Oregon Small Farm News

Summer 2016

Oregon State University Small Farms Program

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Oregon State University OSU Extension Service

OSU Extension Service Small Farms Program

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Cover Photo:
Siletz Tomato. June CSA box.
Gathering Together Farm
Photo provided by G. Stephenson

Oregon Small Farm News Layout by: Chrissy Lucas

Javier Fernandez-Salvador Joins the OSU Small Farm Program

Javier Fernandez-Salvador joined the OSU Small Farms Program as Assistant Professor in May. He works in the Marion and Polk Counties region with a focus on organic and conventional production systems of pastures, specialty grains and other agronomic and horticultural crops as well as farm food safety and organic regulatory compliance. He will be working with a variety of stakeholders in the region, serving the needs of diverse small farms in the central Willamette Valley, and contributing his expertise to the Small Farms team.

Javier is finishing his PhD in horticulture where he studied physiology and nutrient allocation in organic blueberries the current conditions on the organic blueberry farms in Oregon. He has a M.S. in horticulture with a minor in food science and technology. His research focused on on fertigation, plant nutrition and fruit quality of organic blackberries. Additionally he has a post-baccalaureate degree in horticulture from OSU and a B.S. in Agricultural Engineering and Agribusiness Management from Universidad San Francisco de Quito in Ecuador.

Javier is an international Organic and Food Safety Inspector and has served as a consultant for various small producers and processors in Oregon and Latin America. Javier brings over 10 years of organic regulatory experience, has worked with various certification agencies and serves on the OMRI crop inputs review panel.

Javier grew up in a dairy and potato farm in the northern Andes of Ecuador. He has managed production and irrigation at small and large farms in the Corvallis and Eugene area brings extensive crop and berry production knowledge to his new position with the OSU Extension Service in Marion County.

Javier Fernandez-Salvador at a grower's meeting in Puerto Rico.
Photos provided by Javier Fernandez-Salvador

New Meat Processing Options in Eastern Oregon

By: Kathryn Quanbeck, Program Manager, Niche Meat Processor Assistance Network

Eastern Oregon will soon have two new meat processing options. Hawkins Sisters Ranch will be opening a poultry processing facility in Wallowa, and Hines Meat Co. will open soon for red meat processing in La Grande.

Hawkins Sisters Ranch processing building – under construction.
Photo provided by Kathryn Quanbeck

Mary Hawkins of Hawkins Sisters Ranch raises pastured poultry and soon will be processing her own poultry on-farm, as well as offering processing services to other producers. "We'll raise around 1,200 birds this year and we'd like to do around 6,000 – 8,000 birds per year to start," says Mary, with the remaining birds coming from other local producers. Processing fees are likely to be around $4/bird for whole broilers.

The ranch recently purchased an "Old Hickory" brand pre-fabricated shed and is turning that into a small poultry processing facility that will operate under the 20,000 bird exemption. Under the exemption, a producer "may purchase live birds raised by other producers, process them, and sell those birds back to the producers, who can then act as distributors." (OSU Small Farms Guide). The processing facility will operate seasonally, May – November, processing chickens and some turkeys.

Mary sees an opportunity for her business and others to grow with increased access to processing. The facility is still under construction, but they aim to be up and running in July 2016.

Jake Hines is putting the final touches on his red meat processing facility and retail butcher shop, Hines Meat Company, in La Grande. The facility will offer slaughter and processing for all four-legged species: cattle, hogs, lambs and goats. There will also be a retail butcher shop and deli, selling local meats when possible.

The facility will start out operating under custom-exempt inspection with the intention of transitioning to USDA-inspection in a few months. Much of the facility is brand new with space to process at least 8 to 10 head of beef a day and hang and age much more than that. The facility has a cutting room and smokehouse and significant freezer capacity. The retail shop will sell cured and smoked meats, deli meats and sandwiches.

Jake looks forward to offering processing services to the local farming and ranching community – stop on by for a visit!

The cutting room at Hines Meat Co.
Photo provided by Kathryn Quanbeck

OSU Dry Farming Field Days

Three sites in Western Oregon will be hosting Dry Farming Field Days in 2016!
Come learn about dry farming, see crops (tomatoes, squash, melon, potatoes) grown without any supplemental irrigation in the field, observe roots from soil pits in irrigated and dry farmed plots, do side-by-side tastings of dry farmed and irrigated tomatoes and melons, and more!

