2024 IPM Update -30 July

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Monitoring

- Use traps to monitor insect pests
- Keep trapping records
- Use biofix, *UCIPM guidelines*
- Use degree day models for making treatment decisions

Or google "Run Degree Days UCIPM"

Note:
- All trapping data reported in this presentation were collected from 2-4 commercial orchards in Stanislaus County. The weather station used for calculating degree days was CIMIS Station #206, Denair.
- Therefore, the information provided here should be used as a general reference, this is not a recommendation of any kind. All growers/PCAs should have their monitoring systems and tools in place, and use that information in making pest management decisions as "every orchard is different"

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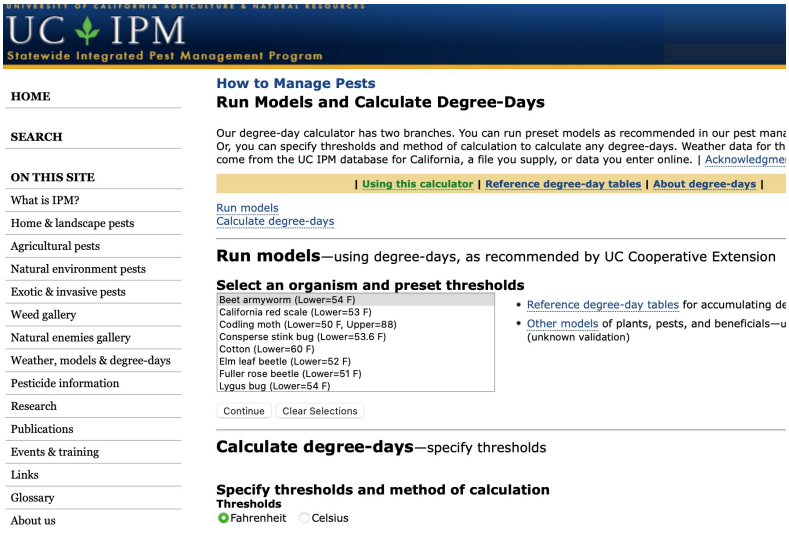
Degree-day models: UCIPM



http://ipm.ucanr.edu/WEATHER/ddretrievetext.html

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2024 Insect monitoring

- Oriental Fruit Moth (OFM): 1st Biofix 21 February
  - 1st biofix 21 February
  - 1st gen. spray timing (500 - 600DD): 12-19 April
  - 2nd gen. biofix: 14 May
    - DD accumulated (as of 7/11): 1601
  - 2nd gen spray timing (400-500): 30 May – 3 June
  - 3rd gen. biofix: 18 June
    - 3rd gen spray timing (400-500): 30 June – 3 July
  - 4th gen. biofix: 30 July
    - DD accumulated (as of 7/30): 29

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

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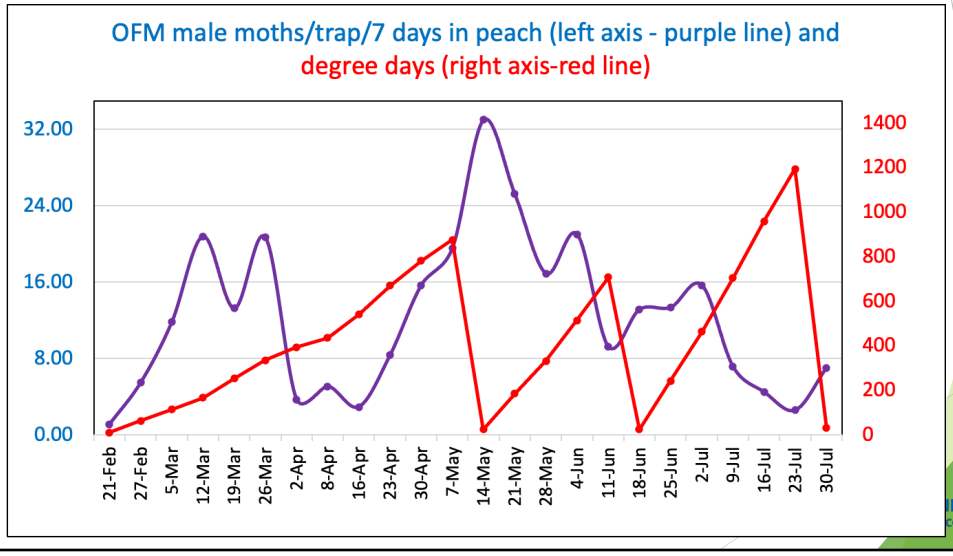
2024 Insect monitoring

