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.

In this issue:
- 4-H news and events
- Master Gardeners and gardening events
- Beekeeping
- Agriculture and Natural Resources
- Healthy Living

Pages 2-4
Pages 4-6
Page 7
Pages 8-10
Pages 11-12

Contact Us

Office location: 135 2nd St, B107 in Asotin (Basement of the Asotin County Courthouse)
Hours: Mon-Fri 8:00 to 4:00 (closed 12:00 to 1:00)
Mailing address: PO Box 9, Asotin, WA 99402
Phone: 509-243-2009
FAX: 509-243-2018
Website: extension.wsu.edu/asotin

Mark Heitstuman, County Director
heitstuman@wsu.edu
mheitstuman@co.asotin.wa.us

Kim Belanger, 4-H Coordinator & Food $ense Educator
kim.belanger@wsu.edu
kbelanger@co.asotin.wa.us

Janice Reed, Office Manager
jreed@co.asotin.wa.us
janice.reed@wsu.edu

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

Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through your local Extension Office.
4-H News/Events and Youth Opportunities

Between Oct 1st and Nov 1st, 344 youth and 60 volunteers enrolled in Asotin County 4-H. This number is down 7% from last year’s enrollment.

We are looking forward to a fun and successful 4-H year and the Asotin County Fair in April. Stay informed about what is going on in 4-H! Check the calendar. Committees, Leader’s Council, and Fairboard meet monthly to make decisions on 4-H and the Fair. Meetings are open to 4-H families and the general public.

For information on 4-H events and deadlines, see the complete 4-H Calendar:
http://extension.wsu.edu/asotin/4h-youth-development/4h_members_page/

Important dates

January
20—Horse certificates due
25—Beef and dairy breeding certificates due
26—Swine: mandatory first weigh in
     8:00-11:00 am, Asotin Co Fairgrounds

February
  2—4-H Demonstration Day
21—Sheep, swine and goat breeding certificates due
23—Sheep and goat weigh-in
     8:00-9:30 am, Asotin Co Fairgrounds

March
16—Youth Sheep and Goat Field Day
23—Youth Beef Field Day
     (See Field Day information on page 3)
24—Style Revue & Performing Arts mandatory practice
     Boyd Hall, Asotin County Fairgrounds
29—Asotin County CattleWomen, Cattlemen & Wheat Growers & Horse Scholarship Applications due to the Extension Office
     https://extension.wsu.edu/asotin/4h-youth-development/4-h-youth-families/asotin-county-youth-college-scholarships/

Monthly Meetings

Horse Committee—2nd Monday
     Fair Office, 6:00 pm

Livestock Committee—2nd Monday
     Boyd Hall, 6:30 pm

Leader’s Council—2nd Monday
     Boyd Hall, 7:00 pm

Fairboard—2nd Wednesday
     (1st & 3rd Wed in Feb & March)
     Commissioner’s Chambers in Asotin County Courthouse Annex, 6:30 pm

Watch WSU Women’s Basketball with 4-H Promo Code

Mark your calendars for 4-H day with WSU Women’s Basketball!

March 3, at 12:00pm, the WSU Women’s Basketball team will be featuring 4-H, including games for 4-H kids at half-time.

If you’d like to purchase tickets, use promo code “4HDay” and tickets will be only $3.00! It’s never been a better time to watch WSU Women’s Basketball.

Know Your Government (KYG)
By Kim Belanger, Asotin County 4-H Coordinator

A delegation of Asotin and Garfield county youth and chaperones are gearing up for the annual Know Your Government conference.

“Citizenship and Media” Changing the World One Conversation at a Time
February 15th -19th, 2019
The Olympia Center, Olympia, WA

What’s it all about?
Know Your Government (KYG) is a civic education program with a four-year rotation of topics: The Legislative System, The Judicial System, Elections and Party Platforms, and Citizenship and Media. This year we will explore the topic of Citizenship and Media. Participants will explore media and the use of media to inform others about a topic. It is important to remember though, that KYG is much more than learning about bias in media, or producing a video or social media post. In fact, one could argue that it is little about that. **KYG and 4-H is about learning the life skills our delegates will need to be responsible citizens and productive adults.**

Through pre-conference orientation, participants will work together to identify a community concern or issue. They will use this issue as the subject of their county project, building skills as they do research, conduct interviews, write posts, produce videos and recruit support towards solving the community concern.

