The sun is shining and spring has finally arrived. I hope you are able to get out to soak up some of those delightful rays! After such a long, snowy February and March it’s nice to see green grass and flowers and to hear the birds chirping, not to mention how the longer daylight affects us all in a positive way.

4-H steer members have had their projects for awhile now and were weighed recently for their beginning weight for the rate of gain contest. The other large livestock species (sheep, goat and swine) have been getting their project animals recently or will be getting them soon. Other projects (cooking, horse, etc) are moving along as well. If you see a 4-H member out and about ask them about their project and encourage them to tell you all about it. Public speaking is one of the life skills that 4-H strives to help youth develop so talking to people outside of their 4-H clubs is an important skill.

Two of our older youth are attending trainings to be part of the camp counselor team for our 4-H Tri-county summer camp that is held the middle of June at Cutsforth Park outside of Heppner. This is a long-standing camp that gets youth out into nature with lots of fun activities (see more on page 2). Thank you to Justin and Calvin for your commitment to the younger 4-H members!

In early April four Wheeler County families hosted nine youth from Portland for a long weekend as part of the Urban to Rural 4-H Exchange. This is the eighth year that Wheeler County 4-H has been a part of the program. This exchange gives urban youth in grades 6th-8th an opportunity to meet rural families and learn about natural resource issues that we face. It is a wonderful program with both urban and rural participants learning a great deal about each other, along as making lasting friendships! A HUGE thank you to the Ryno, Holmes, Fischer and Greene families for hosting this year’s group of youth.

We also have the opportunity for Wheeler County youth in grades 6-9 to Portland for the rural to urban side of the exchange. If you have a youth in these grades and are interested in learning more please contact me at the Extension office.

Have a fabulous spring and summer everyone!
Rock ‘N Roll Tri-County 4-H Camp

Thursday, June 13—Sunday, June 16, 2019
4th—6th Graders

**EARLY BIRD** Registration Due By: May 24th - $85
(includes a camp t-shirt)
(Any registrations after May 25th will not be guaranteed a camp t-shirt))

_Filled on a first—come basis!_ Camp is limited to the first 75 to sign up! Camp is open to youth in Gilliam, Morrow and Wheeler counties who have just finished the 4th-6th grade. Camp is open to non 4-H members as well!

**WHERE:** Cutsforth Park — Approximately 20 miles east of Heppner on Willow Creek Road. Campers’ parents are responsible for transportation to and from camp.

**COST:** Register by May 24th for the low rate of $85. Scholarships are available to enrolled 4-H members. Contact the Extension Office at (541) 763-4115 for availability.

**GREAT CLASSES and CRAFTS:** Fun with science, variety of crafts & more. There will be lots to see, do, learn and explore!

**ACTIVITIES:** Tent camping, singing & skits, campfire, games, crafts plus two fun hike options!

 จากนี้เป็นไปได้ ทำให้คนที่สนใจมีโอกาสที่จะได้รับสิทธิ์ในการเข้าร่วมโครงการในวันที่ 25 มิถุนายน หรือหลังจากนั้นจะไม่ได้รับการยืนยันเพื่อรับชุดที่พิมพ์ไว้ในหน้าก่อนหน้า.

**Registration packets have been mailed out to all enrolled 4-H members!!!**

Camp Horsemanship

A Statewide opportunity to spend 4 full days, June 17-20 with your horse, youth members with like interests and two 4-H judges and experienced quality instructors. This is an excellent way to get preparations going strong for fair, a way to gain horsemanship knowledge of all kinds and to have fun learning about horses and horsemanship.

**Expected schedule will include:**

- “Hands-On” Participation in:
  - Cattle Working
  - Roping a dummy
  - Showmanship & Equitation
  - Ground Work & Trail

Potential visits from other experts may include a veterinarian, a farrier and outdoor cooking/packing enthusiasts.

**Evening activities might include:**

- Equine Photography
- Tack Cleaning
- Knots & Rein Braiding
- Horse Judging
- Ranch Horse Skills

**Registration** is available online at: [https://extension.oregonstate.edu/4h/events/camp-horsemanship](https://extension.oregonstate.edu/4h/events/camp-horsemanship) or call our office or the Deschutes County 4-H Office and ask for Candi Bothum; 541-548-6088 or via email at: candi.bothum@oregonstate.edu

**Cost:** $275; covers all supplies, meals, t-shirt. $75 holds your spot.

**Where:** Deschutes County Fairgrounds, Redmond

Sheep Showmanship & Fitting Clinic

Saturday, July 20th at 9:00AM
Gilliam County Fairgrounds—Beef Barn

$10 Registration Fee—Limited to 30 participants

Topics will include: lamb selection, feeding, show prep. & showmanship.

For more information & to register, please call or email:
Wyatt Wilson; 541-993-5933; 541-454-0017
Amanda Wilson; 541-701-1716; 541-454-0017
lazy4wranch@gmail.com
Sponsored by: D&B Supply

**Lead Instructors:** JoAnn Oswald & Anne Garrett

**Note:** Participants can arrive on Sunday with prior arrangements.
Plant Your Future; Grow Your Goals

Summer Conference is an opportunity for youth grades 7-12 to travel to Corvallis, explore campus life, make new friends, learn, and have a lot of fun. While on campus, participants attend workshops on a wide variety of subjects. Over 80 classes are offered including dog agility, a logging site tour, animal anatomy, fly fishing, origami and etiquette. In addition to attending workshops, participants will hear a nationally acclaimed motivational speaker, participate in a community service project and enjoy many fun activities such as a pool party and dance! Members arrive on campus early Wednesday afternoon, either through their own transportation or on one of the Summer Conference charter buses, then stay in a campus dorm and eat at the dining hall. The conference is capped off with a closing program Saturday morning where new State 4-H Ambassadors and National 4-H Congress delegates are recognized.

