WASHINGTON STATE UNIVERSITY
WALLA WALLA COUNTY EXTENSION
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Newsletter

January 2015

Announcements

JANUARY

13 Cereal Grain Seminar, WWCC Water and Environment Center 7:30 a.m.–3:30 p.m. 2.5 WSDA & 2 ODA pesticide credits; 6 ARCPACS CEU's. **Lunch included so please pre-register with the Extension office by Friday, January 10. Fee is $30**. For more information, call 509-524-2685 or email becki.green@wsu.edu or pre-register online with a credit card at http://wsu-seminar.bpt.me

14-15 Northwest Hay Expo, Kennewick, Three Rivers Convention Center. Topics include risk management, variety trials, fertility, Timothy hay production & forage export market. Registration at www.wa-hay.org or call 509-585-5460.

23-24 Livestock 100 Short Courses, WSU Walla Walla Extension Office. One day classes of Beef 100, Pork 100, Lamb/Goat 100, & Poultry 100 will involve presentations and demonstrations of production and management skills of how-to raise livestock and poultry successfully. Pre-registration is due by January 14th. Cost for one class is $45/ person or individuals or farms that would like to attend two classes, same species or different, is $80. Register with a credit card at http://www.brownpapertickets.com/event/1069119 or mail check and registration form to: WSU Grant/Adams Extension, Attn: Sarah M. Smith, 1525 E. Wheeler Road, Moses Lake, WA 98837.

26-27 Pre-License Pesticide Training, Moses Lake, Big Bend Comm. College, 8:00 a.m. to 5:00 p.m. Refer to Feb. 3- 4 for more information.

27-29 WA/OR Potato Conference, Kennewick, WA, Three Rivers Convention Center. Includes a Spanish language program with pesticide credits for farm workers. Featuring the 1st Annual Potato Peel-Off. For more information or to register, call 509-766-7123 or visit www.potatoconference.com.

FEBRUARY

3-4 Recertification Pesticide Credits (6/day) & 4,5 Pre-License Pesticide Training, Pasco, TRAC, 8:00 a.m. to 5:00 p.m. You must pre-register at least 7 days prior to the courses at pep.wsu.edu. For directions and training agendas, visit pep.wsu.edu; for registration questions call 509-335-2830 or email pest@wsu.edu; license information available at WSDA 877-301-4555.

11-15 Northwest Flower & Garden Show, Seattle, Washington State Convention Center, 7th & Pike.

See designer gardens and attend free hands-on demonstrations and seminars. For more information, visit www.gardenshow.com or call 253-756-2121.

17-18 Pre-License Pesticide Training, Spokane, Mirabeau Park Hotel, 8:00 a.m. to 5:00 p.m. Refer to February 3-4 above for more information.

21 Women in Agriculture Conference, Walla Walla County Legislative Building, 314 W. Main, Walla Walla. 8 a.m. – 4 p.m. Successful women farmers will inspire you with the "best ideas" to showcase your farm and marketing your product. Visit www.WomenInAg.wsu.edu for more information.

25 Farm Management Training Program: ***Your Financial and Market Reality Check,*** Walla Walla, Marcus Whitman Hotel. 10 a.m.- 4 p.m., lunch included. Pre-register 3 days in advance for discount at www.lcammo.org or call 877-740-2666.

25-26 Pre-License Pesticide & Recertification Training, Yakima, Convention Center, 8:00 a.m. to 5:00 p.m. Refer to February 3-4 above for more information.

Feb. 26- March 1 Sewing & Stitchery Expo, Puyallup Fair & Events Center, 110 9th Ave SW. More than 100 daily seminars and classes and booths with over 400 exhibitors. Call 866-554-8559 or visit www.sewexpo.com.

MARCH

1 4-H Scholarship Applications Due

- Burgess 4-H Scholarship
- Blue Mt. Foundation 4-H Scholarships
- State 4-H Scholarship Applications

Contact WSU Extension at 509-524-2685 or becki.green@wsu.edu for more information.

