

# Navel Orangeworm Program 2025 – Weekly Report

Weeks Ending – May 9 and May 16, 2025

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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 – 2023-2025

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 to increase the integrity of the field data being collected. Strategic planning and industry communication with NOWAC remains with Matthew Aubuchon, the USDA National Policy Coordinator, in partnership with CDFA.

### 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.

Releases of sterile NOW moths began on March 26 with one magazine of approximately 750,000 sterile moths being released daily over select sites in West Fresno County. CDFA is currently conducting ground releases at select sites until aerial releases are available later in the year. Initially, releases will be conducted exclusively over almond sites and will change to being conducted exclusively over pistachio sites later in the year to prioritize periods of crop specific vulnerability to NOW damage.

Listed below are circumstances which prevented regular releases in 2025:

- March 29 – March 30: No releases conducted due to staffing issues
- April 26: No releases conducted due to rain and muddy conditions preventing access to the release sites; magazine from April 26 held overnight for release on April 27
- April 27: Ground release conducted for both magazines from April 26 and April 27
- May 6: No releases conducted due to change from same-day to next-day releases

### Navel Orangeworm Trapping

The Phase 2 Area Wide Project Site for 2025 currently includes nineteen orchards: three pistachio and sixteen almond, located in the San Joaquin Valley. In 2024, the program had nine orchards with each orchard ranging in area from 600

to 640 acres. Many of these locations are currently enrolled in the 2025 field season; however, this year the Program is planning to expand enrollment to 32 orchards with the total area for each location being approximately 160-acres. Trapping is being conducted weekly year-round in all zones.

Listed below are any circumstances which prevented regular trap servicing in 2025:

- Week of January 3: No traps were serviced in Zones 2, 6, and 9 due to excessive rain and muddy conditions preventing access to trap sites
- Week of January 31: No traps were serviced in Zone 9 due to excessive rain and muddy conditions preventing access to trap sites; Zone 3, trap numbers 26 – 36 not serviced due to pesticide applications on site
- Week of February 7: No traps were serviced in Zones 3 and 7 due to pesticide applications on site; Zone 4, trap numbers 8 – 36 not serviced due to pesticide applications on site; No traps were serviced in Zone 6 due to rain and muddy conditions preventing access to trap sites
- Week of February 14: No traps were serviced in Zones 3 and 7 due to pesticide applications on site
- Week of February 21: No traps were serviced in Zones 3 and 7 due to pesticide applications on site; No traps were serviced in Zone 6 due to staffing issues
- Week of March 7: No traps were serviced in Zones 2, 3, 4, and 7 due to pesticide applications on site; No traps were serviced in Zone 5 due to excessive rain and muddy conditions preventing access to trap sites
- Week of March 21: No traps were serviced in Zones 4 and 6 due to excessive rain and muddy conditions preventing access to trap sites
- Week of March 28: No traps were serviced in Zones 2 and 9 due to pesticide applications on site; No traps were serviced in Zone 6 due to staffing issues
- Week of April 4: No traps were serviced in Zone 8 due to pesticide applications on site; No traps were serviced in Zone 4 due to staffing issues
- Week of April 11: No traps were serviced in Zones 3 and 8 due to pesticide applications on site
- Week of April 18: No traps were serviced in Zone 7 due to pesticide applications on site
- Week of April 25: No traps were serviced in Zone 6 due to staffing issues
- Week of May 9: No traps were serviced in Zones 3, 5, 7, and 8 due to pesticide applications on site

## II. Project Design

The Area Wide Project Site was restructured in 2023 in preparation for Phase 2 of the Program. Phase 2 aims to 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).

The 2025 Area Wide Project Site currently includes 19 orchards located in Fresno and Kings counties, identified in the table below. Additional acreage is currently being investigated and will be added to the Project Site as they are established. Listed below is information related to each orchard within the Program's Phase 2 project site for 2025:

| Zone #                 | Crop Type | Acres | Release/Non-release Site | Date Added to Area Wide Project |
|------------------------|-----------|-------|--------------------------|---------------------------------|
| <a href="#">Zone 2</a> | Pistachio | 640   | TBD                      | February 2023                   |
| <a href="#">Zone 3</a> | Almond    | 160   | Release                  | February 2023                   |

|                         |           |     |             |            |
|-------------------------|-----------|-----|-------------|------------|
| <a href="#">Zone 5</a>  | Pistachio | 640 | TBD         | March 2023 |
| <a href="#">Zone 6</a>  | Pistachio | 640 | TBD         | March 2023 |
| <a href="#">Zone 7</a>  | Almond    | 160 | Non-release | April 2023 |
| <a href="#">Zone 8</a>  | Almond    | 160 | Non-release | April 2023 |
| <a href="#">Zone 9</a>  | Almond    | 160 | Release     | May 2024   |
| <a href="#">Zone 10</a> | Almond    | 160 | Non-release | May 2025   |
| <a href="#">Zone 11</a> | Almond    | 160 | Non-release | May 2025   |
| <a href="#">Zone 12</a> | Almond    | 160 | Release     | May 2025   |
| <a href="#">Zone 13</a> | Almond    | 160 | Non-release | May 2025   |
| <a href="#">Zone 14</a> | Almond    | 160 | Release     | May 2025   |
| <a href="#">Zone 15</a> | Almond    | 160 | Non-release | May 2025   |
| <a href="#">Zone 16</a> | Almond    | 150 | Release     | May 2025   |
| <a href="#">Zone 17</a> | Almond    | 173 | Non-release | May 2025   |
| <a href="#">Zone 18</a> | Almond    | 150 | Release     | May 2025   |
| <a href="#">Zone 19</a> | Almond    | 183 | Release     | May 2025   |
| <a href="#">Zone 20</a> | Almond    | 150 | Non-release | May 2025   |
| <a href="#">Zone 21</a> | Almond    | 155 | Release     | May 2025   |

Each zone has a trap site ratio of approximately one trap site per 18 acres for a total of 9 trap sites for each 160-acre zone. Each trap site has one trap baited with NOW pheromone/PPO lures. All traps are serviced on a weekly basis. Servicing includes collecting trap bottoms and replacing them 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 Weeks Ending on May 9 and May 16, 2025

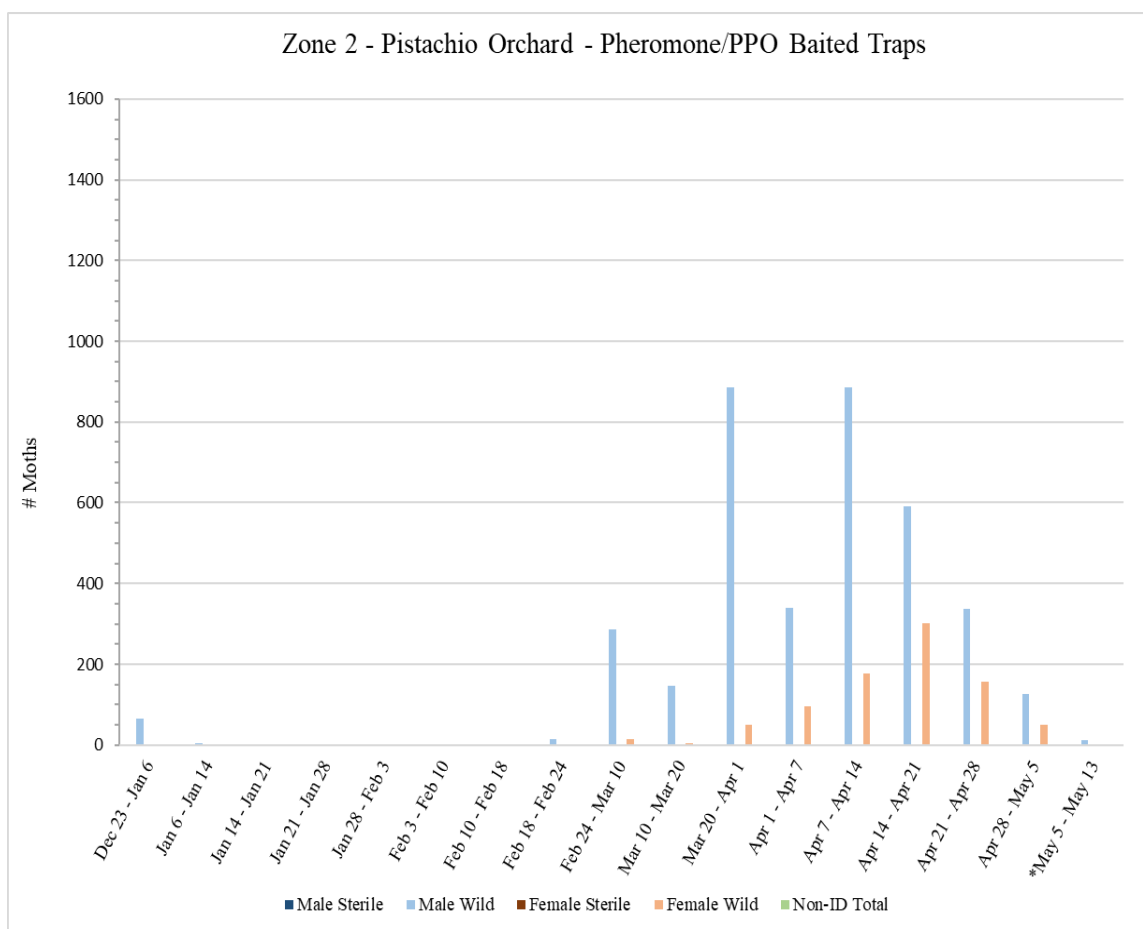
#### Zone 2 – Pistachio Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 2 on Monday, May 5. Zone 2 was reduced to 160 acres with 9 trap sites in total on May 5.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 2 on Tuesday, May 13.

| 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 |
| <sup>1</sup> Dec 23 – Jan 6     | 0                                | 0            | 65        | 65         | 0              | 0           | 0            | 0            |
| Jan 6 – Jan 14                  | 0                                | 0            | 5         | 5          | 0              | 0           | 0            | 0            |
| Jan 14 – Jan 21                 | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 21 – Jan 28                 | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 28 – Feb 3                  | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Feb 3 – Feb 10                  | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Feb 10 – Feb 18                 | 0                                | 0            | 2         | 2          | 0              | 0           | 0            | 0            |
| Feb 18 – Feb 24                 | 0                                | 0            | 14        | 14         | 0              | 1           | 1            | 0            |
| <sup>2</sup> Feb 24 – Mar 10    | 0                                | 0            | 287       | 287        | 0              | 15          | 15           | 0            |

|                                                                                                                                                |          |          |            |            |          |           |           |          |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|------------|------------|----------|-----------|-----------|----------|
| Mar 10 – Mar 20                                                                                                                                | 0        | 0        | 146        | 146        | 0        | 4         | 4         | 0        |
| <sup>3</sup> Mar 20 – Apr 1                                                                                                                    | 0        | 0        | 887        | 887        | 0        | 51        | 51        | 0        |
| Apr 1 – Apr 7                                                                                                                                  | 0        | 0        | 340        | 340        | 0        | 95        | 95        | 0        |
| Apr 7 – Apr 14                                                                                                                                 | 0        | 0        | 885        | 885        | 0        | 178       | 178       | 0        |
| Apr 14 – Apr 21                                                                                                                                | 0        | 0        | 590        | 590        | 0        | 301       | 301       | 1        |
| Apr 21 – Apr 28                                                                                                                                | 0        | 0        | 337        | 337        | 0        | 157       | 157       | 0        |
| <b>Apr 28 – May 5</b>                                                                                                                          | <b>0</b> | <b>0</b> | <b>126</b> | <b>126</b> | <b>0</b> | <b>51</b> | <b>51</b> | <b>0</b> |
| <b>*May 5 – May 13</b>                                                                                                                         | <b>0</b> | <b>0</b> | <b>12</b>  | <b>12</b>  | <b>0</b> | <b>0</b>  | <b>0</b>  | <b>0</b> |
| <sup>1</sup> No traps were serviced in Zone 2 during the week of January 3 due to excessive rain and muddy conditions preventing access        |          |          |            |            |          |           |           |          |
| <sup>2</sup> No traps were serviced in Zone 2 during the week of March 7 due to pesticide applications on site                                 |          |          |            |            |          |           |           |          |
| <sup>3</sup> No traps were serviced in Zone 2 during the week of March 28 due to pesticide applications on site                                |          |          |            |            |          |           |           |          |
| <b>*Zone 2 area decreased from 640 to 160 acres. Trapping ratio is 1 trap:18 acres therefore total number of traps decreased from 36 to 9.</b> |          |          |            |            |          |           |           |          |

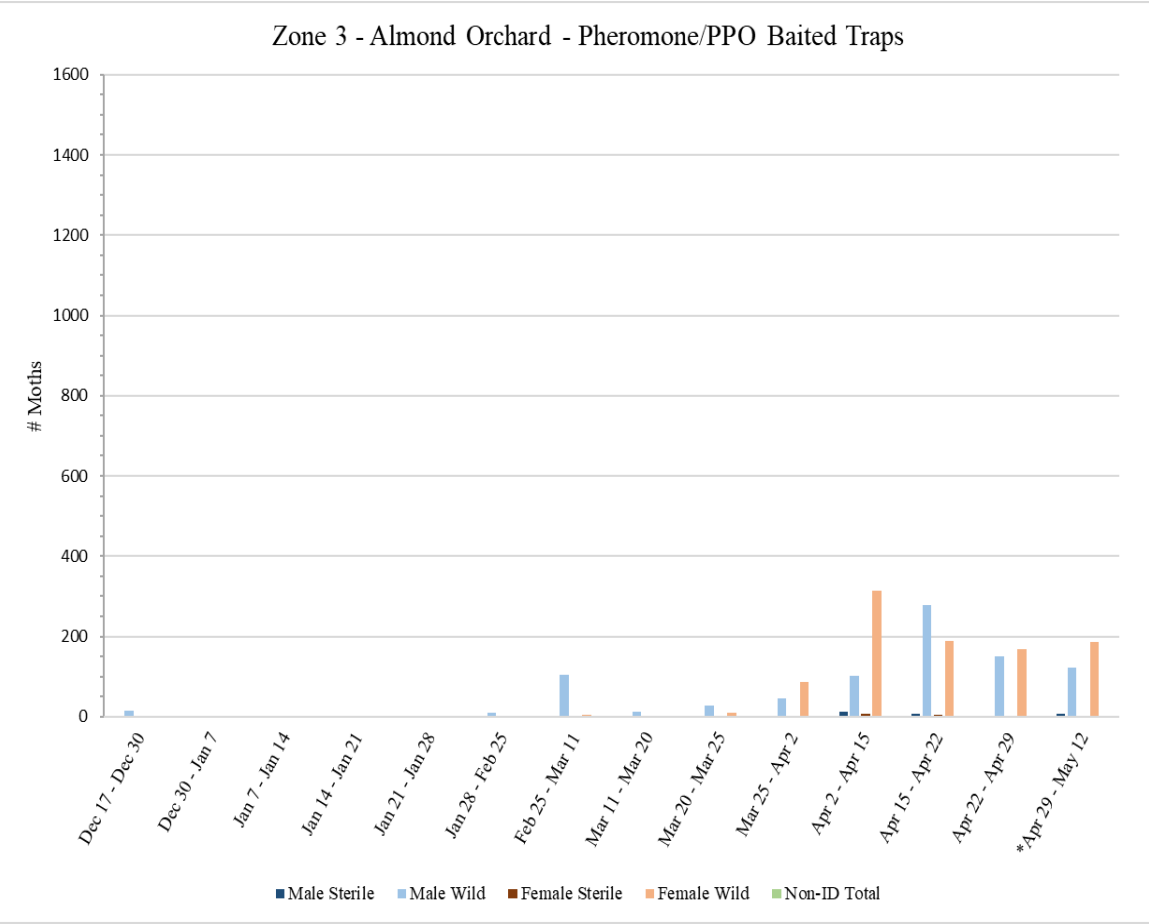


### Zone 3 – Almond Orchard

No traps were collected from Zone 3 during the week of May 9 due to pesticide applications on site.