Held on the beautiful OSU Campus

Registration fee is $200

Scholarships are available.

Registration is done online and opens on May 15th. You will need to get a password from our office in order to register. Register early, classes fill up quickly! Detailed registration instructions and information are posted on the OSU 4-H Website at: https://extension.oregonstate.edu/4h/member-opportunities#Summer. You can log into the website to check out the classes listed so you can have your list of favorites and backup classes to register for before they fill up!

***Be on the lookout for a special talk about OSU Summer Conference during the Wheeler County 4-H Field Day on May 17th by your County 4-H Ambassadors Calvin Bennett & Justin Bunch! We hope to increase the number of 4-H members attending from Wheeler County this year! If you have any questions or need more information, please contact our office.

The Wheeler County Shooting & More 4-H Club has been working hard this year in order to qualify for the State 4-H Shooting Sports Contest. This year the State contest will be held June 17th-19th in Shedd, OR.

We wish all the members of the Wheeler County Shooting & More 4-H Club the very best of luck in qualifying and participating in the State Contest!

Members:

- Justin Bunch
- Tommy Bunch
- Leland Doudna
- Maddie McMurray
- Max McMurray
- Salvador Miranda-Grunlose
- Maddy Neuburger
- Zach Neuburger
- Kate Newton
- Lily Newton
- Hunter Parmelee
- TJ Stevens
- Sami Stockton

Leaders:

JD & Debbi Bunch, Colin Neuburger
A single serving of raspberries packs a lot of health benefits, say OSU researchers

CORVALLIS, Ore. – Eating the equivalent of one serving of red raspberries every day curbed weight gain in laboratory mice even when they ate an unhealthy, high-fat diet, researchers at Oregon State University found.

The mice also had lower indicators of metabolic problems like diabetes and fatty liver—conditions that afflict an increasing number of people in the United States.

It’s not news that raspberries are good for you, said coauthor Neil Shay, a researcher in OSU’s College of Agricultural Sciences. The surprise, he said, was that even a small amount—the equivalent of sprinkling a cup over your daily breakfast cereal—can pack big benefits.

“We were amazed to see the beneficial effect from the equivalent of a single serving per day,” he said.

The findings are the latest from a series of studies in which Shay and colleagues have fed “power foods” like raspberries, cherries, walnuts, green tea, and even red wine to lab mice, adding them to a fatty and sugary diet similar to the junk-food diet many Americans consume.

Raspberries are particularly powerful, said Shay. Rich in fiber, they also contain tannins, flavor and color compounds and other plant chemicals that, when ingested and metabolized, appear to reduce intracellular damage within cells, which may help cells repair themselves, as well as stimulating the body’s processing of fats and sugars.

The raspberry-fed mice had significantly less fat in their livers at the end of the ten-week study, and their blood glucose measure was statistically equivalent to that of a control group of mice fed a normal low-fat diet.

What’s more, the raspberry-fed mice were visibly slimmer than their counterparts that ate the same high-fat diet but didn’t get the raspberries. “You didn’t need to be a scientist to see the difference at the end of the study,” said Shay.

The research, funded by the National Processed Raspberry Commission, was published earlier this year in the journal Food & Function.

Its findings confirm and extend what Shay and his colleagues found in a similar experiment two years ago, in which they fed mice the equivalent of four servings of red raspberries a day.

“Which is a pretty high amount,” Shay said. “As good as a fruit may taste to you, if you eat it in quantity every day, you’re going to get tired of it. We wanted to see how much we could lower the amount and still see the beneficial effects.”

In the recent study, he and his colleagues fed the mice a high-fat diet that resembled a human's fatty, sugary, 2,000-calorie-a-day junk-food diet. Some mice also ate red raspberries in the form of either juice concentrate or puree concentrate.

The raspberry products accounted for about 2.5 percent of the mice’s daily calorie intake—the equivalent of about 1 cup of berries daily (50 calories) for a person. The rest of their diet was adjusted to account for the carbs and calories in the raspberries, so that all the study mice ate the same number of calories per day. A third group of control mice was fed a normal low-fat mouse diet.

All the study mice gained weight over the course of the study, but the ones that ate the raspberry products gained significantly less. At week 10, they weighed between 15 and 17 percent less than the mice that didn’t eat the raspberries.

Similarly, both groups developed fat in their liver tissue, but the raspberry-fed mice ended up with between 42 and 47 percent less liver fat than their raspberry-deprived counterparts.

Finally, the raspberries seemed to help the high-fat-fed mice regulate their blood glucose and blood insulin better. High levels of glucose and insulin in the blood are associated with diabetes and other metabolic disorders.

Blood glucose increased in the mice that ate the high-fat diet without the raspberries, but it stayed low in the high-fat-fed mice that got the raspberries; their blood glucose levels were “statistically indistinguishable” from those in the low-fat-fed control mice.

As for insulin, mice fed the raspberry juice concentrate had blood insulin levels that were statistically equivalent to those of the low-fat-fed control mice. Mice that got the raspberry puree also had lower levels of insulin, although not so low as those that got the juice concentrate.

The study dealt with mice, not humans, Shay cautioned. “We need more human studies to confirm the findings,” he said.

“Yet it’s becoming clear that, if people include these foods in their diet—cherries, raspberries, walnuts, green tea—in reasonable amounts, it’s going to benefit them. And there’s not a lot of downside associated with the consumption of these foods.”

