Insect Pest Monitoring 2017-Modesto/Northern Merced Area

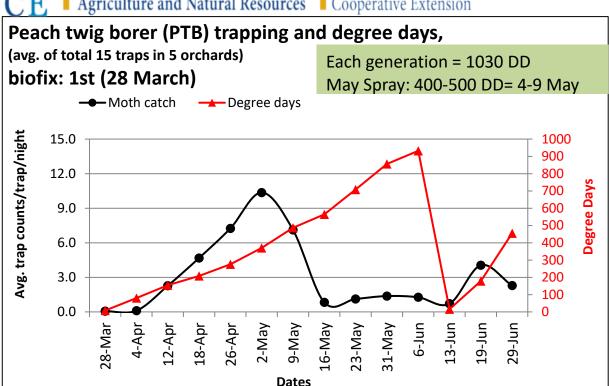
Peach twig borer (PTB) trap catch and degree days calculation-2017

Jhalendra Rijal, IPM Advisor,

UC Cooperative Extension-Stanislaus

jrijal@ucanr.edu; 209-525-6800





Degree days were calculated by using UC-IPM Degree days calculation link:

http://www.ipm.ucdavis.edu/calludt.cgi/DDMODEL?MODEL=PTB&CROP=almonds

The weather station used to calculate DD is CIMIS Station # 206 (i.e. Denair II)

Peach twig borer model

Lower/upper threshold: 50/88°F

Calculation/upper cutoff method: single sine/horizontal

Biofix: The biofix is the first date that male moths are caught consistently in pheromone traps.

Biofix Date: 28 March

Additional information: Pest Management Guidelines

G	Generation Length (degree-days)			y Timing ee-days)
1st	2nd	3rd	Early Generation	Later Generations
1030	1030	1030	400-500	300-400

Peach twig borer (PTB) trap catch and degree days calculation-2017

Traps were placed in almond orchards

	Avg PTB	Degree-days	Degree-days	
	per	(1st Biofix	(2nd Biofix	
Date	trap/day	3/28)	6/13)	
28-Mar	0.06	8		
4-Apr	0.11	80		
12-Apr	2.27	154		
18-Apr	4.68	208		
26-Apr	7.25	276		
2-May	10.36	370		
9-May	7.12	487		
16-May	0.83	564		
23-May	1.12	708		_
31-May	1.38	856		
6-Jun	1.27	932		
13-Jun	0.71	15	6/13 2nd biof	x (1027 DD)
19-Jun	4.05	178		
29-Jun	2.28	455		

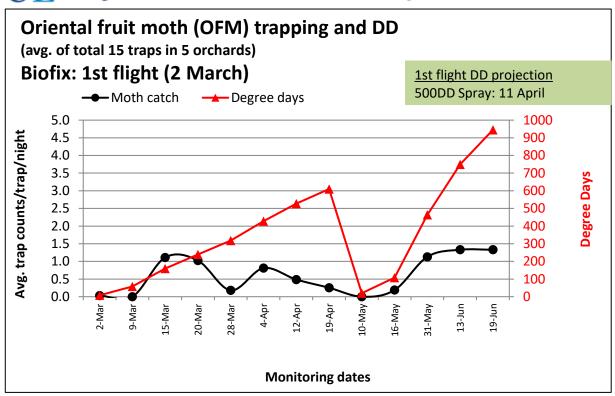
Oriental Fruit moth (OFM) trap catch and degree days calculation-2017

Jhalendra Rijal, IPM Advisor,

UC Cooperative Extension-Stanislaus

jrijal@ucanr.edu; 209-525-6800





Degree days were calculated by using UC-IPM Degree days calculation link:

http://www.ipm.ucdavis.edu/calludt.cgi/DDMODEL?MODEL=OFM&CROP=peaches

The weather station used to calculate DD is CIMIS #206, Denair II

Oriental Fruit Moth Model

Lower/upper threshold: 45/90°F

Calculation/upper cutoff method: single sine/horizontal

Biofix: The biofix is the first date that male moths are caught consistently in pheromone traps.