Tuesday August 2nd - Southern Oregon

4-7 pm: Southern Oregon Research and Extension Center
569 Hanley Rd, Central Point, OR 97502

Tuesday August 9th – South Valley

3-5 pm: OSU Vegetable Research Farm
34306 NE Electric Rd, Corvallis, OR 97333

4-7 pm : Oak Creek Center for Urban Horticulture
844 SW 35th St, Corvallis, OR 97333

Tuesday August 23rd – North Valley

4-7 pm: North Willamette Research and Extension Center
15210 NE Miley Rd, Aurora, OR 97002

Family Forests of Oregon

For more information and to RSVP visit:

http://smallfarms.oregonstate.edu/wmws **or**
http://smallfarms.oregonstate.edu/dry-farming-demonstration

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For questions contacat Chrissy Lucas at chrissy.lucas@oregonstate.edu or (541) 766-3556

Innovations Help Vegetable Growers Find that Cover Crop Niche

By: Nick Andrews, OSU Extension and Nathan Harkleroad, Agriculture and Land-Based Training Association (Salinas, CA)

The benefits of cover crops are widely touted (see sidebar), but in the real world of farming it is often challenging to work cover crops into your rotation. Crops like late sweet corn, pumpkins and winter squash, tomatoes and peppers, fall brassicas, etc. are usually in the ground until October or November. By then fields are often too wet to work, and even if you can prepare a seed bed (i.e. on a coarse textured soil), cover crops planted in late October or November don't normally establish well or protect soil from erosion over the winter.

Short season crops are usually planted in succession with small blocks going across a field. Often the same piece of ground will be double or triple cropped. In this situation it is possible to squeeze in small blocks of cover crops, but they can be awkward to manage, and delay your ability to get back into that part of the field.

Successful cover cropping requires stepping back and taking a slightly longer term perspective on your crop rotation. The National Organic Standards emphasize cover cropping, and certified organic vegetable growers are generally required to include cover crops in their rotations, but cover crops usually have to pencil out for a non-organic farmer to incorporate them in rotations. Some benefits of cover crops are relatively easy to quantify. Legume covers can provide plant-available nitrogen (PAN) to subsequent crops. Work in Salinas, CA also indicates that high seeding rates can sometimes pay off in terms of improved weed control. Other cover crop benefits are less easily quantified. Cover crop leaves intercept raindrops during wet winter months and reduce their impact on the soil surface. Fibrous cover crop roots hold soil aggregates together and reduce the risk of erosion, while deep tap roots can improve water infiltration and potentially loosen hard pans. Roots and their exudates also support the growth of micro-organisms when soil would otherwise be bare. For example, cover crops have been shown to significantly increase winter survival of mycorrhizal fungi and other beneficial organisms. Many of these organisms release glomalin and other compounds that hold sand, silt and clay particles together in strong soil aggregates. Increased aggregate stability and the channels created by plant roots help to increase water infiltration rates, which in turn can reduce runoff and erosion during storms. High biomass cover crops can also maintain or increase soil organic matter, which increases soil water holding capacity and nutrient mineralization, and can help reduce the risk of some soil-borne diseases.

Some cover crop benefits

- Biological nitrogen fixation
- Enhanced weed control
- Prevent soil erosion
- Increase soil organic matter
- Pollen and nectar for beneficial insects
- Enhanced diversity of soil fauna
- Improve water infiltration
- Improve water holding capacity

Competing Resources

One of the biggest trade offs in traditional cover cropping is that ground is not in a cash crop during the period of time that the cover crop is growing and for up to four weeks after the cover crop is incorporated while the residue is decomposing. There are also the direct costs of seed, ground preparation, potentially irrigation, and incorporation. Depending on your crop rotation, some cover crops can increase the risk of pest damage, for example, brassica cover crops could increase the risk of clubroot in a field. Pest relationships are complex and very site specific. The benefits of cover cropping have to be balanced against potential drawbacks related to your crop rotation.