*Story Source: Neil Shay*
Preventive pest management is emphasized over reactive pest control. Identify and monitor problems before acting and opt for the least toxic approach that will remedy the problem. The conservation of biological control agents (predators, parasitoids) should be favored over chemical controls. Use chemical controls only when necessary and only after thoroughly reading the pesticide label. First consider cultural, then physical and biological controls. Choose the least-toxic options (insecticidal soaps, horticultural oils, botanical insecticides, and organic and synthetic pesticides — when used judiciously).

Planning
- Prepare and prime irrigation system for summer.
- Use a soil thermometer to help you know when to plant vegetables. Wait until the soil is consistently above 70 degrees Fahrenheit to plant tomatoes, squash, melons, peppers and eggplant.
- Place pheromone traps in apple trees to detect presence of codling moth. Plan a control program of sprays, baits, or predators when moths are found.

Maintenance and Clean Up
- If needed, fertilize rhododendrons and azaleas with a fertilizer. If established and healthy, their nutrient needs should be minimal. Remove spent blossoms.
- When selecting new roses, choose plants labeled for resistance to diseases. Fertilize roses and control rose diseases such as mildew with a registered fungicide.

Planting/Propagation
- Plant dahlias, gladioli, and tuberous begonias in mid-May.
- Plant chrysanthemums for fall color.
- Plant these vegetables (dates vary locally; check with local gardeners):
  - Lower elevations, eastern Oregon (dates vary widely): Snap and lima beans, beets, celery, sweet corn, slicing and pickling cucumbers, dill, kale, kohlrabi, onions, parsley, parsnips, peppers, white potatoes, pumpkins, summer and winter squash, and tomatoes.
  - Central Oregon and higher elevations of eastern Oregon: Direct seed carrots, corn (late May), chard, kohlrabi, and potatoes. Transplant Brussels sprouts, cauliflower, cucumbers (late May), leeks, or peppers.
  - Columbia and Snake River valleys, Ontario: Cantaloupes, dill, eggplant, kale, okra, peppers, sweet potatoes, tomatoes, and watermelon.

Pest Monitoring and Management
- If an unknown plant problem occurs, contact your local Master Gardener hotline or plant clinic, for identification and future management options.
- Manage weeds while they are small and actively growing with light cultivation or herbicides. Once the weed has gone to bud, herbicides are less effective.
- Trap moles and gophers as new mounds appear.
- Leafrolling worms may affect apples and blueberries. Prune off and destroy affected leaves.
- Monitor aphids on strawberries and ornamentals. If present, control options include washing off with water, hand removal, or using registered insecticides labeled for the problem plant. Read and follow all label directions prior to using insecticides. Promoting natural enemies (predators and parasitoids that eat or kill insects) is a longer-term solution for insect control in gardens.
- Spittle bugs may appear on ornamental plants as foam on stems. In most cases, they don't require management. If desired, wash off with water or use insecticidal soap as a contact spray. Read and follow label directions when using insecticides, including insecticidal soap.
- Control cabbage worms in cabbage and cauliflower, 12-spotted cucumber beetles in beans and lettuce, and maggots in radishes. Control can involve hand removal, placing barrier screen over newly planted rows, or spraying or dusting with registered pesticides, labeled for use on the problem plant. Read and follow label directions when using insecticides.
- Tiny holes in foliage and shiny, black beetles on tomato, beets, radishes, and potato indicate flea beetle attack. Treat with Neem, Bt-s, or use nematodes for larvae. Read and follow label directions when using insecticides.
- Prevent root maggots when planting cole crops (cabbage, broccoli, collards and kale) by covering with row covers or screens, or by applying appropriate insecticides.
- Monitor rhododendrons, azaleas, primroses and other broad-leaf ornamentals for adult root weevils. Look for fresh evidence of feeding (notching at leaf edges). Try sticky trap products on plant trunks to trap adult weevils. Protect against damaging the bark by applying the sticky material on a 4-inch wide band of poly sheeting or burlap wrapped around the trunk. Mark plants now and manage with beneficial nematodes when soil temperatures are above 55 degrees Fahrenheit. If root weevils are a consistent problem, consider removing plants and choosing resistant varieties (PDF).
- Control slugs with bait or traps and by removing or mowing vegetation near garden plots.
- Monitor blueberry, raspberry, strawberry and other plants that produce soft fruits and berries for Spotted Wing Drosophila (SWD). Learn how to monitor for SWD flies and larval infestations in fruit.

Trade-name products and services are mentioned as illustrations only. This does not mean that the Oregon State University Extension Service endorses these products and services or intends to discriminate against products and services not mentioned.
June Gardening Calendar

Planning
- Construct trellises for tomatoes, cucumbers, pole beans, and vining ornamentals.

Maintenance and Clean Up
- Prune lilacs, forsythia, rhododendrons, and azaleas after blooming.
- Fertilize vegetable garden 1 month after plants emerge by side dressing alongside rows.
- Harvest thinnings from new plantings of lettuce, onion, and chard.
- Pick ripe strawberries regularly to avoid fruit-rotting diseases.
- Use organic mulches to conserve soil moisture in ornamental beds. An inch or two of sawdust, barkdust, or composted leaves will minimize loss of water through evaporation.
- After normal fruit drop of apples, pears and peaches in June, consider thinning the remainder to produce a crop of larger fruit.
- Make sure raised beds receive enough water for plants to avoid drought stress.
- **Mid-June:** If green lawns are being maintained through the summer, apply 1 pound nitrogen per 1,000 square feet to lawns.
- **Central Oregon and higher elevations of eastern Oregon:** Frost can still be a concern during cold nights. Protect young vegetables from frost by having row cover (frost cloth) on hand. Place over crops when needed. Use season extenders, such as walls of water, around tomatoes and other tender plants.
  - If green lawn is desired, frequent watering is necessary during periods of heat and drought stress. Irrigate 0.25 inches four to six times per week from June through August. Measure your water use by placing an empty tuna can where your irrigation water lands.

