## Navel Orangeworm Program 2025 – Weekly Report

Week Ending - April 25, 2025

California Department of Food & Agriculture Plant Health and Pest Prevention Services Integrated Pest Control Branch 5100 Douglas Avenue Shafter, CA 93263

Phone: (661) 395-2914 Fax: (661) 399-1601

### I. 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 any circumstances which prevented regular releases in 2025:

• Week of April 4: No releases conducted on March 29 and March 30 due to staffing issues

## **Navel Orangeworm Trapping**

The Phase 2 Area Wide Project Site for 2025 currently includes eight orchards: three pistachio and five almond, located in Fresno County. Seven of the eight orchards have a total area of 640 acres each with one almond orchard having 600 acres. These orchards are designated as Zones 2 through 9. 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
- <u>Week of April 4</u>: 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

#### 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 eight orchards located in Fresno County, identified as Zones 2 through 9. 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
Zone 2	Pistachio	640	TBD	February 2023
Zone 3	Almond	640	Release	February 2023
Zone 4	Almond	640	TBD	February 2023
Zone 5	Pistachio	640	TBD	March 2023
Zone 6	Pistachio	640	TBD	March 2023
Zone 7	Almond	640	TBD	April 2023
Zone 8	Almond	640	TBD	April 2023
Zone 9	Almond	600	Release	May 2024

Each zone has a trap site ratio of approximately one trap site per 18 acres for a total of 36 trap sites for each 640-acre zone and 34 traps for the 600-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 with new trap

bottoms. Bait/lure changes occur once a month, and trap tops are replaced as needed. Counts are performed on each trap collected to determine number of wild versus sterile captures and male versus female captures.

#### III. Trap Results for Week Ending on April 25, 2025

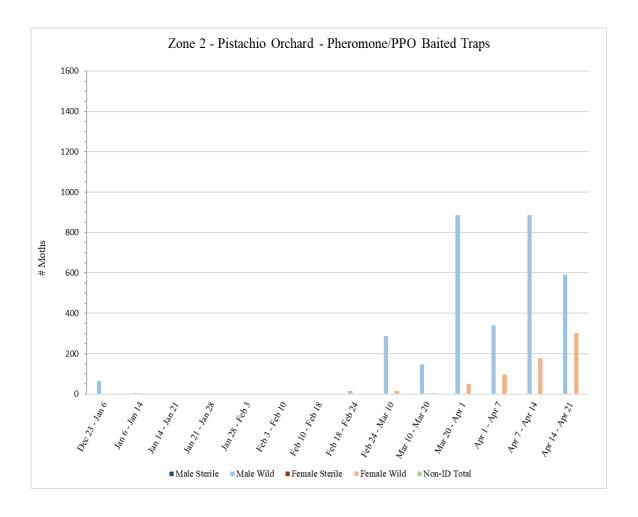
## Zone 2 – Pistachio Orchard

A total of 36 pheromone/PPO lure-baited traps were collected from Zone 2 on Monday, April 21.

		7	<b>Zone 2 -</b>	Pistachi	0			
		Pheron	none/PPO	Lure Baite	d Traps			
	# of Releases During							
Dates Traps in Field	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
<sup>1</sup> No traps were ser	viced in Zone	1 2 during th		January 3 ng access	due to exces	sive rain and	l muddy co	l nditions

<sup>&</sup>lt;sup>2</sup>No traps were serviced in Zone 2 during the week of March 7 due to pesticide applications on site

<sup>&</sup>lt;sup>3</sup>No traps were serviced in Zone 2 during the week of March 28 due to pesticide applications on site



## **Zone 3 – Almond Orchard**

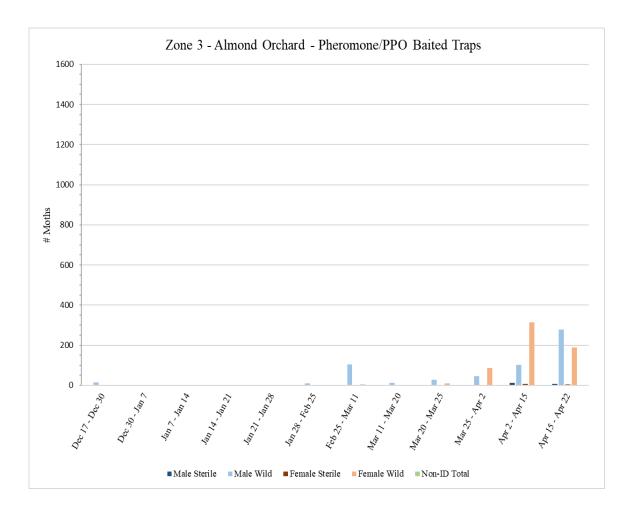
A total of 36 pheromone/PPO lure-baited traps were collected from Zone 3 on Tuesday, April 22.

