | 292 | 314 | 23 | 238 | 261 | 5 |
| May 8 – May 18 | 10 | 57 | 909 | 966 | 0 | 179 | 179 | 12 |
| May 18 – May 22 | 5 | 9 | 215 | 224 | 0 | 21 | 21 | 0 |
| May 22 – May 30 | 9 | 0 | 166 | 166 | 0 | 40 | 40 | 0 |
| May 30 – Jun 5 | 7 | 24 | 1055 | 1079 | 13 | 432 | 445 | 0 |
| Jun 5 – Jun 12 | 7 | 9 | 377 | 386 | 0 | 66 | 66 | 0 |
| ³ Jun 12 – Jun 19 | 6 | 14 | 76 | 90 | 0 | 38 | 38 | 0 |
| ⁴ Jun 12/19 – Jun 26 | 5 | 26 | 204 | 230 | 2 | 79 | 81 | 0 |
| Jun 26 – Jul 3 | 3 | 31 | 709 | 740 | 11 | 527 | 538 | 1 |
| Jul 3 – Jul 10 | 6 | 13 | 513 | 526 | 0 | 1542 | 1542 | 4 |
| Jul 10 – Jul 17 | 8 | 0 | 48 | 48 | 0 | 47 | 47 | 0 |
| Jul 17 – Jul 24 | 8 | 3 | 735 | 738 | 1 | 270 | 271 | 0 |
| Jul 24 – Jul 31 | 7 | 3 | 314 | 317 | 1 | 89 | 90 | 0 |
| Jul 31 – Aug 7 | 7 | 1 | 194 | 195 | 1 | 109 | 110 | 0 |
| Aug 7 – Aug 14 | 7 | 1 | 144 | 145 | 1 | 227 | 228 | 0 |
| Aug 14 – Aug 22 | 7 | 6 | 2475 | 2481 | 1 | 259 | 260 | 5 |
| Aug 22 – Aug 28 | 7 | 6 | 3324 | 3330 | 0 | 779 | 779 | 7 |
| Aug 28 – Sep 5 | 8 | 1 | 2769 | 2770 | 0 | 1506 | 1506 | 6 |
| | | | | | | | | |
| ² No traps were serviced in Zone 3 during the weeks of March 17 and March 24 due to excessive rain preventing access | | | | | | | | |
| ³ Traps 20 – 36 not serviced in Zone 3 during the week of June 23 due to pesticide applications on site | | | | | | | | |
| ⁴ Traps 20 – 36 in field since June 12 | | | | | | | | |

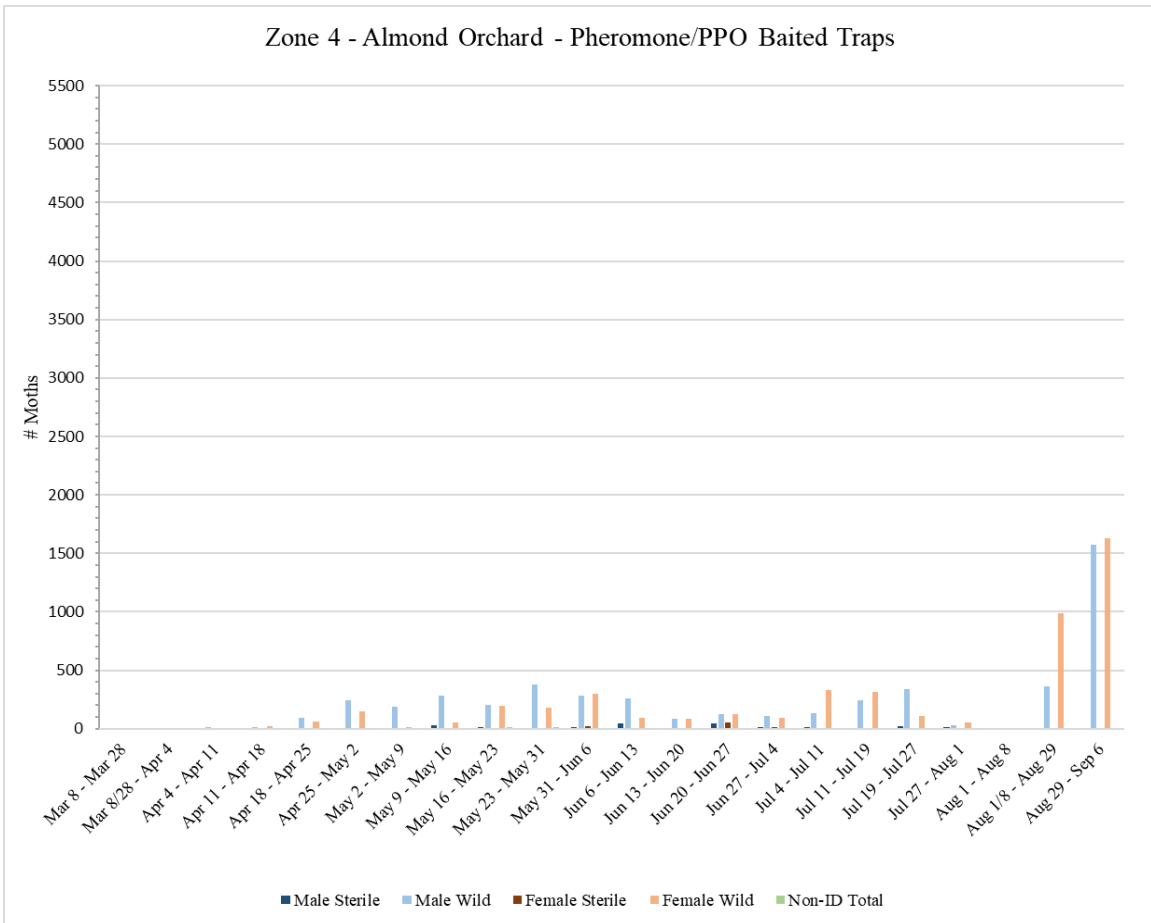
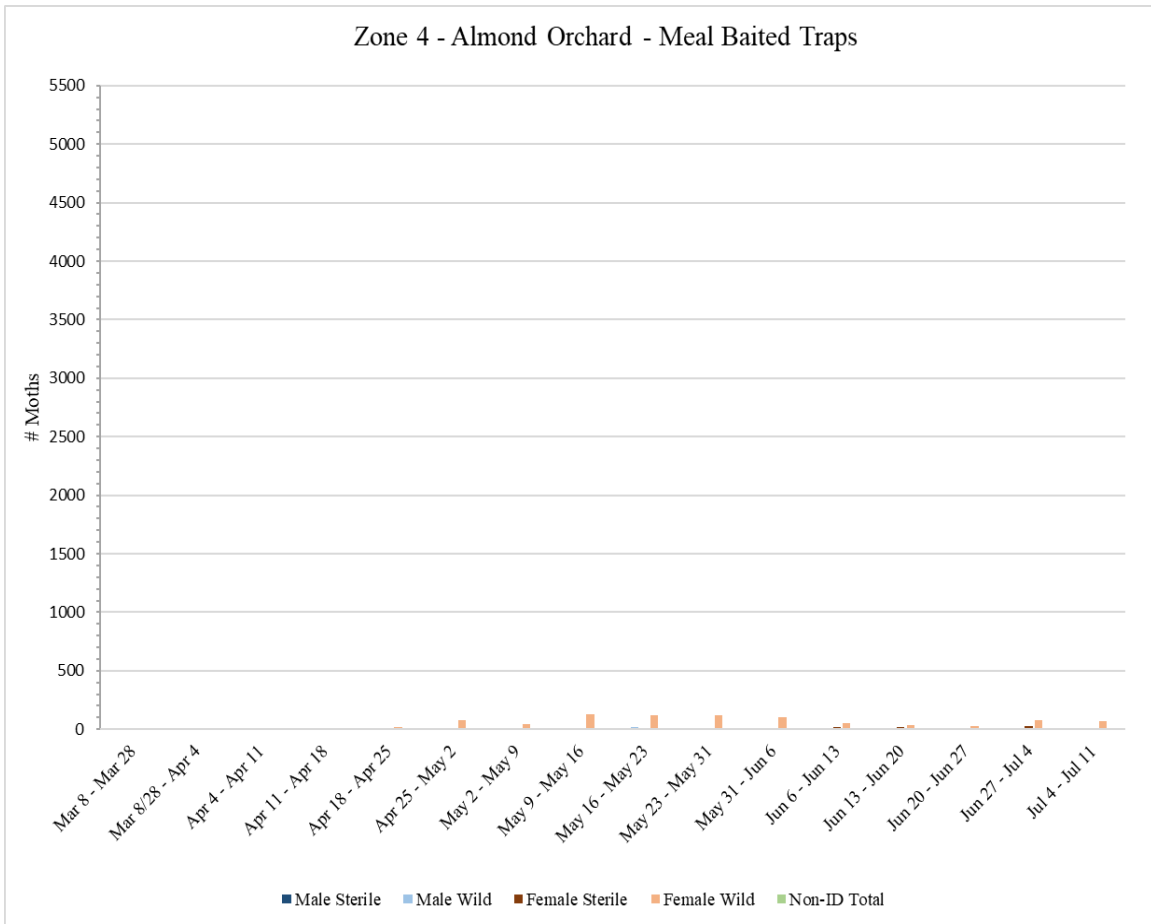


