Master Gardener Program Working as Envisioned

By Mitch Lies, GROWING Editor

Corvallis resident Pat Wray signed up for the Benton County Master Gardener program because he wanted to improve his gardening skills. “Basically, I just wanted to learn how to grow better vegetables,” Wray said.

Nearly nine years later, Wray is still active in the program and contributing to it on a regular basis.

Like many Linn County and Benton County Master Gardeners, some of whom have been with the program as long as 20 years, Wray has found several reasons to stay with the program.

“As I progressed through the training and got to know the veteran Master Gardeners, I began to realize how involved they are in the community, and how much good they are doing in teaching people the best ways to grow fruits and vegetables,” he said. “My wife and I both became attracted to their level of effort and the things they were trying to do, and we gradually got drawn into it.”

Becoming a Master Gardener involves participating in an initial classroom-based training and performing a minimum of 66 hours of volunteer service. Classes, which are offered weekly starting in January of each year and going through late March, cover topics such as soil health, plant identification, and include education on issues such as plant diseases, insects, weeds and even wildlife pest management.

The training, which is designed to prepare Master Gardeners for questions they are likely to field from the general public, is challenging and rewarding for those who complete the course, said Brooke Edmunds, a horticulture Extension agent for Oregon State University who oversees the Master Gardener programs in Linn and Benton counties.

“This is essentially college level instruction on horticulture,” she said, “and it is an inside peek to OSU research. The volunteers get to meet OSU professors and community experts, and ask questions. The program is attractive to life-long learners.”

Benton County Master Gardeners Don and Debbie Lauer at a grape pruning workshop outside of Corvallis. Master Gardeners are provided classroom and hands-on training.

Seed to Supper Supplementing Food Budgets

By Mitch Lies, GROWING Editor

Judith Kenner has been participating in the Benton County Master Gardener program for three years. Her favorite volunteer program: Seed to Supper.

“Seed to Supper not only helps low-income families with their food budget, but it also helps expand and improve their nutritional choices,” Kenner said.

Kenner, of Corvallis, is one of several Master Gardeners that participate in the program, a six-week beginning gardening course offered in several Oregon counties, including Linn and Benton.

The program will be offered at eight to ten sites in Linn and Benton counties in 2019.

The course, a joint project of the Oregon State University Extension Service’s Master Gardener program and the Oregon Food Bank, is designed to give novice gardeners “the tools and confidence they need to successfully grow a garden.”

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INSIDE: Check out upcoming classes and events of interest to home gardeners. Winter field crops meetings. Find out why sitting is the new smoking.
Who We Are

The Oregon State University Extension offices in Linn County and Benton County offer practical, lifelong learning experiences. We sponsor conferences, workshops, demonstrations, tours, and short courses. We recruit, train, and manage volunteers who assist us with community outreach and education. Our Extension faculty and volunteers answer questions and give advice by phone, in person, through e-mail, and on our Websites. We provide brochures and flyers with specific information on a variety of subjects. We are funded by a cooperative partnership between Oregon State University, the U.S. Department of Agriculture, and our local counties.

Office locations and hours

The Benton County office is located at 4077 SW Research Way in Corvallis. Office hours are 8 a.m. until 5 p.m. Monday through Friday. Telephone: 541-766-6750. Fax: 541-766-3549, http://extension.oregonstate.edu/benton.

The Linn County office is located at 33630 McFarland Rd (on the corner of Old Highway 34 and McFarland Road), in Tangent. Office hours are from 8 a.m. to 5 p.m., Monday through Friday. Phone 541-967-3810. http://extension.oregonstate.edu/linn.

Program Staff Phone Numbers

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<tr>
<th>Linn County 4-H Youth Development</th>
<th>Vacant</th>
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<tr>
<td>Benton County 4-H Youth Development</td>
<td>Andrea Leao 541-730-3534</td>
</tr>
<tr>
<td>Benton County 4-H Youth Development</td>
<td>Carolyn Ashton 541-766-6750</td>
</tr>
<tr>
<td>Benton County 4-H Youth Development</td>
<td>Ell Korthuis 541-766-6750</td>
</tr>
<tr>
<td>Benton County 4-H Natural Science and Agriculture</td>
<td>Maggie Livesay 541-766-6750</td>
</tr>
<tr>
<td>Benton County Leader</td>
<td>Will Jessie 541-730-3537</td>
</tr>
<tr>
<td>Linn &amp; Benton County 4-H CYFAR*</td>
<td>Lindsay Walker 541-730-3539</td>
</tr>
<tr>
<td>Livestock &amp; Forage*</td>
<td>Shelby Filley 541-672-4461</td>
</tr>
<tr>
<td>Dairy*</td>
<td>Jennifer Cruickshank 971-600-1222</td>
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<tr>
<td>Small Farms*</td>
<td>Melissa Fery 541-730-3538</td>
</tr>
<tr>
<td>Small Farms*</td>
<td>Amy Garrett 541-766-6750</td>
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<tr>
<td>Small Farms*</td>
<td>Teagan Moran 541-766-6750</td>
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<tr>
<td>Small Farms &amp; Groundwater Education*</td>
<td>Chrissy Lucas 541-766-3556</td>
</tr>
<tr>
<td>Community Horticulture*</td>
<td>Brooke Edmunds 541-730-3470</td>
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<tr>
<td>Community Horticulture*</td>
<td>Elizabeth Records 541-730-3471</td>
</tr>
<tr>
<td>Forestry, Natural Resources*</td>
<td>Brad Withrow-Robinson 541-967-3871</td>
</tr>
<tr>
<td>Forestry and 4-H Youth</td>
<td>Jody Emerson 541-766-6311</td>
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<tr>
<td>Family &amp; Community Health (FCH)*</td>
<td>Jeanne Brandt 541-730-3544</td>
</tr>
<tr>
<td>FCH &amp; SNAP Ed*</td>
<td>Tina Dodge Vera 541-730-3541</td>
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<tr>
<td>SNAP Ed*</td>
<td>Brook Jackson 541-766-6750</td>
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<td>SNAP Ed*</td>
<td>Karina Gocolchea 541-766-6750</td>
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<td>SNAP Ed*</td>
<td>Yosvan Campos 541-967-3871</td>
</tr>
<tr>
<td>EFNEP*</td>
<td>Monica Echeverri 541-730-3542</td>
</tr>
</tbody>
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* Multi-county assignment

Administration and program support serving Linn County

Office specialist: Laurie Gibson 541-248-1088
Office specialist: Jolynn O’Hearn 541-967-3871
Office manager & Linn County Leader: Michele Webster 541-248-1087
Seed certification: Doug Huff 541-967-3810
Seed certification: Tom Manning 541-967-3810

Administration and program support serving Benton County

Office specialist: Kelly Cotter 541-766-6750
Office manager: Liz McGovern 541-766-6750
Office specialist: Andrea Watson 541-766-6750
Regional Director: Richard Riggs 541-967-3871
GROWING editor: Mitch Lies 541-967-3871

Extension Annual Conference Honors Many

Jennifer Cruickshank | Brooke Edmunds | Michele Webster | Melissa Fery

Each year Extension honors faculty, staff, and community partners for their outstanding contributions to OSU Extension throughout the state. This year was no different. In our region several staff were honored with awards.

Congratulations to the following Western Region staff:

- **Tina Dodge Vera** - awarded a Hoecker Innovative Grant for the project “Resourcing Classrooms to support Fruits/Veggies”
- **Jennifer Cruickshank** - Hoecker Innovative Grant Program
- **Brooke Edmunds** - Alberta B. Johnson Award for Extension Education
- **Michele Webster** - Director’s Coin
- **Maggie Livesay** - Director’s Coin
- **Melissa Fery** - OSUEA Search for Excellence Awards / Women in Sustainable Agriculture, National Conference

All counties are encouraged to nominate a community partner that is a great help to them for the OSUEA Cooperative Business award. This year, Benton County Fairgrounds Manager, Lynne McKee was awarded an OSUEA Cooperative award for her strong support of the Benton County Extension program. Linn County nominated the Central Electrical Training Center (CETC) in Tangent. While the Central Electrical Training Center may seem like an unlikely nominee for an OSUEA Cooperative Award, they have been major supporters of both the Linn and Benton County Master Gardener program and the Linn County 4-H program. For more than eight years, the Central Electrical Training Facility has provided free meeting space meeting space as well as full use full use of their A/V and computer equipment in the auditorium. CETC staff have allowed Master Gardener trainees to utilize their landscape for hands-on learning projects. This generous donation of meeting and educational space has allowed Linn and Benton counties to keep the barriers to participation in our programs low and helped our youth and volunteers flourish.

