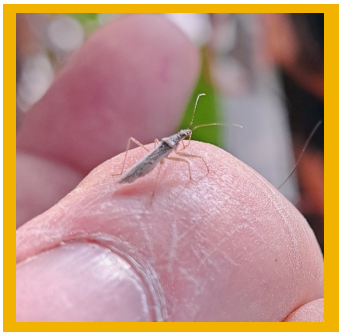
JUNE 23, 2023 | VOL. 4 ISS. 8

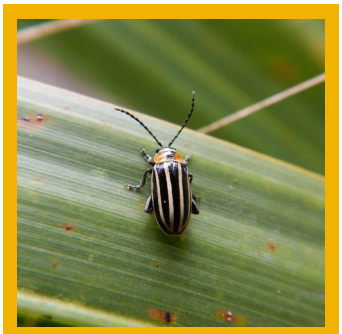
EASTERN IDAHO

PEST ALERT

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

INSIDE THE ISSUE

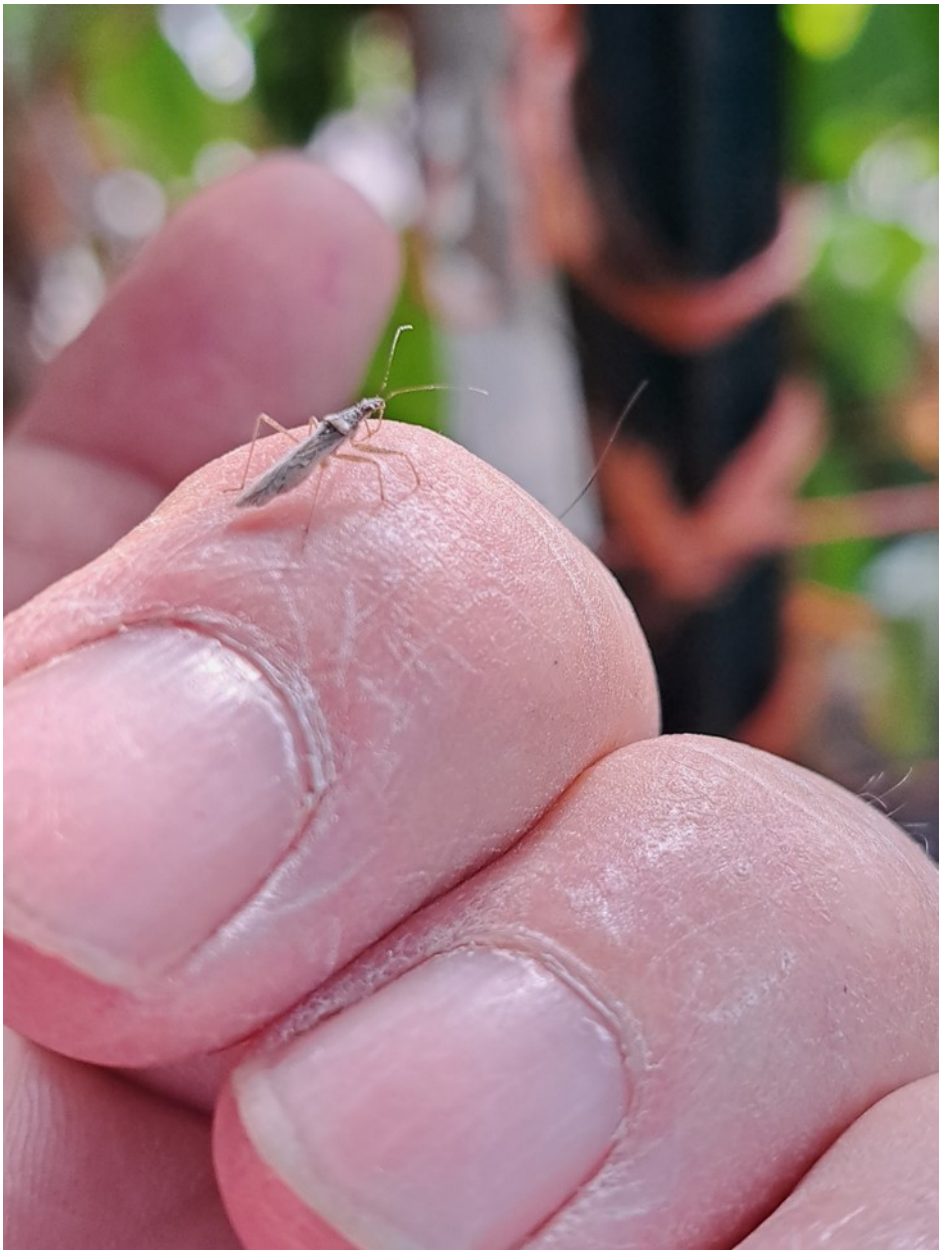




Damsel Bugs

Ron Patterson, Horticulture Educator
University of Idaho Extension, Bonneville County
208-529-1390

Damsel bugs are often overlooked. But they are very beneficial in helping to control soft-bodied insects. To encourage them, avoid broad-spectrum insecticides and have diverse plantings and cover crops. Pollen and nectar from flowering plants may provide an alternate food source when prey is scarce.



Damsel bugs are predaceous in both nymph and adult stages.

Here is a link for more information about damsel bugs.

https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1859&context=extension_curall

Flea Beetles

Ron Patterson, Horticulture Educator
University of Idaho Extension, Bonneville County
208-529-1390

Most flea beetles are tiny beetles that can jump like a flea when disturbed (the large spinach flea beetle is ¼" long). They vary in color—black, bronze, brown, bluish, metallic gray. Some species have stripes. While most flea beetles we see are considered pestiferous, some are beneficial in our war against weeds, such as the complex of six Aphthona flea beetles that are used in control of leafy spurge.