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 3 on Monday, May 12. Zone 3 was reduced to 160 acres with 9 trap sites in total on May 12.

| 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 |
| Dec 17 – Dec 30                                                                                                                                  | 0                                | 0            | 15        | 15         | 0              | 0           | 0            | 0            |
| Dec 30 – Jan 7                                                                                                                                   | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 7 – Jan 14                                                                                                                                   | 0                                | 0            | 1         | 1          | 0              | 0           | 0            | 0            |
| Jan 14 – Jan 21                                                                                                                                  | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| <sup>1</sup> Jan 21 – Jan 28                                                                                                                     | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| <sup>2</sup> Jan 28 – Feb 25                                                                                                                     | 0                                | 0            | 9         | 9          | 0              | 0           | 0            | 0            |
| <sup>3</sup> Feb 25 – Mar 11                                                                                                                     | 0                                | 0            | 105       | 105        | 0              | 5           | 5            | 0            |
| Mar 11 – Mar 20                                                                                                                                  | 0                                | 0            | 11        | 11         | 0              | 0           | 0            | 0            |
| Mar 20 – Mar 25                                                                                                                                  | 0                                | 0            | 27        | 27         | 0              | 10          | 10           | 0            |
| Mar 25 – Apr 2                                                                                                                                   | 3                                | 2            | 46        | 48         | 1              | 86          | 87           | 0            |
| <sup>4</sup> Apr 2 – Apr 15                                                                                                                      | 7                                | 12           | 102       | 114        | 6              | 315         | 321          | 0            |
| Apr 15 – Apr 22                                                                                                                                  | 4                                | 8            | 279       | 287        | 4              | 188         | 192          | 0            |
| Apr 22 – Apr 29                                                                                                                                  | 5                                | 1            | 149       | 150        | 0              | 168         | 168          | 0            |
| <sup>5*</sup> Apr 29 – May 12                                                                                                                    | 7                                | 7            | 122       | 129        | 3              | 186         | 189          | 0            |
| <sup>1</sup> Trap numbers 26 - 36 not serviced in Zone 3 during the week of January 31 due to pesticide applications on site                     |                                  |              |           |            |                |             |              |              |
| <sup>2</sup> No traps were serviced in Zone 3 during the weeks of February 7, February 14, and February 21 due to pesticide applications on site |                                  |              |           |            |                |             |              |              |
| <sup>3</sup> No traps were serviced in Zone 3 during the week of March 7 due to pesticide applications on site                                   |                                  |              |           |            |                |             |              |              |
| <sup>4</sup> No traps were serviced in Zone 3 during the week of Apr 11 due to pesticide applications on site                                    |                                  |              |           |            |                |             |              |              |
| <sup>5</sup> No traps were serviced in Zone 3 during the week of May 9 due to pesticide applications on site                                     |                                  |              |           |            |                |             |              |              |
| *Zone 3 area decreased from 640 to 160 acres. Trapping ratio is 1 trap:18 acres therefore total number of traps decreased from 36 to 9.          |                                  |              |           |            |                |             |              |              |



## Zone 4 – Almond Orchard

All traps were removed from Zone 4. As of Thursday, May 1, Zone 4 is no longer participating in the Program.

| 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 |
| Dec 23 – Dec 31                                                                                                                        | 0                                | 0            | 38        | 38         | 0              | 1           | 1            | 0            |
| Dec 31 – Jan 8                                                                                                                         | 0                                | 0            | 4         | 4          | 0              | 0           | 0            | 0            |
| Jan 8 – Jan 15                                                                                                                         | 0                                | 0            | 1         | 1          | 0              | 0           | 0            | 0            |
| Jan 15 – Jan 22                                                                                                                        | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 22 – Jan 29                                                                                                                        | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| <sup>1</sup> Jan 29 – Feb 5                                                                                                            | 0                                | 0            | 2         | 2          | 0              | 0           | 0            | 0            |
| <sup>2</sup> Feb 5 – Feb 11                                                                                                            | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Feb 11 – Feb 19                                                                                                                        | 0                                | 0            | 2         | 2          | 0              | 0           | 0            | 0            |
| Feb 19 – Feb 26                                                                                                                        | 0                                | 0            | 9         | 9          | 0              | 1           | 1            | 0            |
| <sup>3</sup> Feb 26 – Mar 12                                                                                                           | 0                                | 0            | 102       | 102        | 0              | 0           | 0            | 0            |
| <sup>4</sup> Mar 12 – Mar 26                                                                                                           | 0                                | 0            | 58        | 58         | 0              | 5           | 5            | 0            |
| <sup>5</sup> Mar 26 – Apr 9                                                                                                            | 0                                | 0            | 164       | 164        | 0              | 54          | 54           | 0            |
| Apr 9 – Apr 17                                                                                                                         | 0                                | 0            | 284       | 284        | 0              | 121         | 121          | 0            |
| Apr 17 – Apr 23                                                                                                                        | 0                                | 0            | 225       | 225        | 0              | 102         | 102          | 0            |
| <sup>6</sup> Apr 23 – May 1                                                                                                            | 0                                | 0            | 237       | 237        | 0              | 61          | 61           | 0            |
|                                                                                                                                        |                                  |              |           |            |                |             |              |              |
| <sup>1</sup> Trap numbers 8 – 36 not serviced in Zone 4 during the week of February 7 due to pesticide applications on site            |                                  |              |           |            |                |             |              |              |
| <sup>2</sup> Trap numbers 8 – 36 in field since January 29                                                                             |                                  |              |           |            |                |             |              |              |
| <sup>3</sup> No traps were serviced in Zone 4 during the week of March 7 due to pesticide applications on site                         |                                  |              |           |            |                |             |              |              |
| <sup>4</sup> No traps were serviced in Zone 4 during the week of March 21 due to excessive rain and muddy conditions preventing access |                                  |              |           |            |                |             |              |              |
| <sup>5</sup> No traps were serviced in Zone 4 during the week of April 4 due to staffing issues                                        |                                  |              |           |            |                |             |              |              |
| <b><sup>6</sup>Traps removed from Zone 4. As of May 1 2025, Zone 4 is no longer participating in the Program.</b>                      |                                  |              |           |            |                |             |              |              |

## Zone 5 – Pistachio Orchard

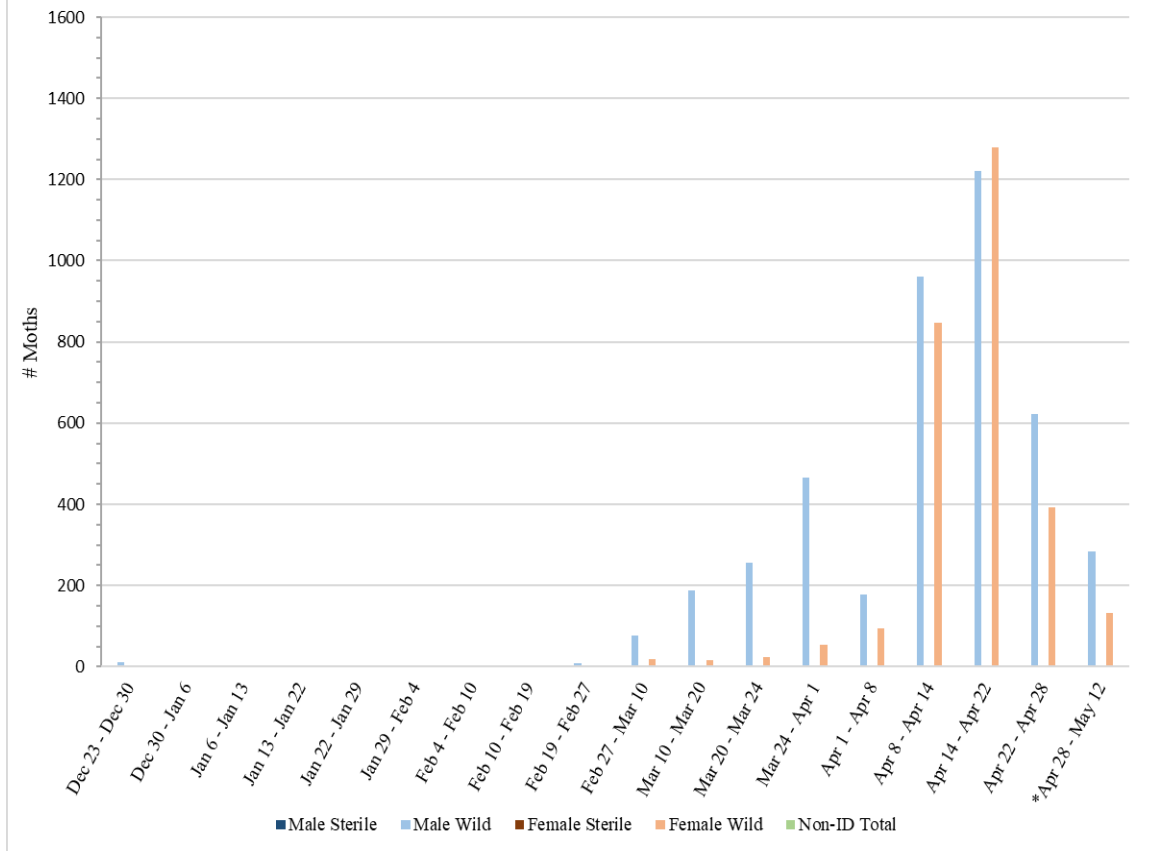
No traps were collected from Zone 5 during the week of May 9 due to pesticide applications on site.

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 5 on Monday, May 12. Zone 5 was reduced to 160 acres with 9 trap sites in total on May 12.

| <b>Zone 5 - Pistachio</b>                                                                                                               |                                  |              |           |            |                |             |              |              |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------|-----------|------------|----------------|-------------|--------------|--------------|
| 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 |
| Dec 23 – Dec 30                                                                                                                         | 0                                | 0            | 12        | 12         | 0              | 0           | 0            | 0            |
| Dec 30 – Jan 6                                                                                                                          | 0                                | 0            | 1         | 1          | 0              | 0           | 0            | 0            |
| Jan 6 – Jan 13                                                                                                                          | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 13 – Jan 22                                                                                                                         | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 22 – Jan 29                                                                                                                         | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 29 – Feb 4                                                                                                                          | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Feb 4 – Feb 10                                                                                                                          | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Feb 10 – Feb 19                                                                                                                         | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Feb 19 – Feb 27                                                                                                                         | 0                                | 0            | 8         | 8          | 0              | 4           | 4            | 0            |
| <sup>1</sup> Feb 27 – Mar 10                                                                                                            | 0                                | 0            | 77        | 77         | 0              | 19          | 19           | 0            |
| Mar 10 – Mar 20                                                                                                                         | 0                                | 0            | 188       | 188        | 0              | 15          | 15           | 0            |
| Mar 20 – Mar 24                                                                                                                         | 0                                | 0            | 257       | 257        | 0              | 23          | 23           | 0            |
| Mar 24 – Apr 1                                                                                                                          | 0                                | 0            | 465       | 465        | 0              | 54          | 54           | 0            |
| Apr 1 – Apr 8                                                                                                                           | 0                                | 0            | 178       | 178        | 0              | 95          | 95           | 0            |
| Apr 8 – Apr 14                                                                                                                          | 0                                | 0            | 961       | 961        | 0              | 846         | 846          | 0            |
| Apr 14 – Apr 22                                                                                                                         | 0                                | 0            | 1221      | 1221       | 0              | 1279        | 1279         | 0            |
| Apr 22 – Apr 28                                                                                                                         | 0                                | 0            | 623       | 623        | 0              | 393         | 393          | 0            |
| <sup>2*</sup> Apr 28 - May 12                                                                                                           | 0                                | 0            | 284       | 284        | 0              | 132         | 132          | 0            |
|                                                                                                                                         |                                  |              |           |            |                |             |              |              |
| <sup>1</sup> No traps were serviced in Zone 5 during the week of March 7 due to excessive rain and muddy conditions preventing access   |                                  |              |           |            |                |             |              |              |
| <sup>2</sup> No traps were serviced in Zone 5 during the week of May 9 due to pesticide applications on site                            |                                  |              |           |            |                |             |              |              |
| *Zone 5 area decreased from 640 to 160 acres. Trapping ratio is 1 trap:18 acres therefore total number of traps decreased from 36 to 9. |                                  |              |           |            |                |             |              |              |



