



EASTERN IDAHO

PEST ALERT

BANNOCK, BINGHAM, BONNEVILLE, CASSIA, FREMONT, JEFFERSON, AND MADISON COUNTIES

INSIDE THE ISSUE



GOOD

PG 2



BAD

PG 3



PHOTO OF THE WEEK

PG 10



CODLING MOTH

PG 4



FIREBLIGHT

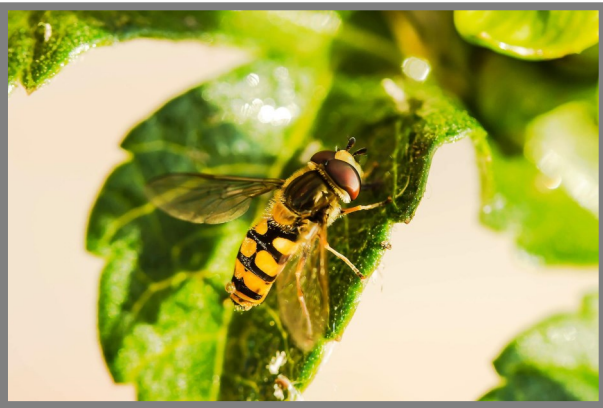
PG 7

Encourage beneficial insects

by Ron Patterson, Horticulture Educator

Out of over one million insect species, only about 1000 species are known to be pests to animals, people, or plants. That is less than 0.1%. All those other species are considered beneficial or benign. Some of our favorite good insects are those that help us control the bad insects. These are predatory, parasitic, or parasitoid insects. There are also those that help break down organic matter. They are critical for the carbon cycle.

What are some options that will encourage these beneficial insects?



Identify the good

Learn to identify the good insects so that when you are scouting your gardens you will recognize those that are there to help rather than damage your plants. Let them help you and reduce your need for other interventions.

Summer-long blooms

Some beneficial insects will feed on plants but cause little damage. Many of them will feed on plant pollen and nectar during part of their life cycle or to help tide them over until the real food (the bad bugs) show up. Some of them will use the blooms as a waiting area for the pests to show up. You can plant flowering plants in or around your vegetable garden.

No-till area

There are many beneficial insects that have part of their life cycle in the ground. Tillage disrupts the life cycle for these insects. There is a complex of

ground beetles which spend almost all of their life on or in the ground. They do a lot of the work we if you can have a no-till zone in or around your garden they will help control some of the other pest issues you may have.

Diverse habitat

Trees, shrubs, grasses, and flowering plants all contribute to a diverse population of beneficial insects.

Cover crops

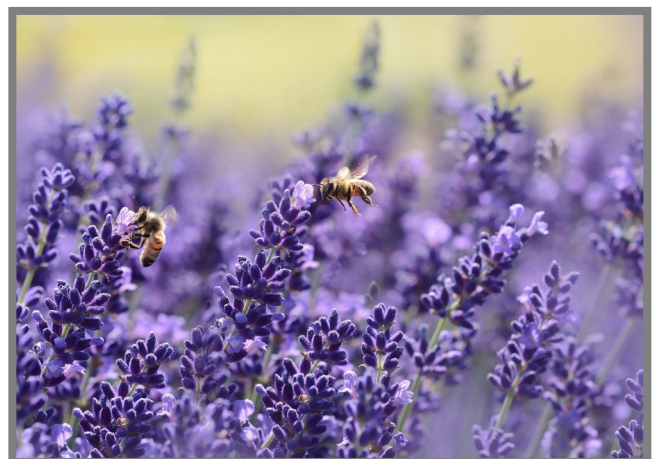
Cover crops to help with soil health will also provide habitat for beneficial insects.

Soft approach first

When it comes to other intervention, start with soft approaches first. A stiff spray of water will dislodge aphids from leaves who have a hard time finding their way back to the plants. In the case of spider mites, occasional water on the leaves will slow their growth and development.

Insecticidal soaps and horticultural oils are more harmful to pest insects than beneficials.

When chemical intervention becomes necessary, identify the pest and select a product that will target the pest and be less harmful to beneficial insects. Avoid broad spectrum insecticides whenever possible.



Beneficial Insects cont.