The Central Electrical Training Center in Tangent was awarded the the OSUEA Cooperative Business award at this year’s annual conference. Wendell Whistler (Apprenticeship Coordinator) and wife, Debbie Whistler representing the Central Electrical Training Center accept the award from Extension Director Scott Reed and Extension Associate Director Lindsey Shirley.

Regional Director, Rich Riggs presents Andrea Leao with the Director’s Coin Award for her work on the Linn County 4-H service project at the Lebanon Veterans Home.
Dormant Sprays: An Important Tool for Backyard Orchard Health

By Alan Taylor, Benton County Master Gardener

Almost everyone who grows tree fruits has heard of dormant sprays, but may not understand how to best use them. Dormant sprays have long been a key method of reducing pest and disease problems for many reasons. With no foliage or fruit on the trees in the winter, stronger and more concentrated agents can be used with less risk of damage to the tree. It is much easier to make sure the tree is completely covered with spray without leaves in the way. The most commonly used materials are acceptable for organic growing. While dormant sprays don’t solve all pest and disease problems, they can give a grower a good head start to a healthy orchard.

Dormant oil is probably the best-known spray material. It is usually a mineral oil refined from petroleum, but sometimes organic oils such as Neem are used. Dormant oil used to be rather impure, only suitable for dormant use, but now more refined horticultural oils are available that can be used in both dormant and growing seasons, although at lower concentrations during the latter. Oil kills insect pests by smothering them and works at all stages of development, egg, larva, pupa, and adult. However, it only kills what is on the tree when the oil is applied. For example, it will kill overwintering mites and scale hiding in cracks in the bark or on twigs. It is not helpful for codling moth or apple maggot, which overwinter in soil or leaf litter and not on the tree. Likewise, it won’t harm many beneficials that are active in the growing season, as the oil has no residual effect.

Dormant oil is best applied late in the winter, before buds open. In can also be applied as bud development is starting, as a “delayed-dormant” spray.

Lime-sulfur is another common product applied in the dormant season for controlling fungal infections. While it remains approved for organic use, many homeowner-sized products have not been relicensed, so smaller quantities may be harder to find. It can be used alone, but can be used in combination with oil to tackle pest and disease problems in one application. Always follow instructions for use on the pesticide label. Care should be taken during application because lime-sulfur can really irritate the eyes!

Dormant season applications of copper products are useful for controlling both fungi and bacteria. An early fall application of copper is a good way to prevent the bacterial infections that result in anthracnose on apple and pear trees and canker on cherries. Best effect is obtained by applying it before the start of the rainy season, but it also works if applied as soon after leaf fall as possible. Because copper may cause color spotting, say on Golden Delicious, growers may prefer to complete picking before spraying.

With greater disease pressure or with more susceptible varieties, additional applications during the winter can be helpful. Fixed copper products (e.g., Micro-Cop or Kocide) are insoluble forms that will stay on the tree better during wet weather, but these days soluble materials (e.g., Liqui-Cop) are easier to find.

In the dead of winter, your garden dreams are all about to come true... Bare root season begins in January and spring seeds have already started to arrive. Give future you the gift of beauty and bounty, because a Garland day is always a good day indeed.

5470 NE Hwy 20, Corvallis, OR 97330 • 541-753-6601• garlandnursery.com

January-February Gardening Calendar for Western Oregon

The Oregon State University Extension Service encourages sustainable gardening practices.

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 (insectical soaps, horticultural oils, botanical insecticides, and organic and synthetic pesticides — when used judiciously). 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.

**JANUARY**

**Planning**
• Plan to replace varieties of ornamental plants that are susceptible to disease with resistant cultivars in February.
• Take hardwood cuttings of deciduous ornamental shrubs and trees for propagation.
• Have your soil tested in your garden plot to determine its nutrient needs. Contact your local Extension office for a list of laboratories or view EM 8677 online.
• Begin planning this year’s vegetable garden. Check with local retail garden or nursery stores for seeds and seed catalogs.
• Keep a garden journal. Consult your journal in the winter, so you can better plan for the growing season.

**Maintenance and Clean Up**
• Place windbreaks to protect sensitive landscape evergreens

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Garden Calendar continued from Page 3

• Against cold, drying winds.
• Reapply or redistribute mulch that has blown or washed away during winter.
• Clean pruners and other small garden tools with rubbing alcohol.
• Water landscape plants underneath wide eaves and in other sites shielded from rain.
• Do not walk on lawns until frost has melted.

Pest Monitoring and Management
• Scout cherry trees for signs and symptoms of bacterial canker. Remove infected branches with a clean pruner or saw. Sterilize tools before each new cut. Burn or send to landfill before bloom. See Managing Diseases and Insects in Home Orchards (PDF - EC 631).
• Watch for field mice damage on lower trunks of trees and shrubs. Eliminate hiding places by removing weeds. Use traps and approved baits as necessary.
• Use dormant sprays of lime sulfur or copper fungicide on roses for general disease control, or plan to replace susceptible varieties with resistant cultivars in February.
• Moss in lawn may mean too much shade or poor drainage. Modify site conditions if moss is bothersome.
• Mid-January: Spray peach trees with approved fungicides to combat peach leaf curl and shothole. Or plant curl-resistant cultivars such as Frost, Q1-8 or Creswell.
• Monitor landscape plants for problems. Don’t treat unless a problem is identified.

Houseplants and Indoor Gardening
• Monitor houseplants for correct water and fertilizer; guard against insect infestations; clean dust from leaves.
• Protect sensitive plants such as weeping figs from cold drafts in the house.
• Propagate split-leaf philodendrons and other leggy indoor plants by air-layering or vegetative cuttings.
• Plant dwarf annual flowers inside for houseplants, including coleus, impatiens, and seedling geraniums.
• Gather branches of quince, forsythia, and flowering cherries and bring indoors to force an early bloom.

FEBRUARY

Planning
• Tune up lawn mower and garden equipment before the busy season begins.
• Have soil tested to determine its nutrient needs. For more information, contact your local Extension office for a list of testing laboratories or view Laboratories Serving Oregon: Soil, Water, Plant Tissue, and Feed Analysis (EM 8677).
• Select and store healthy scion wood for grafting fruit and nut trees. Wrap in damp cloth or peat moss and place in plastic bag. Store in cool place.
• Plan an herb bed for cooking and creating an interesting landscape. For example, choose parsley, sage, chives, and lavender. Choose a sunny spot and plant seeds or transplants once the danger of frost has passed (late-April or early-May in the Willamette Valley).
• Plan to add herbaceous perennial flowers to your flowering

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More Pollinators for Backyard Gardeners

By Ann Kinkley, OSU Master Gardener Volunteer

How does it sound to increase the size of the raspberries growing in your garden by 30 percent? Or, what if the fruit on your apple tree was bigger and healthier without adding more fertilizer?

What is the secret? Personalized pollinators.

This year’s BeeVent Pollinator Conference on March 2, sponsored by the Linn County Extension Master Gardeners, will teach you ways to enhance the habitat in your yard to encourage specific beneficial butterflies and insects to take up residence and work their magic on your flowers, fruits and vegetables.

And it just might improve the whole neighborhood! Most of the bee and butterfly research conducted to date has been for commercial growers. But this fifth annual gathering of home gardeners, small farmers and city dwellers who love flowers, has become an essential element in the growth of interest and knowledge surrounding the plight of our pollinators.

Learn what citizen-scientists around the northwest are doing to enhance our knowledge of native bees.

The Pacific Northwest is home to a large variety of bee species. They love our climate, trees, variety of native plants and even the weeds! It is up to each of us to make sure our personal horticultural practices and state policies ensure the future of these species.

