

Tree Fruit Pest Advisory

University of Idaho, U.S. Department of Agriculture, and Idaho counties cooperating.

Spring 2011 Issue 4

Protect Yourself

Temperature have slowed everything down. It might be a good year for those of us who like to grow fruit. Here are recommendations for pests in this year of odd spring weather.

Apple Powdery Mildew

Powdery mildew infections are spreading in some orchards so keep an eye out for infected shoots. These will have a silvery color, and leaves will be misshapen and curled. Powdery mildew spreads with high relative humidity, usually in the dawn or dusk hours, and does not need standing water to germinate. The newest leaves are the most susceptible, so a fungicide spray should be used to prevent infections up to the time terminal shoots have hardened off and when days get drier. Homeowners can use bayleton. Commercial Rally, Flint, or Pristine.

Peach Twig Borer (PTB) Note that at this time of year, peach twig borer adults are flying and will soon be laying eggs on the succulent shoot tips of trees, where larvae will bore to the pith to feed. Twigs are their preferred feeding sites, hence the name of the pest.

Later in the summer, when tree growth has stopped and terminal shoots have hardened off, adults will lay eggs on the developing fruit. Spray dates for PTB will begin around June 13.

San Jose Scale (SJS) crawlers will start to emerge June 3st. Most effective treatments begin around June 24th. Esteem has shown to work the best, and for homeowners, horticultural oil or carbaryl. Homeowners, two application should be enough.

Apply a cover spray at 600 DD, usually

with the second cover spray of CM.

Western Cherry Fruit Fly (WCFF)

Will be emerging around June 15. Remember that cherries are not susceptible for damage until they turn a straw yellow color.

Fire Blight infections are not likely with the low temperatures forecasted for the next 10 days. However, if you are noticing "flagging" on the tips of your apple and pear trees. Get your pruners out.



Degree Day "No biofix" (5/27/11) Look out for:

Station/Elev.	CM/PTB	1% Hatch
Boise(2716)	300	5-Jun
Caldwell(2418)	300	4-Jun
Emmett(2390)	280	6-Jun
Mt. Home(3002)	267	7-Jun
Nampa(2635)	260	8-Jun
Ontario OR(2188)	308	4-Jun
Parma(2290)	298	5-Jun
Paye/Weis(2126)	240	8-Jun
Walla Walla(1407)	304	5-Jun

- Powdery mildew will be an issue this year with our humidity we have received, watch your leaves carefully.
- Apple scab loves cool temperatures and humidity. If leaves are wet for more than 10 hours during our 50-60 degree weather you should consider spraying.
- Peach twig borer 1st eggs hatched out. San Jose Scale emergence begins around June 10th.

Using Codling Moth Virus as an Organic Alternative

Marion Murray, USU IPM project leader

Commercial or residential apple/pear growers looking for an organic option to codling moth control should consider the codling moth granulosis virus. Used alone, this biocontrol option will not give great control (anywhere from 60% to 80% control depending on location), but in organic orchards, could be used alternatively with oil or Entrust (spinosad) and/or with mating disruption, or in conventional orchards to reduce chemical inputs.

Cyd-X and Carpovirusine are available. In addition, Cyd-X is available online for homeowners.

- Cyd-x: (4 oz/acre, \$300 for 1 quart; Grand Mesa discount in Eckert, CO, 970-234-3424) or homeowner formulation (1 tsp/5 gallons, \$40 for 1.5 oz; groworganic.com)
- Carpovirusine: (6.8-13.5 oz/acre)

The codling moth virus is specific to

codling moth only. It is a naturally occurring virus that is very toxic to larvae (does not kill adults), i.e., it must be ingested to work (like spinosad). Once inside a larva, the virus multiplies and it takes a few days for feeding to stop and for the larva to die. Larvae killed by the virus "melt" in place, and are capable of spreading the virus to the surface of the fruit, potentially causing new infections in newly hatched larvae.

Some points to remember when using codling moth virus:

- thorough coverage is very important because codling moth larvae are on the surface of the fruit for a very short amount of time
- use the highest rate on the first application; afterward, use a lower rate at shorter intervals (every 7 days)
- apply in late afternoon or on a cloudy day to prevent quick breakdown of the product by the sun

- you may see some feeding damage (stings) because the larvae are not killed immediately; if feeding damage is unacceptable, you may choose to use granulosis virus for the first generation only
- store the product in a refrigerator to reduce degradation of the virus
- can be used up to the day of harvest; 4-hour re-entry interval
- can be mixed with most other pesticides, except for Bt or antibiotics
- resistance to the virus has been reported, so growers should not overuse this product

It is my prediction that the cold weather will produce a very narrow hatch window as warm weather will likely be abrupt in the next couple weeks, this will cause:

- The first generation to be easier to control
- And a lower pressure for 2nd and 3rd generations.