Oriental Fruit Moth (OFM)

1st biofix: 21 February; 2nd flight biofix: 14 May; 3rd flight biofix: 18 June; 4th flight biofix: 30 July



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2024 Insect monitoring

- Peach Twig Borer (PTB):
  - 1st Biofix: 2 April
  - 1st gen. spray timing (400 - 500DD): 10-15 May
  - DD (1st gen, 6/11): 1050
  - 2nd gen. Biofix: 11 June
    - 2nd gen. spray timing (300-400DD): 22-26 June
  - 3rd gen. biofix: 23 July
    - DD accumulation (as of 7/30): 206

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

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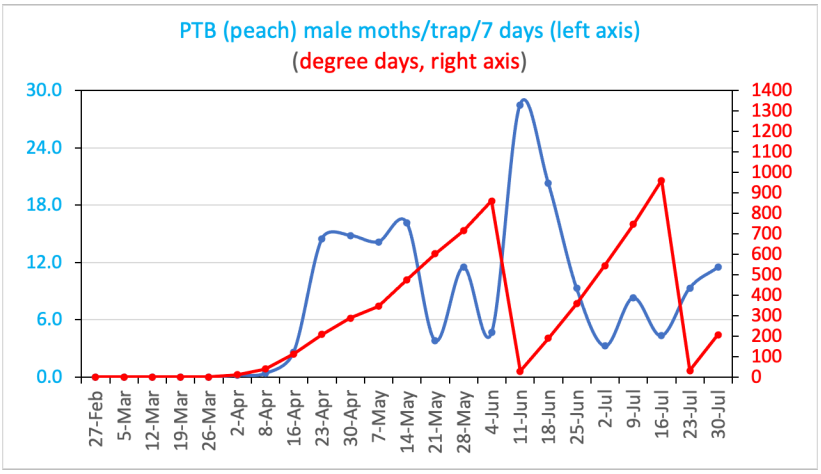
2024 Insect monitoring

- Peach Twig Borer (PTB):
- 1st biofix: 2 April; 2nd biofix: 11 June; 3rd biofix: 23 July



DD accumulated (3rd gen.; as of 7/30): 206

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2024 Insect monitoring

- Codling Moth (CM): 1st flight biofix 8 April
  - 1st gen. spray timing:
    - 1A flight (300 DD): 4 May
    - 1B flight (600 - 700 DD): 23 May – 28 May
  - 2nd gen. biofix: 11 June
    - 2nd gen. spray timing (2A timing: 300DD): 23 June
  - 3rd gen. biofix: 30 July
    - DD accumulation (as of 7/30): 29
    - Treatment timing (300 DD): 9 August

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

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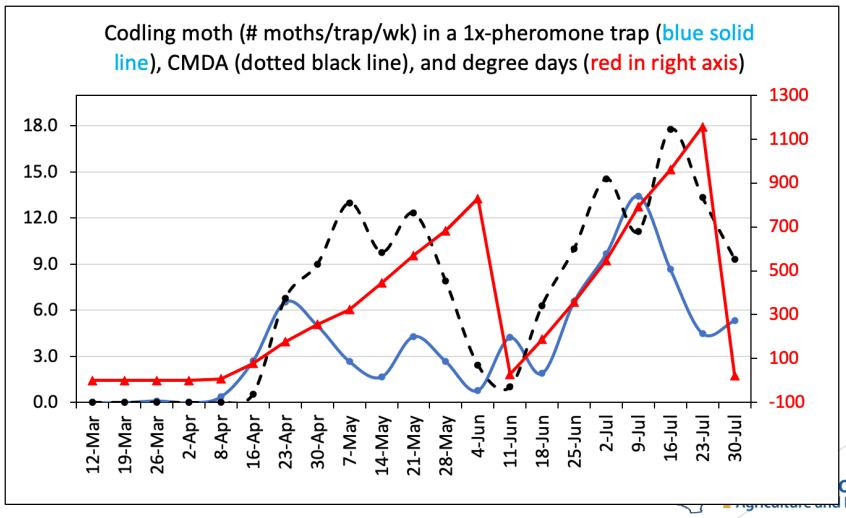
2024 Insect monitoring