Zone 4 – Almond Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 4 on Wednesday September 6.

| Zone 4 - Almond | | | | | | | | |
|---|----------------------------------|--------------|-----------|------------|----------------|-------------|--------------|--------------|
| Meal Baited Traps | | | | | | | | |
| Dates Traps in Field | # of Releases During Trap Period | Male Sterile | Male Wild | Male Total | Female Sterile | Female Wild | Female Total | Non-ID Total |
| ¹ Mar 8 – Mar 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ² Mar 8/28 – Apr 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apr 4 – Apr 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apr 11 – Apr 18 | 0 | 0 | 1 | 1 | 0 | 2 | 2 | 0 |
| Apr 18 – Apr 25 | 2 | 0 | 0 | 0 | 0 | 20 | 20 | 0 |
| Apr 25 – May 2 | 8 | 0 | 6 | 6 | 7 | 81 | 88 | 0 |
| May 2 – May 9 | 8 | 0 | 13 | 13 | 1 | 44 | 45 | 0 |
| May 9 – May 16 | 7 | 0 | 9 | 9 | 4 | 126 | 130 | 0 |
| May 16 – May 23 | 8 | 1 | 16 | 17 | 11 | 124 | 135 | 1 |
| May 23 – May 31 | 8 | 1 | 5 | 6 | 3 | 118 | 121 | 1 |
| May 31 – Jun 6 | 6 | 0 | 6 | 6 | 8 | 107 | 115 | 0 |
| Jun 6 – Jun 13 | 8 | 2 | 1 | 3 | 19 | 55 | 74 | 0 |
| Jun 13 – Jun 20 | 7 | 5 | 2 | 7 | 19 | 32 | 51 | 0 |
| Jun 20 – Jun 27 | 7 | 6 | 2 | 8 | 10 | 25 | 35 | 0 |
| Jun 27 – Jul 4 | 4 | 4 | 1 | 5 | 25 | 74 | 99 | 0 |
| ³ Jul 4 – Jul 11 | 7 | 6 | 3 | 9 | 4 | 70 | 74 | 0 |
| ¹ No traps were serviced in Zone 4 during the weeks of March 17 and March 24 due to excessive rain preventing access; traps 26 – 36 not serviced in Zone 4 during the week of March 31 due to pesticide applications on site | | | | | | | | |
| ² Traps 26 – 36 in field since March 8 | | | | | | | | |
| ³ All meal traps removed from Zone 4 on July 11 | | | | | | | | |

| 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 | Non-ID Total |
| ¹ Mar 8 – Mar 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ² Mar 8/28 – Apr 4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Apr 4 – Apr 11 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 0 |
| Apr 11 – Apr 18 | 0 | 0 | 16 | 16 | 0 | 20 | 20 | 0 |
| Apr 18 – Apr 25 | 2 | 0 | 96 | 96 | 0 | 60 | 60 | 0 |
| Apr 25 – May 2 | 8 | 4 | 246 | 250 | 2 | 145 | 147 | 2 |
| May 2 – May 9 | 8 | 9 | 188 | 197 | 1 | 15 | 16 | 0 |
| May 9 – May 16 | 7 | 29 | 283 | 312 | 0 | 57 | 57 | 6 |
| May 16 – May 23 | 8 | 11 | 207 | 218 | 3 | 195 | 198 | 15 |
| May 23 – May 31 | 8 | 5 | 380 | 385 | 0 | 181 | 181 | 11 |
| May 31 – Jun 6 | 6 | 17 | 284 | 301 | 20 | 296 | 316 | 0 |
| Jun 6 – Jun 13 | 8 | 45 | 261 | 306 | 3 | 93 | 96 | 0 |
| Jun 13 – Jun 20 | 7 | 4 | 85 | 89 | 2 | 87 | 89 | 0 |
| Jun 20 – Jun 27 | 7 | 42 | 122 | 164 | 50 | 126 | 176 | 0 |
| Jun 27 – Jul 4 | 4 | 16 | 107 | 123 | 10 | 94 | 104 | 0 |
| Jul 4 – Jul 11 | 7 | 10 | 134 | 144 | 2 | 329 | 331 | 0 |
| Jul 11 – Jul 19 | 8 | 7 | 246 | 253 | 4 | 318 | 322 | 0 |
| Jul 19 – Jul 27 | 6 | 24 | 342 | 366 | 0 | 109 | 109 | 0 |
| Jul 27 – Aug 1 | 5 | 11 | 31 | 42 | 0 | 54 | 54 | 0 |
| ⁴ Aug 1 – Aug 8 | 7 | 2 | 4 | 6 | 0 | 8 | 8 | 0 |
| ⁵ Aug 1/8 – Aug 29 | 23/17 | 4 | 360 | 364 | 3 | 990 | 993 | 0 |
| Aug 29 – Sep 6 | 8 | 8 | 1573 | 1581 | 0 | 1630 | 1630 | 3 |
| ¹ No traps were serviced in Zone 4 during the weeks of March 17 and March 24 due to excessive rain preventing access; traps 26 – 36 not serviced in Zone 4 during the week of March 31 due to pesticide applications on site ² Traps 26 – 36 in field since March 8 ⁴ Traps 19 - 36 not serviced in Zone 4 during the week of August 11 due to pesticide applications on site ⁵ No traps were serviced in Zone 4 during the week of August 18 due to pesticide applications on site; No traps were serviced in Zone 4 during the week of August 25 due to staffing issues | | | | | | | | |