At the conference in February, delegates will discuss topics in a civil way and use various media to communicate their views on selected issues with these purposes in mind:

1. Bring high school students from across the state to build relationships with people whom are different from themselves by working on a group project.
2. Apply the skills learned through the pre-conference meetings
3. Learn that people can disagree on a topic but respect each other as fellow human beings.

Tremendous financial support from 4-H Leaders Council, 4-H & FFA Boosters, Asotin County Youth Commission, Local Democratic and Republican parties, as well as fundraising, opens this opportunity to any youth who desires to attend.

---

Youth Livestock Field Days
Hosted by the WSU and UI Extension Offices.

These are one-day workshops that teach youth about raising 4-H market projects (beef, swine, sheep, goat).

**Youth Sheep & Goat Field Day**
Saturday March 16. 8:30 am to 3:00 pm
Asotin County Fairgrounds

**Youth Beef Field Day**
Saturday March 23. 8:30 am to 3:00 pm
Lewiston Livestock Market

Check the Calendar of Events on the Asotin County Extension Website for details and registration [http://extension.wsu.edu/asotin/upcoming-events-and-workshops/](http://extension.wsu.edu/asotin/upcoming-events-and-workshops/)

The number of participants is capped so please register early.
Banana Belt Gardening Series
Brought to you by UI and WSU Extension

Thursdays, in February. 6:30 p.m. – 9:00 p.m. 6 p.m. Check-in
Lewis Clark State College. 500 8th Avenue, Lewiston, ID. Sacajawea Hall, Room 115
Cost: $7.00 per class

February 7—Managing Lawns
Speaker: To Be Announced
Garden Spotlight: LC Valley Beekeepers Association—John Freeman, President

February 14—No class. Happy Valentines Day

February 21—Composting Organic Materials
Speaker: Kendall Kahl, Research Specialist, UI Dept. of Soil and Water Systems
Garden Spotlight: Backyard Harvest - Jeanette Gara-Betzold, Board Member

February 28—Growing & Using Herbs
Speaker: Nancy Hassenoehrl, Bloomers Nursery
Handouts on culinary and medicinal properties developed by Sandy Martello and Phil Shinn, Advanced Master Gardeners
Garden Spotlight: Community Action Partnership Food Bank

Contact the Nez Perce County Extension Office for more details or to enroll: 208-799-3096

Coming in the spring! 2019 Ready, Set, Grow Series
Grafting workshop
Plant Clinics will begin in May 2019, but if you have plant related questions over the winter, a Master Gardener will be available to provide assistance. Call the Extension Office at 509-243-2009.

WSU Master Gardeners educate local community members in the application of horticultural science to the sustainable management of landscapes and gardens. In 2018, 31 Asotin and Garfield County Master Gardener Volunteers donated 2998.5 total hours to the service and assistance of over 24,745 residents in the two counties; valued at $88,014.17. (Independent Sector = $30.46/hour in the State of Washington).

The Master Gardeners had an extremely productive year assisting the public. Here are some highlights from the 2018 Asotin and Garfield County Master Gardener Annual report:

* Every 2 years the Asotin County Extension office holds the Master Gardener and Horticulture Training at Walla Walla Community College in Clarkston. This intensive, professional 15-week training (held January thru April) trains Master Gardeners in Asotin, Garfield, Whitman, and Nez Perce Counties. In 2018, 20 new students attend classes and 30 Veteran Master Gardeners attended portions of the training to fulfill Continuing Education requirements.

* From May – September, Asotin and Garfield Co Master Gardeners staffed a total of 33 office plant diagnostic clinics volunteering over 353 hours. They assisted 63 community members with a wide variety of horticulture questions and plant problems.