- Codling Moth (CM) in Walnut: 1st biofix: 8 April; 2nd biofix: 11 June; 3rd biofix: 30 July



2A flight activity seems to be much higher this year.

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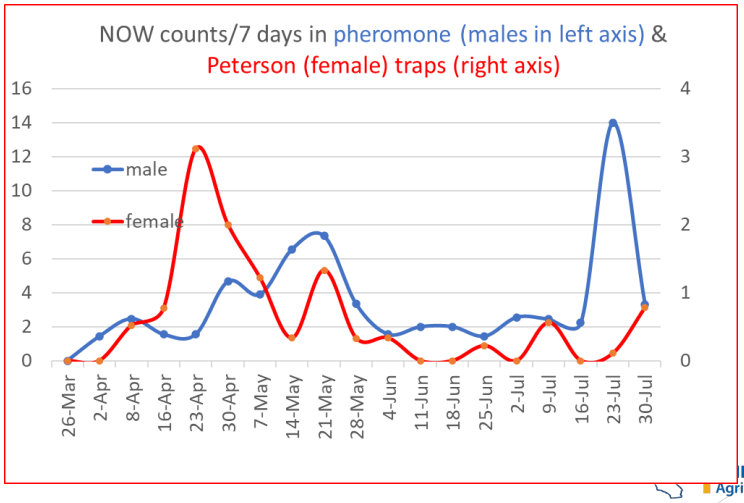
2024 Insect monitoring

- Navel Orangeworm (NOW) in Walnuts



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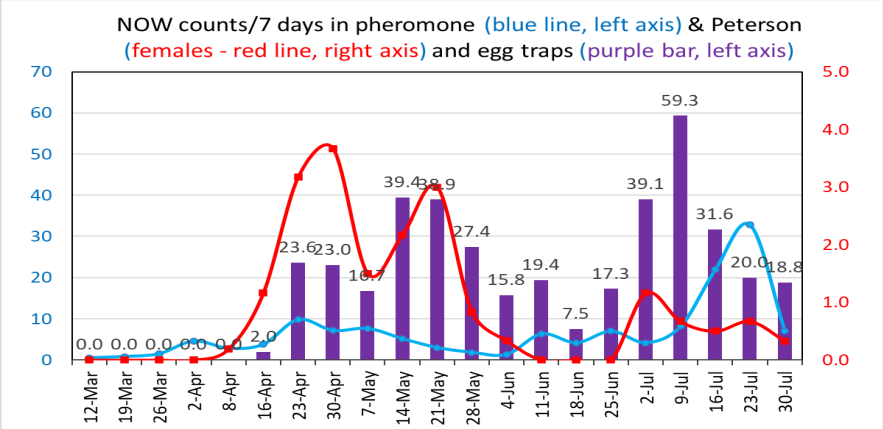
2024 Insect monitoring

- Navel Orangeworm (NOW) in almonds: Spring egg laying biofix: 16 April



- Spring spray timing (100DD): April 27
- Projected 2nd flight (1056 DD) was June 29

