

# TREE PEST UPDATES

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Diablo Valley Farm Center, Delta Rd. & 2<sup>nd</sup> St., Knightsen (no phone yet!)

March 30, 2004

## CODLING MOTH

**HOST CROPS:** Apple, Pear, Walnut

*[Not all walnut orchards need treatment every year or every generation. If you had greater than 3% worm damage last year and/or are catching high numbers in your traps, you probably need to treat this generation.]*

**BIOFIX:** Codling moth has emerged early this year due to our very warm March weather. The flight began in most orchards between March 18<sup>th</sup> and March 25<sup>th</sup> so I am establishing an areawide biofix of **March 22<sup>nd</sup>**. Some high pressure apples started as early as March 14<sup>th</sup> and some low pressure walnuts have not started as of this writing. *Use the date that the flight began in your own traps as your own orchard biofix.*

**TREATMENT OPTIONS:** If the weather remains “normal,” the projected treatment dates are:

*Organophosphate (OP) Sprays* (Guthion, Imidan, Lorsban, Penncap, Supracide): Apples should be sprayed at 250 degree days (DD). This year this should occur about **April 17th OR 26 calendar days after you catch your first moth in your own orchard (your biofix)**. Walnuts have more lenient damage standards and can wait until 400 DD. This should occur about **April 30 OR 40 days after you catch your first moth in your own orchard (your biofix)**.

*“Reduced Risk” Materials* (Assail, Intrepid, Confirm, Success, Last Call): These materials are soft on beneficials and less toxic to people and the environment. They’ve been most successful in orchards with lower populations or in conjunction with Mating Disruption. They all need excellent coverage. Assail and Intrepid are the newer and more effective materials. Intrepid, Confirm, and Success should be applied at the beginning of egg hatch about 200 DD. This should occur about **April 12th OR 22 days after your own biofix**. They may need reapplication after 10-18 days if flights are extended. Assail should be applied at the traditional OP timing (above). Last Call should be applied at or shortly after biofix and reapplied at 5 week intervals.

*Mating Disruption:* Dispensers should have been hung in the orchards **before March 22nd** OR your own orchard biofix. If they went up afterwards, you may want to consider a supplemental control for the first generation.

*Organic Sprays* (Entrust, Surround, Oil): Entrust is the new organic formulation of Success. It is the most effective organic spray currently available. It should be applied at 200 DD like Success (see above) and reapplied at 10 day intervals, if continued coverage is needed. Oil and Surround are mild controls and best used as a supplement to Mating Disruption. They should be re-applied every 7-14 days in 100-200 gallons of water/acre. Begin Surround applications at 100 DD (**April 1 OR 11 days after your own biofix**) to discourage egg laying. Begin Oil applications at 200 DD (**April 12th OR 22 days after your own biofix**) to suffocate eggs. *Do not apply oil within a few weeks of a sulfur application.*

*Not all these materials are registered on both pome fruits and walnuts. Check the label before application!*

Note: The above information is provided to serve as baseline data for East Contra Costa County. For best results compare with traps and observations in your own orchards. Depending on pest pressure, sprays may not be necessary. Projected treatment times are based on historical weather data.

## **CODLING MOTH UPDATE**

UC Cooperative Extension  
75 Santa Barbara Rd, 2nd floor  
Pleasant Hill, CA 94523

**FOR MORE DETAILED INFORMATION ON TREATMENTS AND TIMING, CALL FOR A COPY OF OUR MOST RECENT CODLING MOTH IPM GUIDELINES FOR APPLES, PEARS, OR WALNUTS.**

*Many thanks to Suterra for providing BioLure traps for the Contra Costa County Tree Pest Update Program.*

Janet Caprile  
Farm Advisor

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**What's a Biofix?:** It's just the beginning of the flight for each new generation. We usually have 3 generations for codling moth in this area. We use the Biofix to begin degree day calculations for each generation so we know when egg laying, hatchout, and other lifecycle events will happen. This helps us to time our treatments most effectively.

**What's a Degree Day?** Insects develop faster or slower depending on the temperature. Degree days are a measure based on the maximum and minimum temperatures for each day which allow us to figure out how fast the insects are developing. You may see them abbreviated as DD or °D. If you have the daily maximum & minimum temperatures for your orchard, you can look the degree days up on a chart. If you have access to the Internet, you can get Brentwood weather data and do a degree day calculation from the UC IPM Program home page. This page also lets you calculate the projected degree days based on historical weather data so you can make projections for treatment windows (this is how I do it!). The address is <http://www.ipm.ucdavis.edu>. Give me a call if you would like a degree day chart or more information.