# Zone 5 - Pistachio Orchard - Pheromone/PPO Baited Traps



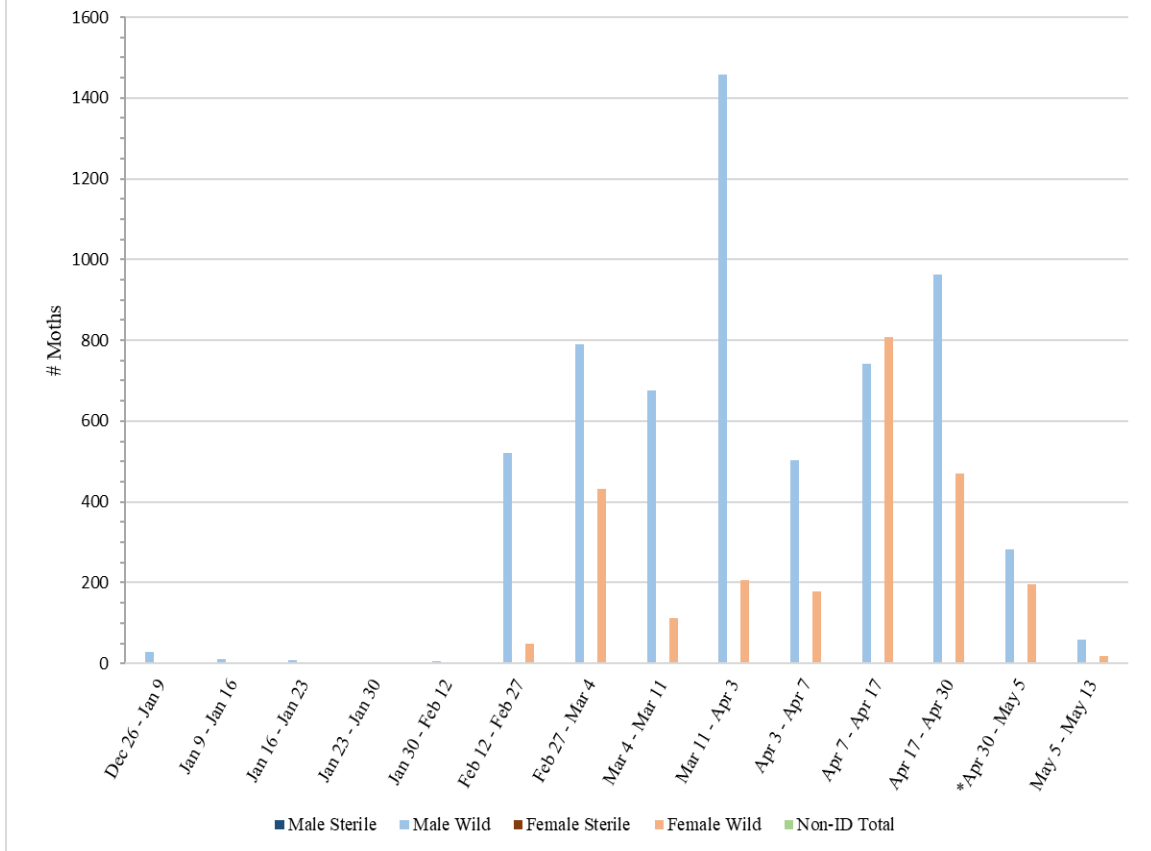
## Zone 6 – Pistachio Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 6 on Monday, May 5. Zone 6 was reduced to 160 acres with 9 trap sites in total on May 5.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 6 on Tuesday, May 13.

| 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 |
| <sup>1</sup> Dec 26 – Jan 9                                                                                                                                                                                                 | 0                                | 0            | 28         | 28         | 0              | 0           | 0            | 0            |
| Jan 9 – Jan 16                                                                                                                                                                                                              | 0                                | 0            | 10         | 10         | 0              | 0           | 0            | 0            |
| Jan 16 – Jan 23                                                                                                                                                                                                             | 0                                | 0            | 9          | 9          | 0              | 0           | 0            | 0            |
| Jan 23 – Jan 30                                                                                                                                                                                                             | 0                                | 0            | 0          | 0          | 0              | 0           | 0            | 0            |
| <sup>2</sup> Jan 30 – Feb 12                                                                                                                                                                                                | 0                                | 0            | 5          | 5          | 0              | 0           | 0            | 0            |
| <sup>3</sup> Feb 12 – Feb 27                                                                                                                                                                                                | 0                                | 0            | 522        | 522        | 0              | 48          | 48           | 0            |
| Feb 27 – Mar 4                                                                                                                                                                                                              | 0                                | 0            | 790        | 790        | 0              | 431         | 431          | 0            |
| Mar 4 – Mar 11                                                                                                                                                                                                              | 0                                | 0            | 677        | 677        | 0              | 111         | 111          | 1            |
| <sup>4</sup> Mar 11 – Apr 3                                                                                                                                                                                                 | 0                                | 0            | 1459       | 1459       | 0              | 205         | 205          | 4            |
| Apr 3 – Apr 7                                                                                                                                                                                                               | 0                                | 0            | 504        | 504        | 0              | 179         | 179          | 0            |
| Apr 7 – Apr 17                                                                                                                                                                                                              | 0                                | 0            | 741        | 741        | 0              | 807         | 807          | 0            |
| <sup>5</sup> Apr 17 – Apr 30                                                                                                                                                                                                | 0                                | 0            | 964        | 964        | 0              | 471         | 471          | 1            |
| <b>*Apr 30 - May 5</b>                                                                                                                                                                                                      | <b>0</b>                         | <b>0</b>     | <b>282</b> | <b>282</b> | <b>0</b>       | <b>195</b>  | <b>195</b>   | <b>0</b>     |
| <b>May 5 – May 13</b>                                                                                                                                                                                                       | <b>0</b>                         | <b>0</b>     | <b>58</b>  | <b>58</b>  | <b>0</b>       | <b>18</b>   | <b>18</b>    | <b>0</b>     |
| <sup>1</sup> No traps were serviced in Zone 6 during the week of January 3 due to excessive rain and muddy conditions preventing access                                                                                     |                                  |              |            |            |                |             |              |              |
| <sup>2</sup> No traps were serviced in Zone 6 during the week of February 7 due to excessive rain and muddy conditions preventing access                                                                                    |                                  |              |            |            |                |             |              |              |
| <sup>3</sup> No traps were serviced in Zone 6 during the week of February 21 due to staffing issues                                                                                                                         |                                  |              |            |            |                |             |              |              |
| <sup>4</sup> No traps were serviced in Zone 6 during the week of March 21 due to excessive rain and muddy conditions preventing access; No traps were serviced in Zone 6 during the week of March 28 due to staffing issues |                                  |              |            |            |                |             |              |              |
| <sup>5</sup> No traps were serviced in Zone 6 during the week of April 25 due to staffing issues                                                                                                                            |                                  |              |            |            |                |             |              |              |
| <b>*Zone 6 area decreased from 640 to 160 acres. Trapping ratio is 1 trap:18 acres therefore total number of traps decreased from 36 to 9.</b>                                                                              |                                  |              |            |            |                |             |              |              |

### Zone 6 - Pistachio Orchard - Phoromone/PPO Baited Traps

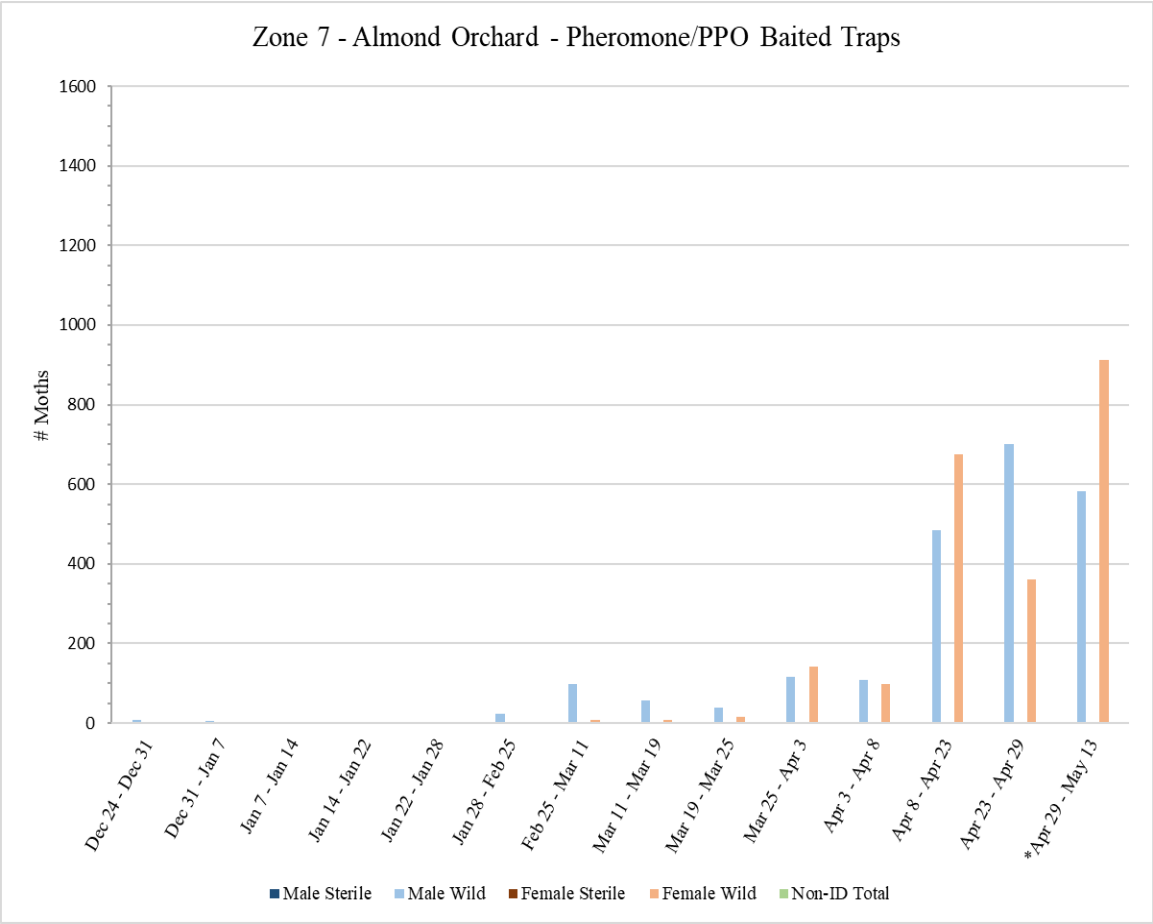


## Zone 7 – Almond Orchard

No traps were collected from Zone 7 during the week of May 9 due to pesticide applications on site.

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 7 on Tuesday, May 13. Zone 7 was reduced to 160 acres with 9 trap sites in total on May 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 |
| Dec 24 – Dec 31                                                                                                                                     | 0                                | 0            | 7         | 7          | 0              | 0           | 0            | 0            |
| Dec 31 – Jan 7                                                                                                                                      | 0                                | 0            | 6         | 6          | 0              | 0           | 0            | 0            |
| Jan 7 – Jan 14                                                                                                                                      | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 14 – Jan 22                                                                                                                                     | 0                                | 0            | 1         | 1          | 0              | 0           | 0            | 0            |
| Jan 22 – Jan 28                                                                                                                                     | 0                                | 0            | 1         | 1          | 0              | 0           | 0            | 0            |
| <sup>1</sup> Jan 28 – Feb 25                                                                                                                        | 0                                | 0            | 24        | 24         | 0              | 0           | 0            | 0            |
| <sup>2</sup> Feb 25 – Mar 11                                                                                                                        | 0                                | 0            | 99        | 99         | 0              | 7           | 7            | 0            |
| Mar 11 – Mar 19                                                                                                                                     | 0                                | 0            | 57        | 57         | 0              | 9           | 9            | 0            |
| Mar 19 – Mar 25                                                                                                                                     | 0                                | 0            | 39        | 39         | 0              | 16          | 16           | 0            |
| Mar 25 – Apr 3                                                                                                                                      | 0                                | 0            | 116       | 116        | 0              | 142         | 142          | 0            |
| Apr 3 – Apr 8                                                                                                                                       | 0                                | 0            | 108       | 108        | 0              | 97          | 97           | 0            |
| <sup>3</sup> Apr 8 – Apr 23                                                                                                                         | 0                                | 0            | 484       | 484        | 0              | 674         | 674          | 0            |
| Apr 23 – Apr 29                                                                                                                                     | 0                                | 0            | 702       | 702        | 0              | 362         | 362          | 0            |
| <sup>4*</sup> Apr 29 – May 13                                                                                                                       | 0                                | 0            | 583       | 583        | 0              | 913         | 913          | 1            |
| <sup>1</sup> No traps were serviced in Zone 7 during the weeks of February 7, February 14, and February 21 due to pesticide applications on site    |                                  |              |           |            |                |             |              |              |
| <sup>2</sup> No traps were serviced in Zone 7 during the week of March 7 due to pesticide applications on site                                      |                                  |              |           |            |                |             |              |              |
| <sup>3</sup> No traps were serviced in Zone 7 during the week of April 18 due to pesticide applications on site                                     |                                  |              |           |            |                |             |              |              |
| <sup>4</sup> No traps were serviced in Zone 7 during the week of May 9 due to pesticide applications on site                                        |                                  |              |           |            |                |             |              |              |
| <sup>*</sup> Zone 7 area decreased from 640 to 160 acres. Trapping ratio is 1 trap:18 acres therefore total number of traps decreased from 36 to 9. |                                  |              |           |            |                |             |              |              |