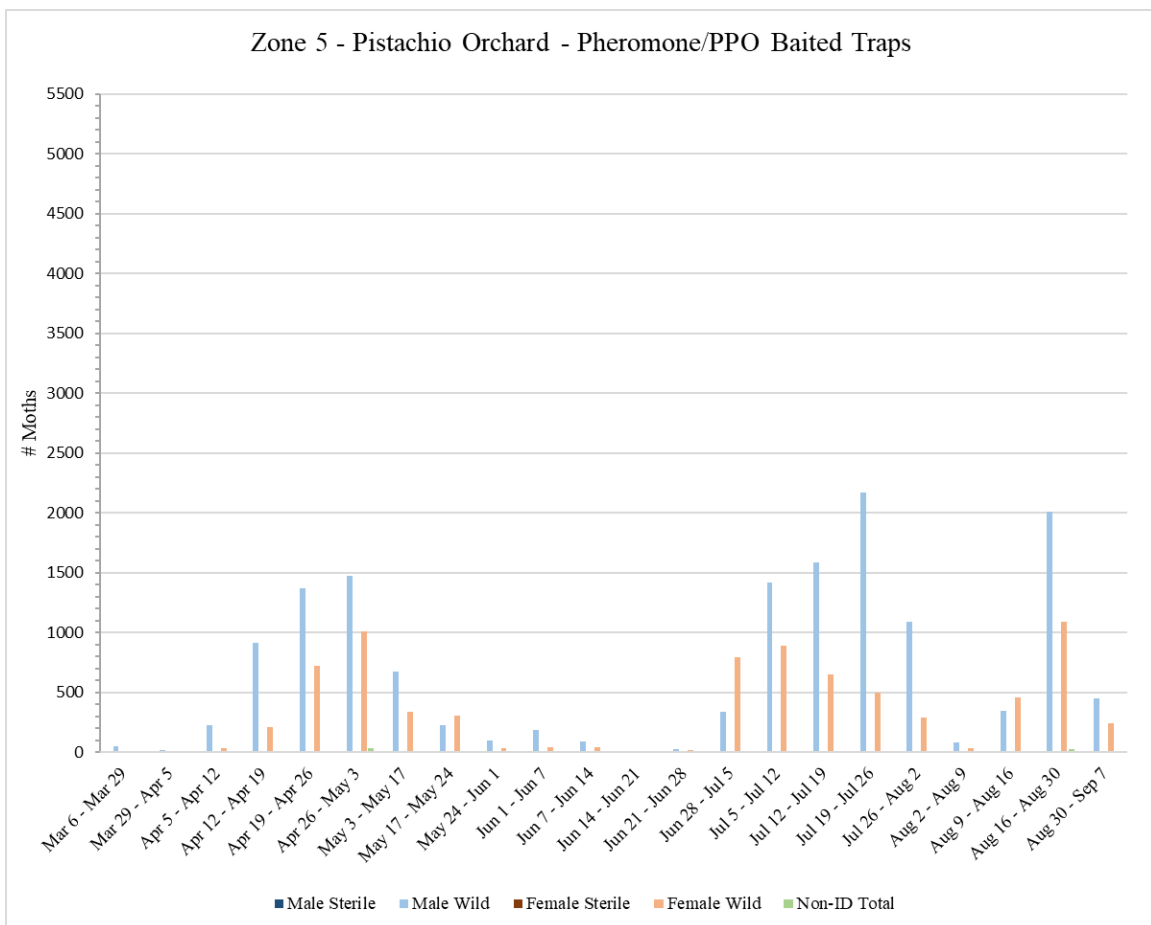
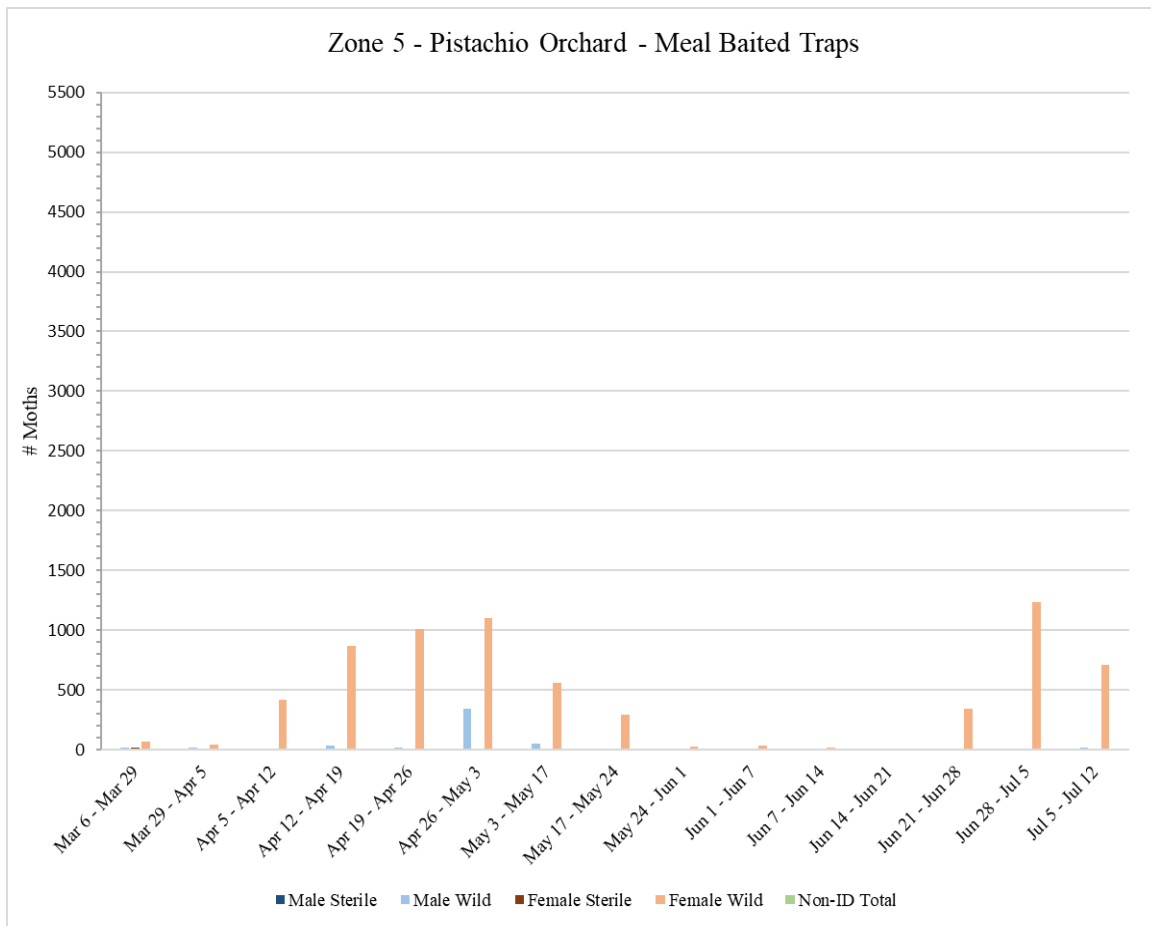


Zone 5 – Pistachio Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 5 on Thursday September 7.