Some farmers assume the benefits of cover crops can easily be replaced by purchasing and applying compost and organic fertilizers. This may be true with regard to crop nutrient demand, but cover crops are less expensive than most other purchased soil amendments, and can provide superior soil protection during heavy rain.

Cover crops can help with infiltration of rain water and slow or prevent surface runoff. In areas dependent on groundwater, this can be especially helpful for recharge of aquifers. However, a maturing cover crop can also begin to transpire groundwater resources, resulting in a net groundwater loss in arid regions. The best management technique in such a situation may be to terminate the cover crop early.

Figure 1. Interseeder Technologies' seed drill seeding cover crops into sweet corn near Keizer, OR. *Photo by Ed Peachey.*

Planting Equipment

The best way to plant most cover crops is with the use of a grain drill. Ideally, this results in cover crop seeds being planted to a uniform depth and at the same rate across a field. Under dry conditions seed can be placed deeper into moisture. Other manual and tractor-assisted options include broadcasting the seed with a tractor mounted PTO-driven spin spreader, or a crank-style manual belly broadcaster for smaller areas. Broadcast seed should then be lightly buried with a disk, roller or harrow to prevent desiccation and depredation by birds and other animals. Research in Salinas indicates that burying with an offset disk results in a more uniform planting than a tandem disk. On finer textured soils in western Oregon rollers have been successfully used to incorporate seed. For a manual option in small areas, seed can be buried with a rake. Most farmers use what they have available and choose to purchase a better option when consistently cover cropping larger areas and finances allow.

Inter-seeding cover crops

Researchers at Pennsylvania State University developed a seed drill that applies fertilizer and herbicide, and inter-seeds cover crops in one pass. Interseeder Technologies in Lancaster Co., PA is now commercially producing this equipment. Ed Peachey (OSU Extension) started working with this drill in 2015. About eight farmer collaborators are working with Ed. They are interested in establishing cover crops in late harvested sweet corn, silage corn and winter squash. Some are on highly erodible soils that flood each winter near the Willamette Valley, and they are mainly trying to establish cover crops that will form a root ball that help keep soil in place even if the cover crop gets flooded out. Other farmers are interested in improving soil organic matter, competing with weeds, and the nitrogen contributions of legume covers.

With this drill, farmers can seed into soil moisture. This avoids the need for extra irrigation for inter-seeded cover crops broadcast onto the soil surface, and reduces seed predation. Ed has been working with several cover crops to investigate a wide variety of objectives with cooperating farmers. Covers include Cayuse oats, black oats, barley, triticale, cereal rye, winter wheat, Sudan grass, orchard grass, tall fescue crimson clover, red clover, hairy vetch and common vetch. He has been evaluating the best time to interseed cover crops (crop stage and time of year), cover crop species, seeding depth, and herbicide compatibility. In sweet corn the cover crop is typically seeded at V6 growth stages (6 visible collars). Establishment is less complicated in organic fields where herbicide compatibility isn't an issue. All the cover crops did well there. Trials are expanding in 2016 from Junction City to Brooks. Subscribe to **OSU Veg e-Notes** to learn about summer field days and to read more about project results.

Figure 2. Black oats and crimson clover successfully established in sweet corn near Keizer, OR. *Photo by Ed Peachey.*

Ed's work is very relevant to smaller farms who might not be able to justify the expense of a specialized seed drill, but could broadcast covers into late summer crops and rake them in with cultivation equipment. Nick and others have had some success broadcasting covers into sweet pepper, eggplant, tomato, winter squash and sweet corn in small demonstration plots. Important factors seem to be seeding covers early enough so they could establish well before the vegetable canopy closes, and more frequent irrigation for germinating cover crop seedlings left near the surface during hot, dry weather.

High-density cereal-legume mixes for weed suppression

Surveys of small-scale growers frequently rate weed management as one of the top production challenges, and poorly managed cover crops can increase weed problems. Many winter weeds (e.g., annual nettle and shepherd's purse) can set seed in less than two months, whereas a full-term cover crop is typically growing for a period of three to seven months. Increased weeds can have a negative impact on an organic farm's profitability through reductions in yield and/or high weeding costs. Fast-growing cover crops can effectively smother weed competition and reduce weed populations in subsequent cash crops. If weeds are a concern, it is important to make cover crop decisions that can help reduce weed pressure over time.