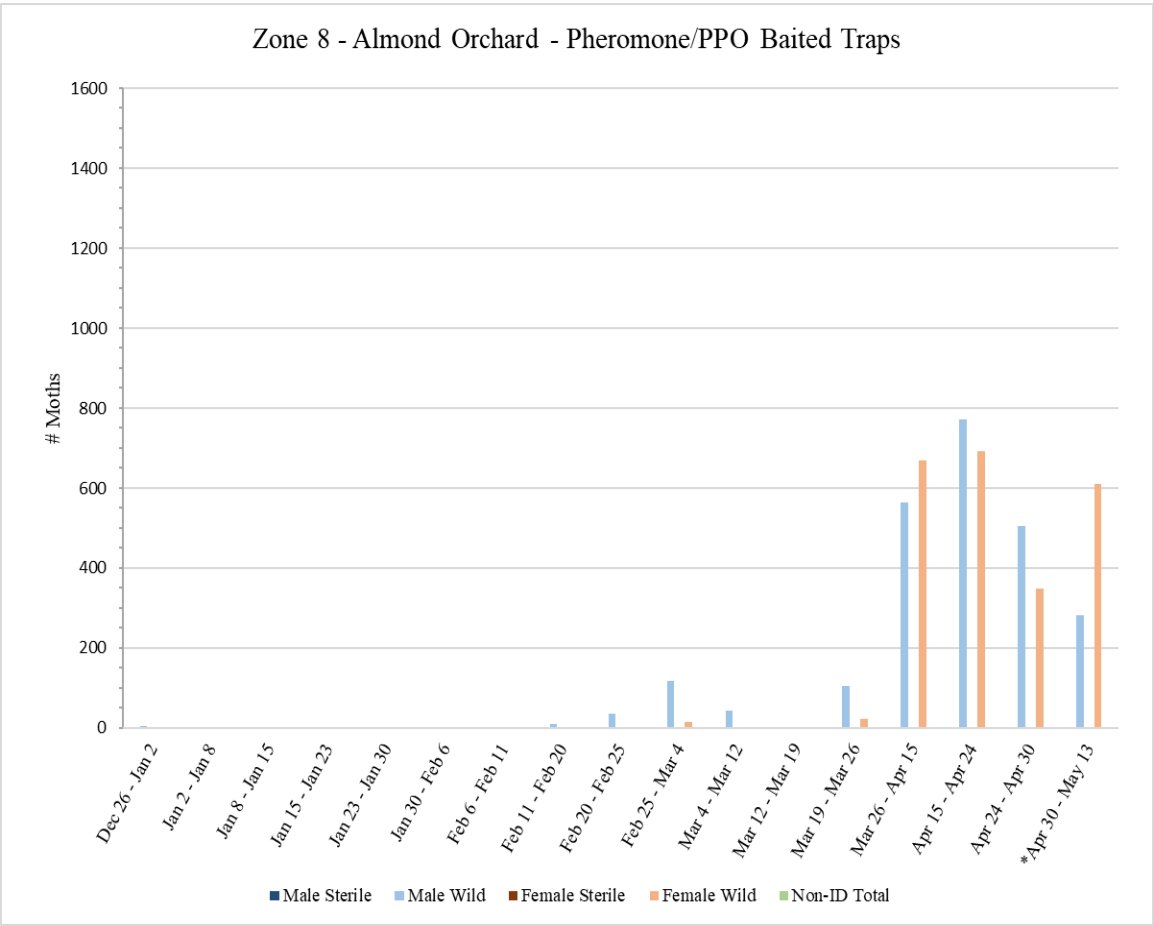


## Zone 8 – Almond Orchard

No traps were collected from Zone 8 during the week of May 9 due to pesticide applications on site.

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 8 on Tuesday, May 13. Zone 8 was reduced to 160 acres with 9 trap sites in total on May 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 |
| Dec 26 – Jan 2                                                                                                                          | 0                                | 0            | 4         | 4          | 0              | 0           | 0            | 0            |
| Jan 2 – Jan 8                                                                                                                           | 0                                | 0            | 1         | 1          | 0              | 0           | 0            | 0            |
| Jan 8 – Jan 15                                                                                                                          | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 15 – Jan 23                                                                                                                         | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 23 – Jan 30                                                                                                                         | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Jan 30 – Feb 6                                                                                                                          | 0                                | 0            | 1         | 1          | 0              | 0           | 0            | 0            |
| Feb 6 – Feb 11                                                                                                                          | 0                                | 0            | 0         | 0          | 0              | 0           | 0            | 0            |
| Feb 11 – Feb 20                                                                                                                         | 0                                | 0            | 10        | 10         | 0              | 0           | 0            | 0            |
| Feb 20 – Feb 25                                                                                                                         | 0                                | 0            | 36        | 36         | 0              | 1           | 1            | 0            |
| Feb 25 – Mar 4                                                                                                                          | 0                                | 0            | 118       | 118        | 0              | 16          | 16           | 0            |
| Mar 4 – Mar 12                                                                                                                          | 0                                | 0            | 44        | 44         | 0              | 1           | 1            | 0            |
| Mar 12 – Mar 19                                                                                                                         | 0                                | 0            | 3         | 3          | 0              | 1           | 1            | 0            |
| Mar 19 – Mar 26                                                                                                                         | 0                                | 0            | 104       | 104        | 0              | 23          | 23           | 0            |
| <sup>1</sup> Mar 26 – Apr 15                                                                                                            | 0                                | 0            | 565       | 565        | 0              | 669         | 669          | 0            |
| Apr 15 – Apr 24                                                                                                                         | 0                                | 0            | 772       | 772        | 0              | 693         | 693          | 1            |
| Apr 24 – Apr 30                                                                                                                         | 0                                | 0            | 505       | 505        | 0              | 348         | 348          | 0            |
| <sup>2*</sup> Apr 30 – May 13                                                                                                           | 0                                | 0            | 281       | 281        | 0              | 610         | 610          | 0            |
|                                                                                                                                         |                                  |              |           |            |                |             |              |              |
| <sup>1</sup> No traps were serviced in Zone 8 during the weeks of April 4 and April 11 due to pesticide applications on site            |                                  |              |           |            |                |             |              |              |
| <sup>2</sup> No traps were serviced in Zone 8 during the week of May 9 due to pesticide applications on site                            |                                  |              |           |            |                |             |              |              |
| *Zone 8 area decreased from 640 to 160 acres. Trapping ratio is 1 trap:18 acres therefore total number of traps decreased from 36 to 9. |                                  |              |           |            |                |             |              |              |



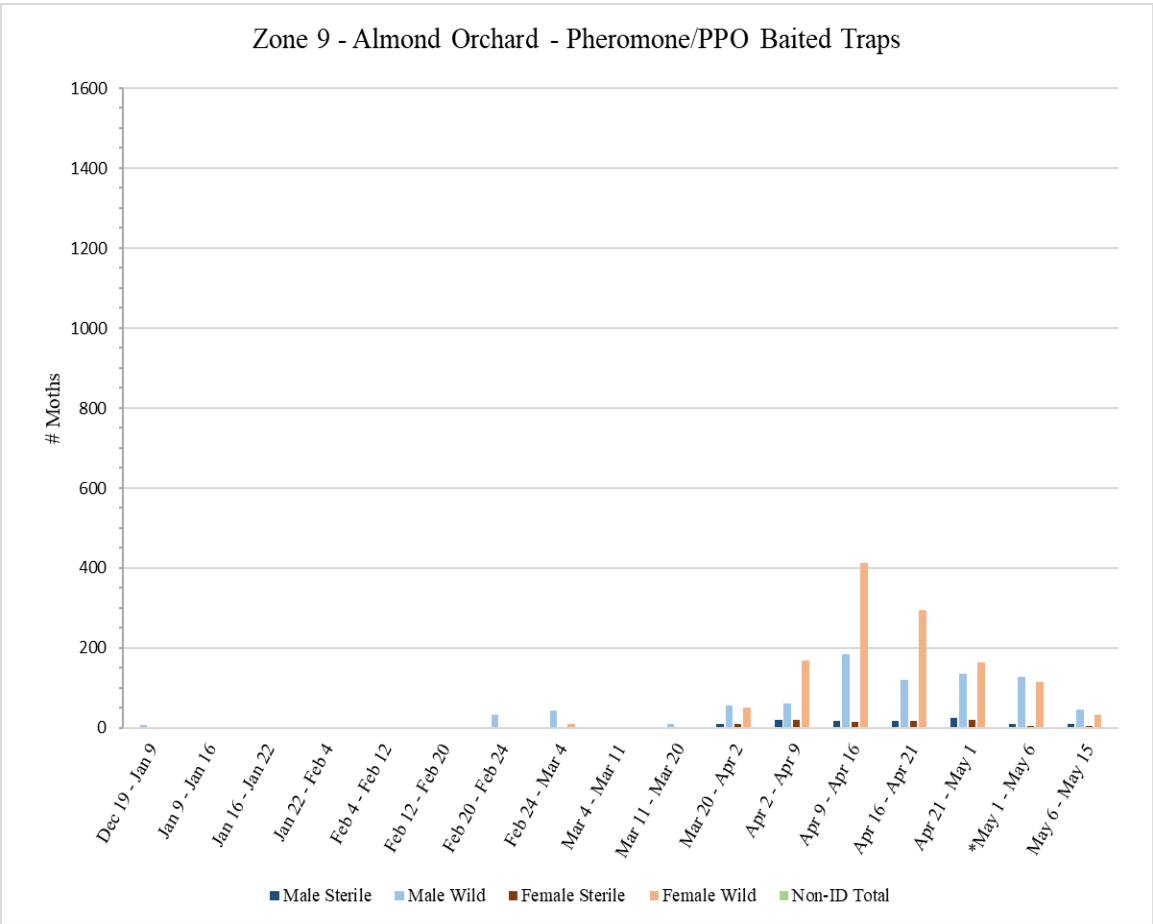
## Zone 9 – Almond Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 9 on Tuesday, May 6. Zone 9 was reduced to 160 acres with 9 trap sites in total on May 6.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 9 on Thursday, May 15.

| Zone 9 - 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 |
| <sup>1</sup> Dec 19 – Jan 9                                                                                                                    | 0                                | 0            | 7          | 7          | 0              | 0           | 0            | 0            |
| Jan 9 – Jan 16                                                                                                                                 | 0                                | 0            | 0          | 0          | 0              | 0           | 0            | 0            |
| Jan 16 – Jan 22                                                                                                                                | 0                                | 0            | 1          | 1          | 0              | 0           | 0            | 0            |
| <sup>2</sup> Jan 22 – Feb 4                                                                                                                    | 0                                | 0            | 1          | 1          | 0              | 0           | 0            | 0            |
| Feb 4 – Feb 12                                                                                                                                 | 0                                | 0            | 1          | 1          | 0              | 0           | 0            | 0            |
| Feb 12 – Feb 20                                                                                                                                | 0                                | 0            | 3          | 3          | 0              | 0           | 0            | 0            |
| Feb 20 – Feb 24                                                                                                                                | 0                                | 0            | 33         | 33         | 0              | 0           | 0            | 0            |
| Feb 24 – Mar 4                                                                                                                                 | 0                                | 0            | 44         | 44         | 0              | 9           | 9            | 0            |
| Mar 4 – Mar 11                                                                                                                                 | 0                                | 0            | 2          | 2          | 0              | 2           | 2            | 0            |
| Mar 11 – Mar 20                                                                                                                                | 0                                | 0            | 11         | 11         | 0              | 1           | 1            | 0            |
| <sup>3</sup> Mar 20 – Apr 2                                                                                                                    | 3                                | 11           | 56         | 67         | 11             | 50          | 61           | 0            |
| Apr 2 – Apr 9                                                                                                                                  | 4                                | 20           | 62         | 82         | 21             | 169         | 190          | 0            |
| Apr 9 – Apr 16                                                                                                                                 | 4                                | 19           | 184        | 203        | 16             | 413         | 429          | 0            |
| Apr 16 – Apr 21                                                                                                                                | 3                                | 17           | 121        | 138        | 18             | 295         | 313          | 0            |
| Apr 21 – May 1                                                                                                                                 | 6                                | 25           | 137        | 162        | 21             | 164         | 185          | 0            |
| <b>*May 1 – May 6</b>                                                                                                                          | <b>2</b>                         | <b>9</b>     | <b>128</b> | <b>137</b> | <b>6</b>       | <b>114</b>  | <b>120</b>   | <b>0</b>     |
| <b>May 6 – May 15</b>                                                                                                                          | <b>3</b>                         | <b>10</b>    | <b>45</b>  | <b>55</b>  | <b>4</b>       | <b>33</b>   | <b>37</b>    | <b>0</b>     |
|                                                                                                                                                |                                  |              |            |            |                |             |              |              |
| <sup>1</sup> No traps were serviced in Zone 9 during the week of January 3 due to excessive rain and muddy conditions preventing access        |                                  |              |            |            |                |             |              |              |
| <sup>2</sup> No traps were serviced in Zone 9 during the week of January 31 due to excessive rain and muddy conditions preventing access       |                                  |              |            |            |                |             |              |              |
| <sup>3</sup> No traps were serviced in Zone 9 during the week of March 28 due to pesticide applications on site                                |                                  |              |            |            |                |             |              |              |
| <b>*Zone 9 area decreased from 640 to 160 acres. Trapping ratio is 1 trap:18 acres therefore total number of traps decreased from 36 to 9.</b> |                                  |              |            |            |                |             |              |              |



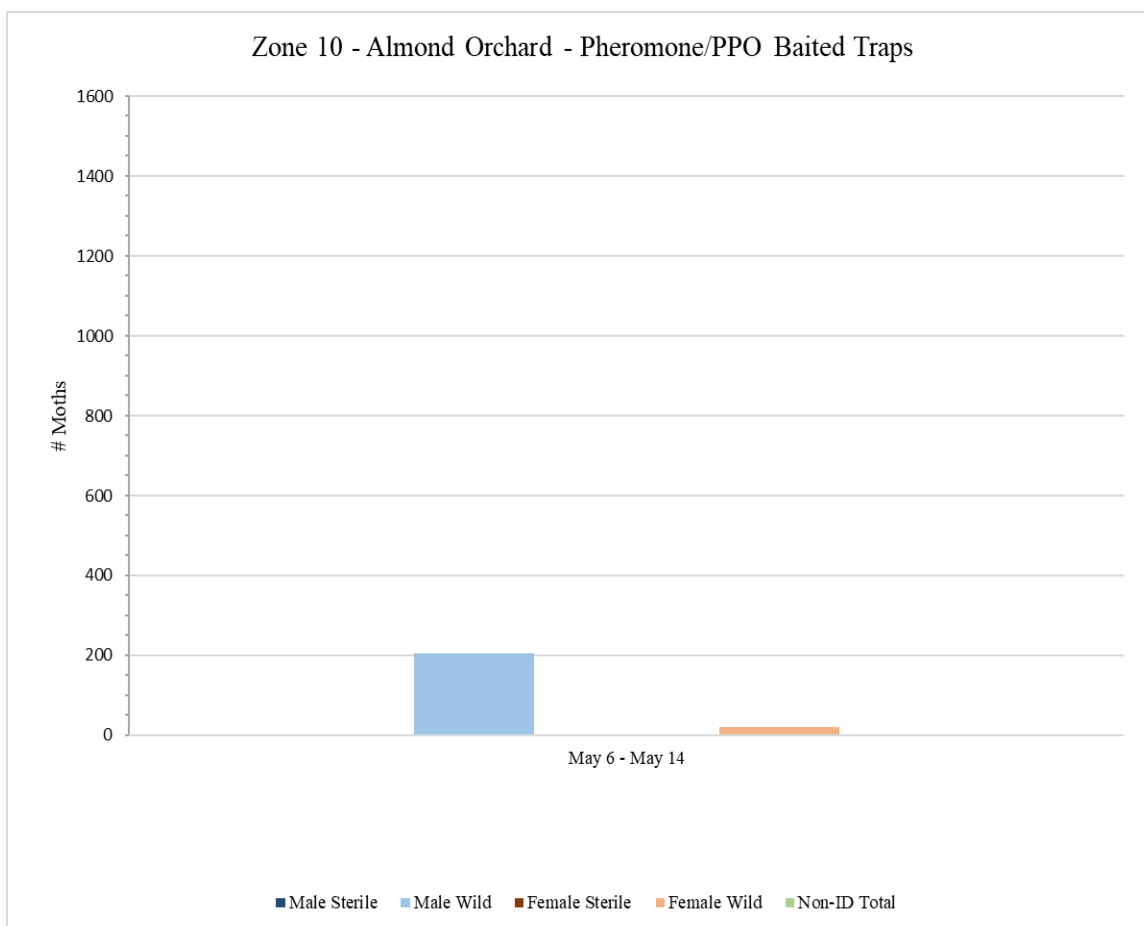


## Zone 10 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 10 on Tuesday, May 6.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 10 on Wednesday, May 14.