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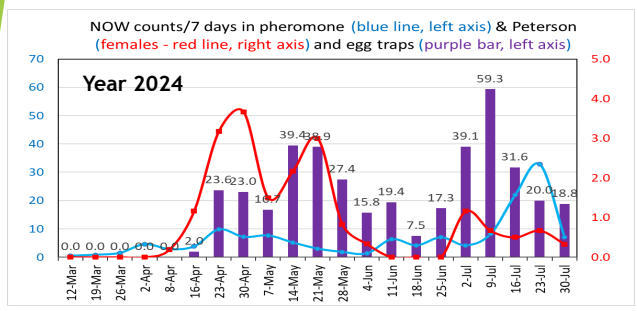
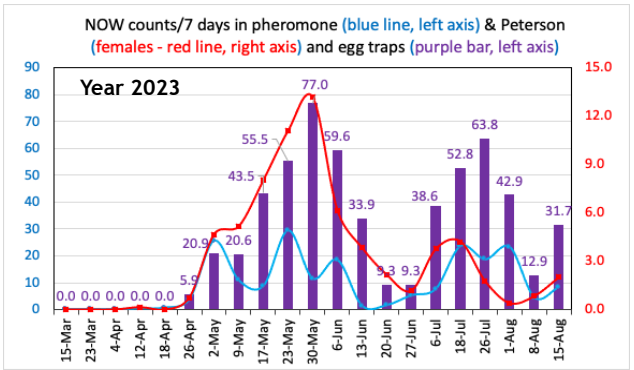


- Egg biofix: 16 April
- 1st gen. spray (100DD): 27 April
- Peak 1st flight: 17 May
- DD (6/20): 877
- Beginning of the 2nd gen. (1056DD): 29 June
- Predicted beginning of the 3rd gen. infested hullsplit nuts (700DD): 27 July

2024

vs.

2023



- Egg biofix: 26 April
- 1st gen. spray (100DD): 8 May
- Peak 1st flight: 30 May
- DD (6/20): 712
- Predicted beginning of the 2nd gen. (1056DD): 5 July

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Predicted hullsplit time (bloom date 2/14/24)

Hull Split Calculator

Please Select a Station

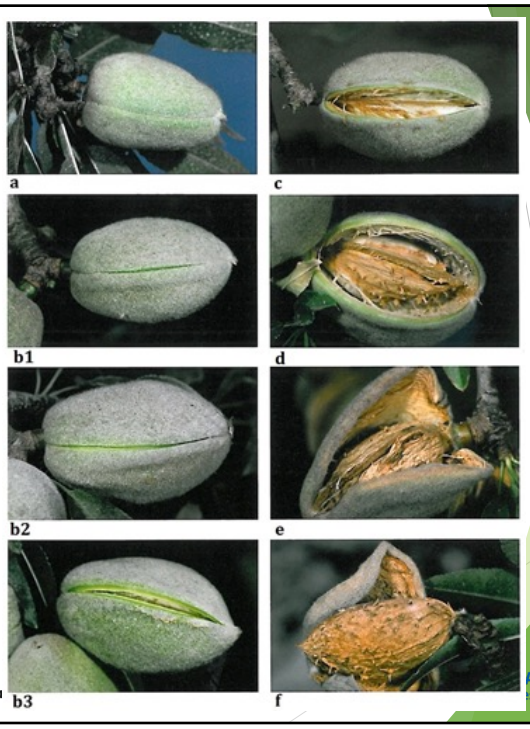
Full Bloom Date 2/24/2024

CIMIS Station 206 Denair

View Data

Cultivar	2024	2023	2022	2021	2020	2019	2018
NonPareil	07/14	07/19	07/11	07/13	07/12	07/12	07/15
Sonora	07/29	08/05	07/25	07/28	07/26	07/26	07/31
Price	08/01	08/08	07/29	07/31	07/30	07/30	08/03
Wood Colony	08/12	08/17	08/09	08/11	08/10	08/10	08/13
Winters	08/12	08/19	08/09	08/11	08/10	08/10	08/14
Aldrich	08/13	08/18	08/10	08/12	08/11	08/11	08/14
Padre	08/15	08/22	08/12	08/14	08/13	08/13	08/17
Butte	08/18	08/23	08/16	08/18	08/17	08/17	08/20
Ruby	08/23	08/28	08/20	08/22	08/21	08/21	08/24
Carmel	08/24	08/29	08/22	08/24	08/23	08/23	08/26
Monterey	08/25	09/01	08/22	08/24	08/23	08/23	08/27
Mission	08/27	09/01	08/24	08/26	08/25	08/25	08/28

You must wait until 90 days after bloom for this calcula



Stages of hull split

a. unsplit hull;
b1. initial separation;
b2. deep V split;
b3. deep V split, but nut pops when squeezed;
c. split, but less than 1 cm;
d. split, more than 1 cm;
e. initial drying stages;
f. completely dry

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Factors affecting insecticide efficacy for NOW -2022

Timing of Application:
•Aligning insecticide application with the most vulnerable stages of the crop and NOW life cycle

Coverage and Application Method:
•Using appropriate equipment and techniques, speed, etc., ensure thorough tree coverage, including nuts.

