Welcome to the WSU Asotin County Extension Newsletter! This is a quarterly electronic newsletter highlighting events and topics of interest to residents of Asotin County and the surrounding area. This newsletter can also be viewed on our website: extension.wsu.edu/asotin/

Do you have an event or subject you would like added to our newsletter or website? Would you like to be removed from our Extension Newsletter email list?

Contact the Extension Office
Phone: (509) 243-2009  Email: jreed@co.asotin.wa.us.

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Washington State University helps people develop leadership skills and use research based knowledge to improve their economic status and quality of life.

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You are invited to join

ASOTIN COUNTY 4-H

Enrollment deadline is Nov 1st, 2019
to compete in the 2020 Asotin County Fair

Contact Asotin County 4-H Program (509) 243-2009
http://extension.wsu.edu/asotin/4h-youth-development/
kim.belanger@wsu.edu or Jreed@co.asotin.wa.us

Asotin County 4-H Opportunities Include:
Asotin County Fair, Asotin County Horse Show, Demonstration Day, Youth Activity Camp, WSU Teen Conference, Know Your Government, Teen Rally, Livestock Field Days, Livestock Judging, Teen Leadership Summit, National Events, College Scholarships, And more...

4-H Projects include:
Poultry, Rabbit, Cavy & Pocket Pets
Swine, Horse, Dogs, Cats
Shooting Sports
Arts & Crafts
Photography
Gardening
Leadership
Family Living
Beef, Goats, Sheep,
Clothing & Textiles
Foods & Nutrition
Performing Arts
And more...

2019 Teen Rally Information is Here!

When: November 1-3, 2019
Where: Camp Ghormley, Naches WA
Who: Youth grades 6-12
Cost: $60/person (includes meals, lodging, t-shirt)

Rallies are a weekend get-away for educational workshops, learning more about 4-H, and listening to motivational speakers, while having fun and meeting youth from other counties! The goal is to bring together young people grades 6th through 12th to share 4-H Club and county experiences, develop leadership skills and build new relationships to expand individual resources and make the 4-H program better. Youth and adults partner to coordinate, cooperate and collaborate across county boundaries.

Register at https://2019easternwateenrally.bpt.me/. This is an online payment option that can register multiple people per transaction. If you’d prefer to send a check or have questions regarding teen rally, please email: kcteencomm@gmail.com. Online payment option will close on September 25th, at which point participants will still be accepted, but payment will be accepted by check only.

Health Forms are available at https://tinyurl.com/2019rallyforms and need to be completed for each person (youth or adult) attending.

Camp has a limit of 120 people – friends of 4-H members are welcome too!
4-H Leader of the Year

County Outstanding Leaders of the Year will be recognized at Washington State 4-H Forum at SeaTac, Washington during the Recognition Banquet on Friday night, October 11.

Casey Finkbeiner
Asotin County 4-H Leader of the Year for 2018-2019

“Casey first became involved in Animal Crackers 4-H club when her daughter enrolled in our rabbit project. Immediately Casey became a very involved parent, always willing to help as needed. When Casey saw a need for new projects, she jumped in to learn along with the kids and she became a cat project leader. She became cat superintendent for the Fair soon thereafter. Last year our club found themselves without a goat project leader and Casey stepped in to teach the goat curriculum. She did an excellent job. With Casey’s support we have a lot more kids interested in the goat club. In addition to volunteering in 4-H, Casey homeschools her daughter, volunteers at her church, has raised kittens for Helping Hands Rescue, works as a Nurse, and enjoys spending time with her family. We appreciate Casey and her family”.

Lisa Ubachs, GOL Animal Crackers 4-H Club

Here are a few comments from members and parents:

* “Casey is an angel. She is always quick to help and very willing to find and share the answer to questions I may have. She gives a lot of her time and energy to people and animals.”

* “Her patience with my two little Cloverbuds and their cats was outstanding. She made them feel very included and excited to show cats again next year. With so many children in our large foster adoptive family it’s easy for kids to not get enough support and she was just fantastic working with them”.

* “Casey is always there to help”.

Nominated by members of Animal Crackers 4-H Club

National 4-H Week is October 6 – 12 and the theme is Inspire Kids to Do. Take advantage of this important week to highlight the remarkable 4-H youth in your communities and showcase the incredible experiences that 4-H offers young people.
Master Gardener Demo Garden
By Tana Truscott, WSU Asotin Co. Master Gardener

The Asotin County Master Gardeners have a demonstration garden located at the Clarkston Community Garden. They use this area to plant a variety of crops and conduct experiments on different growing techniques.