| Zone 10 - 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 |
| <b>May 6 – May 14</b>           | <b>0</b>                         | <b>0</b>     | <b>206</b> | <b>206</b> | <b>0</b>       | <b>21</b>   | <b>21</b>    | <b>0</b>     |
|                                 |                                  |              |            |            |                |             |              |              |

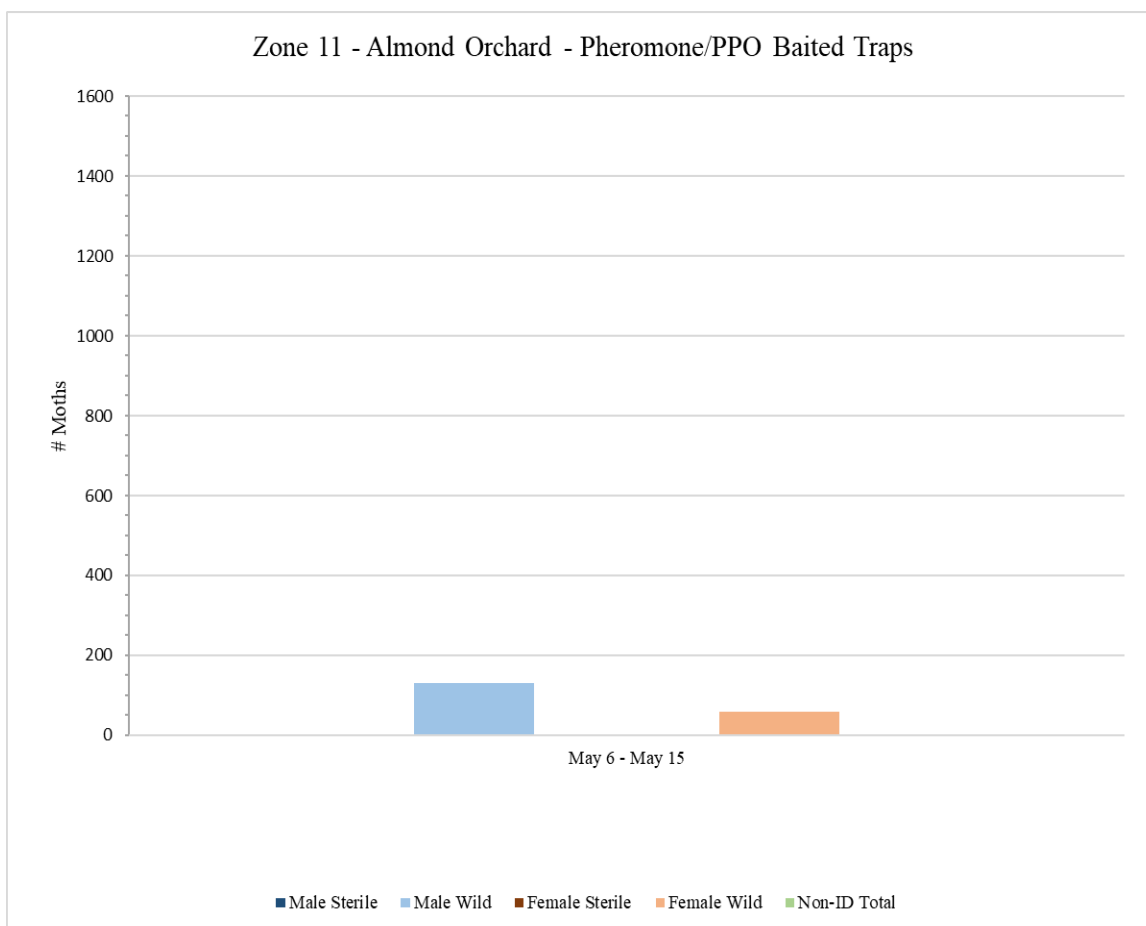


## Zone 11 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 11 on Tuesday, May 6.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 11 on Thursday, May 15.

| Zone 11 - 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 |
| <b>May 6 – May 15</b>           | <b>0</b>                         | <b>0</b>     | <b>130</b> | <b>130</b> | <b>0</b>       | <b>58</b>   | <b>58</b>    | <b>0</b>     |
|                                 |                                  |              |            |            |                |             |              |              |

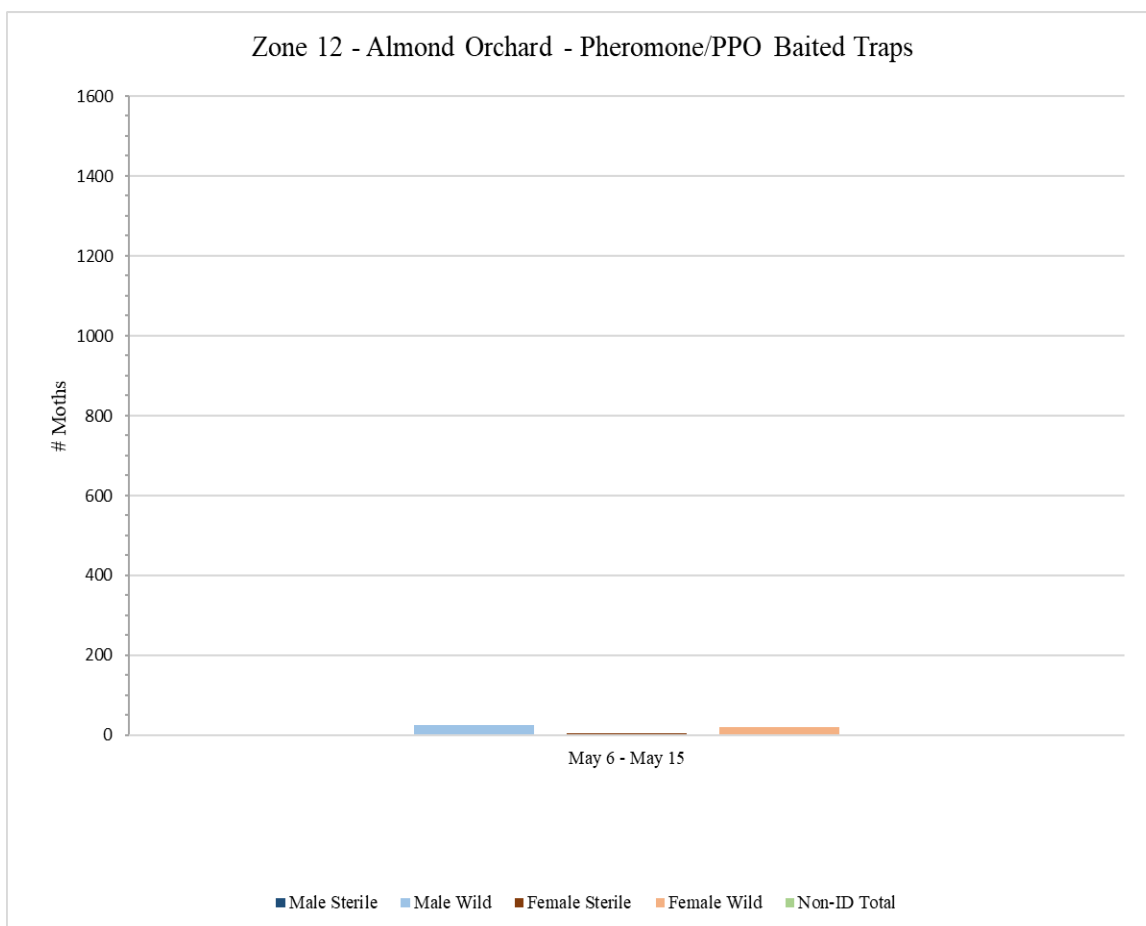


## Zone 12 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 12 on Tuesday, May 6.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 12 on Thursday, May 15.

| Zone 12 - 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 |
| <b>May 6 – May 15</b>           | <b>1</b>                         | <b>1</b>     | <b>25</b> | <b>26</b>  | <b>6</b>       | <b>21</b>   | <b>27</b>    | <b>0</b>     |
|                                 |                                  |              |           |            |                |             |              |              |

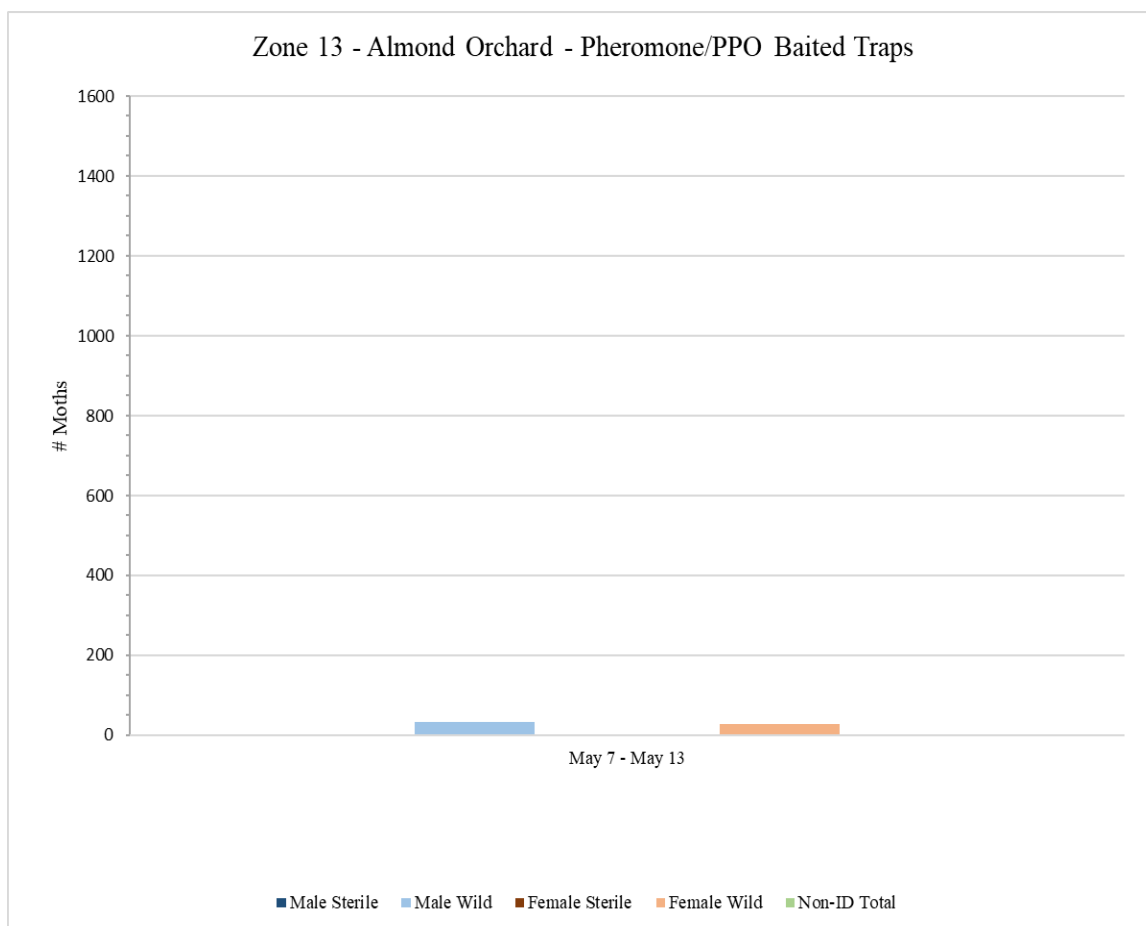


## Zone 13 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 13 on Wednesday, May 7.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 13 on Tuesday, May 13.

| Zone 13 - 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 |
| <b>May 7 – May 13</b>           | <b>0</b>                         | <b>0</b>     | <b>33</b> | <b>33</b>  | <b>0</b>       | <b>27</b>   | <b>27</b>    | <b>0</b>     |
|                                 |                                  |              |           |            |                |             |              |              |