* Master Gardeners actively engaged in community outreach by hosting and teaching 30 information clinics and events throughout the growing season. They reached 824 residents and volunteered over 379 hours to the communities.

* Asotin County Master Gardeners provided gardening information and responded to public inquiries at 8 Clarkston Farmers Markets, reaching 79 residents.

* Master Gardeners actively participated in the Asotin and Garfield County Fairs by providing gardening information, responding to public inquiries, assisting with horticulture entry intake, assisting with judging, and serving as judges.
School Garden Programs

- Asotin and Garfield Master Gardener Volunteers partnered with 6 classroom teachers and taught formal School Garden Programs throughout the school year at Parkway Elementary and Grantham Elementary in Asotin County, and Pomeroy Elementary in Garfield County; reaching 204 3rd and 4th graders throughout the school year. Master Gardeners spent 71 days in the classroom and made 2040 total Youth Contacts in the classroom and in the School Gardens. Curriculums were based on State common core science standards; focusing on nutrition, scientific methods, and gardening practices. Students completed guided observations and experiments that demonstrated how animals, plants, and the environment interact with each other to produce the foods we eat.

- Asotin County Master Gardeners conducted 2 special programs at Highland Elementary school. In April, they had a tree planting for Arbor Day and in October they harvested pumpkins that the kindergarteners planted in the spring.

- In July, Master Gardeners taught a week long class at the Extension Youth Activity Camp, providing garden-related education and activities to 14 youth between the grades of 3rd—6th.
Bees in Winter

Whenever we talk about winter and cold weather, the subject of honeybees seldom comes up. However, this time of year can be devastating to our honeybee populations. Normally, we discuss issues such as Colony Collapse Disorder or Varroa mites devastating our hives. Most people don’t think too much about bees this time of year but beekeepers surely do.

It is this time of year when bee hives that are short on food, begin to fail. Beekeepers much check the hives’ food supply. If food is low, they can be saved with supplemental feeding. There are many products on the market for this purpose. Determining the weight of the hive can indicate if supplemental feeding is necessary.

Another issue that is important in the winter months, is to make sure the hive entrance is clear of dead bees, debris, and snow. Bees exit the hive for their ‘cleansing flight’, which involves finding a day of relative warmth to leave the hive for a quick bathroom break. When bees cannot leave the hive and are forced to defecate in the hive, they can suffer from dysentery or Nosema disease. These impacts cause reduced colony health, population and performance, which can ultimately result in the colony dying. A clear hive entrance also maintains ventilation within the hive which is important to the colony health.

When the proper winter hive maintenance is done, beekeepers can look forward to a healthy new year for their very important honey bee friends.

Washington State Beekeepers Association (WASBA)

Beekeeping Conference
Feb 9, 2019 at Eastern Washington University, Hargreaves Hall
Cost: $10 for WASBA members; $35 for non-members

Keynote speaker: Sarah Red-Laird, founder and Executive Director of the Bee Girl organization; Program Director of Kids & Bee program—American Beekeeping Federation; President, Western Agricultural Society.

Conference participants can choose from sessions in scientific topics or general interest topics.

Other Program Highlights:

◆ WASBA meeting & Beekeeper of the Year Award
◆ Vendor Fair featuring commercial and nonprofit exhibits
◆ Raffle prizes, including and electric extractor
◆ After conference social

If you have questions, please contact Jenifer Priest (WASBA’s executive director) at: jenifer@wasba.org or 509-270-2603
2019 WSU-WOCS Oilseed Workshops
January 23—Wilbur, WA
January 25—Clarkston, WA

The focus will be on stand establishment, and we have a wide range of general and breakout session topics that will address everything from planting equipment to plant growth regulators to fertilizer and herbicide management strategies. We are excited to have Caydee Savinelli, Pollinator and IPM Stewardship Lead at Syngenta from North Carolina, who will share the latest updates about neonics and pollinators. Other speakers will include PNW growers, industry, and university representatives, along with several presenters from other canola producing regions of the U.S. and Canada.