Planting/Propagation
- Plant dahlias and gladioli.

Pest Monitoring and Management
- **Central Oregon and high elevations of eastern Oregon:** Manage weeds while they are small and actively growing with light cultivation or herbicides. Once the weed has gone to bud, herbicides are less effective.
  - **First week:** Spray cherry trees for cherry fruit fly, as necessary, if fruit is ripening.
  - **First week:** Spray for codling moth in apple and pear trees, as necessary. Continue use of pheromone traps for insect pest detection.
- Learn to identify beneficial insects and plant some insectary plants (e.g. Alyssum, Phacelia, coriander, candytuft, sunflower, yarrow, dill) to attract them to your garden. Check with local nurseries for best selections. For more information, see *Encouraging Beneficial Insects in Your Garden* (PNW 550).
- **Blossoms on squash and cucumbers begin to drop; this is nothing to worry about. Cherries may also drop fruit; this is not a major concern.**
- **Monitor azaleas, primroses and other broadleaf ornamentals for adult root weevils.** Look for fresh evidence of feeding (notching at leaf edges). Try sticky trap products on plant trunks to trap adult weevils. Protect against damaging the bark by applying the sticky material on a 4-inch wide band of poly sheeting or burlap wrapped around the trunk. Mark plants now and manage root weevils with beneficial nematodes when soil temperatures are above 55 degrees Fahrenheit. If root weevils are a consistent problem, consider removing plants and choosing resistant varieties.
- **Control garden weeds by pulling, hoeing, or mulching.**
- **Control aphids on vegetables as needed by hosing off with water or by using insecticidal soap or a registered insecticide.**
- **Watch for 12-spotted beetles on beans, cucumbers and squash and cabbage worms or flea beetles in cole crops (cabbage, broccoli, Brussels sprouts). Remove the pests by hand or treat with registered pesticides.**
- **Birch trees dripping a sticky fluid from their leaves means that aphids are present. Control as needed.**
- **Use yellow sticky traps to monitor for cherry fruit fly. About 1 week after the first fly is caught, spray cherries at appropriate intervals.**
- **Last week:** Second spray for codling moth in apple and pear trees, as necessary.
- **Continue monitoring blueberry, strawberry, cherry and other plants that produce soft fruits and berries for Spotted Wing Drosophila (SWD).** If SWD are present, use an integrated and least toxic approach to manage the pests. To learn how to monitor and manage SWD.

Houseplants and Indoor Gardening
- Move houseplants outdoors for cleaning, grooming, repotting and summer growth.

*Trade-name products and services are mentioned as illustrations only. This does not mean that the Oregon State University Extension Service endorses these products and services or intends to discriminate against products and services not mentioned.*
MONTHLY PREPAREDNESS TOPIC

FOOD IN EMERGENCIES

HOW TO PREPARE:

Keep Foods That:
• Have a long storage life.
• Require little or no cooking, water, and refrigeration.
• Meet specific food needs for your family.
• Are not salty or spicy. (will lead to higher water consumption rate.)

Storage Tips:
• Keep food in a dry, cool spot.
• Wrap perishable food in plastic and keep in sealed containers.
• Empty packages into air-tight containers for pest protection.
• Write the expiration date on all items, and replace when needed.
• Store a can opener and bottle opener, and get rid of swollen, dented, and corroded cans.

Calorie Intake:
• Go by Calories, not serving size.
• People with average activity level need:
  • Males – 2,800+ Calories
  • Females – 2,200+ Calories
  • Children < 13 – 1,440 Calories

SAFE FOOD PRACTICES

USE WITHIN 6 MONTHS
• Powdered Milk (boxed)
• Dried Fruit

USE WITHIN 1 YEAR OR BEFORE LABEL DATE
• Canned condensed soups, fruits, fruit juices, meats, and vegetables
• Nut Butters and Jelly
• Canned dry nuts
• Hard Candy
• Vitamins
• Dry cereals and uncooked instant cereals
• Vegetable Oils

MAY BE STORED INDEFINITELY IN PROPER CONTAINERS
• Powdered milk (canned)
• Wheat
• Dried Corn, pastas, and rice
• Baking Powder
• Soybeans
• Salt
• Noncarbonated soft drinks
• Bouillion products
• Instant coffee, tea, and cocoa

HOW TO COOK
• For emergency indoor cooking, you can use a built-in fireplace (check the chimney first for obstructions or damage).
• A charcoal grill or gas stove should only be used outdoors.
• Canned food can be eaten straight out of the can. If you heat it in the can, remove the lid and the label first!

IF ELECTRICITY GOES OUT
1. Use all perishable items from the refrigerator, pantry, garden, etc.
2. Use foods from the freezer.
3. Begin to use non-perishable foods and staples.

TIPS!
• Keep hands clean using antibacterial gel or wipes to avoid getting sick!
• Inspect all foods, especially cans, for signs of damage or spoilage before eating.
• Purchase 1 or 2 extra items every time you go to the grocery store to create a stockpile.
Pork Basics

Shop and Save

- Pork costs less than most other meats.
- Look for a “BEST if used by” date on the package.
- The leanest cuts of pork include tenderloin and loin or rib chops and roasts. Look for ground pork that is at least 85% lean.
- Canned pork is available ground or cubed. Open the can and lift off the fat. Try it in soups, sauces or recipes using cooked pork.
- Slice pork tenderloin into boneless chops or cubes.

Keep It Safe!