Life Cycle

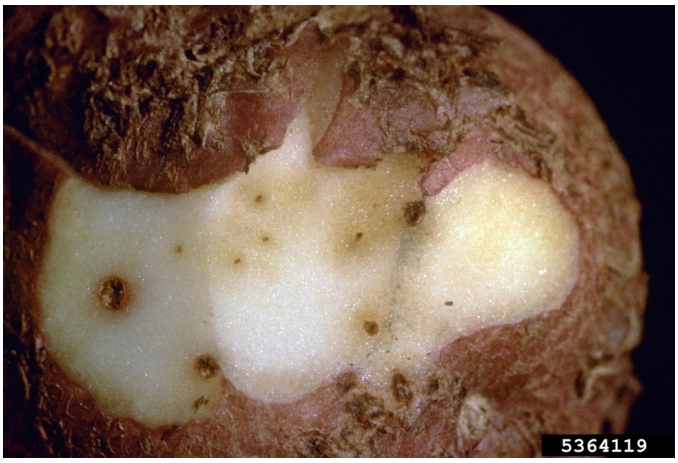
Flea beetles go through complete metamorphosis. Adult flea beetles overwinter on the ground in leaf litter and other protected locations. They become active in early spring and lay eggs in the soil and on host plant roots and leaves. Small, white larvae hatch and begin feeding on the roots. There may be one or two generations per year.

Damage

The adult flea beetle does the most damage on

The smaller insects are adult flea beetles. Whitney Cranshaw, Colorado State University, Bugwood.org

seedlings as it feeds on the cotyledons, leaves and stems of the young plants. The feeding looks like small, irregular pits in the leaf surface, or sometimes small holes in the leaf. Flea beetle damage is very different from other insect damage. The feeding reduces photosynthesis and plant vigor. Larger plants can tolerate a significant flea beetle population, but seedlings and young transplants may be killed by them. Root feeding of the larvae is not considered significant except in the case of the potato or tuber flea beetle. Tuber flea beetles will feed into the tuber a short ways, causing small holes in the potato up to ¼ inch.