Biofix Date: 2 March

Additional information on using this model: Pest Management Guideline

	Generation Length (degree-days)			/ Timing ee-days)
1st	2nd	3rd	Early generation	Later generations
920-1010	920-1010	920-1010	500-600	400-500

Oriental Fruit moth (OFM) trap catch and degree days calculation-2017

Traps were placed in almond orchards.

Date	Avg OFM per trap/night	Degree-days	
Date	trap/mgm	Degree-days	
2-Mar	0.03	8	
9-Mar	0	58	
15-Mar	1.11	159	
20-Mar	1.02	239	
28-Mar	0.18	318	
4-Apr	0.81	428	
12-Apr	0.49	527	
19-Apr	0.25	610	
10-May	0.00	20	2nd biofix: May 10
16-May	0.19	108	
31-May	1.13	464	
13-Jun	1.33	749	
19-Jun	1.33	945	3rd biofix?
29-Jun	0.67	1273	
		 	

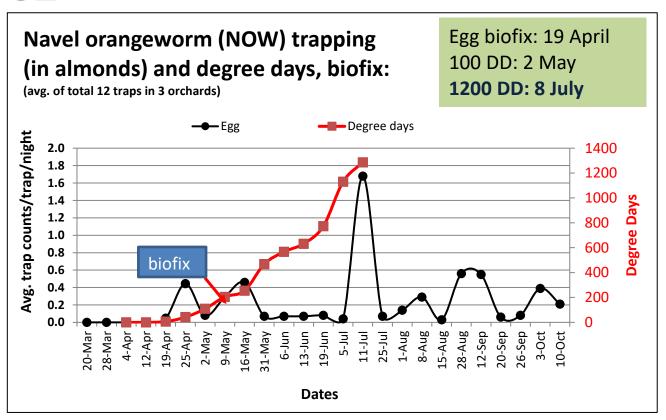
Navel Orangeworm (NOW) egg counts and degree day calculation-2017

Jhalendra Rijal, IPM Advisor,

UC Cooperative Extension-Stanislaus

jrijal@ucanr.edu; 209-525-6800





Degree days were calculated by using UC-IPM Degree days calculation link:

http://www.ipm.ucdavis.edu/calludt.cgi/DDMODEL?MODEL=NOW&CROP=almonds

The weather station used to calculate DD is CIMIS Station #206 (i.e. Denair II)

Navel orangeworm model

Lower/upper threshold: 55/94°F

Calculation/upper cutoff method: single sine/horizontal

Biofix: The first biofix is the beginning of a consistent increase in egg laying on egg traps.

When at least 75% of the egg traps in a given location show increases in the number of eggs on two consecutive monitoring dates, the biofix is the first of those two dates.

Biofix Date:

Additional information: Pest Management Guideline

Navel Orangeworm (NOW) egg counts and degree day calculation-2017

Traps were placed in almond orchards

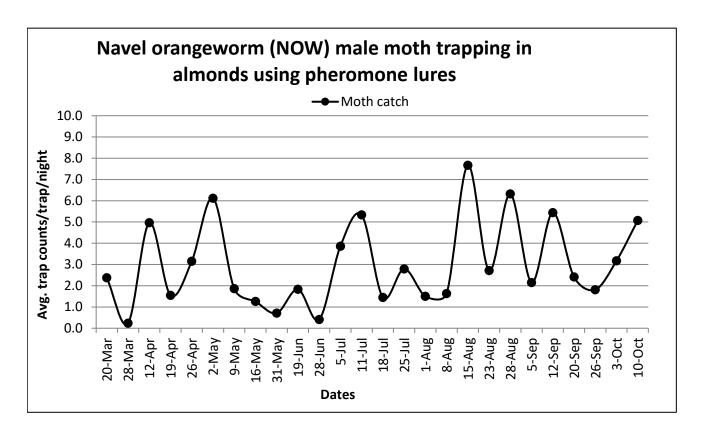
·	Avg Eggs		Avg. moths per
	per		trap/night
Date	trap/night	Degree-days	(peterson bait)
20-Mar	0.00		0.00
28-Mar	0.00		0.02
4-Apr	0.00	0.00	0.14
12-Apr	0.00	0	0.98
19-Apr	0.05	6	0.17
25-Apr	0.45	42	0.75
2-May	0.08	109	0.50
9-May	0.29	205	0.50
16-May	0.46	254	0
31-May	0.07	468	0
6-Jun	0.07	567	
13-Jun	0.07	632	
19-Jun	0.08	773	
5-Jul	0.04	1130	
11-Jul	1.68	1286	
25-Jul	0.07	1601	
1-Aug	0.14		
8-Aug	0.29		
15-Aug	0.03		
28-Aug	0.560		
12-Sep	0.550		
20-Sep	0.060		
26-Sep	0.080		
3-Oct	0.390		
10-Oct	0.210		