- Pork is an excellent source of thiamine as well as protein.
- Follow these guidelines when handling meat:
  - **Clean**: Wash hands, utensils and surfaces often with hot soapy water.
  - **Separate**: Keep raw meat and juices from contacting other raw or cooked foods.
  - **Cook**: Cook to at least 145 degrees F (160 degrees for ground meats). Wait 3 minutes before cutting or eating.
  - **Chill**: Refrigerate both raw and leftover cooked meats as soon as possible.

Store Well

- Refrigerate fresh pork and cook or freeze within 3 to 5 days. Keep tightly wrapped to prevent drying.
- Freeze raw pork for longer storage. Divide into amounts for a single use. Package in freezer-quality wrap and remove as much air as possible. Label and date. Use within 4 to 6 months for best quality.

Waste Less

- Refrigerate cooked pork for 3 to 4 days or freeze and use within 2 to 3 months in any recipe using cooked pork.
- Store canned pork in a cool dry place for up to 2 to 3 years. Refrigerate after opening and use within 3 to 4 days or freeze and use within 2 to 3 months.

Thaw frozen meat safely:

- Never leave meat at room temperature to thaw.
- Thaw in the refrigerator; use a container to catch any liquids. To thaw faster, cover package with cold water or microwave on defrost; cook right away.
Pork Chili

**Ingredients:**
- ½ pound lean pork, ground or small cubes
- 1 cup onion, diced
- 1 teaspoon ground cumin
- 2 teaspoons chili powder
- ¼ teaspoon pepper
- ½ teaspoon garlic powder
- ½ teaspoon dried oregano
- 1¾ cups (15-ounce can) cooked beans, any type; drain and rinse canned beans
- 1 cup corn, frozen or canned/drained
- 2 cups chicken broth
- ¼ cup (4-ounce can) diced green chilies

**Directions:**
1. In a large saucepan, brown pork with onion. Stir in cumin, chili powder, pepper, garlic powder and oregano.
2. Add beans, corn, broth and green chilies. Bring to a boil.
3. Reduce heat, cover and simmer for 15 to 20 minutes.
4. Refrigerate leftovers within 2 hours.

**Makes** 5 cups
**Prep time:** 15 minutes  
**Cook time:** 25-30 minutes

---

Fried Rice with Pork

**Ingredients:**
- 2 Tablespoons low-sodium soy sauce
- ½ teaspoon garlic powder
- ¼ teaspoon black pepper
- ½ pound lean pork, ground or small cubes
- 1 teaspoon oil
- ¼ cup carrot, sliced or grated
- ¼ cup onion, chopped
- ½ cup chopped vegetables, fresh, frozen or leftovers (try broccoli, celery, bell pepper, peas or snow peas)
- 2 cups cooked, cooked rice, white or brown

**Directions:**
1. Mix soy sauce, garlic powder and pepper together in a small dish. Set aside.
2. In a large skillet over medium-high heat, sauté pork in oil until just lightly browned. If using ground pork, break into crumbles as it cooks.
3. Add carrots, onion, and chosen vegetables. Sauté until tender, stirring frequently.
4. Stir in rice and seasoning mixture, breaking up any clumps of rice. Continue to heat and stir until heated through.
5. Refrigerate leftovers within 2 hours.

**Notes:**
- Leftover, cold rice makes a better texture than freshly cooked warm rice.
- Substitute 1 cup cooked or canned pork. Add with the vegetables.
- Mix ½ teaspoon sesame oil or some ginger powder with the soy sauce.
- Add sliced green onions or bite-sized pineapple (fresh, frozen, or canned).

**Makes** 4 cups
**Prep time:** 15 minutes  
**Cook time:** 15-20 minutes

---

**Kids Can!**

When kids help make healthy food, they are more likely to try it. Show kids how to:
- Measure and mix ingredients.
- Slice veggies on the diagonal, Asian style.
- Use a long-handled spoon or spatula to stir foods safely during cooking.
The Importance of Slash Management
What is slash? Is it harmful, beneficial or a little bit of both?

By Daniel Leavell, Extension Forester in Klamath & Lake Counties

SLASH - WHAT IS IT?

Slash. Defined within the Dictionary of Forestry (Helms, et. Al., 1998) as “the residue, e.g., treetops and branches, left on the ground after logging or accumulating as a result of storm, fire, girdling, or delimming”. The 1962 (7th) edition of a 1921 forestry textbook, The Practice of Silviculture, says, “The appearance of debris left by harvesting operations is so offensive that it is not easy to be entirely objective about determining the extent of disposal. Slash can be simultaneously harmful and beneficial...”. This has been validated by the foundation of science since that publication. For this narrative, we would also like to add other vegetative, woody material produced in pruning, trimming, or other types of removal, be it yard or forest. This can also include accumulations of pine needles, leaves, and other woody debris.

CAN SLASH BE HARMFUL?

Live or dead, small or large slash is fuel. Given the right conditions of temperature and dryness, and ignited – fuel burns. The harmful impacts to slash burning is that it can serve as ladder fuels, heating other fuels to burn. This can be the trees and other vegetation we want to maintain, or worse yet, our homes or other structures. Slash loading (how big the piles and stacks are), distribution (vertical or horizontal, close or at a distance), and size of material (small, fines dry out sooner and burn faster than large sizes), determines fire behavior if ignited with any heat source. Slash as fuel can be a high hazard to homes, yards and forests. The International Association of Certified Home Inspectors recommends mitigating risk of accumulated woody fuels by properly disposing slash at the right time of year (https://www.nachi.org/slash-piles.htm). The Klamath-Lake Forest Health Partnership (K-LFHP) with the Oregon Department of Forestry (ODF) has developed an informative brochure, “Burning Slash Piles” (https://goo.gl/cG84Aj). Follow these guidelines for safe and effective burning and/or disposal of slash accumulations. The OSU Extension publication, EM 9116 (https://catalog.extension.oregonstate.edu/em9116), provides good guidelines within varying distances from your home for treating slash and other fuels to maximize hazard reduction.