Augment population

Many beneficial insects are available commercially. Some are more practical than others. For example, ladybugs are everywhere and the adults are very mobile, looking for aphid populations to lay their eggs. When you release ladybugs into the open they just scatter. However, releasing them into a greenhouse or high tunnel can keep them confined long enough for them to lay eggs in the desired location.

Sometimes population augmentation may be necessary after chemical intervention has reduced beneficial populations.

Be on the lookout for beneficial insects and spiders and let them help you keep the pest populations under control.



Beneficial Insect photos: Pixabay.com

Molds of Strawberries



Photos: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org



by Lena Allen

Growing strawberries can be very rewarding! It can also become very frustrating when you start battling birds, mammals, insects and diseases for your delicious berries!

Some of the most common diseases in strawberries are fungal diseases, especially powdery mildew, grey mold, and other molds.

For more information:

[Strawberries for the Home Garden, USU](#)

[Gray Mold of Strawberries, Missouri Botanical](#)

[Strawberry Diseases- Gray Mold, Penn State](#)

[Strawberry Powdery Mildew- PNW Handbook](#)

[Powdery Mildew of Strawberry, NCSU](#)

Codling Moth:

Conventional production options

High fruit damage in past years:

- Apply the first application for either Option A (insecticide) or Option B (oil) at the listed date.
- For Option A, repeat the insecticide spray 14 days later, for a total of 2 applications in the first generation.
- For Option B, apply the insecticide spray at the listed date once.
- When the “start date” for the 2nd generation is provided, spray every 10-18 days until Sept. 15.
- Pick a different product to use for each generation.

Low fruit damage in past years:

- Apply the first application for either Option A (insecticide) or Option B (oil) at the listed date.
- For Option A, do not spray again.
- For Option B, apply insecticide at the listed date.
- Wait until the “start date” for the 2nd generation is provided, and spray on that date, and repeat 14 days later, for a total of 2 sprays.
- Do the same for the 3rd generation.

Pick a different product to use for each generation.

Organic production options (other than bagging)

High fruit damage in past years:

- Apply the first application for either Option A (insecticide) or Option B (oil).
- For Option A, repeat twice, spaced 7-10 apart, for a total of 3 applications in the first generation.
- For Option B, apply insecticide at the listed date and re-apply 7-10 days later.
- When the “start date” for the 2nd generation is provided, spray every 7-10 days until Sept. 15.
- Pick a different product to use for each generation.

Low fruit damage in past years:

- Apply the first application for either Option A (insecticide) or Option B (oil).
- When the “start date” for the 2nd generation is provided, spray every 10-14 days until Sept. 15.
- Pick a different product to use for each generation.



Codling moth spray schedule

We did get a moth trap catch in the Blackfoot area last weekend, that area can start spraying soon. There is still an odd absence of moths in Ucon and Rigby. I'm sure it has been too cool to cold temperatures and wind that has kept them hunkered down. A nice thing about them hunkering down is that the longer they wait before they start laying eggs the less fertile they will be. I'm sure the second generation will come on like gangbusters.

This table will provide spray dates for codling moth at the given region. Select the region that has similar climatic conditions to determine when to begin spraying. **Remember that actual dates will change as we get closer because of actual temperatures rather than forecasted temperatures.**



Images from iStock images

Spray Timing Table					
Location	Option A Apply First Spray	Option B		Start of Peak Egg Hatch 1 st Genera-	End of Peak Hatch 1 st Genera- tion
		Apply Oil	Apply First Insecticide		
Burley	--	--	June 23	June 22	July 10
Pocatello Airport	--	--	June 25	June 24	July 12
Pocatello East Side	--	--	June 21	June 20	July 6
Fort Hall	June 16	--	June 26	June 25	July 14
Blackfoot	June 21	June 20	July 8	July 7	unknown
South/East Idaho Falls	June 18	June 17	June 29	June 28	July 16
Idaho Falls Airport	June 18	June 17	June 28	June 27	July 15
Ucon	unknown	unknown	unknown	unknown	unknown
Rigby	unknown	unknown	unknown	unknown	unknown
Ririe	unknown	unknown	unknown	unknown	unknown
Rexburg	June 21	June 19	July 1	June 30	July 19
Sugar City	June 26	June 24	July 5	July 4	unknown
St Anthony	June 29	June 27	July 8	July 7	unknown
Driggs	unknown	unknown	unknown	unknown	unknown