Damage from the tuber flea beetle. Whitney Cranshaw, Colorado State University, Bugwood.org

Integrated Pest Management (IPM) control options

If you garden has a history of flea beetles, monitor for flea beetle activity as soon as seedlings emerge. If you have flea beetles on your potatoes, control them. For flea beetles on other plants consider treating if you find five or more flea beetles per plant. A combination of the following suggestions will give the best results.

Cultural

Remove weeds from around planting sites, especially nightshades and mustards.

Plants crops as late as possible so they can outgrow the flea beetle damage.

Use a trap crop of a plant desired by the flea beetles and treat the trap crop with an insecticide.

Use row covers, particularly when plants are small.

Thick mulches may interfere with the root and soil stages of flea beetles.

Biological

There are several predators that prey on the larvae and pupae in the ground. Cultural practices such as reduced tillage will preserve ground beetles, rove beetles, big-eyed bugs and other ground dwelling predators.

Chemical

Several products are effective against flea beetles, but mostly target adults. If you feel chemical intervention is warranted check out the fact sheet link below.

Here is more information about flea beetles.

https://extension.colostate.edu/topic-areas/insects/flea-beetles-5-592/

Codling moth

One application of insecticide will not control codling moth. You must continue control according to the product label throughout the season and over successive generations. This will typically mean two applications for each generation 2 – 3 weeks apart, depending on the product you use.

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. Be sure to observe the pre-harvest interval.
- Pick a different product to use for each generation.

Low fruit damage in past years:

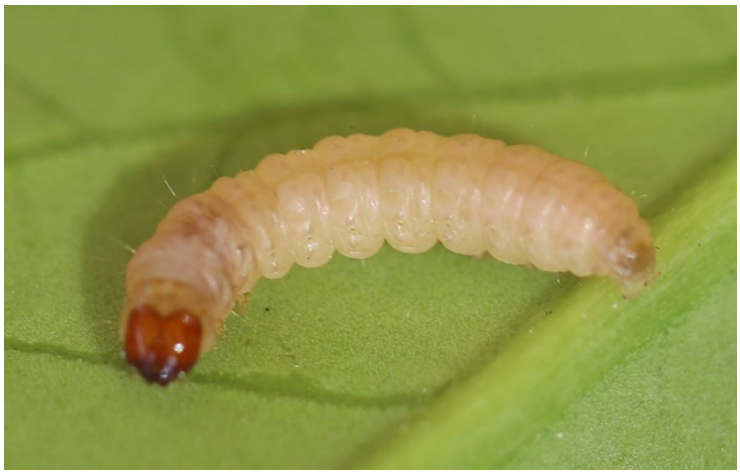
- Apply the first application for either Option A (insecticide) or Option B (oil) at the listed date.
- For Option A, do not spray again.
- For Option B, apply insecticide at the listed date.
- Wait until the "start date" for the 2nd generation is provided, and spray on that date, and repeat 14 days 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.

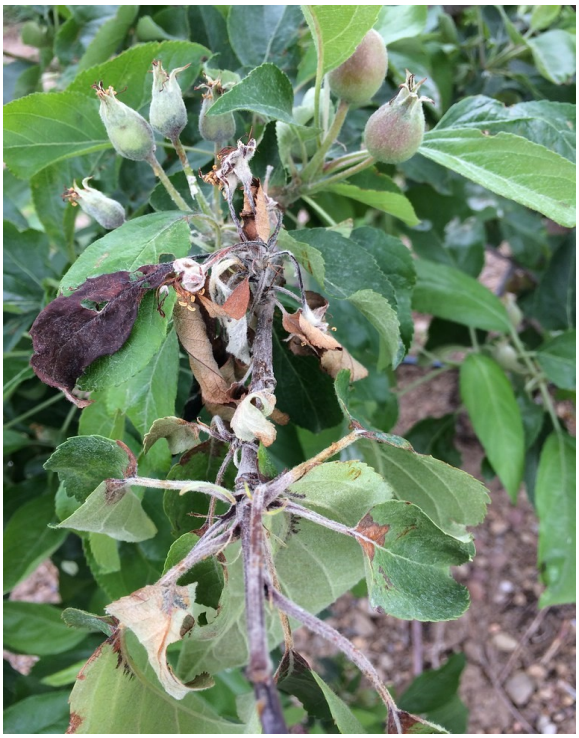
Codling moth spray schedule

Moths have been trapped in most regions! 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. Note that you will need to spray more than once to control the codling moths throughout the season.