Updates

PESTICIDE PRE-LICENSE TRAINING NOW OFFERED ONLINE

Use Internet courses and state manuals to prepare yourself to take state pesticide applicator exams. pep.wsu.edu/plt/PLOnline.html

PESTICIDE RECERTIFICATION TRAINING

Online one-credit recertification courses are available at pep.wsu.edu/RecertOnline.html.

Locations for 2015 Recertification Courses:
January 26 – Moses Lake Big Bend Community College
January 28, 29 – Wenatchee Convention Center
February 3, 4– Pasco TRAC, Holiday Inn Express
February 17, 18 – Spokane, Mirabeau Park Hotel
February 23, 24 - Pullman, Schweitzer Engineering
February 25, 26 – Yakima Convention Center
Classes are from 8:30 a.m.-3:30 p.m. for 6 credits/ day (WA and ID) For Oregon credits see http://www.oregon.gov/ODA/programs/Pesticides/Licensing/Pages/ApplicatorRecertification.aspx.
For detailed agendas, directions, and parking information, visit the website pep.wsu.edu.

4-H

Achievement Night

On November 16, 4-H youth and adult volunteers were honored at the 2014 annual 4-H achievement Program. Approximately 185 awards were presented to 4-H members, clubs, and volunteers in recognition of their 4-H accomplishments during the past year.

Sarita McCaw received recognition as the Outstanding 4-H Volunteer Leader of the Year for her exceptional leadership and service to the young people of the Walla Walla County 4-H program.

Bob Kinion received the Inspirational Leader of the Year award. Bob is involved in several community organizations and is serving his 22nd year as a 4-H volunteer.

Northwest Grain Growers received the 4-H Appreciation Award for their continuing support of the 4-H program and its members.

Two outstanding 4-H Members in Walla Walla County were selected in each age division. The junior division outstanding members were Leah Chapin and Kinsey Nelson; the intermediate division recipients were Makenzie Frost and Ryan Chapin; and the senior division winners were Bethany Loe and Zach Hubbard. Receiving honorable mention awards were Patton Wright, Grace Ann Case, Cora Jo Borgens, Gabrielle Longmire, Erin Chapin, and Tristan Case. These members were selected based on the quality and growth of their 4-H project, leadership skills, and their active involvement in the county 4-H program.

Farming & Livestock

Beef, Lamb/ Goat, Pork & Poultry 100 Short-Courses

WSU Extension is excited to announce *WSU Beef, Lamb/Goat, Pork and Poultry 100 short-courses* to be held in Walla Walla in 2015. The *Beef and Pork 100 course* will be offered on January 23, 2015 and the *Lamb/Goat 100* and *Poultry 100* courses will be offered on January 24, 2015 at the WSU Walla Walla County Extension Office 7:45 a.m.-5:30 p.m.

The classes are designed for beginning farmers, but are also excellent energizers for experienced food animal producers to expand opportunities and sustainability of their current livestock operation. The short courses will address opportunities and issues to enhance the production, safety and quality of beef, lamb/goats, pork and poultry production from the farm to the plate. These programs will increase understanding of food animal production, quality and marketing; enabling participants to make informed decisions to improve profitability, quality, and wholesomeness of the food animals they are producing.

The registration fee for *WSU Beef, Lamb/Goat, Pork, or Poultry 100* is $45 per participant, which covers lunch, and resource materials. Registration for individuals or farms that would like to attend two classes, same species or different, is $80. Registration after January 14th, 2015, will increase to $75 per person per class. Classes will be from 7:45 a.m.- 5:30 p.m. each day. For additional information contact: Debbie Williams, WSU Extension Specialist, (509)524-2685 or dmoberg@wsu.edu. Or visit http://animalag.wsu.edu under “Upcoming Events”.

CRP – HABITAT BUFFER BASICS

Habitat Buffers for Upland Birds – (CP33)

Habitat Buffers for Upland Birds (CP33) are 30' to 120' wide strips along the perimeters or edges of agricultural fields that are planted to grasses and forbs. Habitat buffers (CP33) are a conservation practice, new in the state of Washington, under the CRP Continuous sign up that provides habitat for upland birds and other wildlife as well as provide soil and water quality benefits.