Some butterflies – monarchs are one – can only reproduce if they lay eggs on a specific plant that will provide food for the caterpillars when they hatch. What are those plants? Can I buy them at our local nurseries? Which ones will grow well in my garden?

Our expert speakers this year will address these and many other common questions. Vendors will be available for the purchase of products and plants and local non-profit groups will share valuable information.

David James, associate professor in the Department of Entomology, Irrigated Agriculture Research and Extension at Washington State University will discuss, “Monarchs and Milkweed in the Pacific Northwest.”

We will learn about the PNW Bumble Bee Atlas, currently being compiled by citizens in Oregon, Washington, and Idaho, from Rich Hatfield, senior conservation biologist with the Xerces Society for Invertebrate Conservation.

OSU’s Gail Langellotto, who coordinates the statewide Master Gardener program, will share research about specific plants and bees that are desirable in home gardens. The Oregon berry bee, a tiny metallic green and blue pollinator, and other native bees will be introduced to us in an afternoon talk by Rich Little, retired entomologist and member of the Oregon Bee Project Advisory Committee.

Please join us on March 2, at the Linn County Fair and Expo Center in Albany, Oregon. Doors open at 8 a.m.; Cost is $30 and there is an option to purchase lunch for $10 more at the time of registration. You may also bring your own lunch to the event. To register, visit linnmastergardeners.com/tickets.
Prepare for Health Needs in An Emergency

Many people and communities are getting prepared for an earthquake or lengthy power outage with food, water, and basic supplies. In these preparations we often overlook personal health needs. Keep in mind, each person’s needs are unique.

Think about adding some of these items to your emergency supply so they are ready to grab-and-go:
- Copies of ID and Health Insurance cards.
- Photos of family members and pets.
- First aid kit. Include non-latex gloves, water-proof bandages and gauze.
- Sanitation supplies to clean wounds, hands, face and teeth; toilet paper; garbage bags and ties; feminine hygiene supplies.
- Information about your medical conditions including diabetes, allergies, heart conditions. Copies of medical orders and prescriptions. It is recommended to keep a two-week supply of necessary prescriptions.
- Extra glasses, cane, crutches, walkers, wheelchair, blood sugar monitors, and catheters.
- Insect repellent and sunscreen.
- Something for comfort. These might be the family photos, but they might also include a favorite memento, a toy for a child, a cozy blanket, a special snack.

Be sure to restock items to your emergency supply stash if you remove them for use.

WHERE WILL YOU “GO” IN AN EMERGENCY?

Not something most people want to think about, much less talk about, but even during an emergency, most people will have to... well, use a toilet. During a major disaster, it is common for people (and pets) going out of their home or school.

If evacuation is necessary, temporary shelters or the areas for handling disposal.

WHAT CAN PEOPLE DO?

It is important to decrease total time sitting – one doctor recommends no more than 2-3 total hours of sitting per day. For those of us who sit at work, this may be hard to achieve. Someone who works at a desk could do walking meetings, or work from a standing desk to decrease their sitting time.

When we do spend time sitting, it is important to take breaks. Experts recommend that we take a break from sitting every 30 minutes. During this time we can do light activities like walking, half squats, calf raises, gluteal contractions or knee raises.

WHAT ABOUT EXERCISE?

Exercise has many health benefits. However, researchers found that even people who exercise felt the effects of sitting too long. If you are a person who exercises regularly – don’t stop! But everyone, exercisers and non-exercisers, need to try to decrease the amount of time spent sitting.

So, is sitting as bad as smoking? There is not enough research to compare one against the other. But we know that both are not good for your health. Decreasing the total time we spend sitting and taking breaks from sitting are important steps toward improving our health.

REFERENCES
Online Food Preservation Class Beginning

Interested in safely preserving food but don’t have time for traditional classes? Try the online, hybrid course, Preserve @ Home. Participants learn how to safely preserve a variety of food products with high quality. The science behind food preservation and food safety will be explored. Individuals with full-time jobs or live in remote areas may be very interested in this course because it is self-paced. There are weekly topic releases and an optional hands-on lab is offered March 9 in Polk County at the end of the series.

The first session of the 6-week course opens online on Thursday, January 17. Each lesson includes online text that can be downloaded and printed. Additionally participants discuss topics in an online forum and in a real-time weekly chat with instructors. Beginning on Thursday, January 24, from 1:45 p.m. Topics to be covered include: Foodborne Illness - causes and prevention, Spoilage and Canning Basics, Canning High Acid Foods, Canning Specialty High Acid Foods - pickles, salsa, jams, jellies, etc., Canning Low Acid Foods, and Freezing and Drying. Cost of the course is $55 plus the cost of required supplemental materials. The registration deadline is Monday, January 14. This course is offered cooperatively with the University of Idaho Extension Service and eXtension, a national resource for online courses offered by Extension professionals. For more information and to register, visit this web site: https://extension.oregonstate.edu/deschutes/events/preserve-home-online-hybrid-course. For other questions contact Glenda Hyde at glenda.hyde@oregonstate.edu or call 541-548-6088.

Prepare Your Freezer for A Power Outage

Keep a thermometer in your refrigerator and freezer to monitor temperatures.

A full freezer will maintain cold temperatures twice as long as one that isn’t full. Fill in the extra space in your freezer with plastic bags or bottles of clean water. If there is a power outage, this will help keep the contents cold. In addition, the water will be available to drink in case water sources are compromised or to be used as ice packs in coolers.

If a storm is expected, turn the refrigerator and freezer to the coldest setting to prepare. If the power does go out, wrap the freezer with blankets to create extra insulation. Keep it closed except for an occasional check on the temperature and to remove items to eat. A full freezer starting at 0°F can be expected to keep food frozen for 2 days. For extended power outages use blocks of dry ice in the freezer. A fifty pound block of dry ice will keep the contents of a full 18 cubic foot freezer frozen for 2 days. Remember to wear gloves or use tongs when handling dry ice. When the power does return, check the internal temperatures of all of your perishable foods with a calibrated food thermometer. Discard any perishable food that has been above 40°F for more than 2 hours.

For more specific guidelines for food from a freezer that has stopped see: https://extension.oregonstate.edu/sites/default/files/documents/8836/sp50470ifyourhomefreezerstops.pdf

Prepare for Health Needs continued from Page 6

the odor controlled and ease disposal.

If you can stay in your home, but there is no running water you might still be able to use your toilet by pouring adequate water into the tank or bowl. This uses quite a bit of water that you might need to save for other uses. Use this method only if you are certain that sewage lines are still intact and not backed up. If the toilet does not seem to drain well or you have limited water, empty the toilet, dope a heavy-duty plastic bag in the bowl, sprinkle in kitty litter, sawdust, shredded paper or sand to absorb liquids and smell each time it is used. Emergency travel toilet: find a gallon can or plastic coffee container with tight fitting lid. Keep heavy-duty plastic bags to line the can, hand-wipes, tissues and hand sanitizer stored inside until needed.

Hardware and sporting goods stores have toilet seat/lid combinations to fit 5-gallon buckets. Look for seats that will seal when closed. Heavy duty 10-gallon bags fit inside a 5-gallon bucket and drape over the edges.

Disposal: Place sealed bags of waste in a trash can or somewhere it can’t be disturbed until sanitation services are restored. Always wash and sanitize your hands as well as possible after using the toilet and handling the waste. Wearing disposable sanitary gloves is also a good idea if you have them.

Make a point to stop in the camping or emergency preparedness section of the sporting goods store the next time you are there or look online to check out health and hygiene products meant for camping and hiking. These will also be useful for emergencies where having to rough it was not planned.

Garden Calendar continued from Page 4

landscape this spring. Examples include candytuft, peony, penstemon, and coneflower.

Maintenance and clean up

- Repair winter damage to trees and shrubs.
- Make a cold frame or hotbed to start early vegetables or flowers.
- Fertilize rhubarb with manure or a complete fertilizer.
- Incorporate cover crops or other organic matter into soil.
- Prune and train grapes; make cuttings.
- Prune fruit trees and blueberries.
- Prune deciduous summer-blooming shrubs and trees.
- Prune and train trailing blackberries (if not done the prior August); prune back raspberries.
- Prune fall-bearing raspberries (in late-February or early-March).
- Prune clematis, Virginia creeper, and other vining ornaments.