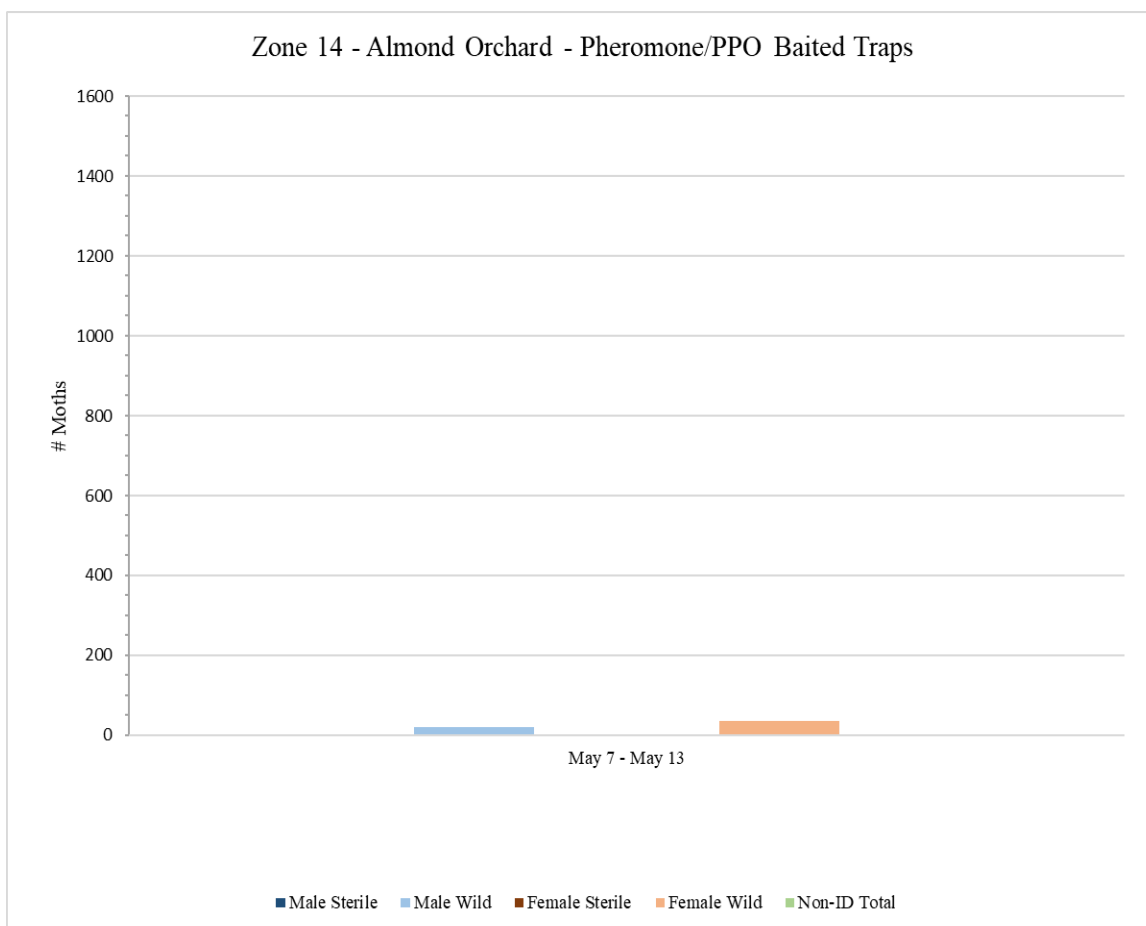


## Zone 14 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 14 on Wednesday, May 7.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 14 on Tuesday, May 13.

| Zone 14 - 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 |
| <b>May 7 – May 13</b>           | <b>1</b>                         | <b>0</b>     | <b>20</b> | <b>20</b>  | <b>0</b>       | <b>35</b>   | <b>35</b>    | <b>0</b>     |
|                                 |                                  |              |           |            |                |             |              |              |

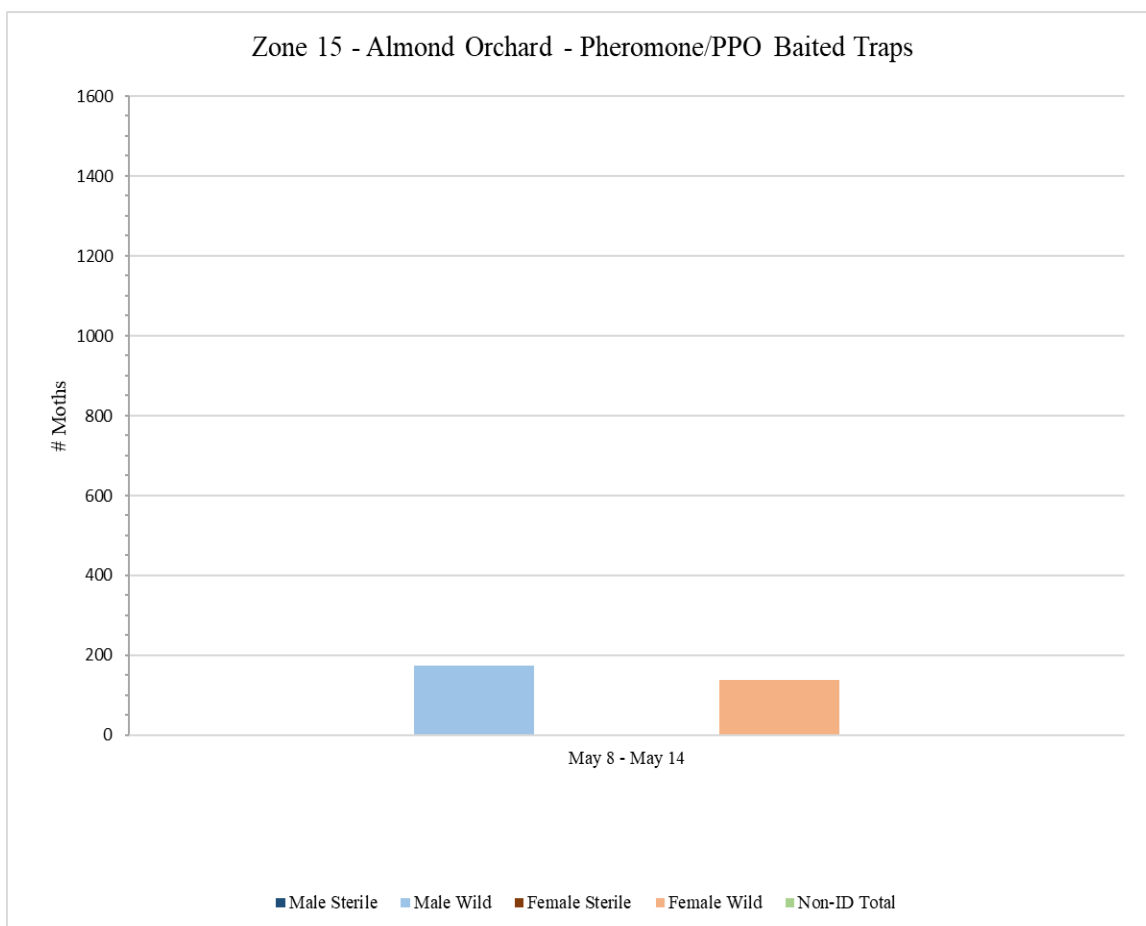


## Zone 15 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 15 on Thursday, May 8.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 15 on Wednesday, May 14.

| Zone 15 - 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 |
| <b>May 8 – May 14</b>           | <b>0</b>                         | <b>0</b>     | <b>174</b> | <b>174</b> | <b>0</b>       | <b>138</b>  | <b>138</b>   | <b>0</b>     |
|                                 |                                  |              |            |            |                |             |              |              |

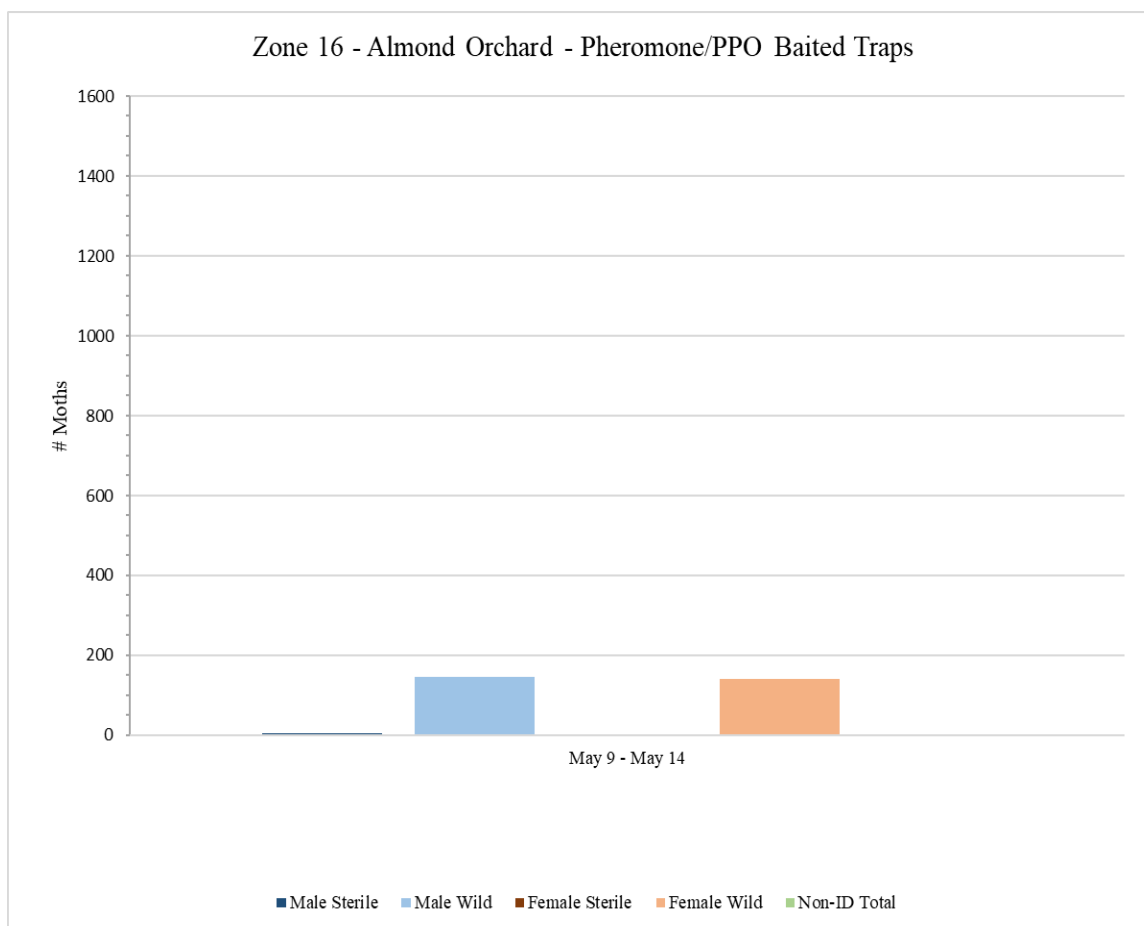


## Zone 16 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 16 on Friday, May 9.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 16 on Wednesday, May 14.

| Zone 16 - 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 |
| <b>May 9 – May 14</b>           | <b>1</b>                         | <b>4</b>     | <b>146</b> | <b>150</b> | <b>3</b>       | <b>140</b>  | <b>143</b>   | <b>0</b>     |
|                                 |                                  |              |            |            |                |             |              |              |



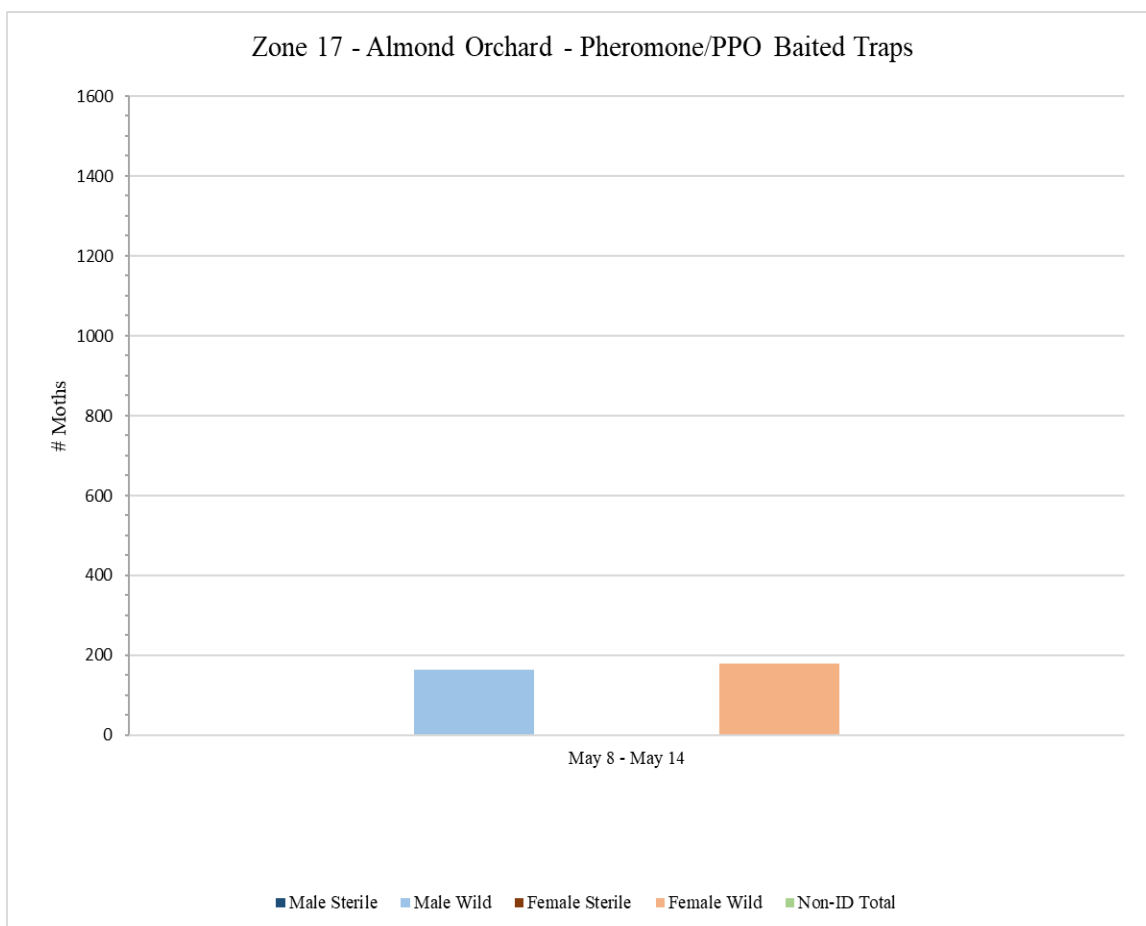


## Zone 17 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 17 on Thursday, May 8.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 17 on Wednesday, May 14.

| Zone 17 - 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 |
| <b>May 8 – May 14</b>           | <b>0</b>                         | <b>0</b>     | <b>163</b> | <b>163</b> | <b>0</b>       | <b>180</b>  | <b>180</b>   | <b>3</b>     |
|                                 |                                  |              |            |            |                |             |              |              |