Landowner Eligibility:

- Field(s) to be enrolled must have been farmed or in CRP 4 of the 6 years between 2002-2007

Payments and Contract Lengths:

- Rental payments for 10 years at 100% of the soil rental rate
- $150/acre one time incentive payment for land not in CRP today
- Approximately 90% cost-share for establishment of habitat buffers

Habitat Buffer Benefits:

- Automatic enrollment of eligible acres; NO competitive ranking
- Buffer 1, 2, or all side of your field
- Buffer field edges where competition is high straighten out irregular field edges
- Reduce soil erosion
- Improve water quality
- Provide habitat for Quail, Pheasants, and other wildlife
- Enroll low producing field edges

How To Enroll: Sign up with your local Farm Service Agency (FSA) – Walla Walla County FSA office 509- 522-6347. Call WDFW Biologist Corrie Thorne Hadley at 509- 527-4104 with questions.

WINTER LIVESTOCK CARE

Adapted from OSU Extension Service EC1635 publication

Winter's lower temperatures and moist air place extra stress on livestock. Most livestock are well adapted to cold weather, but sick, elderly, or young animals and those under unusual stress are more susceptible.

Shelter

Most livestock can handle wind chills above 20°F without much stress. But, to stay healthy, they need a dry place to escape cold rains, wet snow, and wind.

While natural protection and windbreaks may be adequate, three-sided sheds opening away from prevailing winds are best. Allow enough room for livestock to lie down safely without being trampled or smothered. Good, clean, dry bedding insulates livestock from the cold ground, which draws away body heat.

Feed

People often think they should feed livestock extra grain when the weather is cold. However, it's the fermentation of fiber that creates body heat while releasing energy. Good quality grass hay or alfalfa is effective (and less expensive) for body heat production during cold weather.

Refer to the "Animal Forage" chart below to determine monthly feed requirements. The basic guideline is to feed 2% to 3% of an animal's body weight in dry matter per day. Hay contains about 10% water, so 100 pounds of dry would be 110 pounds of hay. (If you feed poor quality hay, you'll need more.) Also, weights shown in the table are for actual consumption in dry matter, so include at least 10% more to account for waste.

Animal forage (dry matter in lb./month)

1 cow (1,000 lb.)	800	1 llama	300
1 horse	1,000	1 goat	200
1 sheep	200	1 alpaca	100

These weights are for actual consumption; when feeding hay, include 10% more to account for waste.

Hay

Rely on your nose, eyes, and hands when buying hay. Good grass and alfalfa hay is generally very green. Green hay has plenty of vitamin A and the protein is usually good quality. Brown or bleached hay is deficient in vitamin A and has denatured protein. Good hay smells fresh and grassy, not moldy, musty, damp, or dusty.

Good hay is tender to the touch (thin, small stems), not coarse (thick stems). The best hay has plenty of protein-rich leaves and relatively few stems. It doesn't have weeds, manure, or other debris.

Check the maturity. Grass hays should not be fully headed-out; optimally, they should contain no more than 10% heads. Alfalfa should be harvested at about 10% to 13% bloom. If it's full of blooms, its quality is lower. Make sure all the feed you buy has been tested for nutrient values. Know what you are buying to get the best feed for your dollar.

If you are going to feed fescue hay or grass seed straw, you need to make sure they are free of endophytes. Endophytes are fungi that produce toxins harmful to livestock when ingested at high concentrations. Horses are especially sensitive to endophytes. If they eat even small amounts, horses can suffer fetal defects or death.

One last thing of note: hay can contain seeds of noxious and toxic weeds. Be sure to buy your hay from a reputable source. Weeds can quickly become a problem for you and your neighbors if they are allowed to spread.

Water

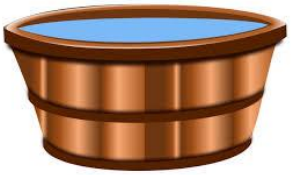
One of the most important considerations for winter feeding is adequate water. Water is essential for digestion, which produces heat in fiber breakdown. Do not assume that livestock can meet their water needs by eating snow — to get enough water, eating snow would take most of their feeding time. Ingesting large quantities of snow also reduces their core body temperature.

