

TREE PEST UPDATES

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April 4, 2001

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: The flight began about **March 27th** in many orchards. If your orchard traps indicate your flight started earlier or later, use the date that the flight began in your own traps as your biofix.

TREATMENT TIMING: If the weather remains “normal”, the projected treatment dates are as follows:

Organophosphate Sprays (Guthion, Imidan, Lorsban, Penncap, Supracide): Orchards with high populations, spray at 250-300 degree days (DD). This should occur **April 18-23 OR 23-28 days after your own biofix**. Orchards with low populations or more lenient damage standards (walnuts) can wait until 400 DD. This should occur **May 2nd OR 37 days after your own biofix**.

Insect Growth Regulator Sprays (Confirm): Registered for walnuts, apples and pears. It's soft on beneficials so you should have fewer problems with aphids or mites. It's been most successful in orchards with low populations and with excellent spray coverage (use 150-200 gallons of water/acre). Confirm should be applied at the beginning of egg hatch about 200 DD. This should occur **April 13 OR 18 days after your own biofix**.

Mating Disruption: Dispensers should have been hung in the orchards *before March 27* or your own orchard biofix. If they went up afterwards, you may want to consider a supplemental control for the first generation.

Wasps (*Trichogramma platnerii*): These have been used successfully in walnuts with low populations and in pears as a supplemental control for mating disruption. They haven't proved as effective in apples. They seem to be a bit more effective for the later generations but if you want to use them for the 1st generation, releases should begin about 200 DD, which should occur **April 13th** and should continue at 10 day intervals throughout the first generation flight. Give me a call if you would like more information about using wasps.

Organic Sprays: Surround (kaolin particle film) can discourage egg laying and summer oil can suffocate eggs. Both are mild controls and are best used as a supplement to mating disruption. They should be applied every 7-14 days (depending on pressure) in 100-200 gallons of water/acre. Begin applications about 100-200 DD which should occur **April 3-13**. *Do not apply oil within a few weeks of a sulfur spray.*

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.

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