Spray Timing Table					
Location	Option A Apply First Spray	Option B		Greatest Period of Egg Hatch 1st Generation	End of 1st Generation
		Apply Oil	Apply First Insecticide		
Burley	--	--	--	June 16 – July 8	July 22
Pocatello Airport/ Chubbuck	--	--	--	June 20 – July 10	July 24
Pocatello East Side	--	--	--	June 10 – July 1	July 13
Fort Hall	--	--	June 30	June 29 – July 17	unknown
Blackfoot	--	--	June 30	June 29 – July 15	unknown
Idaho Falls Airport	--	--	June 28	June 27 – July 15	unknown
South Idaho Falls	--	--	--	June 17 – July 9	July 24
Ucon	June 26	June 25	July 5	July 4 – 20	unknown
Rigby	June 28	June 26	July 9	July 8 – unknown	unknown
Ririe	June 26	June 24	July 6	July 5 – unknown	unknown
Rexburg	June 25	June 23	July 4	July 3 – July 21	unknown
Sugar City	June 27	June 26	July 7	July 6 – July 24	unknown
St Anthony	June 29	June 28	July 8	July 7 – July 25	unknown
Driggs	unknown	unknown	unknown	unknown	unknown

Ingredient	Efficacy	Residual length	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	Good	3 – 5	
Spinosad Monterey/Fertilome Spinosad	Good	7 – 10	Max 6 applications

Fireblight



We will stop watching temperatures for fire blight after June 30.

New fire blight infections can be pruned out on a dry day as soon as they show up. Pruning tools need to be disinfected between each pruning cut. Rubbing alcohol, 10% bleach solution or disinfectant wipes work. If the infection has moved into a branch the pruning cut should be twelve inches into healthy-looking wood to make sure the bacterium is not left in the branch.

If spray is warranted, it should be applied just before or after a wetting event and is effective for four or five days. Most garden centers carry streptomycin (don't use too often or resistance may develop).

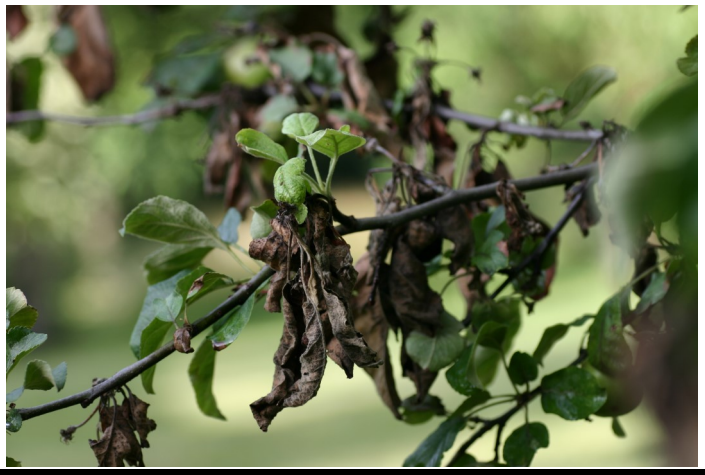
Fire blight risk based on weather forecast—remember that in addition, blossoms must be open, and a wetting event must occur. This is a description of the key words and suggested actions in the chart.

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.