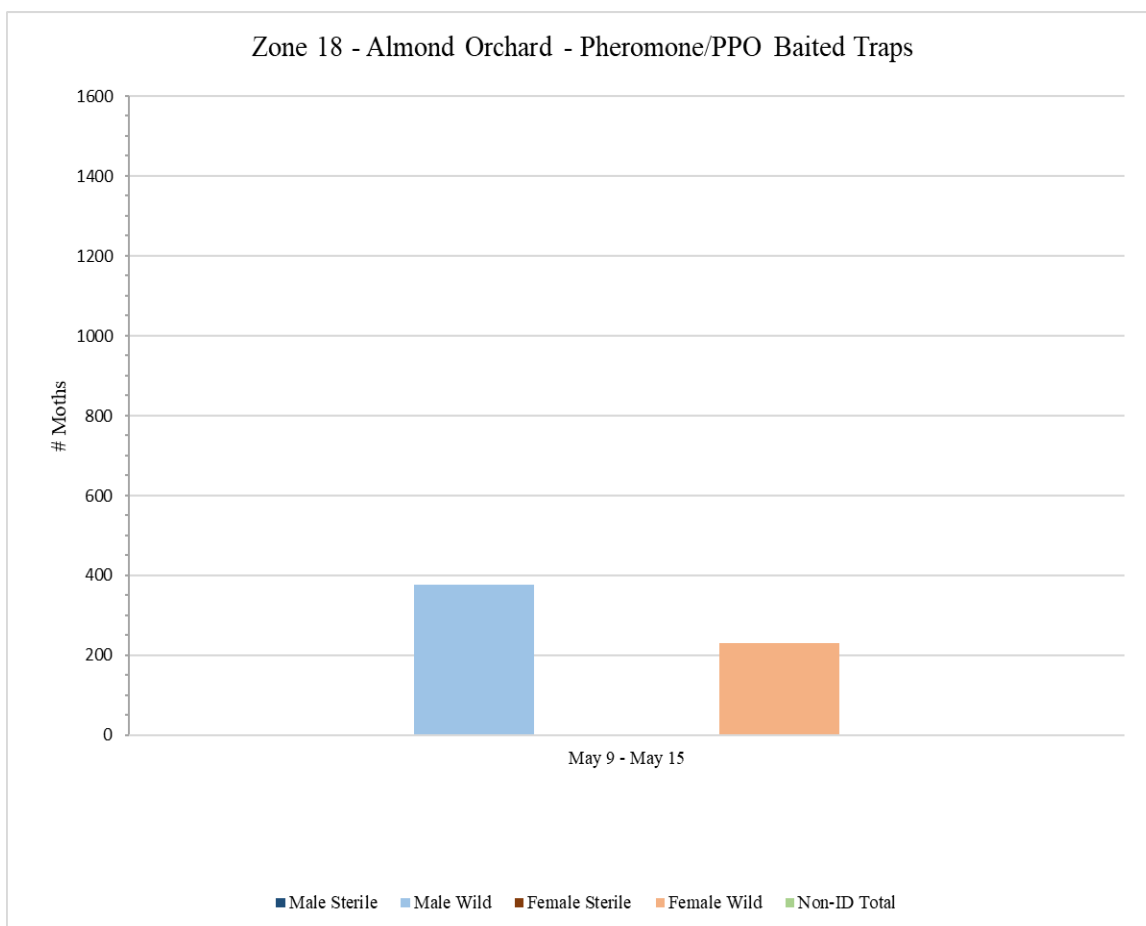


## Zone 18 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 18 on Friday, May 9.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 18 on Thursday, May 15.

| Zone 18 - 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 |
| <b>May 9 – May 15</b>           | <b>1</b>                         | <b>0</b>     | <b>377</b> | <b>377</b> | <b>0</b>       | <b>230</b>  | <b>230</b>   | <b>0</b>     |
|                                 |                                  |              |            |            |                |             |              |              |

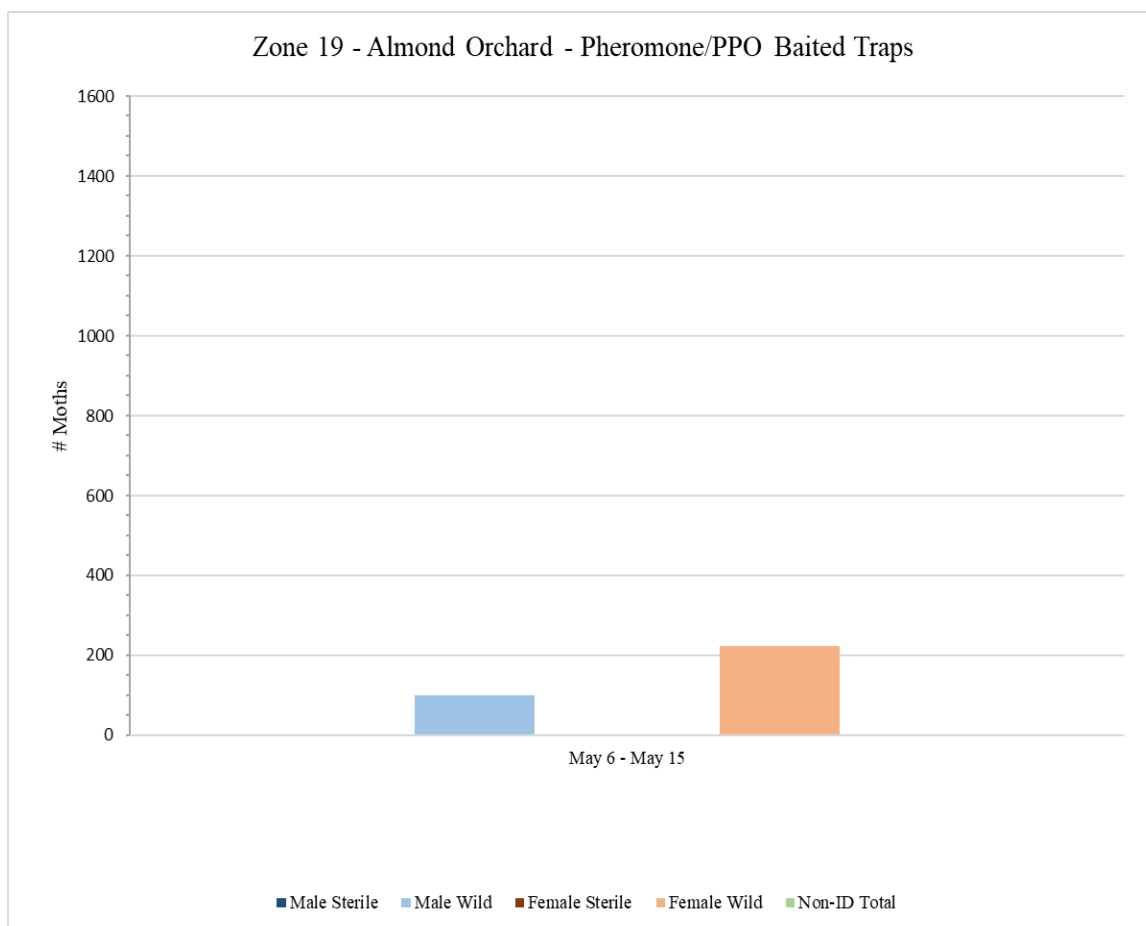


## Zone 19 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 19 on Tuesday, May 6.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 19 on Thursday, May 15.

| Zone 19 - 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 |
| <b>May 6 – May 15</b>           | <b>1</b>                         | <b>1</b>     | <b>100</b> | <b>101</b> | <b>1</b>       | <b>223</b>  | <b>224</b>   | <b>0</b>     |
|                                 |                                  |              |            |            |                |             |              |              |

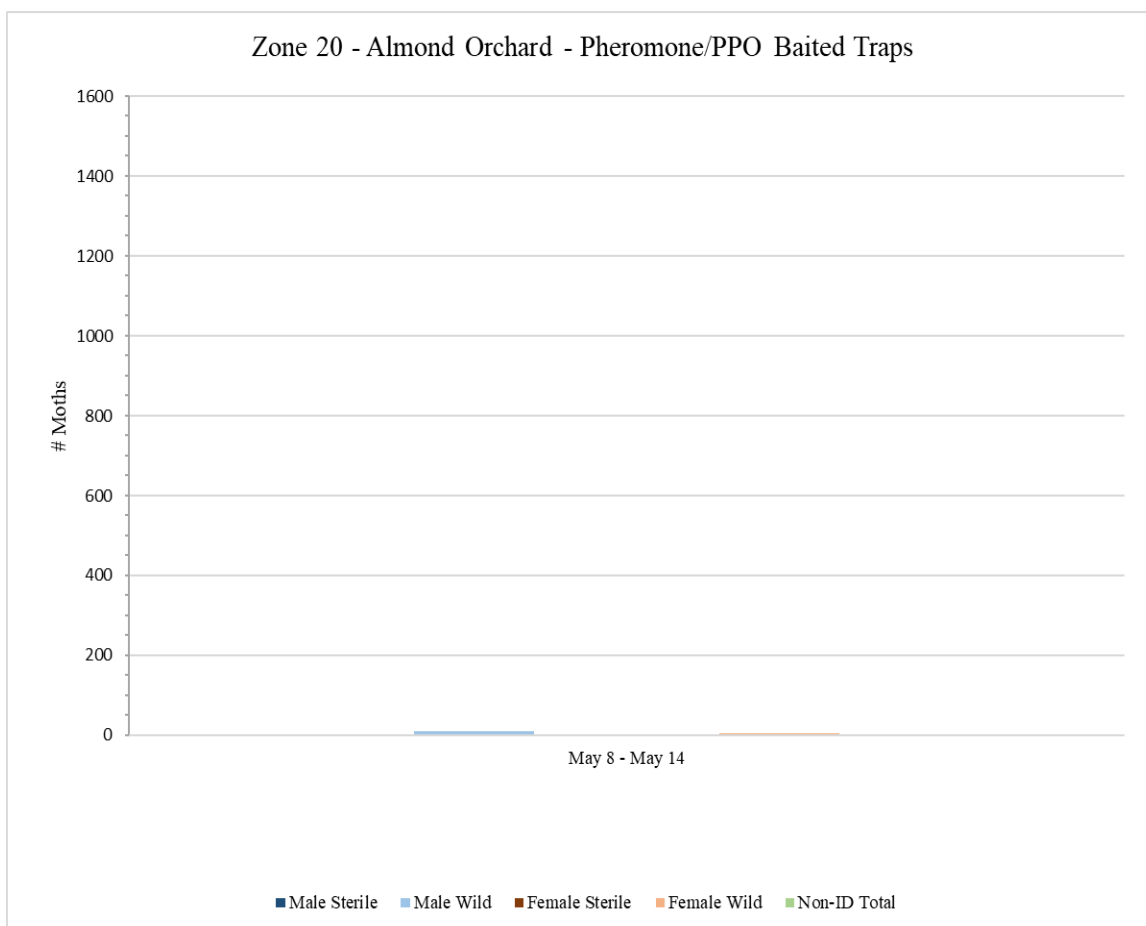


## Zone 20 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 20 on Thursday, May 8.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 20 on Wednesday, May 14.

| Zone 20 - 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 |
| <b>May 8 – May 14</b>           | <b>0</b>                         | <b>0</b>     | <b>10</b> | <b>10</b>  | <b>0</b>       | <b>5</b>    | <b>5</b>     | <b>0</b>     |
|                                 |                                  |              |           |            |                |             |              |              |

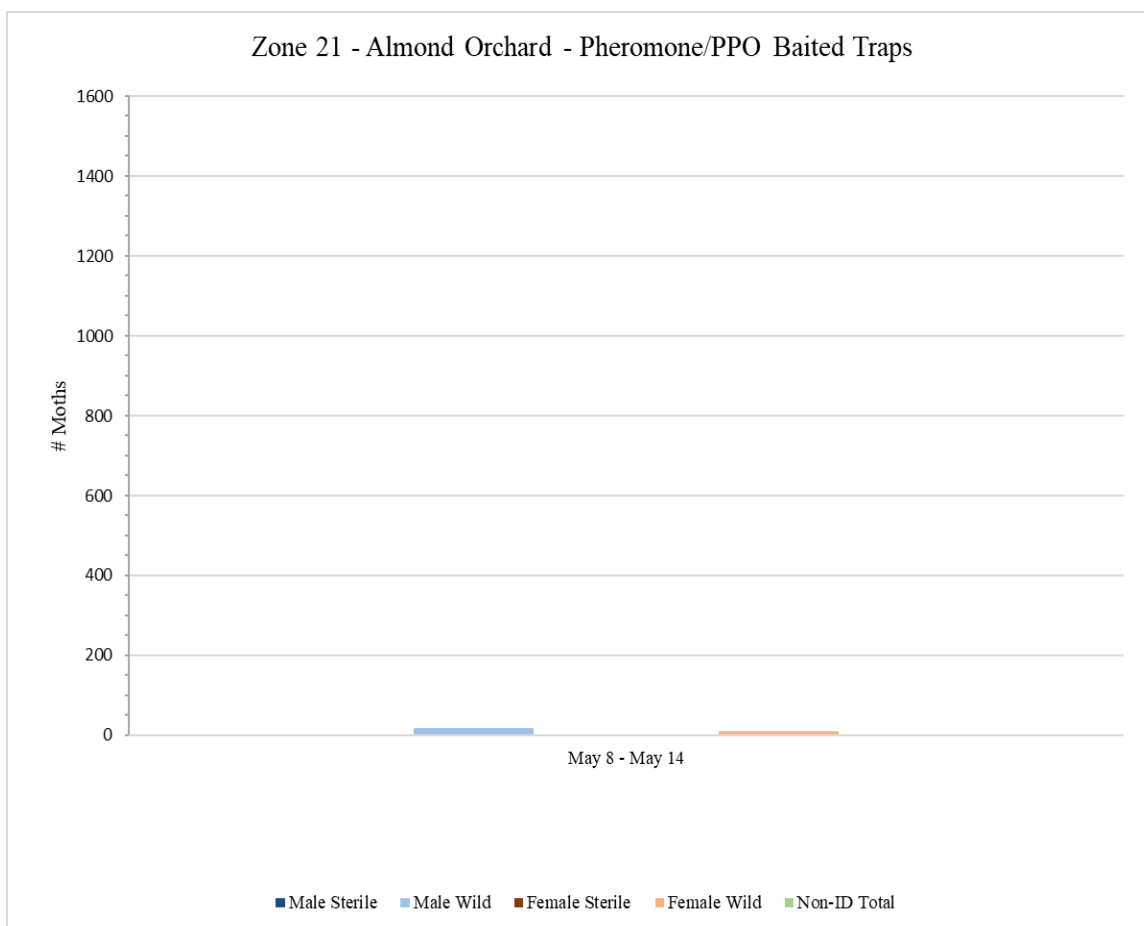


## Zone 21 – Almond Orchard

A total of **9** pheromone/PPO lure-baited traps were placed in Zone 21 on Thursday, May 8.