Here are some of the things that were planted in the demo garden this year:

The cold frame has been in continual use since last fall. There have been succession plantings of lettuce, swiss chard, beets, onions, and radishes. I will continue to plant it and eventually cover it this winter. Last winter I mulched heavily with straw and everything flourished. I highly recommend building and using this year round. I recently re-planted with lettuce and mesclun, and have a large crop of beets for the fall. I will plant spinach and radishes in the spring.

Black Beauty Eggplant was started in the greenhouse in March. Eggplant love the heat, and come in many shapes and colors. It is native to India and Sri Lanka, and interestingly Thomas Jefferson introduced it to this country. Eggplant has few calories and almost no fat, but lots of fiber. It has a meaty texture and there are unlimited ways to prepare it. It was slow to bloom but produced 6 nice-sized eggplants.

This is the third year growing two varieties of grapes in the Community Garden. The year started with late spring pruning. The plants were pruned back to about 4 main branches that followed the shape of the support system. We began picking ripe grapes around Aug 15. Candice was a heavy producer while the Lakemont produced less than last year. Vine growth on both kinds was abundant and were without disease or insect damage, except for the usual yellowjackets and earwigs eating some of the ripe fruit.
Master Gardener Demo Garden (continued)

Two varieties of pole beans were seeded by the drip tape. They only required weeding during early spring and once in the summer. The red noodle variety set on late, although it had many early blossoms. Some Chinese red noodle types will be dried and seeds donated back to the Master Gardeners. Cobra pole beans shared the trellis, and 2 heavy crops were harvested in early August and mid-September.

Green Globe perennial artichokes were started in the green house in February. They sprouted quickly and outgrew the small seed container. They have extremely long roots so had to be transplanted in a deep cell in April. The bed where they were planted was slightly acidic which is perfect for artichokes. They also love sun and require 6-8 hours per day. It takes 180 days for artichokes to mature and the first harvest was ready in late July. Although they were small, around 3-4 inches across, they were very tender. They are very hardy and will remain in production for at least 5 years. This fall I will cut them down to the base and mulch heavily with straw. I will not let them flower as that may weaken the crop for next year.

Master Gardener projects at the Asotin County Courthouse.

In addition to the Rose Garden, there is a pollinator garden on the right side of the Courthouse entrance.

These pots were first planted in 2017 by Tana Truscott, Asotin County Master Gardener. Tana plants, cares for, and waters the containers. The container garden is meant to provide a home for beneficial insects and pollinators. Bees and praying mantis have been observed enjoying the flowers in the containers. The perennial grass provides food for the birds year round.

The bee friendly plants are a mix of perennials and annuals that were purchased locally. Some of the plants in the containers include:

- Panicum Switchgrass
- Cannas
- Red Verbena
- Sweet Potato Vine
- Nicotiana (Flowering Tobacco)
- Salvia Texas Sage “Hummingbird Forest Fire”
- Nasturtiums Glorious Gleam Trailing Mix
Now Recruiting!

Do you love gardening?
Enjoy sharing your knowledge with others?
Become a Master Gardener Volunteer!

Cost is $130 for the class and $75 for the online training. Basic computer skills are required.
The training class meets Tuesdays, 1:00 pm to 4:00 pm, Feb 4 – April 14
Class recordings available.

FOR MORE INFORMATION, CONTACT:
jreed@co.asotin.wa.us or 509.243.2009, ext 1600

FOR INFORMATION AND REGISTRATION MATERIALS, VISIT:
https://extension.wsu.edu/asotin/gardening/horticulture-classes-and-workshops/

WSU Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through your local WSU Extension office. If you require special accommodation, call WSU Extension Asotin County at 509.243.2009, ext 1600 at least two weeks prior to the event.
Winter Care of Perennials

https://extension.oregonstate.edu/gardening/flowers-shrubs-trees/winter-care-perennials

Now that the temperatures are cooling off, or shall I say cold, it is time to put your perennials to bed for the winter. For the most part, perennials will overwinter here just fine by following these simple steps.

Cut
Once your perennials start to lose their leaves, die back and go dormant, you can go ahead and cut them back in late fall or early winter. By cutting them back to 6-8” above ground the stem will be able to hold snow in place which helps to insulate your plants. You can also wait until spring to cut them back if you prefer, however mulch is easier to apply if they are cut back.

