INSECT PESTS MONITORING FOR TREE FRUIT AND NUT CROPS

May 18, 2022

Jhalendra Rijal Area IPM Advisor - San Joaquin, Stanislaus, Merced UC Cooperative Extension - Stanislaus

Monitoring

- Use traps to monitor insect pests
- Keep trapping records
- Use biofix, UCIPM guidelines
- Use degree day models for making treatment decisions
- For DD models: use this link, http://ipm.ucanr.edu/WEATHER/ddretrievetext.html

Or google "run UCIPM degree days models"



Pest Activities/DD in Traps (Denair II CIMIS #206)

- Oriental fruit moth (OFM)
 - Biofix: 18 February; DD (5/17): 1196
 - Predicted 1st gen. spray timing (500-600DD): **April 4 -10**

| 2.0 | OFM male moths/trap/7 days (left axis) (degree days, right axis) | 1200 |
|-----|--|------|
| 2.0 | | 1200 |
| 1.6 | | 1000 |
| 1.2 | | 800 |
| | | 600 |
| 0.8 | | 400 |
| 0.4 | | 200 |
| 0.0 | | 0 |
| | 15-Feb 18-Feb 22-Feb 1-Mar 15-Mar 29-Mar 29-Mar 12-Apr 12-Apr 19-Apr 26-Apr 3-May 10-May | |

| 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 | |



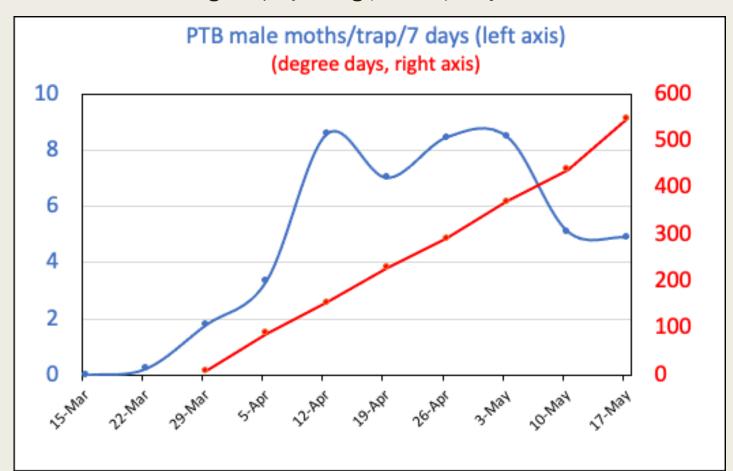


Monitor shoot strikes in late April

Pest Activities/DD in Traps (Denair II CIMIS #206)

- Peach Twig Borer (PTB)
 - Biofix: 21 March (Denair); 29 March (West Modesto);
 - DD (5/17 based on 29 March): 547
 - Predicted 1st gen. spray timing (400 DD): May 5

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



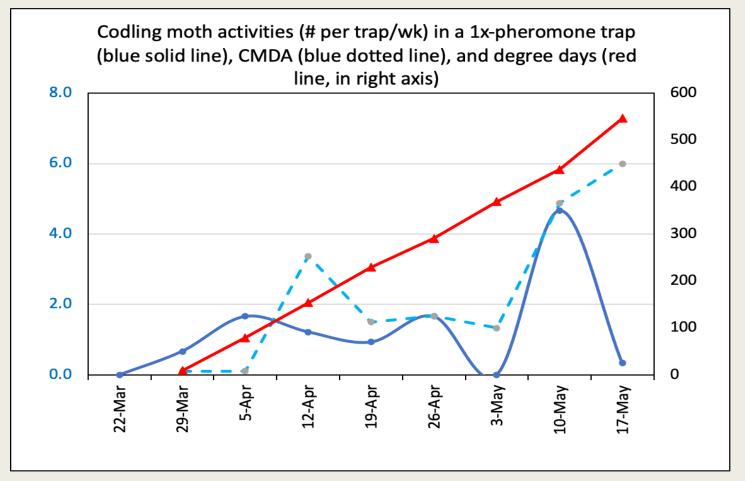
In peaches,

- •If the fruit is still green, the best control can be achieved when treatments are applied after about 400 degree-days have accumulated from the biofix.
- •If fruit has begun to color, treat at 300 degree-days.