Based on feedback after last year’s workshops we will again have live canola plants for diagnostics of herbicide residual and drift injury, and plants exhibiting nutrient deficiencies. Many thanks to WSU faculty and staff preparing those now! Whether you are just thinking about trying canola or have produced it for many years, we guarantee an information-packed day at each location!

Register now
Agendas and links to registration (via Brown Paper Tickets) are posted on our website: www.css.wsu.edu/oilseeds

Registration is only $20 and includes lunch and all refreshments. Each workshop will be followed by an industry-sponsored social with an opportunity for informal Q&A with the presenters and vendors.

We have applied for pesticide credits from ID, MT, OR, and WA.

WSU Pesticide Safety Education Programs

WSU offers pre-license pesticide training and recertification training. To search for and register for classes in your area, visit their website at: https://pep.wsu.edu.

Internet training courses are also available.

WSU study materials are available to help people prepare for the Washington State Department of Agriculture pesticide license exams. The study manuals are a prerequisite for the WSU Pre-License Training courses. The courses are based on information from the study materials. It is strongly advised that you obtain and study these materials before taking a course. If you are registering for a WSU Pre-License Training Course, you can order study manuals when you register for the course with a registration form.

Many other resources and links are also available on the website.

Additional exam requirement assistance, publications needed, and current fees are located at http://agr.wa.gov/PestFert/LicensingEd/ or by contacting WSDA toll free at 1-877-301-4555 or contact WSU at 509-335-2830 or 509-335-9222.
Leafy spurge, \textit{Euphorbia esula}, is a perennial, rhizomatous, Class B noxious weed that starts its life in the early spring. It grows from seeds, buds on roots, as well as from the crown of an existing plant (just under the dirt). This advantageous noxious weed has a single, upright stem and can grow 1 to 3 feet tall. A mature plant has the same long, narrow leaves seen in Figures 1 and 2, and they can be about 1 to 3 inches long.

Toward the lower part of the plant those long, narrow leaves are in an alternate pattern and the farther up the plant the more crowded the leaves are. From about late May to July, near the top of the stems, small, insignificant flowers without petals develop on the tips of thin “branches”. Near the base of the small flowers, modified leaves (“bracts”) form opposite each other, giving the appearance of flower petals, as in Figure 3. As leafy spurge matures, the bracts turn yellow, giving them even more of a flower-like appearance. Leafy spurge is distinguished from plants that are similar in appearance by a white milky latex seen in the stem, as in Figure 4. The flowers of leafy spurge produce a lobed capsule that contains three seeds, as seen in Figure 5. When the stem matures, the capsules explode sending the seeds flying up to 15 feet! Each flowering stem can disperse over 200 seeds that have a germination rate of 60 to 80%. Not only do seeds spread by capsules exploding, they spread by vehicles, attachment to clothing and muddy shoes, animals, as well as water (the seeds can float!), and root fragments can spread as contaminants in crop seed and feed grain or hay.

Leafy spurge can easily displace native plant communities and can affect the properties of soils, which can dramatically alter ecosystems. The ecological changes due to this plant can directly affect economies through reduced recreational and agricultural revenue, and the cost of managing leafy spurge is very high. Because of its extensive root system, treating an established population with herbicide can be very costly as it requires repeated application. Along with the high cost of management, another alarming fact about leafy spurge: the milky latex, seen in Figure 5, contains ingenol, a compound that is toxic to human and animals. It seriously irritates both people and animal’s skin, and can cause blindness upon eye contact.

Large infestations of leafy spurge can be managed with biological control agents. Effective, long-term control of leafy spurge can be done by establishing competitive vegetation with perennial grasses in conjunction with use of herbicides.
Beef: The Influence of Winter Nutrition on Beef Cattle Productivity
by Craig McConnel, Extension Veterinarian, WSU

Last winter’s seemingly relentless cold and wet weather proved challenging for many livestock producers, and may have been associated with an uptick in Weak Calf Syndrome that WSU has been researching. One of the outcomes from this research has been a call for ranchers to improve their documentation of nutritional inputs including forage testing and quantities fed. Such measures would allow for a more robust assessment of potentially influential factors when faced with poor outcomes such as weak calves.