Mulch
Either way you’ll want to mulch your perennials with 2-5” of mulch for the winter. The mulch can be any kind of mulching material such as hemlock mulches, pine post peelings, dried grass clippings, etc. It serves the dual purpose of keeping in winter moisture, and acting as insulation for the root system. Our perennials risk losing their root systems from tissue damage with our continuous freezing and thawing conditions. It is best to wait until the ground has frozen lightly before applying mulch, this insulation will keep the ground frozen. Even though many plants appreciate protective winter mulch, there are some perennials that do better without additional winter mulch. These plants are intolerant of being too wet throughout the winter and risk root rot or losing their centers. On the flip side, some of our perennials are very tender and require extra winter mulch, five inches or more for adequate protection.

Tender perennials that prefer extra mulch (5” +) throughout the winter

- Ajuga  *Ajuga repens*
- Bergenia  *Bergenia cordifolia*
- Bulbs
- Chrysanthemum  *Chrysanthemum morifolium*
- English Daisy  *Bellis perennis*
- False Mallow  *Sidalcea spp.*
- St. John’s Wort  *Hypericum patulum*
- Lavender  *Lavandula spp.*
- Pincushion Flower  *Scabiosa caucasica*
- Plumbago  *Ceratostigma plumbaginoides*
- Wallflower  *Erysimum spp*

Water
Remember to provide winter water to all of your perennials during dry spells when the top portion of ground has thawed and can accept water. Water every 4-6 weeks during these dry periods where there is no snow cover. Keep in mind that your perennials will wake up at different times in the spring, so don’t give up hope if you don’t see signs of life right away!

Sources

The Buzz

Interested in becoming a beekeeper?

The Valley Beekeepers Association will have their beekeepers class beginning in 2020 if there is enough interest. The classes will cover information on the housing, care, and feeding of bees. They will be followed through the summer by field days, as needed, to demonstrate such things as putting a bee "package" into an empty hive and checking the health of a hive. The intent is to get new beekeepers through their first year. Experienced beekeepers also are welcome to participate.

Please contact John Freeman if you are interested in taking the beekeeping class: 509-758-6338

WSU Honey Bee and Pollinator Research Facility

For more information visit http://bees.wsu.edu/

Bee Helpful

A Global Problem
Honey bees are the single most important pollinator contributing to a healthy global food supply. Declines in insect pollinators worldwide present a challenge for food security. The WSU Honey Bee and Pollinator Research Facility will provide the means to conduct unparalleled research and outreach to create sustainable solutions to problems facing pollinators. Creation of the new state-of-the-art facility will require the financial support from people like you.

Bee Friendly

Join Us in Saving the Bees
We’re partnering with Paul Stamets and Fungi Perfecti to protect honey bees and pollinators. Our renowned global research program works with beekeepers, scientists, environmentalists and communities to improve honey bee and pollinator health. This effort supports research on how fungi can help honey bees. Together, our work will ensure the thriving pollination system critically needed for domestic and global food security.

Bee Informed

Research Lab
Field research in the apiaries is centered on projects addressing problems of major importance to Pacific Northwest (PNW) beekeepers.

Diagnostics Lab
As part of the research effort on honey bee colony health in the PNW, the Diagnostic Laboratory was set up at WSU in 2008 to evaluate submitted samples for the presence and prevalence of parasites and pathogens.

Breeding Program
The WSU honey bee selection and Breeding Program continues into its 16th year. The program provides selected honey bee stocks to beekeepers through provision of selected queens to the Washington State Beekeepers Association Collaborative Apiaries.
Houndstongue
*Cynoglossum officinale*

**Other regional/common names:** sheep bur, dog bur, gypsy flower

**Family:** Boraginaceae (Borage Family)

**Identification characteristics:** Typically biennial, 1-4’ tall, covered with hairs. Plants begin as a rosette of narrow, hairy leaves that are 4-12” long; alternate leaves on flowering stems, become smaller going up stems; flower clusters occur at and near stem tips. Flowers are a dull reddish purple to burgundy, 3/8” wide, 5 lobes; flowers form 4 seeds, surface covered with barbed hooks that attach easily to animals and people