Planting/proagation

- Plant windowsill container gardens of carrots, lettuce, or parsley.
- Plan to add herbaceous perennial flowers this spring: astilbe, candytuft, peony, and anemone.
- Good time to plant fruit trees and deciduous shrubs. Replace varieties of ornamental plants that are susceptible to disease with resistant cultivars.
- Plant asparagus if the ground is warm enough.
- Plant seed flats of cole crops (cabbage, cauliflower, broccoli, and Brussels sprouts), indoors or in a greenhouse.
- Where soil is dry enough and workable, plant garden peas and sweet peas. Suggested varieties of garden peas include: Corval- er, Dark Green Perfection, Green Arrow, Oregon Sugar Pod, Snappy, Knight, Sugar Snap, Oregon Trail, and Oregon Sugar Pod II.
- Good time to plant new roses.

Pest monitoring and management

- Monitor landscape plants for problems. Don’t treat unless a problem is identified.
- Use delayed-dormant sprays of lime sulfur for fruit and deciduous trees and shrubs.
- Remove cankered limbs from fruit and nut trees for control of diseases such as apple anthracnose, bacterial canker of stone fruit and Eastern filbert blight. Sterilize tools before each new cut.
- Control moles and gophers with traps.
- Elm leaf beetles and boxelder bugs are emerging from hibernation and may be seen indoors. They are not harmful, but can be a nuisance. Remove them with a vacuum or broom and dustpan.
- Monitor for European cranefly and treat lawns if damage has been verified.

Houseplants and Indoor Gardening

- Pasteurize soil for starting seedlings in pots or flats, or use clean sterile commercial mixes.
Master Gardener Program Working as Envisioned

Continued from Page 1

learners and folks who want to be engaged in that community, as well,” Edmunds said.

Once the initial training and volunteering is completed, Master Gardeners who choose to continue with the program are asked to recertify by attending 10 hours of seminars or workshops or other types of educational activities and performing 20 hours of volunteer service annually.

“Some people just want to take the class, but they have other hobbies and things that they want to do, so they might not stick around. But a lot of people do remain active in the program for many years,” Edmunds said.

“At our awards ceremony for 2018, we were honoring people that have been with the program for 10 and 20 years,” she said.

“Those are people who want to give back to their community,” Edmunds added. “They love gardening: they like reaching out and assisting people; and it helps them feel connected to the community. They also get connected to a group of like-minded gardeners who enjoy being community focused and making a difference.”

In addition to answering gardening questions at community events or through the Extension Service hotlines, several projects are available for Master Gardeners who wish to volunteer their services, Edmunds said. In Benton County, there is the annual plant sale. Linn County hosts a annual garden tour. Linn County Master Gardeners also host an annual pollinator conference, organized and staffed by volunteers. And both counties have demonstration gardens, which are located on their respective fairgrounds.

“Those demonstration gardens are very educational,” Edmunds said, “and each year things change, so people should come back and revisit them. For instance, this year, Master Gardeners experimented with new ways of trellising vegetables. Next year, that plot will be testing a different gardening technique.”

Master Gardeners also organize seminars and offer hands-on workshops designed to help local gardeners learn more about their hobby.

While Master Gardeners become highly educated on gardening topics, they aren’t expected to know everything, Edmunds said. “We train Master Gardeners that they don’t have to know all the answers. That is impossible,” she said. “But we teach them how to find the answer. It might be to use online or print OSU resources, or it might be talking to me as a faculty member, and, if I don’t know the answer, then we can utilize an expert at OSU.”

“We train them to be very curious and to ask questions and to ask for help,” she said.

As a state, Oregon’s Master Gardener program is one of the oldest in the country, dating to 1976, just three years after the nation’s first Master Gardener program was started in Seattle by David Gibby.

“Back in those days, the Extension Service was focused on serving commercial agriculture, so David cooked up this idea of training volunteers to assist homeowners with their gardening problems,” said Neil Bell, an Oregon State University horticultural Extension agent who works with Master Gardeners in Polk and Marion counties.

Today, 30 of Oregon’s 36 counties have Master Gardener programs, including all of western and central Oregon.

And, judging from the enthusiasm of Master Gardeners like Pat Wray, it is working exactly as Gibby first envisioned.

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Keto is a No Go! – Here’s Why

By Taylor Levy,
OSU Dietetic Intern

Keto Diet. It’s the craze! It’s all over social media and even in the office with coworkers – everyone seems to be curious about this diet. This diet is not a new thing. Remember Atkins – the low-carb diet from the 1970s? The Ketogenic diet is another type of low-carb diet that is trending now. People who are overweight could benefit from the Ketogenic Diet due to increased water loss from strict restriction of carbohydrates. However, like Atkins it is not recommended as a healthy eating pattern.

WHAT IS A KETOGENIC DIET?

A Ketogenic Diet promotes a high-fat (78-80 percent), moderate-protein (10-20 percent) and low-carbohydrate (5-10 percent) dietary approach. Vastly different from our westernized diets – 45-65 percent carbohydrates, 10-35 percent protein and fat 20-35 percent. Carbohydrates – breads, pastas and starchy vegetables – are our body’s main source of fuel. Carbohydrates break down into glucose, which enters the cell to give your body energy. Another source of energy can be from fats in our diet. Fats – butter, avocado, oils, fatty fish and meat – break down into fatty acids. Fatty acids break down even more into ketones that can enter the cell. Cells can use ketones for energy just like glucose. However, our brain, muscles, tissues and cells prefer glucose as their fast acting and sustainable energy source. Ketones are utilized when someone is starving, has Type 1 Diabetes, or is on a high-fat, low-carbohydrate diet. The Ketogenic Diet excludes healthy fruits and vegetables, which are almost all carbohydrate. Some people even tend to feel ill, with nausea, fatigue, vomiting, and constipation, with long term impact of kidney stones, vitamin/mineral deficiencies, and fatty liver.

Sustaining the Ketogenic Diet throughout life is very hard to maintain. If you start the Keto Diet, transitioning back to a diet rich in carbohydrates is difficult. Some factors to consider once you transition back to a carbohydrate-rich diet are increase spikes in blood sugar due to re-introduction of glucose, weight gain due to carbohydrates and water (with 1 gram of carbohydrate, you get 4 grams of water), bloating and constipation due to re-introduction of fibrous foods. Remember to slowly start introducing carbohydrates back into your diet. Combine carbohydrates with proteins and fats during meals to slow digestion, keep you fuller longer, and limit blood sugar spikes. The Ketogenic diet may work to lose some initial weight, but it is not sustainable. Eating carbohydrates is important for your body to use glucose instead of tapping into ketones and putting your body in a constant state of ketosis. Incorporating all food groups, especially a diet rich in whole grains, vegetables and fruits, is important in maintaining life-long and healthy dietary habits.


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Glycolysis: Carbohydrate-Rich Diet

Cell
Carbohydrates ➔ Glucose ➔ Energy

Ketosis: High Fat Diet

Fats ➔ Fatty Acids ➔ Ketones ➔ KETOSIS ➔ Energy
Strategic Implementation Area in Linn County

By Kevin Seifert,
Linn Soil and Water Conservation District

Linn County will have a Strategic Implementation Area (SIA) in 2019. Oregon Department of Agriculture is currently looking along the North Santiam River watersheds. What is an SIA? How will this affect you as a landowner?

Let’s start with a bit of history: In 1993, the Oregon Legislature passed the Agricultural Water Quality Management Act, Senate Bill 1010, directing the Oregon Department of Agriculture (ODA) to develop plans and associated regulations to prevent and control water pollution from agricultural activities and achieve water quality standards. The legislation also required the involvement of Soil and Water Conservation Districts (SWCDs) as much as possible.

Since 1997, program staff have worked with Local Advisory Committees, which include farmers, ranchers, and stakeholders, to develop water quality management plans and adopt regulations in Oregon’s 38 water quality regions. The plans give local agricultural landowners a framework in which to comply with the rules. Compliance is required by state law.