| Zone 5 - 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 | Non-ID Total |
| ¹ Mar 8 – Mar 29 | 0 | 6 | 19 | 25 | 16 | 65 | 81 | 1 |
| Mar 29 – Apr 5 | 0 | 0 | 15 | 15 | 0 | 47 | 47 | 0 |
| Apr 5 – Apr 12 | 0 | 0 | 13 | 13 | 0 | 422 | 422 | 0 |
| Apr 12 – Apr 19 | 0 | 0 | 38 | 38 | 1 | 868 | 869 | 3 |
| Apr 19 – Apr 26 | 0 | 0 | 17 | 17 | 1 | 1012 | 1013 | 0 |
| Apr 26 – May 3 | 0 | 0 | 343 | 343 | 1 | 1105 | 1106 | 12 |
| ² May 3 – May 17 | 0 | 0 | 52 | 52 | 0 | 557 | 557 | 0 |
| May 17 – May 24 | 0 | 0 | 8 | 8 | 0 | 297 | 297 | 0 |
| May 24 – Jun 1 | 0 | 0 | 3 | 3 | 0 | 25 | 25 | 0 |
| Jun 1 – Jun 7 | 0 | 0 | 1 | 1 | 0 | 32 | 32 | 0 |
| Jun 7 – Jun 14 | 0 | 0 | 0 | 0 | 0 | 22 | 22 | 0 |
| Jun 14 – Jun 21 | 0 | 0 | 1 | 1 | 0 | 8 | 8 | 1 |
| Jun 21 – Jun 28 | 0 | 0 | 5 | 5 | 0 | 344 | 344 | 0 |
| Jun 28 – Jul 5 | 0 | 0 | 4 | 4 | 0 | 1237 | 1237 | 1 |
| ³ Jul 5 – Jul 12 | 0 | 0 | 22 | 22 | 0 | 707 | 707 | 3 |
| ¹ No traps were serviced in Zone 5 during the weeks of March 17 and March 24 due to excessive rain preventing access | | | | | | | | |
| ² No traps were serviced in Zone 5 during the week of May 12 due to pesticide applications on site | | | | | | | | |
| ³ All meal traps removed from Zone 5 on July 12 | | | | | | | | |

| 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 | Non-ID Total |
| ¹ Mar 8 – Mar 29 | 0 | 0 | 52 | 52 | 0 | 2 | 2 | 1 |
| Mar 29 – Apr 5 | 0 | 0 | 14 | 14 | 0 | 0 | 0 | 0 |
| Apr 5 – Apr 12 | 0 | 0 | 229 | 229 | 0 | 37 | 37 | 0 |
| Apr 12 – Apr 19 | 0 | 0 | 916 | 916 | 0 | 207 | 207 | 1 |
| Apr 19 – Apr 26 | 0 | 0 | 1373 | 1373 | 0 | 721 | 721 | 2 |
| Apr 26 – May 3 | 0 | 1 | 1473 | 1474 | 0 | 1011 | 1011 | 31 |
| ² May 3 – May 17 | 0 | 0 | 674 | 674 | 0 | 341 | 341 | 6 |
| May 17 – May 24 | 0 | 0 | 229 | 229 | 0 | 308 | 308 | 0 |
| May 24 – Jun 1 | 0 | 0 | 95 | 95 | 0 | 32 | 32 | 0 |
| Jun 1 – Jun 7 | 0 | 0 | 183 | 183 | 0 | 38 | 38 | 0 |
| Jun 7 – Jun 14 | 0 | 0 | 90 | 90 | 0 | 38 | 38 | 0 |
| Jun 14 – Jun 21 | 0 | 0 | 9 | 9 | 0 | 5 | 5 | 0 |
| Jun 21 – Jun 28 | 0 | 0 | 28 | 28 | 0 | 18 | 18 | 0 |
| Jun 28 – Jul 5 | 0 | 0 | 340 | 340 | 0 | 797 | 797 | 1 |
| Jul 5 – Jul 12 | 0 | 0 | 1419 | 1419 | 0 | 890 | 890 | 5 |
| Jul 12 – Jul 19 | 0 | 0 | 1589 | 1589 | 0 | 649 | 649 | 0 |
| Jul 19 – Jul 26 | 0 | 0 | 2171 | 2171 | 0 | 494 | 494 | 2 |
| Jul 26 – Aug 2 | 0 | 0 | 1093 | 1093 | 0 | 289 | 289 | 3 |
| Aug 2 – Aug 9 | 0 | 0 | 85 | 85 | 0 | 37 | 37 | 0 |
| Aug 9 – Aug 16 | 0 | 0 | 347 | 347 | 0 | 456 | 456 | 3 |
| ³ Aug 16 – Aug 30 | 0 | 0 | 2007 | 2007 | 0 | 1091 | 1091 | 25 |
| Aug 30 – Sep 7 | 0 | 0 | 447 | 447 | 0 | 239 | 239 | 0 |
| | | | | | | | | |
| ¹ No traps were serviced in Zone 5 during the weeks of March 17 and March 24 due to excessive rain preventing access | | | | | | | | |
| ² No traps were serviced in Zone 5 during the week of May 12 due to pesticide applications on site | | | | | | | | |
| ³ No traps were serviced in Zone 5 during the week of August 25 due to staffing issues | | | | | | | | |



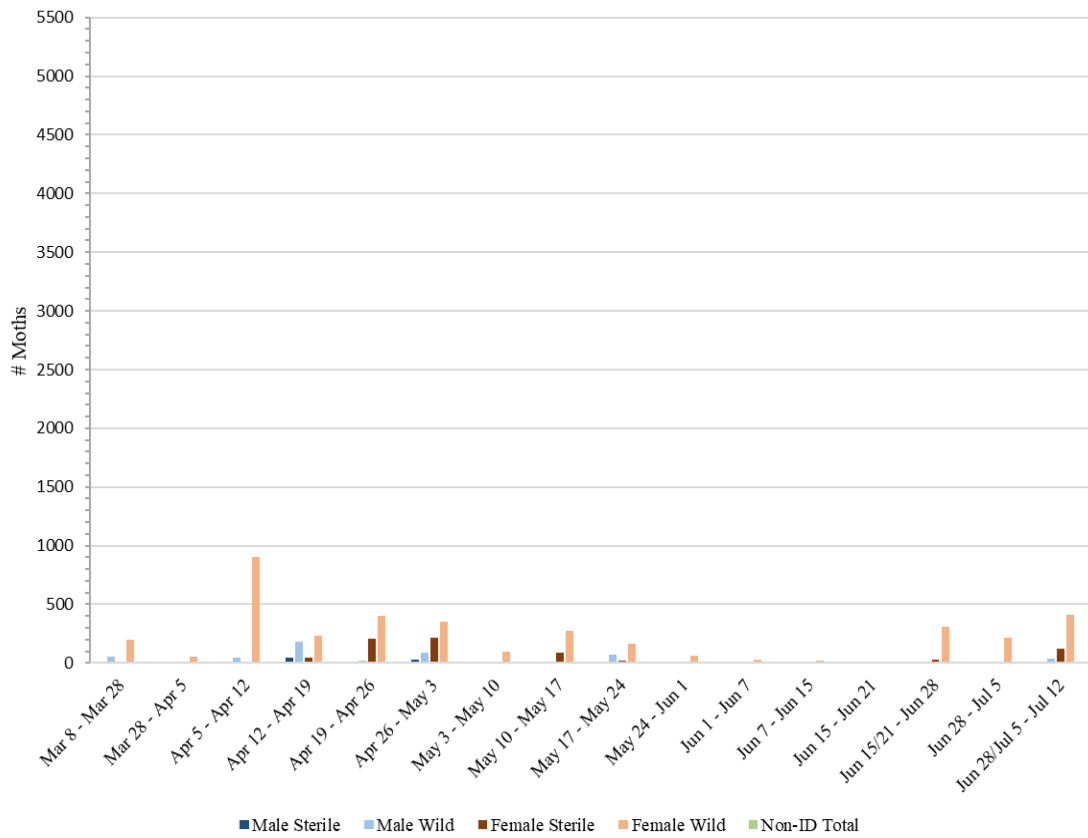
Zone 6 – Pistachio Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 6 on Thursday, September 7.