	Zone 3 - Almond										
	Pheromone/PPO Lure Baited Traps										
	# of										
	Releases										
	During										
	Trap	Male	Male	Male	Female	Female	Female	Non-ID			
Dates Traps in Field	Period	Sterile	Wild	Total	Sterile	Wild	Total	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			
<sup>1</sup> Trap numbers 26 - 36 not	serviced in	Zone 3 du	ring the w	eek of Jar	nuary 31 d	ue to pesti	cide applic	cations on			
			site			_					

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>No traps were serviced in Zone 3 during the week of March 7 due to pesticide applications on site

<sup>&</sup>lt;sup>4</sup>No traps were serviced in Zone 3 during the week of Apr 11 due to pesticide applications on site



# Zone 4 – Almond Orchard

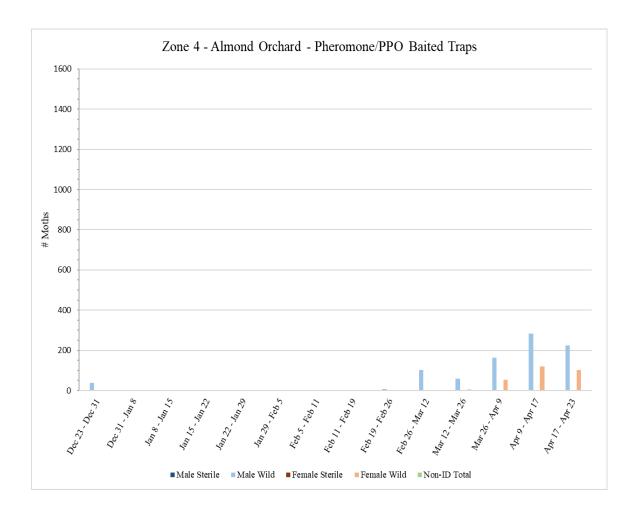
A total of 34 pheromone/PPO lure-baited traps were collected from Zone 4 on Wednesday, April 23. Trap numbers 11 and 18 were missing.

Zone 4 - Almond									
		Pheron	none/PPO	Lure Baited	d Traps				
	# of								
	Releases								
	During								
Dates Traps in	Trap	Male	Male	Male	Female	Female	Female	Non-ID	
Field	Period	Sterile	Wild	Total	Sterile	Wild	Total	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>1</sup> Trap numbers 8 – 3	36 not service	ed in Zone	4 during t	he week of	February 7	due to pest	icide applica	ations on	
•			_	ite	•	•	11	ļ	

 $<sup>^{2}</sup>$ Trap numbers 8 – 36 in field since January 29

<sup>&</sup>lt;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>&</sup>lt;sup>5</sup>No traps were serviced in Zone 4 during the week of April 4 due to staffing issues

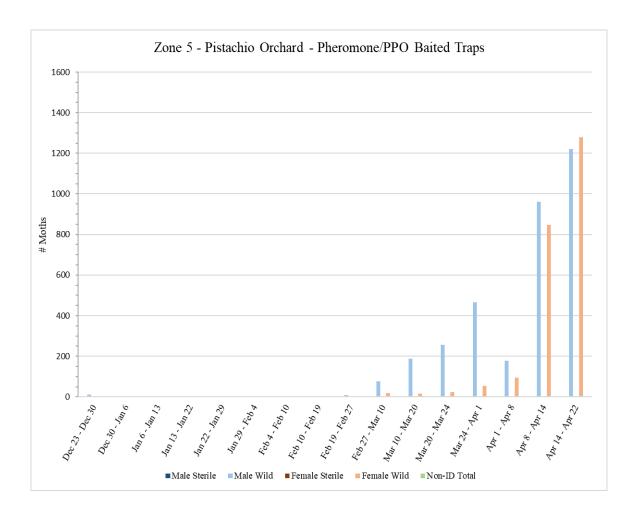


# Zone 5 – Pistachio Orchard

A total of 36 pheromone/PPO lure-baited traps were collected from Zone 5 on Tuesday, April 22.