Pest Activities/DD in Traps (Denair II CIMIS #206)

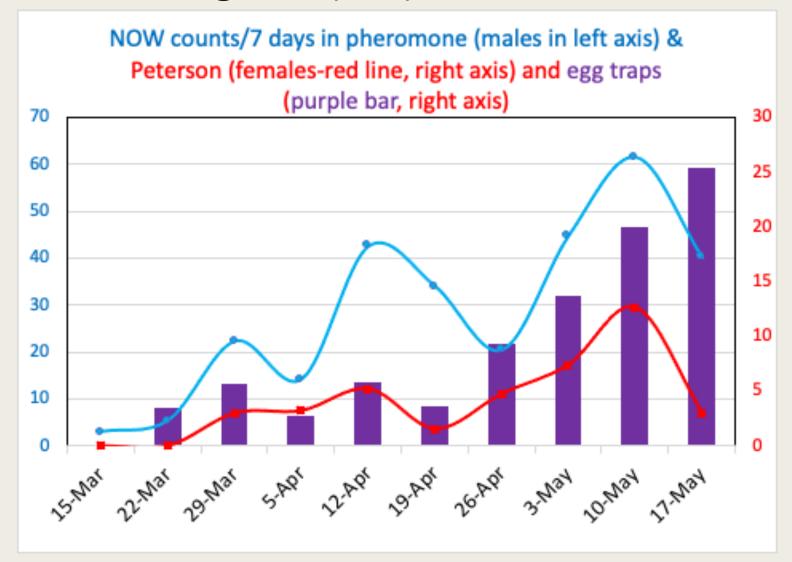
- Codling Moth (CM) 1x pheromone lure
 - Biofix: 29 March
 - DD (5/17): 546
 - Predicted 1st gen. spray timing
 - 1A timing (300 DD): April 25; 1B timing (600 DD): May 20

| 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 |



Pest Activities/DD in Traps

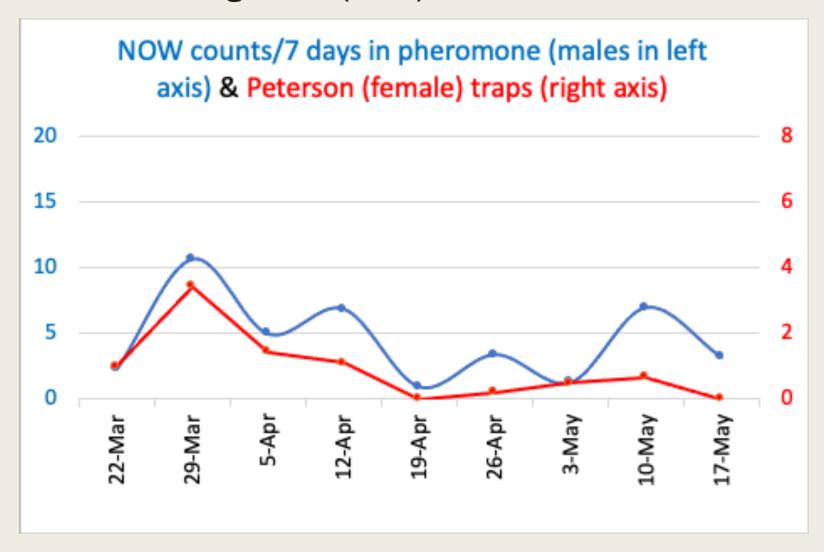
Navel Orangeworm (NOW) in Almonds



Overwintering moth activities in traps have begun to decline (blue and red lines in the figure)

Pest Activities/DD in Traps

■ Navel Orangeworm (NOW) in Walnuts



Overwintering moth activities in traps have begun to decline (blue and red lines in the figure)

What is new?

More orchards with high BMSB eggs, adults and damage found in Delhi area





More orchards with high BMSB eggs, adults and

damage found in Delhi area







You can access updated info here: IPMCorner.com



Jhalendra Rijal Twitter

@IPMCorner

Disclaimers

The information provided here is for your reference purpose only. Every orchard is different regarding the insect activity and damage history. We highly encouraged to use your own monitoring tools, biofix dates, and degree-days for making pest management decisions.

The average numbers of insect captured may not represent what you are observing in your orchard(s). The average trend is more important than the exact number. All insect monitoring/DD information provided here are derived from the traps/weather stations located in Modesto area (Stanislaus county) in general, and may not be fully applicable to other geographic region/locations