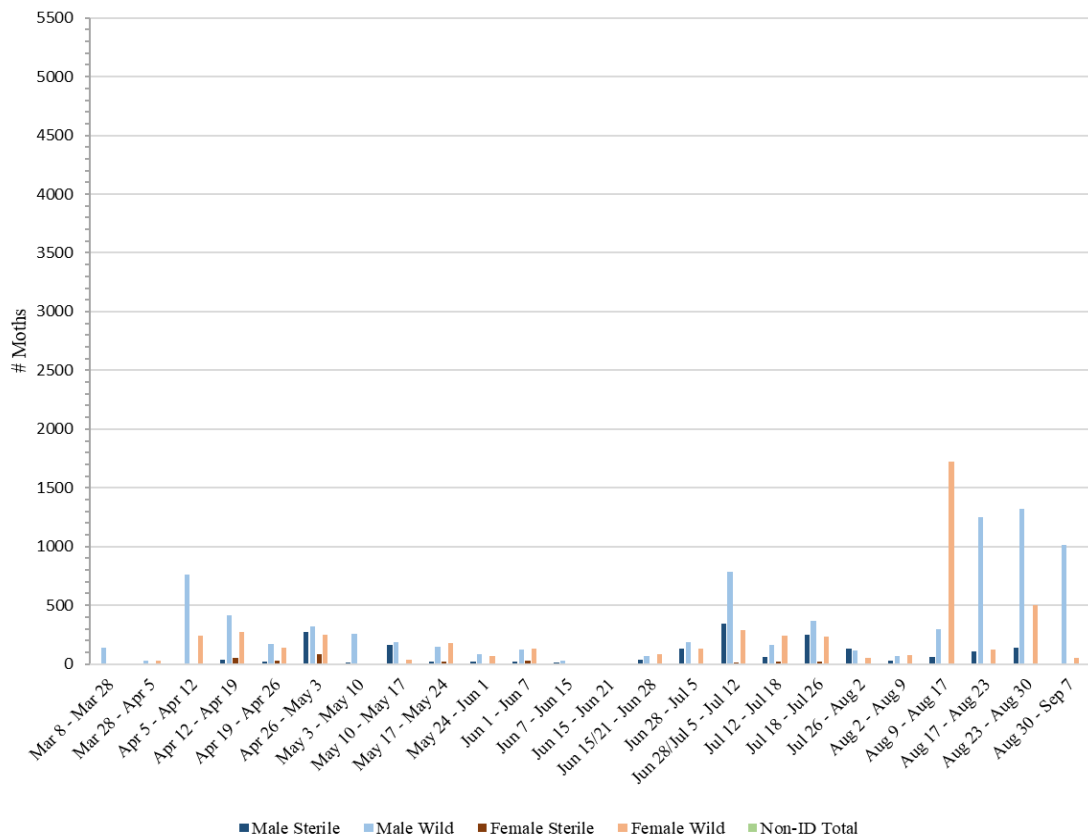
| Zone 6 - Pistachio | | | | | | | | |
|---|----------------------------------|--------------|-----------|------------|----------------|-------------|--------------|--------------|
| Meal Baited Traps | | | | | | | | |
| Dates Traps in Field | # of Releases During Trap Period | Male Sterile | Male Wild | Male Total | Female Sterile | Female Wild | Female Total | Non-ID Total |
| ¹ Mar 8 – Mar 28 | 0 | 0 | 51 | 51 | 0 | 196 | 196 | 2 |
| Mar 28 – Apr 5 | 0 | 0 | 11 | 11 | 0 | 50 | 50 | 0 |
| Apr 5 – Apr 12 | 0 | 0 | 44 | 44 | 0 | 904 | 904 | 0 |
| Apr 12 – Apr 19 | 7 | 45 | 179 | 224 | 47 | 229 | 276 | 6 |
| Apr 19 – Apr 26 | 8 | 6 | 19 | 25 | 206 | 400 | 606 | 1 |
| Apr 26 – May 3 | 8 | 29 | 90 | 119 | 215 | 353 | 568 | 2 |
| May 3 – May 10 | 7 | 0 | 14 | 14 | 1 | 97 | 98 | 0 |
| May 10 – May 17 | 7 | 5 | 5 | 10 | 90 | 279 | 369 | 0 |
| May 17 – May 24 | 8 | 7 | 68 | 75 | 16 | 165 | 181 | 0 |
| May 24 – Jun 1 | 8 | 3 | 2 | 5 | 10 | 61 | 71 | 0 |
| Jun 1 – Jun 7 | 6 | 2 | 1 | 3 | 11 | 30 | 41 | 0 |
| Jun 7 – Jun 15 | 7 | 1 | 0 | 1 | 4 | 20 | 24 | 0 |
| ² Jun 15 – Jun 21 | 5 | 0 | 0 | 0 | 0 | 9 | 9 | 0 |
| ³ Jun 15/21 – Jun 28 | 4 | 1 | 8 | 9 | 30 | 307 | 337 | 0 |
| ⁴ Jun 28 – Jul 5 | 3 | 0 | 5 | 5 | 11 | 215 | 226 | 0 |
| ⁵ Jun 28/Jul 5 – Jul 12 | 7 | 3 | 41 | 44 | 123 | 411 | 534 | 0 |
| ¹ No traps were serviced in Zone 6 during the weeks of March 17 and March 24 due to excessive rain preventing access | | | | | | | | |
| ² Traps 10 – 36 not serviced in Zone 6 during the week of June 23 due to pesticide applications on site | | | | | | | | |
| ³ Traps 10 – 36 in field since June 15 | | | | | | | | |
| ⁴ Traps 17 – 36 not serviced in Zone 6 during the week of July 7 due to pesticide applications on site | | | | | | | | |
| ⁵ Traps 17 – 36 in field since June 28; All meal traps removed from Zone 6 on July 12 | | | | | | | | |