Navel Orangeworm (NOW) moth catch and degree day calculation-2017 Jhalendra Rijal, IPM Advisor,

UC Cooperative Extension-Stanislaus

jrijal@ucanr.edu; 209-525-6800





Additional information: Pest Management Guideline

Navel Orangeworm (NOW) moth catch and degree day calculation-2017

Traps were placed in almond orchards

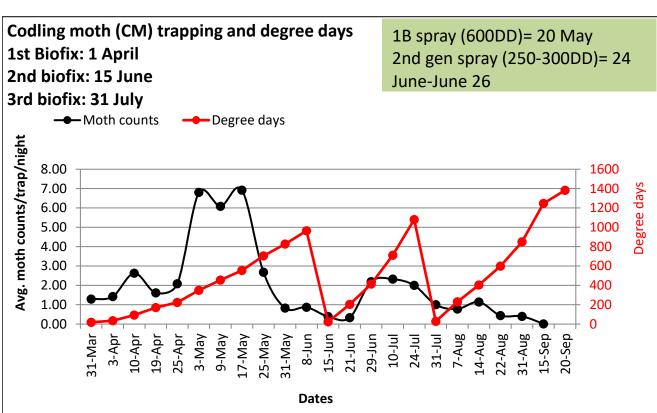
	Avg NOW
	moth per
Date	trap/night
20-Mar	2.37
28-Mar	0.24
4-Apr	3.10
12-Apr	4.97
19-Apr	1.55
26-Apr	3.15
2-May	6.12
9-May	1.86
16-May	1.26
31-May	0.71
19-Jun	1.83
28-Jun	0.41
5-Jul	3.86
11-Jul	5.33
18-Jul	1.45
25-Jul	2.79
1-Aug	1.50
8-Aug	1.63
15-Aug	7.67
23-Aug	2.71
28-Aug	6.32
5-Sep	2.15
12-Sep	5.44
20-Sep	2.41
26-Sep	1.81
3-Oct	3.17
10-Oct	5.07

Jhalendra Rijal, IPM Advisor,

UC Cooperative Extension-Stanislaus

jrijal@ucanr.edu; 209-525-6800





Degree days were calculated by using UC-IPM Degree days calculation link:

http://www.ipm.ucdavis.edu/calludt.cgi/DDMODEL?MODEL=CM&CROP=walnuts

The weather station used to calculate DD is CIMIS Station #206, Denair II

Codling moth model

Lower/upper threshold: 50/88°F

Calculation/upper cutoff method: single sine/horizontal

1st Biofix Date: 1 April

Additional information: Pest Management Guideline

G	Generation Leng (degree-days)			r Timing ee-days)
1st	2nd	3rd	Early generation	Later generations
1060	1100	1200	1A Peak: 300 1B Peak: 600-700	300

Traps were placed in walnut orchards

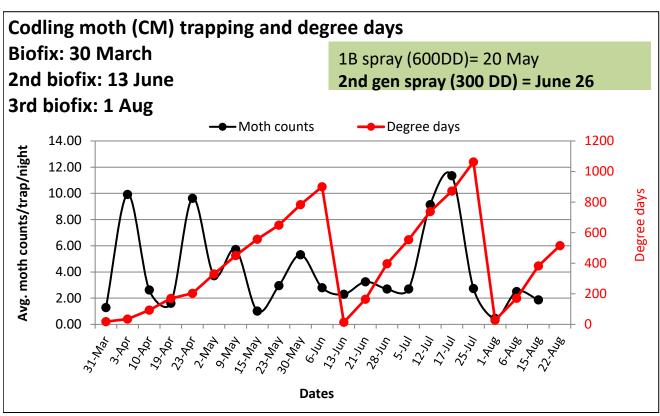
Traps treit	piacea iii v	vaniat ortifatus	1
	Avg CM	5	
_	per	Degree-days	
Date	trap/night	accumulated	
31-Mar	1.29	18	
3-Apr	1.42	35	
10-Apr	2.63	93	
19-Apr	1.61	170	
25-Apr	2.08	223	
3-May	6.80	348	
9-May	6.08	455	
17-May	6.92	554	
25-May	2.68	704	
31-May	0.83	827	
8-Jun	0.87	964	2nd biofix: 15 June
15-Jun	0.39	23	
21-Jun	0.33	204	
29-Jun	2.19	414	
10-Jul	2.32	710	
24-Jul	2	1080	
31-Jul	1	27.5	
7-Aug	0.78	229	3rd biofix (Jul 31)
14-Aug	1.14	403	
22-Aug	0.44	598	
31-Aug	0.4	850	
15-Sep	0.01	1247	
20-Sep		1382	
			