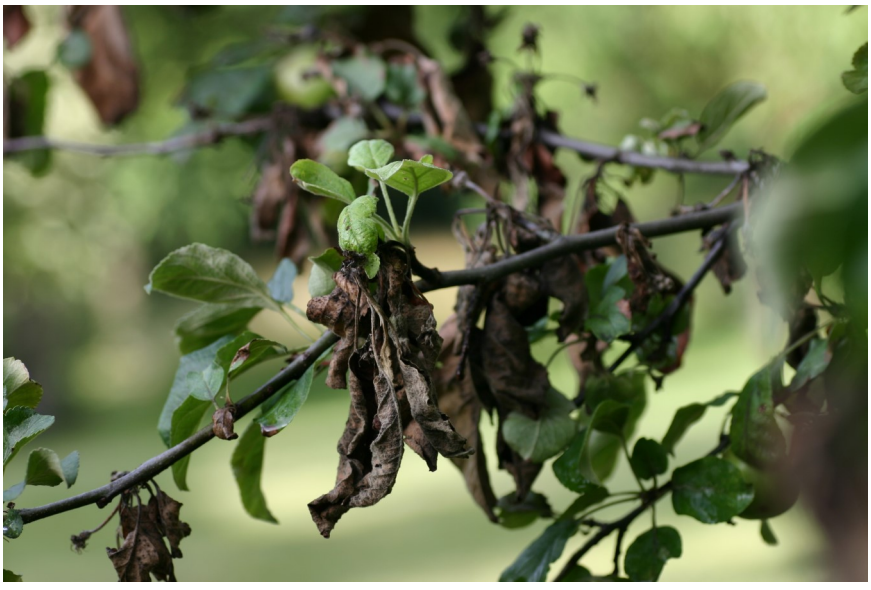
Extreme— Outbreak may occur if blossoms are wetted, no matter the blight history of your orchard. Apply antibiotic within 24 hours before or after the wetting event. Biological products should already be present on flowers and may not work as well if only applied at this risk period.

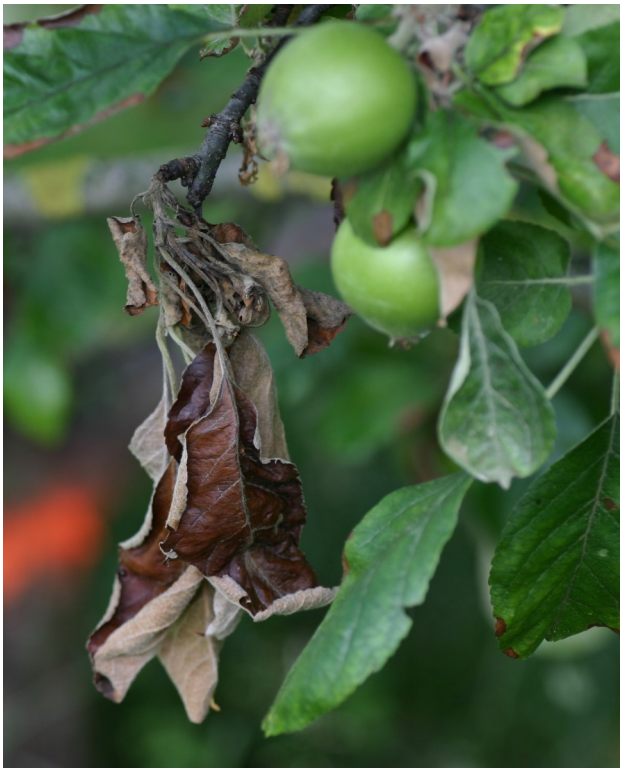
High—If unprotected flowers are wetted, infection is possible. If flowers are numerous, you may choose to protect every 2 - 3 days with biological product during the high-risk period. Or, apply antibiotic within 24 hours before or after the infection (wetting) event.

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.