Cereal-legume mixes have been very popular as cover crops among organic and small-scale farmers, partly due to the addition of nitrogen through nitrogen-fixing legumes. However, the use of legumes may not always be the best for winter weed control due to low plant densities at typical seeding rates and slow emergence in cool temperatures. According to USDA-ARS research in Salinas led by Eric Brennan (Research Horticulturalist focused on organic vegetable production), when cereal-legume cover crops are planted at high-densities (2-3x typical commercial seeding rates) they can reduce weed populations compared to standard seeding rates. Extra seed equals extra seed costs; however, this may pay off in reduced subsequent weeding costs in a cash crop. Good weed suppression can be achieved with cereal-only cover crops, as well, without needing to increase the seeding rate. See Eric's YouTube Are legume-cereal cover crop mixtures a good fit for organic vegetable production? for a discussion on cereal vs. cereal-legume cover crop mixtures in California.

Furrow cover cropping in organic strawberries

A furrow cover cropping system has been developed by Brennan and Richard Smith (Farm Advisor with the University of California Cooperative Extension) for organic strawberries grown with plastic mulch on the Central Coast of CA. The system involves planting 'Ida Gold' mustard in the strawberry furrows before the winter rains come. This mustard is allowed to grow through the winter and is then easily mow-killed with a weed-whacker when the cover crop reaches the height of the beds. While this system doesn't offer all of the benefits of growing a cover crop on an entire field, it does minimize erosion and surface run-off, and promote rainwater infiltration. These are serious resource concerns, especially in drought affected regions like Monterey County, CA where strawberries are planted on over 10,000 acres of land each year.

Grower's in the Willamette Valley who are interested in adapting this system should be careful not to allow mustards to flower especially if they are near fields used for specialty brassica seed production. Pollen transfer could destroy your neighbor's seed crop. Also during the current blackleg epidemic in Oregon, ODA Rules require that all brassica seed planted in Oregon is tested and found free of blackleg.

Figure 3. 'Ida Gold' mustard cover crop grown in strawberry furrows in Monterey County, CA. Researchers are using weed whackers to mow down the cover crop. *Courtesy of Eric Brennan.*

Figure 4. Mustard residue left behind after mowing. *Courtesy of Eric Brennan.*

Nitrogen release from legume cover crops

Dan Sullivan (OSU Extension) and Nick studied nitrogen (N) release from cover crops in the lab and the field from 2006-2011. They found that a N mineralization model published in 1998 (J.T. Gilmour) accurately predicted N release after ten weeks from a wide variety of cover crops in Western Oregon. They incorporated this model into the OSU Organic Fertilizer and Cover Crop Calculator. The calculator uses cover crop biomass, percent dry matter and total percent nitrogen to predict plant-available nitrogen (PAN) release after about ten weeks. To use the calculator, sample your cover crop just before incorporation, and send a sample to a lab for percent dry matter and total nitrogen analysis. You can also use the calculator to estimate PAN release from organic fertilizers and the cost of your cover cropping and fertilizer program. Estimating plant-available nitrogen release from cover crops is a PNW Extension publication that explains the research used to verify this model, and how to sample cover crops. The publication also describes a shortcut method for generating rough estimates of PAN release if you prefer not to send samples to a lab. Figure 1 shows that as the nitrogen content of a cover crop increases (i.e. from increasing percent legume in the stand), the proportion of total nitrogen released as PAN during decomposition also increases.

Finding a cover crop niche can be difficult for small-scale vegetable growers, but it definitely is possible. There will always the tempting reasoning that cover cropping just doesn't pencil out for the farm. However, many of the benefits of cover cropping are hard to quantify and/or require a longer term approach. With the right management, cover cropping can even save a grower money on fertilizer and weeding costs. Innovative techniques like planting high-density cereal-legume mixtures, furrow and relay cover cropping may make cover cropping more feasible and increase the

Figure 5. Sampling a crimson clover cover crop to estimate nitrogen contributions to the following crop. *Photo by Kristin Pool.*

benefits to a farm operation. Perhaps try out some of these techniques over a small area this season to gauge their suitability to your farm. There are financial and technical resources to help a grower integrate cover crops into rotations, including the USDA Natural Resource Conservation Service's Environmental Quality Incentives Program (or 'EQIP')and Oregon State University Extension. Don't be afraid to ask for assistance to get the most out of your cover crops!