Another way slash can be harmful, especially in dry, ponderosa pine or lodgepole pine vegetation types is the relation of slash to bark beetle infestations. Bark beetles use slash as host materials to breed and develop broods. Offspring infest surrounding trees at certain times of the year. ODF (Forest Health, http://tinyurl.com/odf-foreshealth) recommends, “The easiest way to prevent bark beetles from infesting slash is to avoid creating slash between late winter and early summer (January-July), or create slash only from mid-October through December to allow enough time for it to dry. Slash must be scattered in an area with sun exposure, to effectively dry out within this window of time. Slash over a year old is generally not suitable for bark beetles.”
Accumulations of slash can also be harmful to the success of regenerating trees, preventing seedlings from rooting in bared soil. Tree planting can be very difficult in layers of piled woody debris. The aesthetics of stacks of ragged debris can be very negative.

**HOW CAN SLASH BE BENEFICIAL?**

Once the hazards of accumulated woody fuels is properly reduced where important and at the right times of the year - and the risks mitigated, leaving slash can be beneficial.

Leaving an amount of organic slash distributed across the forest floor can be similar to leaving mulch on a garden. Soils are protected from moisture loss and erosion - and nutrients are recycled to add to the fertility of the soil. Water holding capacity, nutrient storage, soil aeration, nitrogen fixation, and other soil functions require the input of organic materials back into the soil. About half of a conifer's above-ground nutrients are stored in the needles, twigs, and small branches of the tree and tree growth can be significantly reduced by nutrient deficiencies (https://goo.gl/jc3kpy). The Schnepf, e. al., 2009 publication (previous link) gives recommendations for how much woody debris to leave based on the dominant conifer type.

<table>
<thead>
<tr>
<th>Table 2. Coarse woody debris recommendations for maintaining long-term forest growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Warmer Drier</td>
</tr>
<tr>
<td>Forests</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cooler Moistur</td>
</tr>
<tr>
<td>Forests</td>
</tr>
</tbody>
</table>

Note: These are approximate recommendations. For specific recommendations for individual habitat types, see Graham et al. (1994) in the reference section.

1 Climax species are the tree species that would dominate a site after a long period of forest succession (100-400 years) with little or no disturbance. On most forest sites, the climax species will be the most shade-tolerant conifer you can find growing in the understory at a rate of 10 or more trees per acre.


Piles of slash can also be beneficial as habitat for wildlife. Species of wildlife are opportunists and will use slash piles as habitat. Strong, et. al., 2016 (https://goo.gl/JFnC6C) provides excellent recommendations for what sizes and heights of piles for maximum wildlife habitat effectiveness. An example, “Landowners can place at least 3-5 layers of larger logs crisscrossed, or longwise in triangular 3’s, to provide a core habitat with nesting and denning spaces. These piles are then covered with a few layers (about 2-3 feet deep) of fine branches.” Strategically placed, wildlife habitat can be achieved without risk and hazard.

Reducing hazard and mitigating risk while providing for nutrient input and wildlife habitat is a balancing act within a solid land management plan and/or landscape plan. Consult local expertise for assistance, such as Oregon State University Extension Foresters and/or Oregon Department of Forestry Forest Stewards.

**OTHER CONSIDERATIONS**

Prescribe burning. Defined as: “A controlled or prescribed burn, also known as hazard reduction burning, backfire, swaling, or a burn-off, is a wildfire set intentionally for purposes of forest management, farming, prairie restoration or greenhouse gas abatement.” (https://en.wikipedia.org/wiki/Controlled_burn)

There can be many benefits to controlled burning under certain conditions. This requires many agreements in place between Federal, State, and non-profit agencies and entities authorized to burn – and between these entities and private landowners. Progress is being made with the Oregon Prescribe Fire Council and Partnerships across the State. Off-setting liability while providing equipment and expertise of professional firefighters is not complete yet, but being worked on as of this publication.

Lop and scatter, mastication, or chipping and hauling. These are other ways to reduce excessive slash fuels – by hand or by machine. Labor and machine costs can be high and can require a lot of time to accomplish significant acres to make a difference.

Biochar. Reducing large, industrial-sized piles of accumulated slash can be reduced and turned into biochar to be used as a soil augmentation. This is currently being demonstrated and tested for effectiveness throughout the dry side of our State. Other articles in this issue of our newsletter discuss the demonstrations more in depth.

**ADDITIONAL REFERENCES:**


This article is from the Winter 2019 Edition of “Life on the Dry Side” OSU Forestry & Natural Resource Newsletter.
Tansy ragwort, Senecio jacobaea, is a noxious weed that causes alarm for most cattle producers and horse owners. The poisonous alkaloids in this plant cause irreversible liver damage to animals (and humans) if consumed. All of its parts are toxic, with the highest amount of alkaloids in flowers then leaves, roots and stems and the plant remains toxic when dried in hay.

In the summertime, with showy yellow flowers standing tall, tansy ragwort is easy to identify and seeing it prompts people into action. The problem is that in July and August, management options are few and landowners are often discouraged by the recommendation given to manually dig and bag up the plants to take to the landfill.

In the spring however, there are several effective management options. Right now is time of year to walk through your fields and identify tansy ragwort. If tansy was a problem on your property last year, you will likely find young plants. Right now, plants are actively growing at the rosette stage with ruffled dark green leaves that may have a reddish tinge.

Biological control is working right now too. The commonly known cinnabar moth will be seen later in the year, but right now the ragwort flea beetle, Longitarsus jacobaeae is out in force and devouring tansy plants. The adults feed on the leaves and the larvae damage the roots. Look for these golden to light brown colored beetles on and under the leaves of the plants. If you find them on your site, consider leaving some tansy ragwort as a food source, especially in areas that may not impact your livestock.