**Distribution:** Primarily Eastern Washington

**Toxic to:** Equines, Cattle, Sheep. Goats less so. Possibly Alpacas/Llamas.

**Plant part toxic or injurious:** All parts at all ages and stages of plant.

**Toxin:** Hepatotoxin; pyrrolizidine alkaloids.

**Most toxic when:** Possibly when pasture is degraded and little to no forage is available, but more likely in hay.

**Toxic in hay?** Yes. Houndstongue is unpalatable when green but is consumed in hay.

**Symptomology:** Most noticeable may be weight loss, photosensitivity, jaundice of mucous membranes, poor condition, diarrhea, and abdominal discomfort. Head pressing, walking aimlessly, convulsions and coma are symptomatic of advanced liver disease. Effects are cumulative, so even small amounts over time may result in a toxic dose. Prolonged ingestion leads to liver failure. Ingestion of 5% of an animal’s body weight in plant matter can be fatal. Hay may be long gone by the time symptoms arise. Action to take if plant is suspected: Call the vet immediately. Remove animals from pasture or stop feeding suspected hay. Damage continues even after animal is no longer consuming houndstongue. Once a lethal dose has been ingested, recovery from liver toxicity is highly unlikely, but treatments are available to aid with symptoms.

**Control measures:** Seeds are numerous and hooked burs cling to animals or clothing so houndstongue is easily spread. However, it requires disturbance and is not highly competitive, so it is important to maintain healthy pastures.

- **Cultural:** Good pasture management and grazing practices are the first and preferred line of defense.
- **Physical:** Tilling may be effective but may have to be repeated, though seedbank is only viable for 1-3 years. Mowing prior to flowering prevents seed set. Hand-pulling is most effective in moist soil; otherwise a shovel must be used as taproots may be 3’ deep.
- **Chemical:** During the rosette or pre-bud stage, when plant is actively growing, use a postemergent, systemic, selective broadleaf herbicide. For example, herbicides that contain: 2,4-D LV ester, applied early spring to actively growing plants before they bloom; aminocyclopyrachlor + chlorsulfuron, applied to actively growing plants in spring; imazapic, applied to actively growing plants; metsulfuron, applied any time plants are growing well. Use a surfactant because of the hairiness of the leaf.
- **Biological:** A seed-feeding weevil, Mogulones borraginis, is currently being studied but is not yet available for release. The root-feeding weevil, Mogulones crucifer, is not approved for release in the U.S. because of environmental safety concerns.

**Noxious Weed Class:** B
What Does Fall Cold Temperature Damage Look Like?

http://smallgrains.wsu.edu/what-does-fall-cold-temperature-damage-look-like/

With our recent cold night temperatures and warm days we may see damage to small grain crops. Damage symptoms can vary based on what stage the plant is in, other components of the weather such as rain or snow, and soil types.

Cold soil temperatures and temperatures that fluctuate greatly between day and night can cause odd symptoms on young coleoptiles and emerging foliage called color-banding. Color-banding occurs when tissue near the soil line discolors as a result of being exposed to very cold or warm soil, especially when there is a marked difference between soil and air temperatures. This results in yellow (Figure 1), and purple discoloration that often extends the width of the coleoptile or leaf. White bands can be seen when in the spring when warm soil contacts the plant (Figures 2 and 3). Affected plants are often near each other and the impacted leaves may have multiple bands that result from new growth being exposed to the fluctuating temperatures and sometimes referred to as ‘rugby stripes’. Although these symptoms can be dramatic, it’s unlikely to kill the plant.

Plants can also be damaged by exposure to cold air temperatures and frost. These plants can have leaf twisting (similar to a corkscrew) in older leaves (Figure 4), reddening or purpling at leaf tips (Figure 5), a general sickly-yellow coloring (Figure 6), or water-soaking which can make the tissue appear darker. Sulfonyleurea herbicides can also produce purple to red pigments in some plants. Areas that are more prone to cold or frost damage include: low spots, areas with wind exposure, dry soils, and fields/areas with high crop residue as the crop residue prevents the heat from the soil from radiating to the plant. Early season nitrogen may make the plants more susceptible to this type of cold damage if the nitrogen application caused accelerated growth.

Fields with a high proportion of clay may be prone to soil crusting. Crusting events occur when soil particles re-disperse as a result of rain or irrigation and reform into a dry, dense covering. This crust becomes too solid for seedlings to germinate through. As a result the seedlings appear curled from attempting to grow up through the hard surface (Figures 7 and 8). Seedlings that do emerge will likely grow fine into the winter. Trillate and Trifilluralin chemicals can cause distortion that can look similar.

If you suspect cold damage: check the distribution of the symptoms in the field, paying attention to low spots and exposed areas. Next, check the root system as a poor root system may indicate root rot rather than cold damage as the cause of the symptoms.