In the early 2000s, ODA’s focus was to implement as many agricultural water quality improvement projects as possible and document those accomplishments. Efforts focused on outreach and technical help to create projects that would achieve immediate water quality benefits and build the foundation for strong partnerships in the future. Oregonians have made tremendous investments to protect and improve our water quality.

Scientific studies and technical documents from university researchers, the USDA, and other federal agencies show the types of projects implemented improve water quality at the farm scale. However, it has been a challenge to document the benefits of these projects on a larger scale and to measure what percent of the area is in “compliance.”

As the Agricultural Water Quality Program matures, we must adapt and gather more data, and document accomplishments to meet Oregon’s water quality goals. Comparing the scale of accomplishments within a larger scope will help ODA and its partners better track progress and estimate the costs of treating remaining areas. Water quality goals can be achieved by promoting voluntary cooperation among landowners and natural resource partners to address management concerns, and by ODA enforcing water quality regulations.

ODA is applying the Strategic Implementation Area (SIA) approach, where selected areas around the state will receive outreach and education to address priority water quality concerns. Following an ODA-led Compliance Evaluation, ODA and its partners will work with agricultural landowners to concentrate technical and financial help to change agricultural activities that may be reducing water quality. Following outreach and assistance, ODA may enforce regulations where problems persist.

Strategic Implementation Areas are chosen by ODA after discussions with partners and a review of local information and water quality data when available.

ODA and program partners believe that strategic, focused, and systematic delivery of outreach and technical assistance will lead to greater progress and estimate the costs of treating remaining areas. Water quality goals can be achieved by promoting voluntary cooperation among landowners and natural resource partners to address management concerns, and by ODA enforcing water quality regulations.

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How Much Can I Lease My Farm Land For?

By Teagan Moran, OSU Small Farms Program

Often landowners are seeking the current rental rate for farm land in their area. They want a $/Acre range. Unfortunately, the answer is not as simple as the question. Reliable data collection related to current lease prices is a challenge. Some people wish to keep their arrangements private and neighboring properties can have wildly different lease rates. The reason for the variance is that lease agreements are often personal.

Leases are not just about the land, they are a part of a relationship. The value of the land is only one part of the asking price, often for a land owner the management practices and personalities of the farmers using the land are just as important. The motivations for leasing land can range from a need for income to a desire to see the land stewarded.

SOME ITEMS FOR CONSIDERATION IN A RATE NEGOTIATION:

- Length of lease
- Size of parcel
- Who will carry insurance on the property and/or crops?
- What is the soil type/quality? drainage?
- Are there water rights?

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Lease My Farm Land continued from Page 10

- Is the land certified organic?
- What infrastructure is included? Fencing?
- Current weed pressure
- Proximity to market or distribution channels for the farmer or proximity to other land farmed

The USDA National Agricultural Statistics Service (NASS) compiles county-level statistics for per-acre cash rental rates for irrigated farmland, non-irrigated farmland, and pasture. NASS has maps of average lease rates by state. However, it is not recommended that you base rental rates solely on such benchmark data. The rates are averages that don’t consider the differences in land rental rates across a county. Actual rates vary from these statistics, as there is no standard for determining a rental rate. One of the best methods for getting data in your local area is to talk with your neighbors.

The ‘word of mouth’ data that we have collected shows a range of $67/Acre – $350+/Acre (some even lease for free). Longer term leases for berries and nursery crops and land for certified organic production are on the higher end of the spectrum while non-irrigated land with poor soil quality is on the lower. Pasture rental rates can be figured by animal size or weight, condition of the pasture (forage quality and quantity), and labor offered by both parties. For more information on pasture rental rates check out:
- http://smallfarms.oregonstate.edu/additional-livestock-resources
- https://extension.oregonstate.edu/produce-forage/pastures-forages/pasture-rental-rate-revised

The most common way that land in the Willamette Valley is leased is with annual cash rent. Another model is crop share agreements, where the owner can receive up to 25–33 percent of gross sales in exchange for sharing in expenses related to the operation. Others exchange farmland use for services the farm operator may be able to provide, like plowing or mowing. Farm products are also used as currency for rental. For additional reading see:
- http://ccejontario.org/resources/how-much-should-you-charge-for-renting-farmland
Understanding Pesticides Minimizes Harmful Effects

By Shelby Filley, Regional Extension Livestock Faculty

Whether you apply pesticides or come across where others have, knowing more about them can help you guard your health and environment from unnecessary harm. This article will define pesticides and regulatory agencies, provide some tips for pesticide uses and those who encounter areas where pesticides have been used, and provide information on how you can learn more about general pesticide use and an upcoming educational program for licensed users.

The Environmental Protection Agency (EPA) is the federal entity responsible for regulating the use of pesticides in the US. They define a PESTICIDE as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest; any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant; and any nitrogen stabilizer. There are chemical and organic pesticides registered for use here in our state where the Oregon Department of Agriculture (ODA) further regulates pesticides.

The word pesticide is an overall description of products that target certain plants or animals. Some of these are herbicides (plants), insecticide (bugs), rodenticides (mice and rats), nematicide (worms), pescacides (fish), and fungicides (molds and mildew).

All pesticides have some level of toxicity. Signal words are found on pesticide product labels, and they describe the acute (short-term) toxicity of the formulated pesticide product. The signal word can be either DANGER, WARNING or CAUTION. Products with the DANGER signal word are the most toxic. Products with the signal word CAUTION are lower in toxicity. Make sure you read the label of any pesticide you are considering to use. The Extension TOXicology NETwork (http://EXTOXNET.orst.edu) is a web-based resource written for non-experts that lists toxicity levels for EPA registered pesticides.

Although homeowners may purchase and use pesticides without a license or training, there are many resources available. For more information on using pesticides in Oregon, check out the ODA Pesticide page at https://www.oregon.gov/ODA/programs/Pesticides/

Goat Yoga on Your Farm?

You might want to purchase an Agritourism Limited Liability sign...

To lower the risk to your farm, ranch and on-farm value-added operation, an Agritourism Professional must post a regulation Agritourism Limited Liability Sign at the entrance to their site, and also at the location(s) where an agritourism activity takes place according to ORS 30.671 through 30.677.

Regulation Agritourism Limited Liability Signs are made from durable DiBond, and may be purchased for $50 each from Oregon Agritourism Partnership. For more information, visit oregonagritourism.com and choose the Agritourism Liability Sign link at the top of the page.

Upcoming Ag Meetings

**January 8 & 9**
Winter OSU Extension Seed Crop and Cereal Production Meetings in Albany, West Salem, and Forest Grove. No pre-registration required.

**January 10 & 11**
Oregon Mint Growers Annual Meeting at Salishan Lodge in Gleneden Beach. www.oregonmint.org/annualmeeting.html

**January 16**
Oregon Ryegrass Growers Association Annual conference at the Linn County Fair and Expo Center in Albany. Pre-registration is required. Contact the Linn County Extension Office for more information 541-730-3537.

**February 6**
Oregon Clover Growers Annual Meeting at the Holiday Inn Conference Center in Wilsonville. For more information call 503-364-2944.

2019 Winter OSU Extension Seed Crop and Cereal Production Meetings

**Tuesday, January 8 • 8:30 a.m.-noon**
Roth’s Hospitality Center, West Salem, 1:30-5 p.m. – Linn County Fair and Expo Center, Albany

**Wednesday, January 9 • 8:30 a.m.-noon**
Forest Grove Elks Lodge, 2810 Pacific Ave

Topics include:
- Spring Weed Management in Grass Seed and Wheat Crops – Andy Hulting
- A Look Toward Biological Control and Novel Management Strategies for Slugs – Casi Jessie and Inga Reich
- Spring Fertilizer Recommendations and pH Buffer Tests – Amber Moore
- Reducing Seed Shatter and Improving Harvest Efficiency – Tom Chastain
- Introduction of new OSU Cereal Extension Agent, Spring Cereal Management – Ryan Graebner
- Cereal Disease Management and Fungicide Resistance in the Willamette Valley – Chris Mundt

2 ODA Pesticide Recertification Credits will be available
Black Leg, Light Leaf Spot Threat Continues in Brassicas

By Mitch Lies, GROWING Editor

The threat of black leg and light leaf spot to brassica crops apparently is not going away anytime soon.