Sheep can also help manage tansy ragwort, as they are known to tolerate the toxic alkaloids. However, they may choose to graze other desirable plant species before consuming large amounts of tansy. Nevertheless, grazing sheep on your property will help with long-term weed management.

Since the ground is moist and the plants relatively easy to pull, right now is the time to manually remove tansy. Tansy spreads vegetatively, so be sure to remove the fleshy taproot otherwise, the plant will regrow. Right now, these young plants could be added to a hot compost system, buried or added to a burn pile. Mowing is not a suggested management practice as it stimulates more vegetative growth.

If you have a large infestation, you may choose to apply an herbicide. All of the broadleaf herbicides labeled for tansy ragwort are most effective on young, actively growing plants. If you would like to spray to help manage tansy you need to do it right now. Oregon spring weather is unpredictable; plan ahead and watch for a window of calm, dry weather to spray. The Pacific Northwest Weed Management Handbook includes a list of labeled herbicides for tansy ragwort.

Finally, the truth of the matter, which is tansy ragwort infestations are often the worst in overgrazed pastures with bare or compacted soil. Along with managing weeds this spring, also consider ways you can manage pastures that will enhance forage growth for the long haul. Start planning, right now, if you are considering reseeding your pasture in the fall.
EHV-1: How to Prevent and Manage the Infection on Your Farm

With new cases of confirmed EHV-1 in Nevada, we wanted to share important biosecurity measures with our readers.

Article from Tufts University, Cummings School of Veterinary Medicine. https://news.vet.tufts.edu/2016/03/ehv-1-prevention/

Equine Herpesvirus type 1 associated myeloencephalopathy (EHM)

EHV-1 is a common viral infection worldwide that is mostly spread by reactivation of virus in non-symptomatic, latently (silently) infected horses. Although many infections go unrecognized, some are associated with respiratory disease of varying severity, abortion, neurological disease or newborn foal death. Neurological disease due to EHV-1 infection is often referred to as equine herpesvirus myeloencephalopathy or EHM, and may present with a sudden onset of weakness, incoordination or imbalance, and bladder dysfunction (urine dribbling). Neurological signs generally develop 4–9 days after the initial EHV-1 infection (1-4 days after resolution of fever). Older animals are considered at increased risk for development of EHM during an EHV outbreak. In order to promote further awareness of this disease among horse owners and veterinary professionals, the following general recommendations have been adapted from the USDA, animal and plant health inspection service, and recent publications (Dunowska 2014) to facilitate biosecurity in the field setting.

How can I limit exposure of my horse to EHV-1?

Key fact: The ultimate reservoir of EHV-1 is the HORSE, including both virus shed from actively infected, sick animals and reactivated virus from so-called healthy carrier horses (silent shedders). Both the common (wildtype) and a mutant neuropathogenic EHV-1 strain can lead to neurological signs.

Animals most susceptible to EHV-1 infection: Equids (e.g. horses, ponies, donkeys), camelids (llamas, alpacas)

Bringing in New Horses or Returning Horses to the farm (this is the most likely way for infectious diseases to enter the property):

Potential ISOLATION PROTOCOLS in high risk environments (precautions taken for horses returning from facilities with uncertain exposure to infectious diseases):

- Keep every new horse ISOLATED for at least 3 weeks. Ideally these horses should be housed in a separate building. If you do not have a separate barn, the following options can be considered:
  - Keep the horse outside if you have a shelter
  - Keep the horse at the end of the barn (low traffic area) and ensure that there is a minimum of one stall space between the isolated horse and other animals
  - A physical barrier (plastic drapes) may help, but will not eliminate spread disease spread of particles transmitted though droplets in the air.
  - The minimum distance between horses suspected of having been exposed to EHV-1 should be 35 feet (distance particles may be spread after sneezing)
  - Don’t use pitchforks, grooming tools, or feed and water buckets on any horse but the isolated one. Mark these with red tape to color-code brushes, buckets, cleaning equipment etc., only for the isolation area.
  - Use dedicated clothing (coverall, boots, shower cap) and remove these before leaving the isolation area. You can keep these in a plastic-covered tub near the horse.
  - Always wash your hands after working with an isolated horse.
  - Work with the isolated horse last each day. Only allow access to dedicated personnel if possible.
  - Take the isolated horse’s temperature twice a day and consult your veterinarian if the body temperature rises above 101.5°. Watch for signs of dullness, nasal discharge, inappetence, lack of balance or incoordination, as directed by your primary veterinarian.

Visiting other Farms, Horse Shows, or Auctions

- Have a pair of shoes that you save for visiting and don’t wear around your own horse
- If you are going to be working with horses on another farm, wear coveralls or plan to change clothes before returning to your horse
- Avoid contact of your horse to other animals, people and shared equipment at shows
EHV-1: How to Prevent and Manage the Infection on Your Farm (continued)

For Visitors to your Farm or Horse
- It is best to have only one way into your farm. Mark this as the main entrance.
- Park away from the horses. Doing this will help keep disease-carrying organisms from being tracked from car floors or tires to your animals.
- Ask all visitors to wear clean clothes and shoes. Give visitors plastic shoe covers, or brush dirt off their shoes and spray them with disinfectant. If you have many visitors, such as at a farm tour or open house, make a footbath for them to walk through.
- Talk to your farrier and primary veterinarian about specific measures they can institute to limit possible cross contamination between animals they visit.

Transporting horses
- Always clean and disinfect vehicles used for moving horses and other livestock after each use (if the vehicle smells of “horse”, it has not been effectively cleaned)
- Use a spray disinfectant over areas with which horses have made contact.