	Zone 5 - Pistachio									
	Pheromone/PPO Lure Baited Traps									
	# of Releases During									
Dates Traps in Field	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		

<sup>&</sup>lt;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



#### Zone 6 – Pistachio Orchard

No traps were collected from Zone 6 during the week of April 25 due to staffing issues.

	Zone 6 - Pistachio										
	Pheromone/PPO Lure Baited Traps										
	# of										
	Releases										
	During										
Dates Traps in	Trap	Male	Male	Male	Female	Female	Female	Non-ID			
Field	Period	Sterile	Wild	Total	Sterile	Wild	Total	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 -											

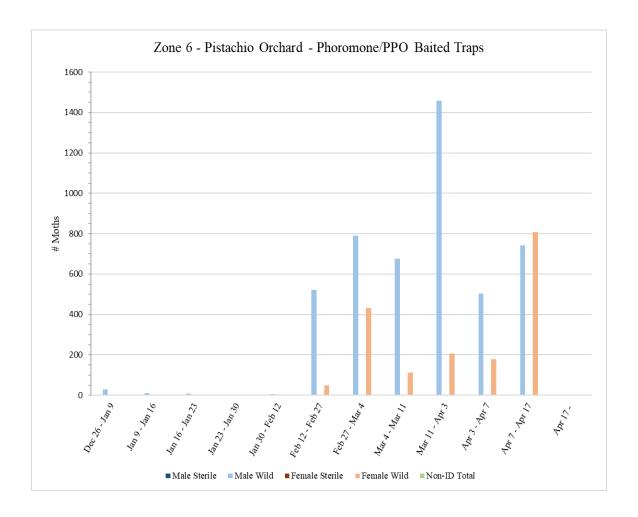
<sup>&</sup>lt;sup>1</sup>No traps were serviced in Zone 6 during the week of January 3 due to excessive rain and muddy conditions preventing access

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>No traps were serviced in Zone 6 during the week of February 21 due to staffing issues

<sup>&</sup>lt;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>&</sup>lt;sup>5</sup>No traps were serviced in Zone 6 during the week of April 25 due to staffing issues



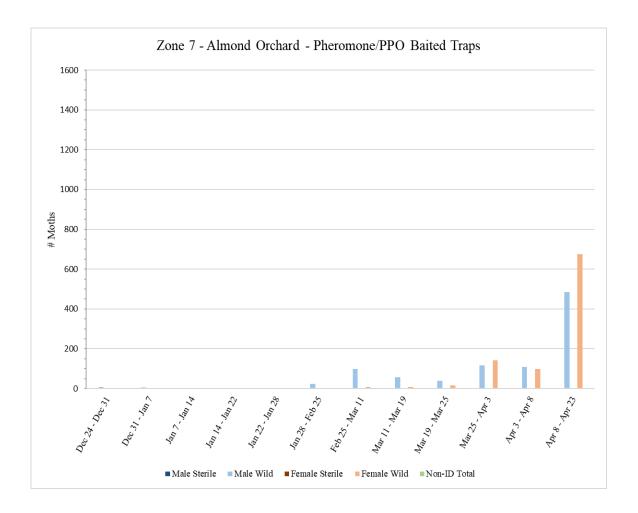
# Zone 7 – Almond Orchard

A total of 36 pheromone/PPO lure-baited traps were collected from Zone 7 on Wednesday, April 23.

	Zone 7 - Almond										
	Pheromone/PPO Lure Baited Traps										
	# of										
	Releases										
	During										
Dates Traps in	Trap	Male	Male	Male	Female	Female	Female	Non-ID			
Field	Period	Sterile	Wild	Total	Sterile	Wild	Total	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			
<sup>1</sup> No traps were s	erviced in Zo	•	-	ks of Febr olications	•	l lary 14, and	February 2	1 due to			

<sup>&</sup>lt;sup>2</sup>No traps were serviced in Zone 7 during the week of March 7 due to pesticide applications on site