A total of **9** pheromone/PPO lure-baited traps were collected from Zone 21 on Wednesday, May 14.

| Zone 21 - 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 |
| <b>May 8 – May 14</b>           | <b>1</b>                         | <b>0</b>     | <b>18</b> | <b>18</b>  | <b>1</b>       | <b>11</b>   | <b>12</b>    | <b>0</b>     |
|                                 |                                  |              |           |            |                |             |              |              |



#### IV. NOW Degree Days

NOW Degree days begin to accumulate when ambient temperatures remain between the lower threshold of 55° F and the upper threshold of 93.9° F. Using data from weather stations nearest to the trap sites, courtesy of the UC IPM website - [https://ipm.ucanr.edu/PHENOLOGY/ma-navel\\_orangeworm.html](https://ipm.ucanr.edu/PHENOLOGY/ma-navel_orangeworm.html), the chart below shows daily and total accumulated degree days since January 1, 2025. The model uses a double triangle and vertical cutoff method of calculating degree days.

Weather Station Location: Five Points, Fresno

| Date      | Air Temperatures (°F) |       | Degree Days |             |
|-----------|-----------------------|-------|-------------|-------------|
|           | Min                   | Max   | Daily       | Accumulated |
| 1/1/2025  | 33.00                 | 60.20 | 0.50        | 0.50        |
| 1/2/2025  | 33.60                 | 62.30 | 1.15        | 1.65        |
| 1/3/2025  | 42.80                 | 60.10 | 0.67        | 2.32        |
| 1/4/2025  | 37.70                 | 59.50 | 0.43        | 2.75        |
| 1/5/2025  | 34.40                 | 59.40 | 0.37        | 3.12        |
| 1/6/2025  | 32.40                 | 60.80 | 0.76        | 3.88        |
| 1/7/2025  | 42.50                 | 63.40 | 1.46        | 5.34        |
| 1/8/2025  | 34.60                 | 62.90 | 1.03        | 6.37        |
| 1/9/2025  | 30.10                 | 62.40 | 0.86        | 7.23        |
| 1/10/2025 | 30.80                 | 69.10 | 2.83        | 10.06       |
| 1/11/2025 | 36.70                 | 62.10 | 0.91        | 10.97       |
| 1/12/2025 | 31.50                 | 57.90 | 0.15        | 11.12       |
| 1/13/2025 | 26.00                 | 60.20 | 0.41        | 11.53       |
| 1/14/2025 | 27.70                 | 62.70 | 0.85        | 12.38       |
| 1/15/2025 | 28.00                 | 66.80 | 1.82        | 14.20       |
| 1/16/2025 | 29.10                 | 66.20 | 1.77        | 15.97       |
| 1/17/2025 | 32.30                 | 65.40 | 1.59        | 17.56       |
| 1/18/2025 | 30.50                 | 60.50 | 0.49        | 18.05       |
| 1/19/2025 | 28.30                 | 61.90 | 0.73        | 18.78       |
| 1/20/2025 | 30.00                 | 59.40 | 0.32        | 19.10       |
| 1/21/2025 | 28.20                 | 64.30 | 1.18        | 20.28       |
| 1/22/2025 | 26.80                 | 62.90 | 0.86        | 21.14       |
| 1/23/2025 | 26.80                 | 66.80 | 1.78        | 22.92       |
| 1/24/2025 | 28.60                 | 68.00 | 2.59        | 25.51       |
| 1/25/2025 | 40.10                 | 59.70 | 0.50        | 26.01       |
| 1/26/2025 | 34.60                 | 51.30 | 0.00        | 26.01       |
| 1/27/2025 | 31.80                 | 57.70 | 0.13        | 26.14       |
| 1/28/2025 | 27.30                 | 60.20 | 0.43        | 26.57       |
| 1/29/2025 | 29.70                 | 61.40 | 0.68        | 27.25       |
| 1/30/2025 | 32.40                 | 60.10 | 0.49        | 27.74       |
| 1/31/2025 | 34.60                 | 61.40 | 1.01        | 28.75       |
| 2/1/2025  | 45.20                 | 66.90 | 2.92        | 31.67       |
| 2/2/2025  | 39.50                 | 71.80 | 4.38        | 36.05       |
| 2/3/2025  | 39.60                 | 69.00 | 3.97        | 40.02       |
| 2/4/2025  | 47.70                 | 69.50 | 4.21        | 44.23       |
| 2/5/2025  | 40.30                 | 61.10 | 0.90        | 45.13       |
| 2/6/2025  | 40.70                 | 61.40 | 0.98        | 46.11       |
| 2/7/2025  | 40.30                 | 60.90 | 0.78        | 46.89       |
| 2/8/2025  | 36.80                 | 59.60 | 0.41        | 47.30       |
| 2/9/2025  | 29.90                 | 58.40 | 0.20        | 47.50       |

| Date      | Air Temperatures (°F) |       | Degree Days |             |
|-----------|-----------------------|-------|-------------|-------------|
|           | Min                   | Max   | Daily       | Accumulated |
| 2/10/2025 | 28.10                 | 58.50 | 0.20        | 47.70       |
| 2/11/2025 | 27.50                 | 60.90 | 0.76        | 48.46       |
| 2/12/2025 | 43.50                 | 58.10 | 0.45        | 48.91       |
| 2/13/2025 | 49.80                 | 66.30 | 3.30        | 52.21       |
| 2/14/2025 | 43.00                 | 61.60 | 0.99        | 53.20       |
| 2/15/2025 | 34.80                 | 59.80 | 0.47        | 53.67       |
| 2/16/2025 | 36.00                 | 66.80 | 2.52        | 56.19       |
| 2/17/2025 | 41.80                 | 63.30 | 1.49        | 57.68       |
| 2/18/2025 | 38.40                 | 64.90 | 2.97        | 60.65       |
| 2/19/2025 | 52.90                 | 77.90 | 9.10        | 69.75       |
| 2/20/2025 | 43.90                 | 63.60 | 1.58        | 71.33       |
| 2/21/2025 | 34.70                 | 67.80 | 2.64        | 73.97       |
| 2/22/2025 | 38.50                 | 73.60 | 5.23        | 79.20       |
| 2/23/2025 | 42.30                 | 77.10 | 7.66        | 86.86       |
| 2/24/2025 | 47.70                 | 77.80 | 8.59        | 95.45       |
| 2/25/2025 | 47.40                 | 69.20 | 3.89        | 99.34       |
| 2/26/2025 | 37.30                 | 73.40 | 4.97        | 104.31      |
| 2/27/2025 | 41.10                 | 78.70 | 8.12        | 112.43      |
| 2/28/2025 | 46.70                 | 75.10 | 6.75        | 119.18      |
| 3/1/2025  | 43.50                 | 78.90 | 7.55        | 126.73      |
| 3/2/2025  | 38.30                 | 59.50 | 0.49        | 127.22      |
| 3/3/2025  | 39.40                 | 64.10 | 1.60        | 128.82      |
| 3/4/2025  | 36.80                 | 66.60 | 2.44        | 131.26      |
| 3/5/2025  | 40.90                 | 53.70 | 0.00        | 131.26      |
| 3/6/2025  | 39.60                 | 55.80 | 0.02        | 131.28      |
| 3/7/2025  | 37.60                 | 61.40 | 0.83        | 132.11      |
| 3/8/2025  | 35.80                 | 68.50 | 2.78        | 134.89      |
| 3/9/2025  | 35.70                 | 74.50 | 5.30        | 140.19      |
| 3/10/2025 | 41.10                 | 70.30 | 4.15        | 144.34      |
| 3/11/2025 | 43.00                 | 69.90 | 4.46        | 148.80      |
| 3/12/2025 | 46.70                 | 66.70 | 2.98        | 151.78      |
| 3/13/2025 | 39.70                 | 56.20 | 0.04        | 151.82      |
| 3/14/2025 | 38.50                 | 54.70 | 0.00        | 151.82      |
| 3/15/2025 | 35.40                 | 63.60 | 1.37        | 153.19      |
| 3/16/2025 | 37.70                 | 69.20 | 3.98        | 157.17      |
| 3/17/2025 | 48.00                 | 61.10 | 1.18        | 158.35      |
| 3/18/2025 | 41.30                 | 62.20 | 1.10        | 159.45      |
| 3/19/2025 | 35.30                 | 66.80 | 2.72        | 162.17      |
| 3/20/2025 | 45.30                 | 67.20 | 3.03        | 165.20      |
| 3/21/2025 | 39.20                 | 69.70 | 3.87        | 169.07      |
| 3/22/2025 | 43.90                 | 68.90 | 3.82        | 172.89      |
| 3/23/2025 | 43.30                 | 74.40 | 6.39        | 179.28      |
| 3/24/2025 | 46.40                 | 83.20 | 11.52       | 190.80      |
| 3/25/2025 | 50.70                 | 89.20 | 16.00       | 206.80      |
| 3/26/2025 | 54.40                 | 84.70 | 13.54       | 220.34      |
| 3/27/2025 | 49.50                 | 78.50 | 9.19        | 229.53      |
| 3/28/2025 | 47.30                 | 68.90 | 4.08        | 233.61      |
| 3/29/2025 | 42.70                 | 67.80 | 3.93        | 237.54      |
| 3/30/2025 | 50.00                 | 68.80 | 4.87        | 242.41      |
| 3/31/2025 | 48.40                 | 71.60 | 5.04        | 247.45      |
| 4/1/2025  | 38.40                 | 61.20 | 0.83        | 248.28      |

| Date             | Air Temperatures (°F) |              | Degree Days  |               |
|------------------|-----------------------|--------------|--------------|---------------|
|                  | Min                   | Max          | Daily        | Accumulated   |
| 4/2/2025         | 37.50                 | 62.70        | 1.12         | 249.40        |
| 4/3/2025         | 35.00                 | 66.70        | 2.28         | 251.68        |
| 4/4/2025         | 38.30                 | 72.50        | 4.65         | 256.33        |
| 4/5/2025         | 40.80                 | 76.70        | 6.72         | 263.05        |
| 4/6/2025         | 42.50                 | 80.20        | 9.25         | 272.30        |
| 4/7/2025         | 48.70                 | 78.50        | 10.03        | 282.33        |
| 4/8/2025         | 52.90                 | 76.60        | 8.85         | 291.18        |
| 4/9/2025         | 46.90                 | 83.00        | 11.19        | 302.37        |
| 4/10/2025        | 49.00                 | 86.20        | 13.58        | 315.95        |
| 4/11/2025        | 51.60                 | 83.10        | 12.70        | 328.65        |
| 4/12/2025        | 52.40                 | 80.30        | 10.32        | 338.97        |
| 4/13/2025        | 45.40                 | 81.40        | 9.95         | 348.92        |
| 4/14/2025        | 47.30                 | 87.40        | 15.27        | 364.19        |
| 4/15/2025        | 57.50                 | 83.30        | 13.44        | 377.63        |
| 4/16/2025        | 48.40                 | 73.70        | 7.83         | 385.46        |
| 4/17/2025        | 53.70                 | 70.20        | 6.43         | 391.89        |
| 4/18/2025        | 50.50                 | 73.00        | 6.61         | 398.50        |
| 4/19/2025        | 46.10                 | 80.80        | 9.79         | 408.29        |
| 4/20/2025        | 47.50                 | 82.50        | 11.20        | 419.49        |
| 4/21/2025        | 49.90                 | 84.70        | 12.73        | 432.22        |
| 4/22/2025        | 50.20                 | 85.00        | 12.47        | 444.69        |
| 4/23/2025        | 47.50                 | 78.90        | 8.47         | 453.16        |
| 4/24/2025        | 42.50                 | 72.80        | 5.97         | 459.13        |
| 4/25/2025        | 49.20                 | 66.80        | 3.91         | 463.04        |
| 4/26/2025        | 48.80                 | 60.60        | 1.29         | 464.33        |
| 4/27/2025        | 48.10                 | 65.10        | 2.76         | 467.09        |
| 4/28/2025        | 44.90                 | 72.00        | 5.52         | 472.61        |
| 4/29/2025        | 46.70                 | 82.30        | 11.30        | 483.91        |
| 4/30/2025        | 51.60                 | 84.70        | 14.09        | 498.00        |
| 5/1/2025         | 55.00                 | 87.00        | 16.05        | 514.05        |
| 5/2/2025         | 55.20                 | 86.30        | 15.27        | 529.32        |
| 5/3/2025         | 53.20                 | 75.20        | 8.28         | 537.60        |
| 5/4/2025         | 47.20                 | 75.20        | 7.55         | 545.15        |
| 5/5/2025         | 49.10                 | 81.10        | 10.69        | 555.84        |
| 5/6/2025         | 49.40                 | 86.10        | 13.05        | 568.89        |
| 5/7/2025         | 48.70                 | 84.60        | 16.30        | 585.19        |
| 5/8/2025         | 66.20                 | 89.70        | 20.43        | 605.62        |
| 5/9/2025         | 56.10                 | 93.40        | 20.53        | 626.15        |
| 5/10/2025        | 59.20                 | 94.70        | 21.18        | 647.33        |
| 5/11/2025        | 56.10                 | 86.70        | 15.03        | 662.36        |
| 5/12/2025        | 49.90                 | 75.00        | 7.19         | 669.55        |
| 5/13/2025        | 43.80                 | 71.80        | 5.21         | 674.76        |
| 5/14/2025        | 45.60                 | 78.40        | 8.85         | 683.61        |
| 5/15/2025        | 49.10                 | 83.90        | 12.87        | 696.48        |
| <b>5/16/2025</b> | <b>53.50</b>          | <b>85.70</b> | <b>14.89</b> | <b>711.37</b> |



## 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 QC results from samples of sterile NOW moths taken during the week of Monday, April 28, 2025 to Sunday, May 4, 2025:

- 0% of moths from samples found dead at zero hour
- 1% of moths from samples found to have mated at zero hour
- 70% of moths from samples found to have mated after forty-eight hours
- 72% of moths from samples remained alive after seven days in BioChamber
- 97% of moths from samples found to have distinct red dye markings

Below are the QC results from samples of sterile NOW moths taken during the week of Monday, May 5, 2025 to Sunday, May 11, 2025:

- 0% of moths from samples found dead at zero hour
- 2% of moths from samples found to have mated at zero hour
- 75% of moths from samples found to have mated after forty-eight hours
- 91% of moths from samples remained alive after seven days in BioChamber
- 100% of moths from samples found to have distinct red dye markings

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