| 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 | Non-ID Total |
| ¹ Mar 8 – Mar 28 | 0 | 3 | 135 | 138 | 0 | 7 | 7 | 2 |
| Mar 28 – Apr 5 | 0 | 0 | 31 | 31 | 0 | 25 | 25 | 0 |
| Apr 5 – Apr 12 | 0 | 0 | 761 | 761 | 0 | 238 | 238 | 2 |
| Apr 12 – Apr 19 | 7 | 35 | 417 | 452 | 49 | 274 | 323 | 7 |
| Apr 19 – Apr 26 | 8 | 21 | 169 | 190 | 29 | 142 | 171 | 3 |
| Apr 26 – May 3 | 8 | 271 | 317 | 588 | 82 | 249 | 331 | 4 |
| May 3 – May 10 | 7 | 14 | 260 | 274 | 1 | 6 | 7 | 0 |
| May 10 – May 17 | 7 | 162 | 187 | 349 | 0 | 33 | 33 | 0 |
| May 17 – May 24 | 8 | 18 | 143 | 161 | 20 | 176 | 196 | 2 |
| May 24 – Jun 1 | 8 | 21 | 85 | 106 | 0 | 65 | 65 | 1 |
| Jun 1 – Jun 7 | 6 | 17 | 122 | 139 | 29 | 134 | 163 | 0 |
| Jun 7 – Jun 15 | 7 | 12 | 31 | 43 | 1 | 5 | 6 | 0 |
| ² Jun 15 – Jun 21 | 5 | 4 | 0 | 4 | 0 | 3 | 3 | 0 |
| ³ Jun 15/21 – Jun 28 | 4 | 39 | 65 | 104 | 2 | 82 | 84 | 0 |
| ⁴ Jun 28 – Jul 5 | 3 | 130 | 183 | 313 | 1 | 131 | 132 | 0 |
| ⁵ Jun 28/Jul 5 – Jul 12 | 7 | 341 | 786 | 1127 | 9 | 292 | 301 | 0 |
| Jul 12 – Jul 18 | 7 | 58 | 165 | 223 | 17 | 238 | 255 | 0 |
| Jul 18 – Jul 26 | 7 | 246 | 370 | 616 | 24 | 234 | 258 | 0 |
| Jul 26 – Aug 2 | 7 | 127 | 111 | 238 | 3 | 54 | 57 | 0 |
| Aug 2 – Aug 9 | 6 | 30 | 67 | 97 | 1 | 79 | 80 | 0 |
| Aug 9 – Aug 17 | 5 | 63 | 297 | 360 | 4 | 1722 | 1726 | 4 |
| Aug 17 – Aug 23 | 6 | 110 | 1247 | 1357 | 4 | 123 | 127 | 0 |
| Aug 23 – Aug 30 | 7 | 139 | 1317 | 1456 | 0 | 505 | 505 | 0 |
| Aug 30 – Sep 7 | 7 | 2 | 1011 | 1013 | 1 | 51 | 52 | 1 |
| ¹ No traps were serviced in Zone 6 during the weeks of March 17 and March 24 due to excessive rain preventing access | | | | | | | | |
| ² Traps 10 – 36 not serviced in Zone 6 during the week of June 23 due to pesticide applications on site | | | | | | | | |
| ³ Traps 10 – 36 in field since June 15 | | | | | | | | |
| ⁴ Traps 17 – 36 not serviced in Zone 6 during the week of July 7 due to pesticide applications on site | | | | | | | | |
| ⁵ Traps 17 – 36 in field since June 28 | | | | | | | | |

Zone 6 - Pistachio Orchard - Meal Baited Traps



Zone 6 - Pistachio Orchard - Phoromone/PPO Baited Traps



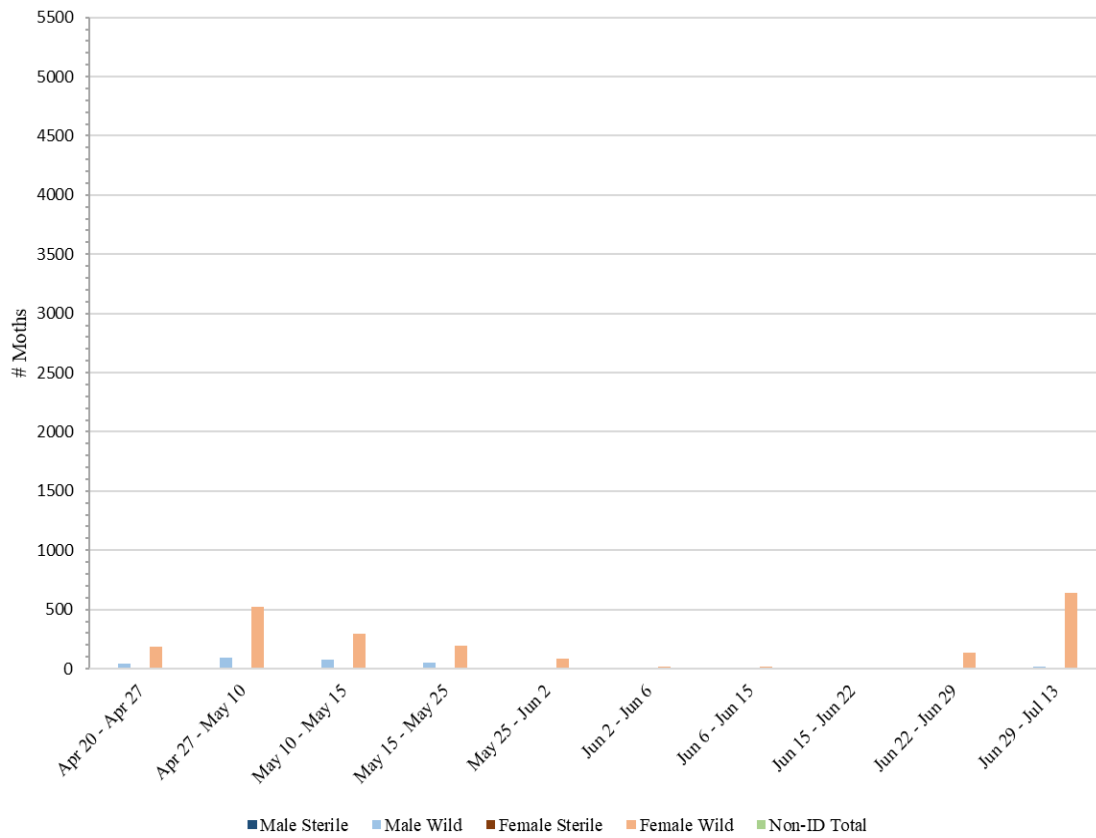
Zone 7 – Almond Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 7 on Friday, September 8.

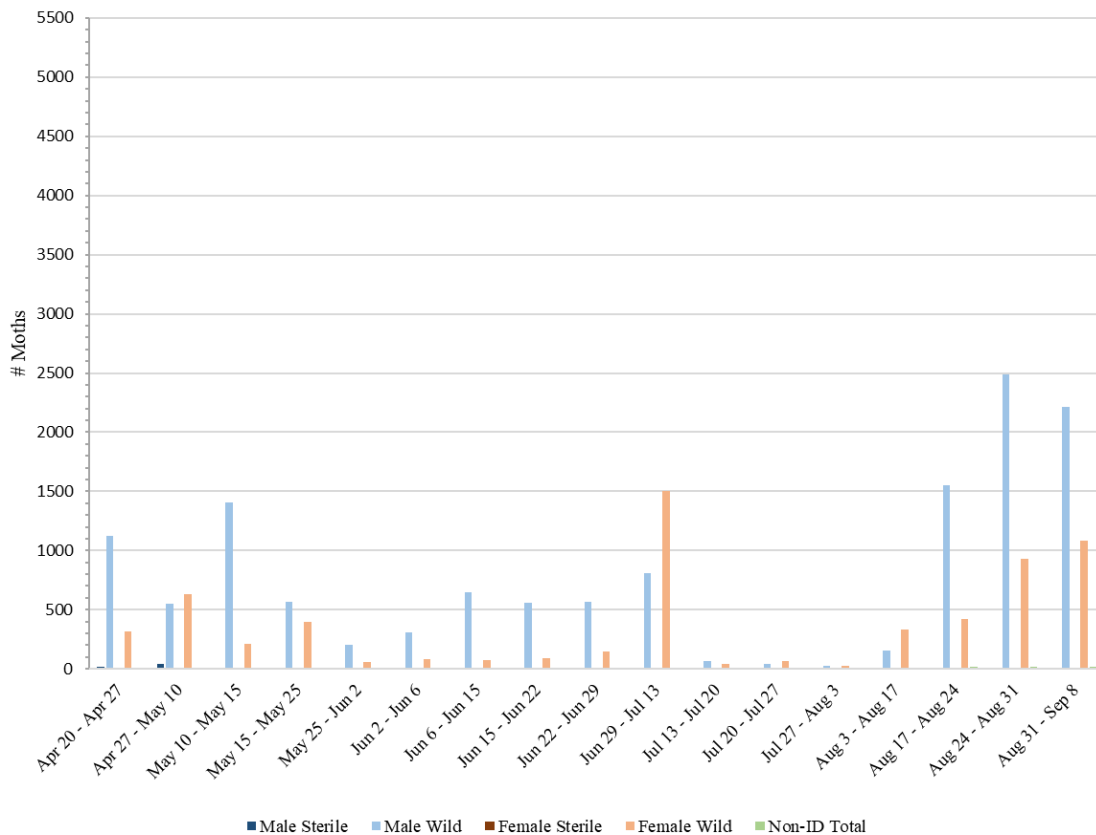
| Zone 7 - Almond | | | | | | | | |
|--|----------------------------------|--------------|-----------|------------|----------------|-------------|--------------|--------------|
| Meal Baited Traps | | | | | | | | |
| Dates Traps in Field | # of Releases During Trap Period | Male Sterile | Male Wild | Male Total | Female Sterile | Female Wild | Female Total | Non-ID Total |
| Apr 20 - Apr 27 | 4 | 0 | 46 | 46 | 5 | 182 | 187 | 0 |
| ¹ Apr 27 – May 10 | 0 | 0 | 92 | 92 | 2 | 525 | 527 | 4 |
| May 10 – May 15 | 0 | 0 | 76 | 76 | 0 | 291 | 291 | 1 |
| May 15 – May 25 | 0 | 0 | 51 | 51 | 0 | 190 | 190 | 0 |
| May 25 – Jun 2 | 0 | 0 | 3 | 3 | 1 | 81 | 82 | 0 |
| Jun 2 – Jun 6 | 0 | 0 | 2 | 2 | 0 | 21 | 21 | 0 |
| Jun 6 – Jun 15 | 0 | 0 | 7 | 7 | 1 | 17 | 18 | 0 |
| Jun 15 – Jun 22 | 0 | 0 | 1 | 1 | 0 | 12 | 12 | 0 |
| Jun 22 – Jun 29 | 0 | 0 | 1 | 1 | 1 | 135 | 136 | 0 |
| ² Jun 29 – Jul 13 | 0 | 0 | 16 | 16 | 0 | 643 | 643 | 0 |
| ¹ No traps were serviced in Zone 7 during the week of May 5 due to excessive muddy conditions preventing access | | | | | | | | |
| ² No traps were serviced in Zone 7 during the week of July 7 due to staff shortage; All meal traps removed from Zone 7 on July 13 | | | | | | | | |