Ingredient	Efficacy	Residual length (days)	Comments
Conventional			
Carbaryl (old Sevin products)	Good	14	
Gamma-cyhalothrin (Spectracide Triazicide)	Good to Excellent	14 – 17	Last application at least 21 days prior to harvest
Malathion (Bonide Malathion, Hi Yield Malathion)	Good	5 – 7	Max 2 applications; some products are pears only
Zeta cypermethrin (Garden Tech Sevin)	Good to Excellent	14 – 17	Last application at least 14 days prior to harvest
Organic			
Azadirachtin (Safer BioNeem)	Fair to Good	7 – 10	
Codling moth virus (Cyd-X)	Good (if populations low)	7	Works best when used at beginning of generation
Kaolin clay (Surround)	Fair	7	Produces protective barrier
Oil (All Seasons Oil, EcoSmart, Neem)	Fair	3	Recommended for the first application of the generation only
Pyrethrin (Ortho Fruit Spray, Fertilome Fruit Tree Spray, Safer End All)	Good	3 – 5	
Spinosad Monterey/ Fertilome Spinosad	Good	7 – 10	Max 6 applications



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UGA5302063



Photo: Wikimedia Commons



Photo: Pixabay



Photo: Flickr



R. Grimm, Bugwood.org

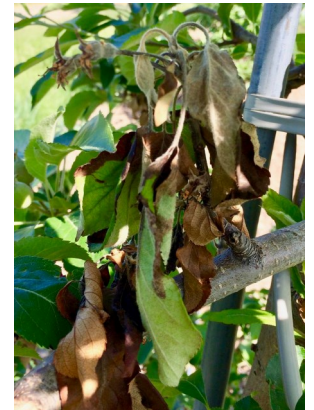


Photo: Flickr

Fireblight Watch

I will take Burley through Idaho Falls off the fire blight spray schedule.

If your apple tree(s) has dropped its petals, you can disregard the spray information and just keep an eye out for any fire blight strikes. The sooner you can prune them out the less damage they will do. If the infection has spread into a branch you will need to cut twelve inches into healthy wood. If it is still in just the fruiting spur, you can remove just the spur, then watch to see if it spreads farther down the branch. Be sure to disinfect your pruner between every cut.

For those of you who are in late bloom areas I will continue to post spray information until the end of June.

Exceptional—Outbreak may occur if blossoms are wetted, no matter the blight history of your orchard. Apply antibiotic within 24 hours before or after the wetting event. Biological products should already be present on flowers and may not work as well if only applied at this risk period.

Extreme— Outbreak may occur if blossoms are wetted, no matter the blight history of your orchard. Apply antibiotic within 24 hours before or after the wetting event. Biological products should already be present on flowers and may not work as well if only applied at this risk period.

High—If unprotected flowers are wetted, infection is possible. If flowers are numerous, you may choose to protect every 2 - 3 days with biological product during the high-risk period. Or, apply antibiotic within 24 hours before or after the infection (wetting) event.

Caution—Wetting at this point is not likely to lead to infection, except within a few yards of an actively oozing canker. Continue to closely monitor the fire blight forecast, and consider applying biological sprays to reduce the potential build-up of blight bacteria if High risk is forecast in three or four days.

Ucon	<p>June 16</p> <p>June 17 – 21</p> <p>June 22</p> <p>June 23 – 30</p>	<p>Extreme</p> <p>Exceptional</p> <p>High</p> <p>Exceptional</p>
Rigby	<p>June 16 – 21</p> <p>June 22</p> <p>June 23 – 30</p>	<p>Exceptional</p> <p>Extreme</p> <p>Exceptional</p>
Rexburg	<p>June 16</p> <p>June 22</p> <p>June 23</p> <p>June 23 – 30</p>	<p>Exceptional</p> <p>High</p> <p>Extreme</p> <p>Exceptional</p>
Sugar City	<p>June 16</p> <p>June 17 – 20</p> <p>June 21</p> <p>June 22</p> <p>June 23</p> <p>June 24 – 30</p>	<p>Extreme</p> <p>Exceptional</p> <p>Extreme</p> <p>High</p> <p>Extreme</p> <p>Exceptional</p>
St Anthony	<p>June 16</p> <p>June 17 – 20</p> <p>June 21</p> <p>June 22</p> <p>June 23 – 24</p> <p>June 25 – 30</p>	<p>Extreme</p> <p>Exceptional</p> <p>Extreme</p> <p>High</p> <p>Extreme</p> <p>Exceptional</p>
Driggs	<p>June 16</p> <p>June 17 – 20</p> <p>June 21 – 22</p> <p>June 23</p> <p>June 24 – 30</p>	<p>High</p> <p>Exceptional</p> <p>High</p> <p>Extreme</p> <p>Exceptional</p>