In a survey of weeds along the I-5 corridor during April of 2016, Oregon State University Extension plant pathologist Cindy Ocamb in a Brassica Vegetable and Seed Crop meeting, November 26, at the Linn County Extension Office in Tangent. “And then we had quite a few light leaf spot (sightings) down to just north of Grants Pass.

“If you have a farm located close to those weedy populations, potentially that could be an overwintering source of the inoculum,” Ocamb said.

The presence of the two plant diseases on weed populations, coupled with their presence on crop residue, has increased the difficulties of keeping the diseases out of brassica crops, Ocamb said.

The difficulties have been exacerbated in recent years due to an increase in brassica seed crop plantings, driven by expanding demand for crops such as turnips and radish in a burgeoning Midwest cover crop market.

At the November 26 meeting, Ocamb said the first time she saw black leg or light leaf spot in Oregon was in 2014, seventeen years after her arrival here. The fungal pathogens that cause both diseases are similar in terms of their life cycle and plant to another by rain and at certain stages of development can be transmitted from one plant to another by wind.

“Once you have an ascospore land on the leaf, you will have the development of a lesion,” Ocamb said. Diseases spread from foliage to stems, where they result in cankers, which stunt plant growth and lower crop yields.

The diseases, particularly light leaf spot, can be difficult to spot in a field, Ocamb said. “After plants get infected, it takes a while to develop symptoms, so it can be easy to overlook,” Ocamb said.

Still, Ocamb urged growers to scout brassica fields regularly during susceptible periods, particularly when it is cool and moist, and look for leaf spots.

Other management techniques to minimize losses include rotating out of brassicas for at least three years to allow infected crop residue to dissipate. And avoid planting within one-quarter of a mile of a field that was found with either of the diseases the previous year.

Also, plant treated seed that has been tested and found to be free of blackleg, she said. And, if necessary, treat with a registered fungicide or a hot-water treatment.

Ocamb said more information on the diseases can be found in the OSU Extension publication PNW Plant Disease Management Handbook.

She urged western Oregon growers having difficulty identifying disease symptoms to mail suspected infected crop residues to her in a paper bag at 2082 Cordley Hall; OSU; Corvallis, OR 97331.

“Black leg can go from 1 percent of the stand to 100 percent in four weeks,” Ocamb said, indicating growers should not treat the diseases lightly.

Black leg and light leaf spot often both infect the same plant, as is the case with the cabbage plant here.

Crop Notes - January/February

General management

- Seed certification: make sure to submit overseeding documentation to seed cert to maintain eligibility.
- Slug baiting during cold winter months has limited efficacy. If you are determined to bait in January and February, do so at dusk and when night temperatures are in the low 40’s, with no rain, and winds less than 5 MPH.
- Continue to scout fields for winter cutworms, as they can remain active during colder months.
- Keep an eye out for vole activity. A warmer winter brings the potential for more problems this spring. Vigilant baiting down holes during winter months is the best chance to keep populations in check before spring growth makes locating burrows more difficult. Remember ZP baits can deteriorate rapidly when exposed to moisture, so avoid baiting in saturated soils or when heavy rain is expected.
- To avoid crop injury, dormant-season herbicide applications in mint and clover crops should be completed before spring growth begins.

Grass

- Tall fescue begins spring growth ~4 days (turf-type) to ~10 days (forage-type) earlier than perennial ryegrass. Apply 100–140 lb/ac of N in the spring to tall fescue fields by the first week of April. Split applications are recommended, with the majority of N applied by mid-March. Peak N uptake for tall fescue is in late March/early April.
- Delay first nitrogen applications to perennial ryegrass until after T-Sum reaches 200 GDD (~mid-Feb). Apply 120–160 lb/a of N in the spring to perennial ryegrass fields by mid-April. Split applications are recommended for flexibility and matching crop demand, but rarely increase seed yield. Peak N uptake for perennial ryegrass is in late April.
- On saturated soils, the entire spring N application can be delayed until mid-March/early April without reducing seed yields (especially annual ryegrass). It is best to delay fertilizer where soils are saturated or ponded.
- In drier years, scout grass seed fields for late winter grain mite outbreaks.

Wheat

- Attend the January OSU Extension Wheat and Seed Production Meetings on January 8th and 9th if planning to plant spring wheat this year. Variety selection will be discussed.
- Take soil samples in the last two weeks of January for the N-min test to help predict spring fertilizer rates.
- Apply nitrogen to winter wheat before the end of February to be sure it is fertilized before late tillering. Rapid N uptake begins at jointing (Feeks GS6).
- Try to complete post-emergence grass and broadleaf control herbicide treatments on winter wheat before wheat jointing (~March 1). Refer to individual product labels or the PNW Weed Management Handbook for specific information on application timings.

Meadowfoam

- Complete fertilizer and pesticide applications on meadowfoam as soon as possible after February 1 to minimize potential crop injury.
Chef’s Knives and New Skills

By Lindsay Walker, 4-H
Latinx Outreach Coordinator

This was a day where making a mistake could be risky, and I had the focused attention of all 20 students in the room. “They are very sharp!” I reiterated to the eager youth about the brand new chef’s knives. Learning to use a knife properly for cooking prep is a life skill they will use most days of their lives. In fifteen minutes, they learned how to hold, use, carry, wash, and identify different types of knives.

Since the 4-H Food + Fun Club is all about hands-on learning, the majority of the afterschool session was left for the youth to slice, dice, and chop to make their recipe. You could see varying levels of confidence on their faces as they handled the knives.

As I was walking around the room to observe and assist, I stopped. She had an intense stare that made her look frozen as she doubled checked her handgrip on both the knife and vegetable. “Make sure to chop, chop…” repeated in her head after just learning about knife safety. She looked up at me for confirmation that she was doing it correctly. “Alright, you got this. Nice and easy”, I reassured her. Chop, chop... (she looked again at me) chop, chop, chop. Then she cautiously set the knife down. “Great job!” I said. A side smile cracked from her mouth as she looked me in the eyes to tell me that was her first time ever using a sharp knife. I could feel the budding confidence exuding from her.

When was the last time you did something for the very first time? Especially something that had an inherent risk? Watching the youth taking the knowledge and (safely) put it into action is very fulfilling.

The youth in the 4-H Food + Fun Club in Linn and Benton counties are presented weekly with a safe challenge to overcome. Whether it is during the lesson or cooking, the challenges require teamwork, communication, focus, skill building, and confidence to successfully complete the recipes. Our OSU student workers and faculty members are close by to support them as well.

By the following week, the youth were telling me stories of how they helped at home by preparing meals and using their knife skills. They took the recipes from the previous weeks and made them all by themselves for their household with raving reviews. Growing confidence and independence are evident in the youth’s stories and enthusiasm to continue learning things for the first time. Thankfully, the 4-H Food + Fun Club is doing just that.
Impact of 4-H

The Oregon 4-H Program “Inspires Kids to Do” every day. Every 4-H’er has a story and every story is worth telling! This 4-H IMPACT report is one way of sharing some of those stories. You will read about young people being inspired to pursue college and possible career choices at the Aviation Field Day, Outreach Leadership Institute, and Junior Master Naturalist articles. Youth are gaining confidence and making healthy choices as seen in the stories on i Tri, Running Striders, and Outdoor Cooking. 4-H Youth are gaining in their leadership skills and appreciation of others with experiences in the Urban Rural Exchange, Global Citizenship, Youth Led Leadership Building, and Camp Tumbleweed. Youth are being inspired to think creatively and critically, as well as to perform work strategically as an individual and/or team through opportunities such as Robotics Competition, SPRK + Robot, Regional Livestock Field Day, and State 4-H Ranch Horse contest.

Visit the OSU Extension Service 4-H Youth Development page at https://extension.oregonstate.edu/4h to download the “Impact 2019” report and read about this year’s accomplishments.