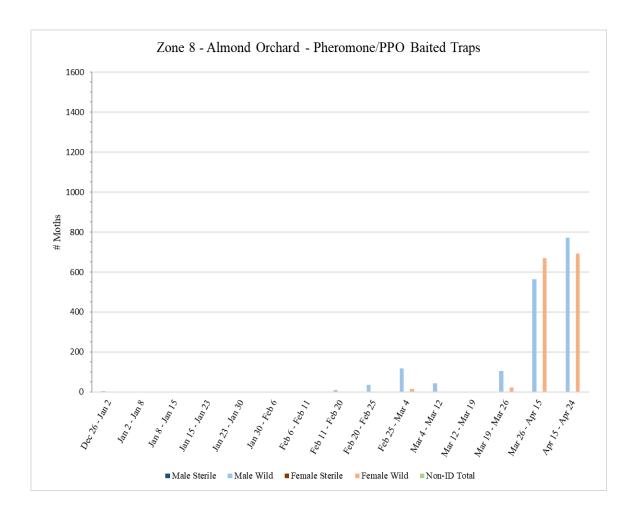
<sup>&</sup>lt;sup>3</sup>No traps were serviced in Zone 7 during the week of April 18 due to pesticide applications on site



# Zone 8 – Almond Orchard

A total of **36** pheromone/PPO lure-baited traps were collected from Zone 8 on <u>Thursday</u>, <u>April 24</u>.

Zone 8 - Almond									
		Phero	mone/PP	O Lure B	aited Traps				
	# of								
	Releases								
	During								
Dates Traps in	Trap	Male	Male	Male	Female	Female	Female		
Field	Period	Sterile	Wild	Total	Sterile	Wild	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	
<sup>1</sup> No traps were service	ced in Zone 8	3 during th	e weeks o	of April 4	and April 1	1 due to pe	sticide app	lications on site	



# **Zone 9 – Almond Orchard**

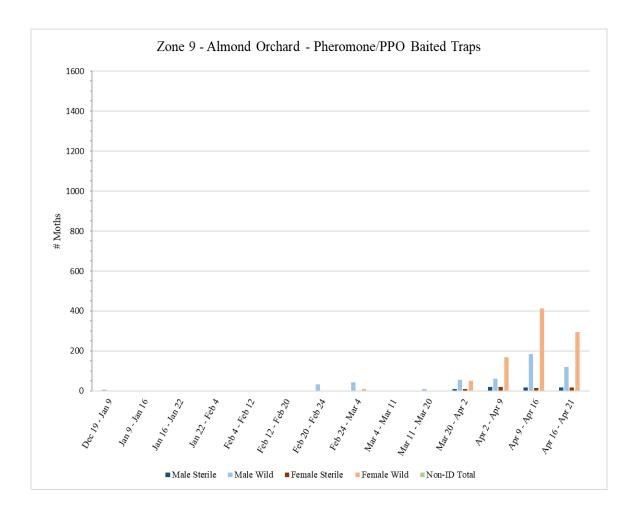
A total of 34 pheromone/PPO lure-baited traps were collected from Zone 9 on Monday, April 21.

Zone 9 - Almond										
		Phero	mone/PPO	Lure Baited	Traps					
	# of									
	Releases									
	During									
Dates Traps in	Trap	Male	Male	Male	Female	Female	Female	Non-ID		
Field	Period	Sterile	Wild	Total	Sterile	Wild	Total	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		
<sup>1</sup> No traps were ser	viced in Zone	l e 9 during t	l he week of	<u> </u> January 3 di	l ue to excess	l sive rain and	muddy cor	nditions		

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;sup>3</sup>No traps were serviced in Zone 9 during the week of March 28 due to pesticide applications on site



## 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 - <a href="https://ipm.ucanr.edu/PHENOLOGY/ma-navel\_orangeworm.html">https://ipm.ucanr.edu/PHENOLOGY/ma-navel\_orangeworm.html</a>, 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 Tempe	ratures (°F)	Degre	Degree Days		
Date	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		

Data	Air Temper	ratures (°F)	Degre	e Days
Date	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

Data	Air Temper	ratures (°F)	Degre	Degree Days			
Date	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			

#### 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 from magazines released over Zones 3 and 9 during the week of Monday, April 14, 2025 to Sunday, April 20, 2025:

- 0% of moths from samples found dead at zero hour
- 2% of moths from samples found to have mated at zero hour
- 65% of moths from samples found to have mated after forty-eight hours
- 46% of moths from samples remained alive after seven days in BioChamber
- 98% of moths from samples found to have distinct red dye markings