This article is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under NRCS Conservation Innovation Grant 69-3A75-16-003, USDA's Western Sustainable Agriculture Research & Education program, the Oregon Processed Vegetable Commission, the OSU Agricultural Research Foundation and Meyer Memorial Trust.

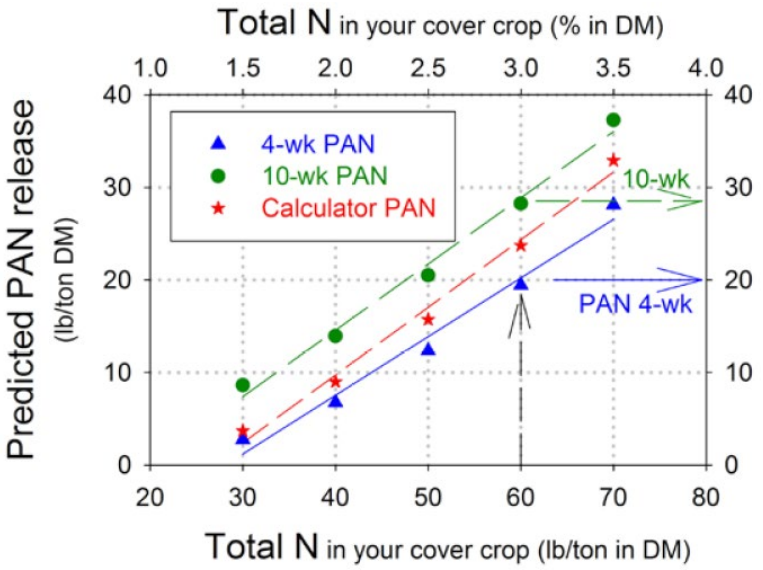

Figure 1. Relationship between total nitrogen (x-axis) and plant-available nitrogen released during cover crop decomposition (y-axis). Legumes usually release much more PAN than non-legumes because their nitrogen content is increased due to symbiotic relationships with Rhizobia bacteria.

WOMEN in SUSTAINABLE AGRICULTURE Conference

Portland, Oregon 11/30/16-12/2/2016

2016WISA.ORG

Grass-fed Meat School Offered for the First Time in Oregon

By: Maud Powell, Small Farms Program, Oregon State University

This September, the Jackson County OSU Extension Small Farms program is offering a week-long grass-fed meat school which will cover everything from pasture management to the best butchering techniques for grass-fed animals.

Grass-finished meats offer a great deal of promise to both consumers and producers. Both real and imagined claims abound, but the reality is that ranchers who learn to produce a high-quality grass-finished product have an opportunity to increase profitability, improve financial stability and decrease labor. Still, there are plenty of pitfalls and plenty of poor-quality meat on the market. Whether you are a seasoned producer or considering entering the market, the grass-fed meat school offers something for everyone.

Local producers and consultants join world-renowned author-experts Jim Gerrish, Diana Rodgers and Adam Danforth in this program that covers nutrition, how to produce and manage the best forages for the best meats, selecting livestock for grass-production, live animal and carcass evaluation, butchery, meat taste and texture, and how to market your product.

This course has never been offered before and we do expect it to fill very quickly. Please contact Paula Burkhalter at paula.burkhalter@oregonstate.edu or (541) 776-7371 if you live in another part of the state and want help finding accomodations.