I suggest the use of Virus for later generations to keep generation populations down.

'Codling Moth Avengers'.....If I said, "Let me save you money" would you listen to what I'm going to say next?

A simple pre-hatch oil spray targeting egg stage Codling Moth can save you one (Homeowner, maybe two) applications each year. That is close to \$30 an acre. It is simply easier to start spraying when eggs start hatching (Option C). However, getting a head start by applying horticulture oil (1% rate Option A) or a product with ovicidal activity (Option B Esteem, Intrepid, Rimon, or Altacor) will result in cost savings and improved control. The first cover spray is put on right at the beginning or close to the "peak

egg hatch," where almost 70% of the egg hatch occurs. This year I would bet money that closer to 80% of the generation will hatch in a 1-2 week window of time starting around 525 Degree Days or approximately the 13th of June if temperature start becoming normal (Later if temperature remain below 'highs of 78 and lows of 55'). After the first insecticide spray has been applied, continue to apply your chosen insecticide as directed by the label.

	Date to Start Sprays		
	Option A (Home)	Option B (commercial)	Option C
Caldwell/Sunnyslope	Oil on before June 4, first spray on June 12	Ovicide on before June 1, first cover spray on June 12	June 4, 2011
Parma/Fruitland	Oil on before June 5, First spray on June 14	Ovicide on before June 2, first cover spray on June 14	June 5, 2011
Weiser/Payette	Oil on before June 8, First Spray on June 15	Ovicide on before June 4, first cover spray on June 15	June 8, 2011

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WSU Pest Management Transition Project Newsletter

WSU Decision Aid System

Trapping and Scouting

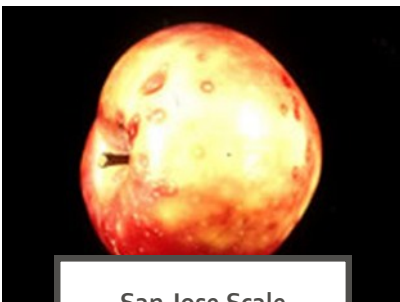
WSU Tree Fruit Research and Extension Center

It is always possible that moth captures will not accurately predict pest pressure, that is, no moths are captured but damage occurs. Therefore, capture of codling moths in pheromone traps should be backed up by visual observations of damage in the orchard at the end of the first generation. Visual examinations are relatively easy to perform and do not take a great deal of time. Checking 40 to 50 trees in a ten acre block is sufficient to determine if damage has exceeded desired levels.

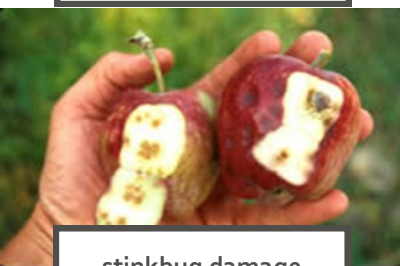
A sequential sampling plan has been developed to assess crop damage from codling moth for orchards that want to qualify for the Taiwan market. Details on this sampling method can be found at -

www.entomology.tfrec.wsu.edu/Cullage_Site/CM_Sampling.html

Along with apples here is what



San Jose Scale



stinkbug damage

damage looks like on other fruit crops. (Photos by Ted Always)

Commonly seen damage to pear, and their causes.



cutworm damage



mealybug honeydew



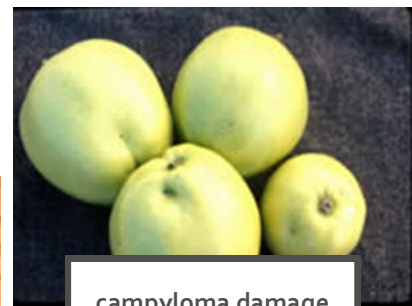
San Jose scale



thrips damage



leafroller damage



campylobacter damage



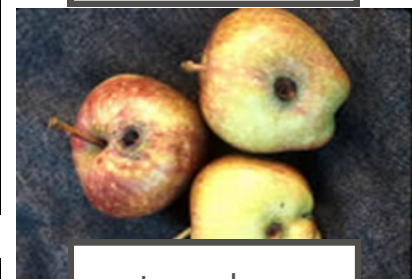
codling moth entry



codling moth frass



codling moth damage



cutworm damage

WashingtonCounty

Wilbur-Ellis Company Scouting Report:

Through this cold weather moths are still showing up in our traps; namely, Ontario/Fruitland, Parma, and Caldwell/Sunnyslope. Don't be fooled or caught off guard.

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ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI publication do not substitute for instructions on the label. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal, or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

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