Disinfection
Herpes viruses are susceptible to many disinfectants. In general, a 1:10 dilution of bleach to water is effective against EHV-1. Both alcohol and bleach disinfectants are inactivated by organic matter, such as manure and soil. Before disinfection, all areas must be thoroughly cleaned with soap or detergent to decrease the organic matter present. In barn environments, it is advisable to use a disinfectant that retains activity in the presence of organic matter since it cannot be completely eliminated. Phenolics, such as 1 Stoke Environ® or SynPhenol-3®, and accelerated hydrogen peroxide products, such as Virkon® and Accel®, retain activity in the face of residual organic matter better than most other disinfectants. Be sure to follow manufacturer recommendations and label instructions!

If I get EHV-1 on the farm, how should I handle this?
All management of EHV-1 should involve close communication with your primary and state veterinarians!

1. Establish an EARLY diagnosis through PCR analysis of whole blood and nasal swabs for genomic copies of EHV-1 (including neurotrophic strains). Be aware, that neurological signs often develop after the virus is no longer detected in blood (cessation of viremia). Therefore, in some cases both nasal swabs and blood samples may be EHV-1 negative by the time they are collected from clinical cases of EHM.

2. Prevent further spread of the virus from initially infected horses to other horses on the farm
   - ALL personnel handling or caring for animals should be educated about isolation procedures
   - Only allow dedicated personnel (who do not handle any other horses) to come into contact with equipment (label or color code buckets, halters, lead ropes etc.)
   - Wear protective outer clothing (including hair-cover), disposable latex gloves and disinfectant-immersible footwear, all of which needs to be removed upon leaving the isolation area.
   - Once an EHM (suspect) case has been identified, recording rectal temperatures twice daily of the general equine population should be mandatory. Any additional cases of fever (T > 101.5 in any horse or T > 100.5 in horses receiving anti-inflammatory medications such are bute or banamine) should be thoroughly investigated and immediately isolated from other horses.
   - Horses can shed EHV-1 (from the nose) for up to 3 weeks after infection. Quarantine periods may be mandated for up to 28 days following resolution of viral shedding and fevers in affected horses.
   - EHV-1 does not survive well outside of the horse. Experimentally, the virus survived for up to a week at ambient temperatures when dried onto paper, wood or rope, and up to 35 days on horsehair or burlap.

   - **Treatment** of individual, affected horses generally focuses on reducing the inflammation associated with EHV-1-induced vasculitis (inflammation). Anti-viral therapy (most commonly Valacyclovir given by mouth) has been used to reduce viremia (virus in the blood) in individual horses.

   - **Vaccination**: None of the available vaccines are currently marketed for prevention of EHV-1 neurological disease, nor claim to prevent establishment of latency following EHV-1 infection. However, routine vaccination is recommended to reduce the degree and duration of viral shedding in horse populations. The duration of natural immunity following EHV-1 infection is thought to be short, and re-infection can occur every 3–6 months.
The Wheeler SWCD has partnered with Crooked River Weed Management Area (CRWMA) providing assistance to private landowners to help control **Yellow starthistle** within Wheeler, Jefferson, and Crook Counties. Yellow starthistle, a winter annual is a strong invader that chokes out native plants, reducing biodiversity and wildlife habitat and forage for livestock. Another concern associated with the plant is “chewing disease” that develops in horses, affecting their nervous system when eaten. Please call Wheeler SWCD 541-468-2990 Bodie Brown or CRWMA 541-447-9971, for more information.

Also available...Biocontrol for landowners in Crook, Wheeler, and Jefferson counties for Russian knapweed, Canada thistle, and Leafy spurge. Biological control is the use of selected natural enemies to control targeted weeds. They affect weeds by directly targeting plant tissues either through their removal or destruction, or indirectly by creating galls, that interfere with tissue functions and stress the plants. See ODA's biocontrol program for more information [https://www.oregon.gov/ODA/programs/Weeds/Pages/BiologicalControl.aspx](https://www.oregon.gov/ODA/programs/Weeds/Pages/BiologicalControl.aspx) and contact CRWMA 541-447-9971 or Wheeler SWCD 541-468-2990 if interested.

---

**Voting is easy:**

1. **RAISE YOUR HAND**
   
   Go to 4-H.org.RaiseYourHand to support youth in your community.

2. **COMPETE FOR YOUR STATE**
   
   Raising your hand is a vote for your state to win $20,000, $10,000 or $5,000 to bring 4-H skill-building programs to more kids.

3. **PAY IT FORWARD**
   
   Share your support with friends and family on social media using the #4HGrown hashtag!

   Then ask them to raise their hand for kids in their community at 4-H.org.RaiseYourHand
**Wheeler County Extension Service Calendar**

**May**
17  Fairgrounds Clean-Up, 9-12
17  4-H Field Day, 1-4 pm, Wheeler County Fairgrounds

**June**
2    Sheep, Goat & Swine Weigh-In; throughout the county
8-9  Horse Clinic, Wheeler County Fairgrounds
13-16 Tri-County 4-H Camp; Cutsforth Park
17-19 State 4-H Shooting Sports Contest, Shedd
17-20 Horsemanship Camp; Deschutes County Fairgrounds
26-29 OSU Summer Conference; OSU Campus, Corvallis

**July**
13-14 Ranch Horse Clinic, Wheeler County Fairgrounds
20   4-H Horse Show, Wheeler County Fairgrounds
20   4-H Sheep Fitting and Showmanship Clinic, Gilliam County Fairgrounds, 9 am
27   Small Animal Market Weigh-in, throughout the county
29   Wheeler County Fairgrounds Clean-up day