Estimated gallons water needed per day

Horses	8-12	Goats	1-4
Cows	7-12	Llama	2-5
Sheep	1-4	Alpaca	1-4

Water above 40°F is ideal to ensure that your animals drink enough in cold weather. Automatic water units are best; if that is not possible, be sure to provide water several times a day. In freezing temperatures, you will need to break ice if you don't have a livestock tank heater.

Providing adequate water is a basic component of accepted animal welfare practices. Note that the amount of water an animal needs varies based on several factors, such as body size, lactation, feed intake, and environmental temperature.



Managing Manure and Mud

Livestock produce a lot of manure. For example, an average horse weighing 1,000 pounds produces between 50 to 55 pounds of manure per day, an annual production of 8 to 9 tons (around 11 cubic yards). Bedding for stalled livestock creates additional waste that must be managed. The manure storage requirements for an average horse are 720 cubic feet per year (12' x 12' x 5').

So what does one do with all the poo? **Compost**! A well-managed compost pile causes nitrate in the manure to stabilize and reduces the potential for environmental harm. It kills pathogens and weed seeds. Also, besides turning livestock waste into garden gold, composting reduces the waste material's volume to about one-third of its original mass.

Pounds manure produced/ type of animal/ day

Dairy cow	120-150	Ewe w/ lamb	12
Heifer	50	Goat	10
Beef Cow	75	Llama	12-20
Horse	50-55	Alpaca	4-5

Winter is also "mud season." Livestock in muddy pens may develop foot problems (such as thrush) or injure themselves moving across slippery ground. Further, manure and mud may run off into adjacent streams. Address these concerns by creating a **sacrifice area** (all-season pen) that has good drainage and footing.

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Financial Fitness

TAKE STEPS TO OFFSET SOARING HEATING COSTS

Robert Thomas, former Information Specialist, Cooperative Media Group, University of Missouri Extension.

Keeping warm air inside and the cold air out can be relatively inexpensive, according to Barbara Buffaloe, a former University of Missouri Extension housing specialist. In many homes, a lot of heat escapes through the roof, cracks in walls and gaps around windows, doors and pipes. Homeowners can ease the shock of high utility costs by reclaiming some of that lost heat.

Twelve inches of attic insulation is recommended by Buffaloe. Exposed air ducts in the attic allow heat to dissipate even before it enters the house, making the furnace work harder, so wrap or cover these ducts with insulation.

"Depending on the size of your house, for a couple hundred dollars you can probably save 10 to 15 percent on your winter heating bill," she said.

Weatherstrip your doors and apply caulk around pipes. A few tubes of caulk, which cost $3 or $4 each, could save you several hundred dollars.

Lifestyle can also play a role in reducing heating bills. Open south-facing curtains during sunny days to benefit from free solar heat. Set the thermostat a degree or two lower. For each degree you lower the thermostat, you can save an estimated 3 percent in heating fuel costs.

A thermostat setting of 65 to 68 degrees provides enough heat for normal daytime activity, although children and the elderly may need higher temperatures. Because people need less heat when sleeping, she recommends a thermostat setting of 60 degrees for nighttime hours.
Have a reputable specialist service your furnace before the heating season. This could reduce your fuel bill as much as 10 percent. If the furnace is fired by oil or gas, make sure the furnace, flue outlets and filters are cleaned or changed and the motor is in working order. Check furnace filters every two months during the heating season.

Family Living

A HEALTHY DIET CAN HELP FIGHT WINTER SNIFFLES

Sources: Missouri Families.org; WebMD and Harvard Medical School.

People try many different methods to avoid catching a cold or flu during the winter months. One thing to remember is that simple diet choices can boost our immune system, said Susan Mills-Gray, Nutrition and Health Education specialist with University of Missouri Extension. The following list includes simple things that can boost the immune system to work at peak performance.

- **Get plenty of liquids** to help prevent viruses and bacteria from taking up residence in your body. According to Dr. Riva Rahl of the Cooper Clinic in Dallas, “the mucus in your nose is actually one of the key physical barriers that keep germs out of your body. When you’re not well hydrated, it dries up and doesn’t provide that barrier.”