As with any questionable symptoms, the Plant Pest Diagnostic Clinic is here to help! To get more information or to send a sample, follow the directions on the Plant Pest Diagnostic Clinic website.
The Benefits of Vitamin D

https://www.healthline.com/health/food-nutrition/benefits-vitamin-d#how-much-you-need

Sunshine vitamin

Vitamin D is sometimes called the “sunshine vitamin” because it’s produced in your skin in response to sunlight. It’s a fat-soluble vitamin in a family of compounds that includes vitamins D-1, D-2, and D-3. Your body produces vitamin D naturally when it’s directly exposed to sunlight. You can also get it through certain foods and supplements to ensure adequate levels of the vitamin in your blood.

Vitamin D has several important functions. Perhaps the most vital are regulating the absorption of calcium and phosphorus, and facilitating normal immune system function. Getting a sufficient amount of vitamin D is important for normal growth and development of bones and teeth, as well as improved resistance against certain diseases.

If your body doesn’t get enough vitamin D, you’re at risk of developing bone abnormalities such as soft bones (osteomalacia) or fragile bones (osteoporosis).

Here are three more surprising benefits of vitamin D:

1. Vitamin D fights disease
   In addition to its primary benefits, research suggests that vitamin D may also play a role in:
   - reducing your risk of multiple sclerosis, according to a 2006 study published in the Journal of the American Medical Association
   - decreasing your chance of developing heart disease, according to 2008 findings published in Circulation
   - helping to reduce your likelihood of developing the flu, according to 2010 research published in the American Journal of Clinical Nutrition

2. Vitamin D reduces depression
   Research has shown that vitamin D might play an important role in regulating mood and warding off depression. In one study, scientists found that people with depression who received vitamin D supplements noticed an improvement in their symptoms. In another study of people with fibromyalgia, researchers found vitamin D deficiency was more common in those who were also experiencing anxiety and depression.

3. Vitamin D boosts weight loss
   Consider adding vitamin D supplements to your diet if you’re trying to lose weight or prevent heart disease.
   - In one study, people taking a daily calcium and vitamin D supplement were able to lose more weight than subjects taking a placebo supplement. The scientists said the extra calcium and vitamin D had an appetite-suppressing effect.
   - In another study, overweight people who took a daily vitamin D supplement improved their heart disease risk markers.
The Benefits of Vitamin D (continued)

Beware of D-ficiency
Many factors can affect your ability to get sufficient amounts of vitamin D through the sun alone. These factors include:

- Being in an area with high pollution
- Using sunscreen
- Spending more time indoors
- Living in big cities where buildings block sunlight
- Having darker skin (the higher the levels of melanin, the less vitamin D the skin can absorb)

These factors contribute to vitamin D deficiency in an increasing number of people. That’s why it’s important to get some of your vitamin D from sources besides sunlight.

The symptoms of a vitamin D deficiency in adults include:

- tiredness, aches and pains, and a general sense of not feeling well
- severe bone or muscle pain or weakness that may cause difficulty climbing stairs or getting up from the floor or a low chair, or cause you to walk with a waddling gait
- stress fractures, especially in your legs, pelvis, and hips

Doctors can diagnose a vitamin D deficiency by performing a simple blood test. If you have a deficiency, your doctor may order X-rays to check the strength of your bones.

If you’re diagnosed with a vitamin D deficiency, your doctor will likely recommend you take daily vitamin D supplements. If you have a severe deficiency, they may instead recommend high-dose vitamin D tablets or liquids. You should also make sure to get vitamin D through sunlight and the foods you eat.

Food sources of vitamin D
Few foods contain vitamin D naturally. Because of this, some foods are fortified. This means that vitamin D has been added.

Foods that naturally contain vitamin D include: salmon, sardines, egg yolk, shrimp.

Foods fortified with vitamin D include: milk, cereal, yogurt, orange juice.

It can be hard to get enough vitamin D each day through sun exposure and food alone, so taking vitamin D supplements can help.

How much do you need?
There has been some controversy over the amount of vitamin D needed for healthy functioning. Recent research indicates that you need more vitamin D than was once thought. Normal blood serum levels range from 50 to 100 micrograms per deciliter. Depending on your blood level, you may need more vitamin D.

The Institute of Food and Agricultural Sciences reports new recommendations based on international units (IUs) per day. IUs are a standard type of measurement for drugs and vitamins. IUs help experts determine recommended dose, toxicity, and deficiency levels for each person.

One IU is not the same for each type of vitamin. An IU is determined by how much of a substance produces an effect in your body. The recommended IUs for vitamin D are:

- children and teens: 600 IU
- adults up to age 70: 600 IU
- adults over age 70: 800 IU
- pregnant or breastfeeding women: 600 IU