Cost: $35 per session or $60 for two people from the same farm, $120/person for 4-session series, $220 for two from same farm, Butcher class is $75 (no discounts and paid individually)

Please note times for each class as they are not the same every session!
Class will be held in the Southern Oregon Research and Extension Center Auditorium in Central Point EXCEPT for the Saturday class, which will be held at Martin Family Ranch and Montgomery's Meats (we will break the class into two groups and assign them a starting location)

Friday, September 16th, 5:30-9:00 pm

- Why Grass-Finished?
- Nutrition of Grass-finished Meats
- New Options in Forages

Saturday Saturday, September 17th, 10-12 and 1:30-3:30

- Live animal evaluation, body condition and frame scoring, low stress animal handling
- Carcass evaluation
- Lunch on their own, option of eating at Montgomery's Meats (Montgomery's will provide a menu and price list and request people commit in advance)

Tuesday, September 20th, 5:30-9:00 pm

- Ensuring Meat Quality through Diet
- Choosing the right type of animal, pasture management for quality grass-fed meat
- Managing a Forage Chain

Thursday, September 22nd, 5:30-9:00 pm

- Butchery Class

Friday, September 23rd, 5:30-9:00 pm

- Developing and maintaining a relationship with your packer
- Producer Marketing Round-Table:
- Willow-Witt (CSA and Farmer's Market)
- Larry Martin (Direct to Consumer/Custom)
  Adam Dansforth and Jonathan Tepperman (Meat Collective)
- Putting it all together

For more information or to register, visit the Jackson County OSU Small Farms page: http://extension.oregonstate.edu/sorec/farms

Eastern Oregon Community Food Systems Gathering

By: Robin Maille, OSU Extension Family & Community Health, Union & Baker Counties

On May 18, 70 people from nonprofit organizations, businesses, Extension Service, agencies, and others representing five eastern Oregon counties came together at the OSU Extension office in La Grande to talk about community food system development in the region. The event was organized by Oregon Food Bank and hosted by OSU Extension Service.

Community Food Systems means different things to people—so when we gathered on May 18th to talk about it, the discussion was animated. A diverse group of people representing five Eastern Oregon counties and interests – from food banks to farming, from nursing to Extension – came together to talk about food production, food security, food access and marketing. Oregon Food Bank sponsored the meeting and developed the agenda along with OSU Center for Small Farms and Community Food Systems (CSFCFS), and OSU Extension Union County. This gathering helped build relationships and partnerships between food systems advocates to improving local food systems across Eastern Oregon.

Lauren Gwin, of OSU's CSFCFS and Sara Miller of Northeast Oregon Economic Development District introduced the *2016 Community Food Systems (CFS) Indicators Report,* compiled by food systems consultant Matthew Buck. The report provides data from all 36 Oregon counties and highlights trends related to food access and insecurity, community capacity, the farm base, and market linkages. The report provides a CFS score and ranking for each county. An update on the Oregon Community Food Systems Network, a statewide collaboration that now has 44 nonprofit members across Oregon was provided.

The small group discussions that followed centered on food security and access, sourcing and distribution of agricultural products, education, and regional collaboration. Several of the local farmers markets are now accepting SNAP benefits. In addition, some markets like the La Grande Farmers Market received a grant to offer SNAP Match or "Double Up Food Bucks" which match up to $10 in EBT dollars with the equivalent in tokens to purchase fruits and vegetables.

Other ways the groups discussed to increase food security include school food pantries and Friday Backpack programs for school-aged kids. A variety of nutrition & cooking education programs for low-income families are being offered in the region including Seed to Supper, Cooking Matters, and OSU Extension SNAP Education and SNACZ programs. Garden activities to enhance food security include the Farm to School program in North Powder and Community Gardens in Joseph, La Grande, Baker City, and Ontario.

OSU Extension Union County has applied to host an AmeriCorpsRARE member to conduct a Community Food Assessment (CFA) in Union & Baker counties beginning this fall. The May 18 meeting helped identify current issues and opportunities in the region that can be further explored in the upcoming CFA.

One of the interesting value-added agriculture activities in our region centers on barley. Currently the emphasis is on malt barley, but we would like to see an expansion into barley for local consumption as food. Several counties expressed an interest in developing better linkages between small- and mid-scale producers and restaurants or retailers to keep more locally grown products in the region. In addition to the CFA, the AmeriCorps RARE will be looking at ways to increase the availability of locally grown foods.

Another benefit of the CFS Gathering was that representatives from each of the counties met together to discuss existing local food system projects and partnerships in their counties as well as ways to strengthen them. Some key projects to support include Food Policy Councils, Community Food Collaboratives, and greater outreach to low-income families to ensure a healthy and consistent supply of food.