Jhalendra Rijal, IPM Advisor,

UC Cooperative Extension-Stanislaus

jrijal@ucanr.edu; 209-525-6800





Degree days were calculated by using UC-IPM Degree days calculation link:

http://www.ipm.ucdavis.edu/calludt.cgi/DDMODEL?MODEL=CM&CROP=walnuts

The weather station used to calculate DD is CIMIS Station #206, Denair II

Codling moth model

Lower/upper threshold: 50/88°F

Calculation/upper cutoff method: single sine/horizontal

1st Biofix Date: 1 April

Additional information: Pest Management Guideline

G	Generation Leng (degree-days)			r Timing ee-days)
1st	2nd	3rd	Early generation	Later generations
1060	1100	1200	1A Peak: 300 1B Peak: 600-700	300

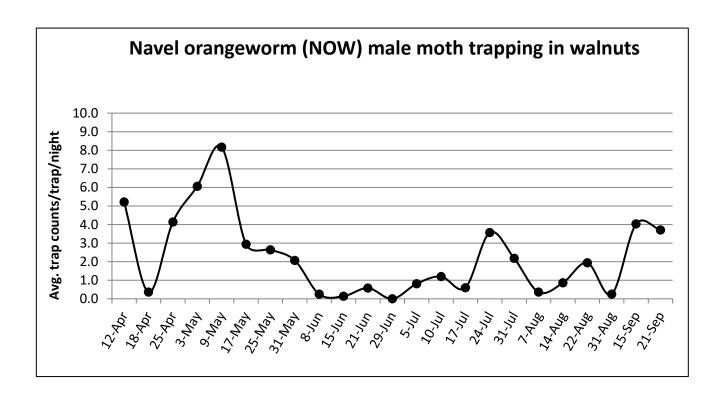
Traps were placed in walnut orchards

	Avg CM				
	per	Degree-days			
Date	trap/night	accumulated			
31-Mar	1.29	18			
3-Apr	9.92	35			
10-Apr	2.63	93			
19-Apr	1.61	170			
23-Apr	9.63	203			
2-May	3.72	330			
9-May	5.72	450			
15-May	1.02	557			
23-May	2.96	649			
30-May	5.31	783			
6-Jun	2.80	900	2nd Biofix	13 June	
13-Jun	2.30	14			
21-Jun	3.25	165		_	
28-Jun	2.7	397			
5-Jul	2.70	554			
12-Jul	9.14	738			
17-Jul	11.35	872			
25-Jul	2.74	1063			
1-Aug	0.45	27		biofix Aug	1 (3rd flight)
6-Aug	2.50	171			
15-Aug	1.87	382			
22-Aug		515			
31-Aug					
15-Sep					

Navel Orangeworm (NOW) moth catch and degree day calculation-2017

Jhalendra Rijal, IPM Advisor, UC Cooperative Extension-Stanislaus jrijal@ucanr.edu; 209-525-6800





Additional information:

Navel Orangeworm (NOW) moth catch and degree day calculation-2017

Traps were placed in walnut orchards

Avg NOW
moth per
trap/night
5.21
0.36
4.14
6.06
8.17
2.94
2.64
2.07
0.25
0.14
0.58
0.00
0.81
1.20
0.60
3.57
2.18
0.36
0.86
1.94
0.25
4.03
3.71