4-H National Congress

Recently, LR Burns attended 4-H National Congress as an Oregon Delegate. To receive this honor, LR completed a detailed application and had superior 4-H records. He also went through multiple interviews during Summer Conference before he was chosen as one of Oregon’s Delegates.

For more than 98 years, National 4-H Congress has been a premiere nation-wide opportunity for 4-H members across America. Originally held in Chicago, the event is now held in the “Capitol of the South,” Atlanta, Georgia, during the Thanksgiving break. National 4-H Congress is a five-day event that engages high school aged 4-H members in leadership, citizenship, global awareness, and inclusion. Participants not only have the opportunity to participate in state-of-the-art educational workshops and hear from world-renowned speakers, they also have the opportunity to network with other 4-H members from across the United States.

LR had the opportunity to attend sessions on Agri-Science, Technology in Agriculture and Goal Setting. He said he didn’t necessarily have a favorite class but was sure that what he learned will help him in 4-H, as well as his future career goals. According to LR the best experiences of the trip included meeting fellow 4-H members with similar interests and having the opportunity to tour Atlanta and participate in some community service.

“At Congress I learned to step out of my comfort zone and to meet new people whenever I can,” he said.

4-H Science Lessons and Resources for Outdoor Schools

By Virginia Bourdeau, State 4-H Office

The Oregon State University (OSU) 4-H Program has resources on their website to support planning outdoor school and teaching required lesson content at https://extension.oregonstate.edu/4h/outdoor-science-education-recreation-outdoor-lesson-plans-school-resources include a sample schedule and lesson correlations to the OSU Extension Outdoor School Program’s Instructional Resource Rubric (v 1.0).

The 4-H Outdoor School Science curriculum is organized

Continued on Page 19
Benton County 4-H Youth Development

**Favorite Foods Contest**

The Benton County 4-H Favorite Foods Contest will be held on Saturday, January 26.

The Favorite Foods Contest is open to **ALL Benton County youth aged 5–19**. Non-4-H youth are welcome to participate. The contest provides the opportunity for youth to prepare a favorite food (snack/dish), which will be sampled by a friendly judge.

**HERE ARE THE DETAILS:**
- **Who:** ALL Benton County youth aged 5–19.
- **When:** Saturday, January 26
- **Where:** Benton County Extension Office
- **Time:** 10 a.m.–2 p.m.
- **To register:** Call 541-766-6750 for a time slot. You must register by Wednesday, January 23. First come, first served.
- **Cost:** No fee required
- **What to bring:** Your favorite food, and a table setting for one, including a centerpiece and a menu of your snack or meal.

More information can be found on our website.

**Cloverbuds Do Crafts**

Children ages 5–8 can participate in a fun, hands-on, non-competitive, introductory 4-H program called Cloverbuds. Cloverbuds introduces youth to cooperative learning, and the wide variety of things they can do in 4-H. Once they reach 9 years of age, they can become a 4-H’er and choose from more than 100 different projects.

Cloverbud members recently had the opportunity to learn new craft skills at a holiday craft workshop held at the Benton County Extension office. With the help of several volunteers, the thirteen participating youth did several craft rotations, made holiday-themed snacks, and played festive games while many of their parents watched. Cloverbud members were very enthusiastic about creating gifts for family and friends, while others planned to recreate the holiday snacks for the 4-H Favorite Foods Contest coming up on Saturday, January 26.

This holiday craft workshop is one of several new Cloverbud activities included in the Cloverbud enrollment fee that was added this year.

Benton County and Linn County Extension programs may offer opportunities that are only open to the residents of their respective counties. Please check with your county Extension Office if you have any questions about participation eligibility for specific programs.
Record Keeping - An Essential 4-H Life Skill

An essential life skill that we teach in the 4-H program is record keeping. You’ll often hear 4-H’er’s refer to the “record books” that they’ve been keeping since they began their 4-H career. Learning how to keep records is both an art and a science. While there are foundational pieces of information that need to be kept in 4-H records, there is also room for 4-H’ers to personalize their 4-H stories.

Record keeping teaches 4-H members about accounting, reporting, and written communication. Furthermore, members who keep record books are eligible for 4-H scholarships, travel opportunities, leadership positions, and awards at the county, state, and national levels. Record books also provide an invaluable personal history and memory book to look back on for years into the future.

Record keeping is a fundamental part of a member’s 4-H experience, and we encourage all 4-H members to attend our annual Records Workshop, which will be held on Saturday, February 16, from 1-3:30 p.m., at the Benton County Extension Office. New and returning youth will learn new and helpful tools to complete records more efficiently. Contact the Benton Extension Office to register. There is no cost to attend!

Presentations Contest

A presentation is a method used to communicate an idea by showing and/or telling. It is a way to present information to others, to teach and share what you know or have learned in a structured way. Giving presentations is an important part of the 4-H experience. No matter what project area you are in, you can give a presentation. Every 4-H member is encouraged to give at least one presentation every year.

WHY SHOULD YOU GIVE A PRESENTATION?

All through your life, you will need to speak in front of others. Whether it is at school, at work, or at home, you will need to know how to ask for things, how to explain things, or how to speak persuasively enough to win the support of others. Speaking skills will help you in job interviews and allow you to give effective presentations to your peers.

Horse project members can also earn points for the all-around award given at the end of the year by participating.

The Benton County Presentations Contest will be held on Monday &Tuesday, February 25-26, and is open to 4-H members aged 5-19. This contest is the state qualifying event for Intermediate and Senior members. Please call the Benton Extension office to register and visit our website for all the details and contest rules.

4-H members present to a judge, using one of the following categories:

- Demonstration (show how to do something – great for new presenters)
- Illustrated Talk (use visuals/equipment)
- Speech (no visuals or equipment – challenging for experienced presenters)
- Impromptu (on-the-spot presentation–topic provided by judge)

Cloverbud non-competitive opportunity (ages 5-8); Show & Tell, Recite Pledge, Other topic of choice.

Junior Leadership Opportunities

Youth grades 7th-12th have numerous opportunities to sharpen their skills in leadership, communication and more! The focus for 4-H Junior Leaders is to build skills and gain confidence while helping clubs succeed. Junior Leaders work with adult leaders to plan, organize, teach, and lead activities within their club environment and beyond.

Junior Leader training is open to all youth in 7th-12th grades who want to expand their skills. The training will be held on Saturday, February 16, from 10 a.m.- noon, at the Benton County Extension Office. Registration is required, but there is no cost to attend. Youth do not need to attend this training more than once in their 4-H career, unless they would like a refresher or more ideas to sharpen their skills. One adult leader must accompany and attend training with the registered member. Contact the Benton Extension office to register.

Benton County Annual Fund Campaign

We welcome your support of the Benton County 4-H program through our annual Benton County 4-H Fund Campaign. This yearly event provides support for the many educational activities offered to local youth through the 4-H program. Donations are now accepted online and in office! Please visit www.bentoncounty4h.com/donate. Any contribution is greatly appreciated. If you have donated in the past, we greatly appreciate your support! Your contribution helps our program focus on positive youth development for Benton County youth.

Regional Small Animal Clinic

Small animal 4-H project members will have the opportunity to learn more about their projects at the 2019 Critter Campus, held on Saturday, January 19, at the Polk County fairgrounds. The clinic will cover multiple species including rabbits, cavies (guinea pigs), poultry, turkeys, pigeons and doves, and cats. Youth can bring their animals to the event, although they are not required to do so. Participants will have the chance to work with experienced judges with or without their animals.

4-H members can register and have animals health-checked at the door. More information will be coming soon!

Build Your Dream Home Here!

Beautifully developed Alsea home site on 9.98 acres- many improvements already done, this gorgeous property is just waiting for your dream home! Well and septic in place and electricity to the site! Also includes newer barn and shop. Ideal for horses, gardening, self sustained living. Neighboring timber land for trail rides. Lovely mountain views!

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$275,000

http://extension.oregonstate.edu/linn
Upcoming Meetings

For more details on these events, visit the Benton or Linn County Extension website, or subscribe and watch for the Compass and Needle.

**Friday, January 11 • 6:30-8:30 p.m.**

Winter Lecture: "Carbon - Better in the Woods or the Wood Product?" at the Corvallis/Benton County Library. Researchers and woodland owners Maureen Puettmann and Elaine O’Neil will look at how trees store carbon while growing and how carbon can be stored in various wood products. Free and open to public.