- **Protein is a building block for a healthy immune system**. Choose lean red meats, poultry and fish, dried beans and soy. You can also choose protein-rich plant sources with heart-healthy fat, like peanut butter and nuts.

- **Choose foods rich in vitamins C and E**. These two antioxidant-rich vitamins protect cells, including those of your immune system, from damage by toxins in the environment. Choose citrus fruits/juices, melons, mangoes, kiwi, peppers, tomatoes, berries, broccoli, cabbage, sweet/white potatoes, winter squash, leafy greens, almonds, hazelnuts, peanut butter, sunflower seeds, safflower oil, whole grains and fortified cereals several times a day.

- **Eat probiotic foods** to help build up the good bacteria in the intestines. These bacteria play a role in helping fend off illnesses. Any fermented food is rich in this type of good bacteria, so choose yogurt, sauerkraut, tofu, brine-treated pickles and aged cheese at least daily.

- **Add a zinc-rich food to your daily diet** to increase the production of white blood cells in your body. Research shows that this effect can reduce the number of days you'll suffer from a cold. Some foods rich in zinc are yogurt, lean red meat, poultry and fish, almonds, pumpkin seeds and fortified cereals.

Home &Garden

SEASONAL FOLIAGE LOSS IN PNW CONIFER TREES

WSU Extension Fact Sheet FS056E

Despite the Pacific Northwest's reputation for rain, from a tree's perspective, it is perhaps our dry summers that are actually the most distinguishing feature of our climate. These long drought periods in the summer are different from many other parts of the country, where summer means afternoon thunderstorms and heavy rains.

These summer drought periods are stressful for northwest trees, both conifers and hardwoods. Deciduous hardwoods have it particularly rough, since the drought period cuts into the already limited time window (spring and summer) when their leaves are out and available for photosynthesis. In contrast, evergreen conifers have foliage available year-round, giving them additional opportunities for photosynthesis during cooler, wetter parts of the year, when deciduous trees are dormant. "Evergreen" does not mean that the leaves persist throughout the life of the tree. Rather, it means that the leaves last for more than one growing season.

In the fall, after a long, dry summer, an evergreen conifer may not have enough resources to sustain all of its green foliage; thus, it will shed its oldest foliage (i.e., the foliage found on the innermost part of a branch). In doing so, the tree is prioritizing its resources. The oldest foliage is the least productive because it has become dirty over time and, being on the interior of the branch, receives the least amount of sunlight. The tree will sacrifice its older foliage in favor of the newer, more productive foliage.

Although the tree's appearance may be somewhat alarming, this seasonal foliage loss is a normal part of conifer growth. The foliage loss is particularly noticeable in western redcedar, where it is referred to as "flagging".

Seasonal foliage loss can also be particularly pronounced in pines. Some years seem to have particularly pronounced seasonal dieback, depending on weather patterns and other stress factors. Thus, even when a tree has excessive interior needle loss, it is not necessarily an indicator of disease, insect attack, or other unhealthy conditions. There are some insects and disease agents that tend to attack a tree's oldest foliage, but these agents usually leave signs of their activity, such as chewing or speckling across the older foliage.

Seasonal Foliage loss in particularly pronounced in pines, with the innermost needles Turning brown and falling off.

Winter "Bronzing" of western redcedar seedling.

Since dieback is a seasonal phenomenon, it should resolve itself with the changing of the seasons. The foliage that has turned orange or brown will be blown out of the trees with the first big windstorms in November or December, which may then suddenly make the tree look much greener and healthier. However, there are other seasonal discolorations that may appear as winter progresses. Again, redcedar is particularly prone to these discolorations. Its foliage may turn a bronze color due to cold, dry weather but then green up again in the spring. Some conifers may also become somewhat discolored in late winter and early spring, due to heavy rains leaching nutrients from the foliage.

Conifers tend to look the healthiest in late spring and early summer. If there is a concern about the condition of a tree, it is beneficial to monitor it for at least a full year (or even several years) to get a better sense of whether there is a sustained pattern of decline or just natural seasonal fluctuations. Of course, if there is an immediate safety concern, a professional arborist or consulting forester can provide a hazard assessment.

Happy New Year!