As we head into this winter, it is worth considering current research into cow and calf nutrition and how it might be applied to your operation. An article published in November of this year by Prezotto et al. within the Journal of Animal Science (J. Anim. Sci. 2017.95:5137–5144) explored the influence of limit-feeding and time of day availability to growing calves during cold weather. Their project was developed on the back of previous research suggesting that limit-feeding can improve growth efficiency through improvements in digestion, and that feeding cattle in the evening can improve growth performance in cold climates. The study was conducted through North Dakota State University and the Northern AgResearch Center in Havre, MT from November through February. Contrary to their expectations, Prezotto actually found that calves fed a corn silage based backgrounding diet ad libitum had greater feed efficiencies than those that were limit-fed. However, for those calves that were limit fed at night (between 6 p.m. and 6 a.m. the next day), rather than during the day, there was an increase in average daily gain and feed efficiency. It may be that calves fed during the night increase their heat production thereby helping to maintain body temperature when temperatures are lower. This extra heat could be generated from a 5 reproductive performance, there is evidence that supplementation can increase progeny weaning body weights and heifer fertility. These increases may be due to fetal programming whereby in utero stimuli influence postnatal growth and physiology.

Along those lines, a study from the University of Nebraska by Larson et al. (J. Anim. Sci. 2009. 87:1147–1155) indicated that late gestation nutrition of the dam affects calf birth weight and early weight gains, and those differences persist through weaning and slaughter. They evaluated the impact of protein supplementation (0.45 kg/d of 28% crude protein cubes) during the last trimester for cows that were winter-grazed on either dormant Sandhills’ range or corn residue. Their study demonstrated that steer progeny from supplemented cows had greater marbling scores and a higher proportion graded USDA Choice or greater than steers from dams without protein supplementation. Fetal programming may explain these differences as fetal growth progresses rapidly during the last trimester of gestation, and added nutrition during that period may alter the site of nutrient deposition. Regardless of the underlying physiology, protein supplementation of dams increased the value of calves at weaning and of steers at slaughter irrespective of winter grazing management.

A parallel study (Funston et al, J. Anim. Sci. 2010. 88:4094–4101) to the one above explored the impact on heifer progeny when supplementing dams on winter range or corn residue with 0.40 kg/d of 31% crude protein (dry matter basis). They found that heifer pubertal status and pregnancy rates were modified by dam nutrition, providing evidence of a fetal programming effect on reproduction. Heifers from dams with protein supplementation during late gestation tended to be younger at puberty than heifers from unsupplemented dams. Additionally, there was a trend for heifers from unsupplemented dams to have decreased pregnancy rates during a 45-day breeding season. That said, dam protein supplementation increased the cost of development per pregnant heifer through reduced feed efficiency and a greater cost per kg of gain.

All in all, as we enter the heart of winter it is worth considering your nutritional management plan. Documenting what and how much you feed may prove worthwhile if challenges such as Weak Calf Syndrome arise that require retrospective investigation. Furthermore, in light of the evidence for fetal programming to influence both steer and heifer productivity, this may be a good time to assess whether your current nutritional strategy provides the best possible outcomes for both you and your cattle.
Healthy Living

Questions to Ask Before Taking Vitamin and Mineral Supplements

Are you considering taking vitamin or mineral supplements? Do you think you need them? Or that they "can't hurt" so you may as well take them? Here are some questions to ask before you decide to take them.

1. **Do I really need them?**
First and foremost, nutritional needs should be met by eating a variety of foods as outlined in the Dietary Guidelines for Americans. https://www.cnpp.usda.gov/dietary-guidelines

In some cases, vitamin/mineral supplements or fortified foods may be useful for providing nutrients that may otherwise be eaten in less than recommended amounts. If you are already eating the recommended amount of a nutrient, you may not get any further health benefit from taking a supplement. In some cases, supplements and fortified foods may actually cause you to exceed safe levels of intake of nutrients. (Note that fortified foods are those to which one or more essential nutrients have been added to increase their nutritional value.)