| 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 | Non-ID Total |
| Apr 20 - Apr 27 | 4 | 19 | 1126 | 1145 | 0 | 319 | 319 | 4 |
| ¹ Apr 27 – May 10 | 0 | 44 | 554 | 598 | 10 | 630 | 640 | 3 |
| May 10 – May 15 | 0 | 0 | 1403 | 1403 | 0 | 215 | 215 | 10 |
| May 15 – May 25 | 0 | 0 | 567 | 567 | 0 | 399 | 399 | 0 |
| May 25 – Jun 2 | 0 | 0 | 201 | 201 | 0 | 57 | 57 | 2 |
| Jun 2 – Jun 6 | 0 | 0 | 310 | 310 | 0 | 84 | 84 | 0 |
| Jun 6 – Jun 15 | 0 | 1 | 650 | 651 | 0 | 74 | 74 | 0 |
| Jun 15 – Jun 22 | 0 | 1 | 555 | 556 | 0 | 91 | 91 | 0 |
| Jun 22 – Jun 29 | 0 | 0 | 566 | 566 | 0 | 146 | 146 | 2 |
| ² Jun 29 – Jul 13 | 0 | 0 | 806 | 806 | 0 | 1506 | 1506 | 3 |
| Jul 13 – Jul 20 | 0 | 0 | 69 | 69 | 0 | 42 | 42 | 0 |
| Jul 20 – Jul 27 | 0 | 0 | 45 | 45 | 0 | 66 | 66 | 0 |
| Jul 27 – Aug 3 | 0 | 0 | 23 | 23 | 0 | 26 | 26 | 0 |
| ³ Aug 3 – Aug 17 | 0 | 0 | 157 | 157 | 0 | 333 | 333 | 0 |
| Aug 17 – Aug 24 | 0 | 0 | 1549 | 1549 | 0 | 424 | 424 | 21 |
| Aug 24 – Aug 31 | 0 | 0 | 2488 | 2488 | 0 | 929 | 929 | 14 |
| Aug 31 – Sep 8 | 0 | 1 | 2213 | 2214 | 0 | 1083 | 1083 | 16 |
| | | | | | | | | |
| ¹ No traps were serviced in Zone 7 during the week of May 5 due to excessive muddy conditions preventing access | | | | | | | | |
| ² No traps were serviced in Zone 7 during the week of July 7 due to staff shortage | | | | | | | | |
| ³ No traps were serviced in Zone 7 during the week of August 11 due to pesticide applications on site | | | | | | | | |

Zone 7 - Almond Orchard - Meal Baited Traps



Zone 7 - Almond Orchard - Pheromone/PPO Baited Traps



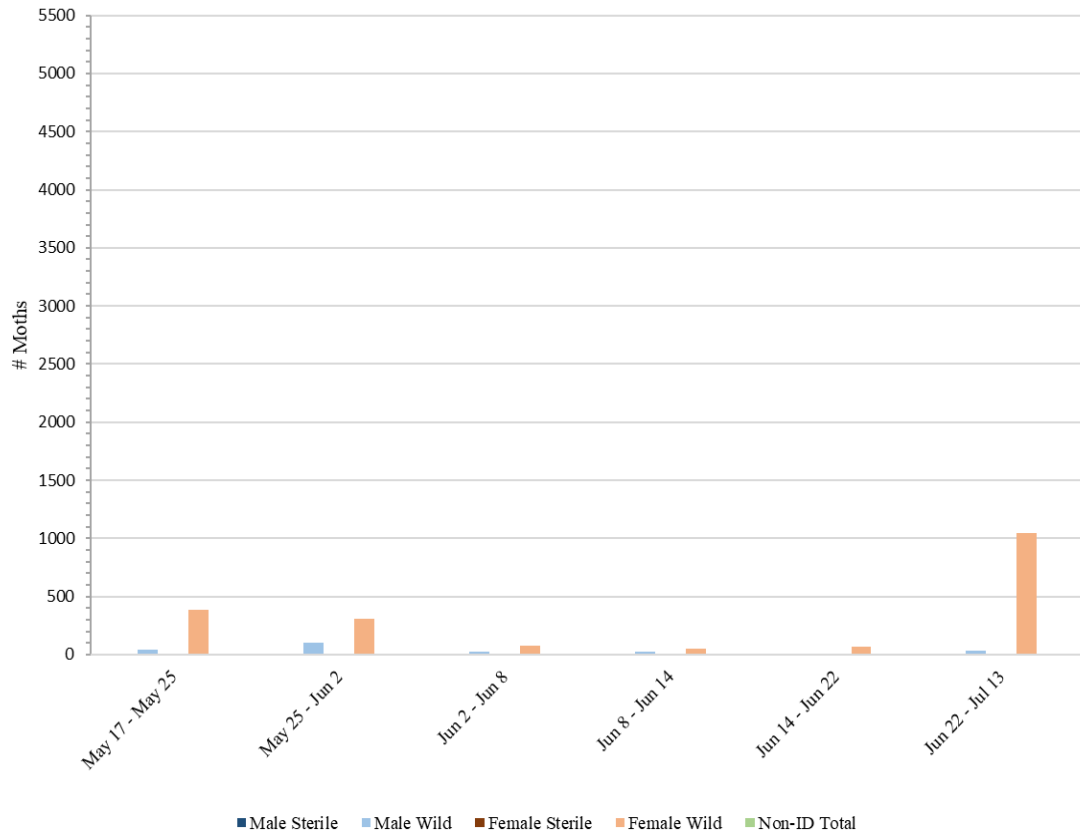
Zone 8 – Almond Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 8 on Friday, September 8.