**Tuesday, January 15 • 9:30 a.m. to 12:30 p.m.**

Tour of the Horning Tree Seed Orchard in Colton, Oregon. See the methods of seed production for several important tree species; how the trees are grown, cones produced, seed collected and prepared by drying, sorting and storage. See website to find carpool and travel details.

**Saturday, January 19 • 5:30-8:30 p.m.**


This year’s Starker Lecture Series will explore the history, current situation and future path of Tribal forestry in Oregon and beyond. The series runs January through May, and will include a movie, three lectures by distinguished guests, and a capstone tour to the Siletz Reservation. All are free and open to public.

Visit the Lecture website for more information http://starkerlectures.forestry.oregonstate.edu/

**Saturday, January 26 • 11:30 a.m. to 3 p.m.**

Benton Chapter Small Woodlands Association 2019 Annual Meeting in Kings Valley. Linn Chapter OSWA’s Annual Seedling Sale & Goods from the Local Woods Fair.

**Saturday, February 2 • 8 a.m. to noon (or while supplies last)**

Linn Chapter OSWA’s Annual Seedling Sale & Goods from the Local Woods Fair. Linn County Fair and Expo Center, Albany

Seedling Sale and Goods from the Woods Fair

A reminder that the Linn County Seedling Sale and the Goods from the Woods local wood products fair will be held on Saturday, February 2, from 8 a.m. to noon at the Linn County Fair and Expo Center. Both events are sponsored by the Linn County Chapter of Oregon Small Woodlands Association. Portions of the money earned each year from the Seedling Sale are used to help fund educational programs for youth in Linn County, including 4-H and college scholarships. Come meet scholarship recipients at the Linn County Small Woodlands Association Annual meeting, on Saturday, January 19, in Scio.

Seedlings will be available while supplies last and pre-orders are encouraged. **All pre-orders need to be submitted by January 19.** The plant list/information sheet and seedling order form are available electronically on request (jody.einerson@oregonstate.edu). For questions or additional information, please contact Bonnie Marshall at bonnieym@wvi.com or 503 769-6510. For questions about the Goods from the woods, contact Mary at brendle@wildblue.net or (541) 367-2845.

An Easy New Year’s Resolution: Subscribe to the Woodland Compass

Are you interested in seeing more information about how to take care of your woodland property? Do you want to find out about upcoming events? Then you should subscribe to the Woodland Compass and Needle, the FREE electronic news and announcement bulletins from Benton, Linn and Polk Counties Forestry & Natural Resources Extension.

The Compass is released electronically six times yearly with information about the art and science of taking care of your woodland property for the benefit of you and the creatures that live there. As an on-line publication it comes in full color with active links to other stories and resources. The Needle has timely electronic announcements and is the best way to find out about upcoming woodland events and happenings offered by Extension and its partners in the mid-Valley.

If you are interested in receiving the Compass and Needle, please email Jody Einerson (jody.einerson@oregonstate.edu), or call the Benton County Extension Office 541-766-6750 and give us your name, email, and physical mailing address & phone (to help keep email lists current). There is something for nearly every interest, so put your whole family on the list. It is FREE!
Strategic Implementation Area in Linn County continued from Page 9

Program effectiveness and allow ODA and SWCDs to make better use of limited resources.

WHAT HAPPENS IN A SIA AREA?
1) ODA will conduct a Compliance Evaluation to identify potential sources of pollution from agricultural activities.
2) ODA will contact landowners who might need assistance. The sooner landowners contact our partners, the more likely they will receive help because partners have limited resources.
3) After landowners have been given a chance to make changes, ODA will track progress toward reducing agricultural sources of pollution.
4) Properties that do not meet the requirements established in the local Area Rules (regulations) may be subject to a compliance investigation and further action by ODA.

Because agricultural pollution comes from diffuse and diverse sources, the program focuses on land conditions and management that supports clean water and healthy watersheds.

WHAT CAN YOU AS A LANDOWNER DO?
You should evaluate your

How to Interpret Your Water Test Results continued from Page 9

the well is not the problem, the professional can check your well system for components that contain higher lead levels. A plumber may be able to identify lead sources in household plumbing.

If such components are the lead source, the homeowner has three basic options:
1. Replace the problem components with new ones that meet current federal requirements. 2. Treat the water that is being consumed. The National Sanitation Foundation recommends appropriate filters, reverse osmosis units, and distillers. Make sure the system is certified under NSF/ANSI standards for lead reduction from 0.150 mg/L to 0.010 mg/L or less.

Sometimes lead problems in drinking water are due to low pH. When pH levels drop below 7.0, water becomes acidic, which can cause lead to leach from plumbing fixtures. Acid neutralizing systems are generally used to correct this situation.

4-H Science Lessons and Resources for Outdoor Schools continued from Page 15

into four units covering plants, animals, soil and water. The Water Unit has four lessons each for both coastal and inland Outdoor School sites. The four units cover the primary content areas included in Senate Bill 439. Each unit contains four mini-modules which can be used together or as standalone lessons to provide up to 2 hours of content. Most of the lesson plans, reusable visual aids and handout copy pages are free to download from the OSU Extension 4-H Program website or partner educational organizations. The curriculum uses maps to provide regionally relevant information from the Student Atlas of Oregon, which are free to download from the Portland State University Center for Geography Education.

In 2018 the OSU Extension Outdoor School Program opened applications for funding the 2018-2019 school year in mid-April with a deadline of mid-May. The goal of OSU is to continue to fully fund program expenses including portable reusable equipment of less than $1,000. Schools and Districts who are approved for funding are reimbursed after the program has taken place and required reporting is complete. More information on funding and allowable budget categories is available at https://extension.oregonstate.edu/outdoor-school.

Seed to Supper Supplementing Food Budgets

Continued from Page 1

portion of their own food on a limited budget,” according to an online course description.

“We target adults who are looking to supplement their food budget by learning how to grow some of their own food,” said Brooke Edmunds, an Oregon State University horticultural Extension agent, who oversees the Master Gardener program in Linn and Benton counties.

The classroom training, provided in Spanish and English, is very thorough, according to Kenner.

“Each week we cover a different chapter, including topics like soil, vegetable gardening, fertilizing and watering,” Kenner said. “And the books developed by OSU and the Oregon Food Bank are an excellent resource.”

In addition to the six weeks of classroom training, which typically involve once-a-week two-hour courses, Seed to Supper also can include workshops in late spring and summer where participants get hands-on training.

“At the workshops, the participants can get exposure to how you actually do the gardening techniques, rather than just learning about it in the classroom,” Kenner said.

At the conclusion of the classroom training, participants are offered seeds and plant starts to take home, start their own garden, put their new-found knowledge to work, and start supplementing their food budgets.

New this year, a “Growing Healthy Kids” program is being offered at Lincoln School in Corvallis to the children of adults participating in the Seed to Supper program. The program is targeting Spanish speaking families.

“We’ve learned from families is that they want their kids to have more than child care,” said Tina Dodge Vera, an Extension SNAP-Ed nutrition educator at OSU. “Parents want their children to have meaningful learning opportunities, so this is perfect. We designed it in a way that at the same time the adults are getting their gardening information, the youth will be provided nutrition gardening education.”

The program is targeted for second and third graders but open to kindergarten through fifth graders. In it, youth learn about edible plant parts, including roots, leaves, fruits, vegetables and seeds, as well as food preparation using Food Hero recipes (www.foodhero.org).

Dodge Vera said she hopes the program is expanded to other eligible SNAP-Ed/Seed to Supper sites in the future.

People interested in supporting the Seed to Supper program are asked to contact Edmunds at brooke.edmunds@oregonstate.edu or by calling 541-791-6617.
On December 19, members of the Reigning Riders 4-H Club and the Linn County 4-H Leadership team spent the afternoon bringing Holiday Cheer to the residents of the Lebanon Veteran's Home. The Reigning Riders brought their horses and mini horse for the residents to meet. The Leadership members collected items for Holiday stockings and passed them out to the residents.