Resistance Management:
•Rotating insecticides with different modes of action. Do not apply insecticide with documented resistance

Environmental Conditions:
•Considering weather factors like temperature, humidity, wind to prevent rapid degradation

Integration with Other Pest Management Practices:
•Combining insecticide use with cultural (mummy sanitation) and biological (mating disruption) practices

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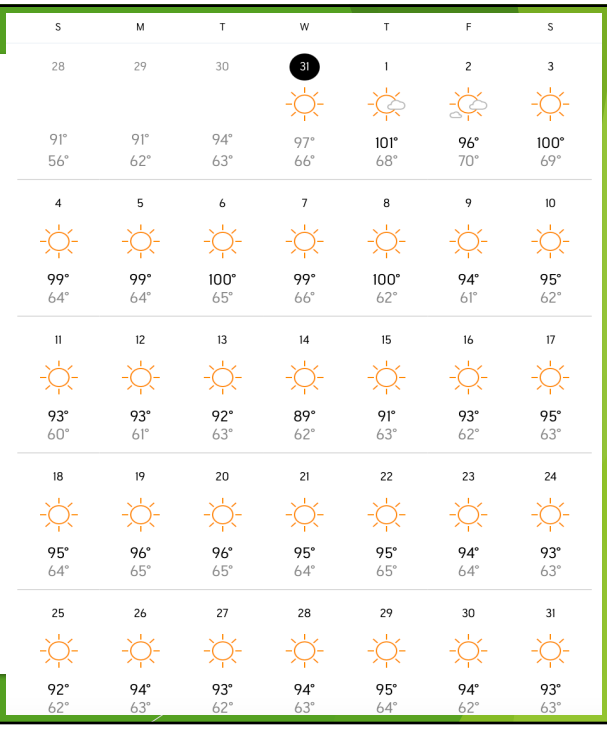
Weather Outlook

August, 2024

AccuWeather



S	M	T	W	T	F	S
28	29	30	31	1	2	3
91° 56°	91° 62°	94° 63°	97° 66°	101° 68°	96° 70°	100° 69°
4	5	6	7	8	9	10
99° 64°	99° 64°	100° 65°	99° 66°	100° 62°	94° 61°	95° 62°
11	12	13	14	15	16	17
93° 60°	93° 61°	92° 63°	89° 62°	91° 63°	93° 62°	95° 63°
18	19	20	21	22	23	24
95° 64°	96° 65°	96° 65°	95° 64°	95° 65°	94° 64°	93° 63°
25	26	27	28	29	30	31
92° 62°	94° 63°	93° 62°	94° 63°	95° 64°	94° 62°	93° 63°

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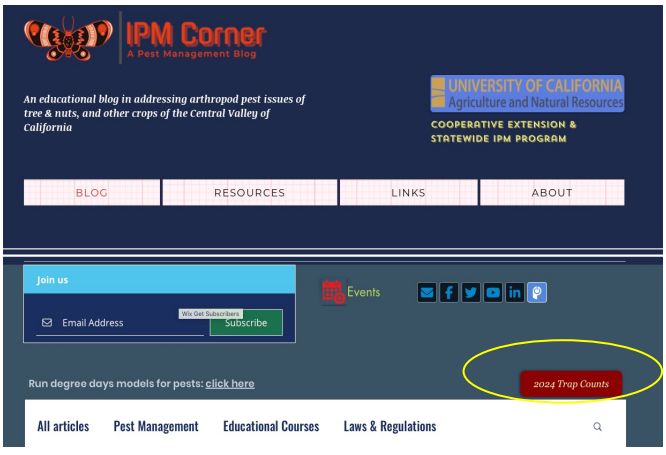
Updated information is also available in www.IPMCorner.com website as well.



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