Chemical Controls For Fire Blight	Brand Name	Chemical Name	Application Timing
	Bonide	Fixed-copper	Pre-bloom
	Drexel	Copper Sulfate	When wet weather coincides with flowering
	Kocide	Copper Hydroxide	Note: copper can damage foliage and fruit
	Miller	Lime Sulfur oil	Early bloom, Dormant
	FireLine	Oxytetracycline	Early bloom to petal fall
		Kasugamycin	Early bloom to petal fall
	Actigard	Acibenzolar-S-methyl	Early bloom to petal fall

Table and information from Cornell University Extension

Read and follow pesticide labels with any product

To manage fire blight, it is important to remove diseased wood during the dormant time (before buds form in spring). A general antimicrobial can be put on green tips to lessen chance of disease. Defense inducers can be applied before bloom. Protectants can also be applied during blooming. Protectants should be applied with the onset of wetting events (heavy rain or moisture). Sometimes post-bloom applications to blossoms give continued protection to shoots.

Biological products for Fire Blight: Cornell University Extension

For more information: <https://blogs.cornell.edu/biocontrolbytes/2019/04/26/battling-fire-blight-with-biologicals/>

Product	Active Ingredient	Mode of Action
Firewall	Streptomycin	antibiotic – kills pathogen
Blossom Protect	<i>Aureobasidium pullulans</i> strains DSM14940 & 14941	competitive with pathogen
Bloomtime Biological	<i>Pantoea agglomerans</i> strain E325	competitive with pathogen
BlightBan	<i>Pseudomonas fluorescens</i> strain A506	competitive with pathogen
Serenade Optimum	<i>Bacillus amyloliquefaciens</i> strain QST713	antibiotic metabolites
Double Nickel	<i>Bacillus amyloliquefaciens</i> strain D747	antibiotic metabolites
Serifel	<i>Bacillus amyloliquefaciens</i> strain MBI600	antibiotic metabolites
Regalia	extract of <i>Reynoutria</i> (giant knotweed)	resistance inducer
LifeGard	<i>Bacillus mycoides</i> isolate J	resistance inducer

EASTERN IDAHO

PEST ALERT

UPCOMING EVENTS

JUNE 14 NO GARDEN TIPS CLASS!!**JUNE 28 IDAHO HOME GARDEN TIPS
IRRIGATION**

RON PATTERSON, EXTENSION EDUCATOR

June 28 | 7:00pm MT

Join us for a class all about irrigation/watering techniques for the summer! This is becoming increasingly important as our water supplies continue to wane.

PLANT TALK Q&A

June 28 | 7:30pm MT

Be ready to ask plant experts Ron and Reed any of your gardening questions!!

JULY 12 IDAHO HOME GARDEN TIPS

INTEGRATED PEST MANAGEMENT

JULY 26 IDAHO HOME GARDEN TIPS

HARVESTING VEGETABLES

PLANT TALK

AUGUST 9 NO GARDEN TIPS CLASS!!**AUGUST 8-12 BONNEVILLE COUNTY FAIR****AUGUST 23 IDAHO HOME GARDEN TIPS**

CONSERVING WATER IN THE LANDSCAPE



PHOTO OF THE WEEK: Photo credit: Trallala

PHOTO OF THE WEEK:

Praying Mantids are one of my FAVORITE beneficial insects! And the kids love them too! This is why this picture from photographer Trallala is our picture of the week! Watch for a praying mantis in your yard this summer and maybe consider putting it in a cage or large jar for a few days with a couple other bugs so you can see just how efficient they are at cleaning up your pests!

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