Burley	No blooms	N/A
Pocatello Airport	No blooms	N/A
Pocatello Eastside	No blooms	N/A
Fort Hall	No blooms	N/A
Blackfoot	No blooms	N/A
Idaho Falls/Ammon/ Shelley	No blooms	N/A
Idaho Falls Airport	No blooms	N/A
Ucon	No blooms	N/A
Rigby	No blooms	N/A
Rexburg	No blooms	N/A
Sugar City	No blooms	N/A
St Anthony	June 23 – 24 June 25 – 27 June 28 June 29 – 30	Caution High Extreme Exceptional
Driggs	June 23 June 24 – 26 June 27 June 28 June 29 – 30	Low Caution High Extreme Exceptional





Chemical Controls For Fire Blight

Brand Name	Chemical Name	Application Timing
Bonide	Fixed-copper	Pre-bloom
Drexel	Copper Sulfate	When wet weather co-incides with flowering
Kocide	Copper Hydroxide	Note: copper can damage
Miller	Lime Sulfur oil	Early bloom, Dormant
FireLine	Oxytetracycline	Early bloom to petal fall
	Kasugamycin	Early bloom to petal fall
Actigard	Acibenzolar-S-	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.

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

Biological products for Fire Blight: Cornell University Extension

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

EASTERN IDAHO

PEST ALERT

UPCOMING EVENTS

JUNE 23 MASTER GARDENER CONVENTION

Be sure to contact our office for more information! You won't want to miss out on this spectacular gardening seminar with catered lunch included. Register by June 16, 5pm for reduced rate of $35

JUNE 27 IDAHO HOME GARDEN TIPS

SUMMER WEED CONTROL
TOM JACOBSEN, EXTENSION EDUCATOR
June 27| 7:00pm MT

Make sure you get on top of those stubborn weeds this summer! Learn how to identify weeds and the best ways to manage them.

PLANT TALK

RON PATTERSON & REED FINDLAY

June 27 | 7:30pm MT

Following our class, we will have our Plant Talk question and answer session. Feel free to join us on zoom to ask any of your gardening questions!

JULY 11 IDAHO HOME GARDEN TIPS

SUCCESSION PLANTING
RON PATTERSON, EXTENSION EDUCATOR
July 11| 7:00pm MT

If you've ever wanted to start a second crop of cool season vegetables, such as radishes, peas, lettuce and other cool season plants for a fall harvest, this class is for you! Ron will discuss which plants you can do this with, and when to start.

PLANT TALK

RON PATTERSON & JARED GIBBONS

July 11 | 7:30pm MT

Following our class, we will have our Plant Talk question and answer session. Feel free to join us on zoom to ask any of your gardening questions!

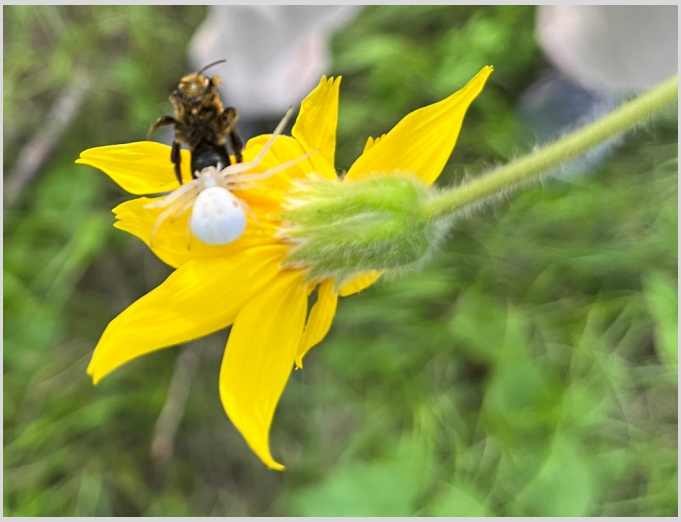


PHOTO OF THE WEEK: Photo credit: Lena Allen

PHOTO OF THE WEEK:

Look at this beautiful white crab spider with pink scents on the side! While this one is feasting on a honey bee, these spiders are still great to have around. They are voracious predators and will help you with pest management in your yard!

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