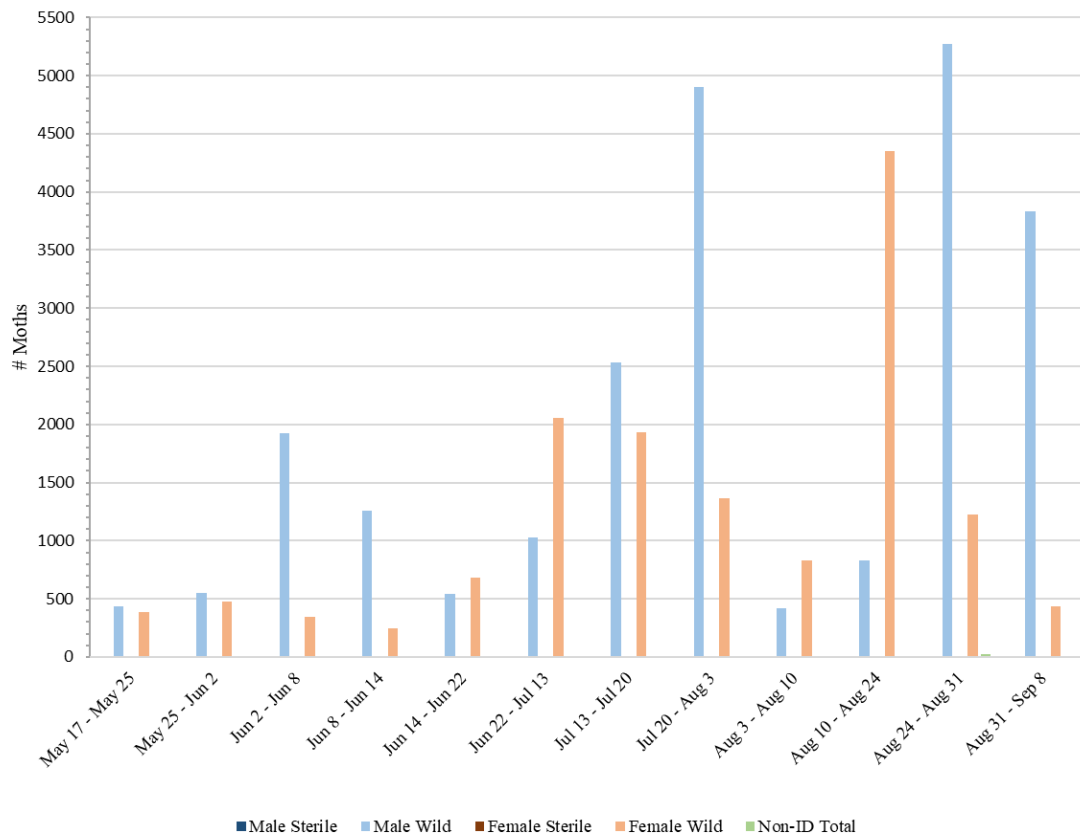
| Zone 8 - Almond | | | | | | | | |
|--|----------------------------------|--------------|-----------|------------|----------------|-------------|--------------|--------------|
| Meal Baited Traps | | | | | | | | |
| Dates Traps in Field | # of Releases During Trap Period | Male Sterile | Male Wild | Male Total | Female Sterile | Female Wild | Female Total | Non-ID Total |
| May 17 - May 25 | 0 | 0 | 43 | 43 | 1 | 386 | 387 | 0 |
| May 25 – Jun 2 | 0 | 0 | 100 | 100 | 0 | 306 | 306 | 0 |
| Jun 2 – Jun 8 | 0 | 0 | 29 | 29 | 0 | 79 | 79 | 0 |
| Jun 8 – Jun 14 | 0 | 0 | 21 | 21 | 0 | 48 | 48 | 0 |
| Jun 14 – Jun 22 | 0 | 0 | 11 | 11 | 1 | 66 | 67 | 0 |
| ¹ Jun 22 – Jul 13 | 0 | 0 | 31 | 31 | 0 | 1043 | 1043 | 0 |
| | | | | | | | | |
| ¹ No traps were serviced in Zone 8 during the weeks of June 30 and July 7 due to pesticide applications on site; All meal traps removed from Zone 8 on July 13 | | | | | | | | |

| 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 | Non-ID Total |
| May 17 - May 25 | 0 | 0 | 434 | 434 | 0 | 383 | 383 | 0 |
| May 25 – Jun 2 | 0 | 0 | 551 | 551 | 0 | 474 | 474 | 5 |
| Jun 2 – Jun 8 | 0 | 0 | 1928 | 1928 | 0 | 345 | 345 | 6 |
| Jun 8 – Jun 14 | 0 | 1 | 1259 | 1260 | 0 | 248 | 248 | 0 |
| Jun 14 – Jun 22 | 0 | 1 | 541 | 542 | 0 | 685 | 685 | 2 |
| ¹ Jun 22 – Jul 13 | 0 | 0 | 1029 | 1029 | 0 | 2058 | 2058 | 7 |
| Jul 13 – Jul 20 | 0 | 0 | 2531 | 2531 | 0 | 1929 | 1929 | 6 |
| ² Jul 20 – Aug 3 | 0 | 0 | 4905 | 4905 | 0 | 1365 | 1365 | 1 |
| Aug 3 – Aug 10 | 0 | 0 | 415 | 415 | 0 | 827 | 827 | 0 |
| ³ Aug 10 – Aug 24 | 0 | 0 | 829 | 829 | 1 | 4349 | 4350 | 9 |
| Aug 24 – Aug 31 | 0 | 0 | 5274 | 5274 | 0 | 1223 | 1223 | 22 |
| Aug 31 – Sep 8 | 0 | 0 | 3829 | 3829 | 0 | 434 | 434 | 3 |
| | | | | | | | | |
| ¹ No traps were serviced in Zone 8 during the weeks of June 30 and July 7 due to pesticide applications on site | | | | | | | | |
| ² No traps were serviced in Zone 8 during the week of July 28 due to pesticide applications on site | | | | | | | | |
| ³ No traps were serviced in Zone 8 during the week of August 18 due to pesticide applications on site | | | | | | | | |

Zone 8 - Almond Orchard - Meal Baited Traps



Zone 8 - Almond Orchard - Pheromone/PPO Baited Traps



IV. 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 QC results from samples of sterile NOW moths for Mag 1, released over Zones 1 and 3, and Mag 2, primarily released over Zones 4 and 6, during the week of Monday, August 28, 2023 to Sunday, September 3, 2023:

Mag 1:

- 3% of moths from samples found dead at zero hour
- 0% of moths from samples found to have mated at zero hour
- 31% of moths from samples found to have mated after forty-eight hours
- 56% of moths from samples remained alive after seven days in BioChamber
- 94% of moths from samples found to have distinct red dye markings

Mag 2:

- 0% of moths from samples found dead at zero hour
- 1% of moths from samples found to have mated at zero hour
- 69% of moths from samples found to have mated after forty-eight hours
- 70% of moths from samples remained alive after seven days in BioChamber
- 97% of moths from samples found to have distinct red dye markings