The Dietary Guidelines for Americans makes these recommendations for certain groups of people:

- People over age 50 should consume vitamin B12 in its crystalline form, that is, from fortified foods (like some fortified breakfast cereals) or as a supplement.
- (Note that older adults often have a reduced ability to absorb vitamin B12 from foods. However, crystalline vitamin B12, the type of vitamin B12 used in supplements and in fortified foods, is much more easily absorbed.)
- Women of childbearing age who may become pregnant and adolescent females should eat foods that are a source of heme-iron (such as meats) and/or they should eat iron-rich plant foods (like cooked dry beans or spinach) or iron-fortified foods (like fortified cereals) along with a source of vitamin C.
- Women of childbearing age who may become pregnant and those who are pregnant should consume adequate synthetic folic acid daily (from fortified foods or supplements) in addition to food forms of folate from a varied diet.
- Older adults, people with dark skin, and people who get insufficient exposure to sunlight should consume extra vitamin D from vitamin D-fortified foods and/or supplements.

It is important to note that vitamin/mineral supplements are not a replacement for a healthful diet. Remember that in addition to vitamins and minerals, foods also contain hundreds of naturally occurring substances that can help protect your health.
Questions to Ask Before Taking Vitamin and Mineral Supplements (continued)

Here are some questions that the Food and Drug Administration recommends asking yourself and discussing with your doctor when considering whether you should take a vitamin/mineral supplement:

- Do you eat fewer than 2 meals per day?
- Is your diet restricted? That is, do you not eat meat, or milk or milk products, or eat fewer than 5 servings of fruits and vegetables per day?
- Do you eat alone most of the time?
- Without wanting to, have you lost or gained more than 10 pounds in the last 6 months?
- Do you take 3 or more prescription or over-the-counter medicines a day?
- Do you have 3 or more drinks of alcohol a day?


2. Should I talk to my doctor about taking vitamin/mineral supplements?

Yes, you and your doctor should work together to determine if a vitamin/mineral supplement is right for you. If you are already taking dietary supplements, you should inform your doctor. Research shows that many people do not let their doctors know that they are taking a dietary supplement or are considering taking one. You may think side effects happen only with prescription medicines, but some dietary supplements can cause side effects if taken with other medications or if certain health conditions exist. Even if you don’t take medication or have a chronic health problem, the wrong dietary supplement or the wrong amount, can cause problems. So check with your doctor before taking a dietary supplement.

3. Where can I find scientifically sound information about vitamin/mineral supplements?

Your doctor is a good place to start. In addition, pharmacists and registered dietitians are helpful. The NIH Office of Dietary Supplements has a series of Vitamin and Mineral Fact Sheets that provide scientifically-based overviews of a number of vitamins and minerals. They can provide a good basis for a discussion with your doctor about whether or not you should take a vitamin/mineral supplement.

https://ods.od.nih.gov/factsheets/list-VitaminsMinerals/

MedlinePlus is another good source of information. https://medlineplus.gov/

The Food and Drug Administration (FDA) has a variety of articles and consumer advisories to help consumers inform themselves about dietary supplements, including warnings and safety information, labeling, evaluation information, and FDA’s role in regulating dietary supplements. For those interested in looking directly at scientific studies, the PubMed Dietary Supplement Subset is a good database to search: https://ods.od.nih.gov/Health_Information/IBIDS.aspx

4. What should I do if I suspect I may be having a side-effect from a dietary supplement?

First, stop taking the supplement. Next tell your doctor or health care professional. The MedWatch Reporting Program also gives you information about how to report a problem to the Food and Drug Administration. https://www.fda.gov/Safety/MedWatch/HowToReport/ucm053074.htm

In summary, check with your doctor or a registered dietitian about which, if any, vitamin or mineral supplements might be right for you. And remember that while there are circumstances when it may be appropriate to take vitamin/mineral supplements, they are not a replacement for a healthful diet.