We look forward to continued conversations and a strengthening of our local, community-based food systems in Eastern Oregon as a result of this initial, successful convening.

Oregon Farm Link Launches

By: Molly Notarianni, Friends of Family Farmers

The average age of an Oregon farmer is 60 years old, and between 2007 and 2012, Oregon lost nearly 25% of its beginning farmers. As a result, the gap between farmers leaving agriculture and those entering is only increasing, leading to a looming crisis around who will grow our food in the future. Friends of Family Farmers (FoFF), an Oregon non-profit organization that advocates on behalf of socially and environmentally responsible family-scale farmers and ranchers, has one solution to Oregon's land access crisis: **Oregon Farm Link.**

Oregon Farm Link is an online hub that connects beginning farmers and ranchers with land holders. To participate, land holders and those looking for farmland simply create online profiles that describe the types of land, or land partners they are seeking. In addition to hosting land listings, Oregon Farm Link serves as a portal for those interested in getting involved in agriculture, with a board of job listings and a comprehensive resource library designed to assist farmers of all experiences.

"Young farmers face many obstacles, including limited land availability, rising land costs, and difficulty accessing financing through traditional means," said Molly Notarianni, Next Generation Organizer for Friends of Family Farmers. "That's why FoFF created Oregon Farm Link the state's only agricultural 'land link' service. Oregon Farm Link allows land holders and those looking for land to connect, helping a newer generation of farmers get on the land."

Oregon Farm Link is a major upgrade to Friends of Family Farmers' iFarm land link program, which was originally created in 2009. Since that time, the iFarm program has facilitated more than 70 land matches around the state, but the site needed major improvements to handle the demands of hundreds of listings. Chelsea Girimonte, farmer at Vee Cee Farm in Dayton, OR explains, "As first-generation farmers we're not always sure how to access all the resources in our agricultural community, including land lease and partnership opportunities. iFarm helped us access landholders and start conversations we wouldn't have had the opportunity for otherwise."

The USDA anticipates that up to 50% of Orπgon's agricultural land will change hands within the next decade. Now is the time to cultivate the next generation of Oregon's agrarians! List your land, find land, look for a job, & locate resources on FoFF's new **Oregon Farm Link database**.

For more information, visit oregonfarmlink.org

Vegetable Insect IPM Series

Flea beetles, cucumber beetles and symphyla

July 20, 2016 from 9:00 am – 1:00 pm

North Willamette Research and Extension Center
15210 NE Miley Rd, Aurora, OR 97002

For registration, agenda and more information visit:
http://smallfarms.oregonstate.edu/vegetable-insect-ipm-series-aurora

Learn strategies for managing insect pests on organic farms. Workshop will include field demonstrations, hands-on activities and classroom discussions.

- Pest Identification
- Pest lifecycle and periods of pressure
- Strategies include:
  - Trap cropping
  - Resistant varieties
  - Row cover
  - Organic insecticides

Contact Heidi Noordijk at heidi.noordijk@oregonstate.edu for more information

Animal Welfare: A Complex Concept

By: Amber Itle, MS, DVM, and Susan Kerr, DVM, PhD - Washington State University

Regardless of where they stand on the vegan-vegetarian-omnivore-carnivore continuum, enlightened and progressive consumers care about animal welfare. Animal welfare is a complex issue that is greatly influenced by individual values and ethics. Although most people would agree that giving animals a "good" life is the right thing to do, disagreements about animal welfare often occur when different measures of welfare are used by different stakeholders. While producers or veterinarians may prioritize animal health, consumers may put emphasis on the naturalness of an animal's life or be concerned about the animal's "happiness."

Producers, veterinarians, and educators think animal welfare is important because:

- ✓ Animals that are well-cared-for are healthier, grow faster, and produce better products
- ✓ Animal welfare is a component of long-term sustainability for livestock enterprises
- ✓ Heathy animals foster food safety for consumers
- ✓ It's just the right thing to do

However, many consumers associate animal welfare with the naturalness of the animal's environment or the quality of life:

- ✓ Animals have access to pasture
- ✓ Animals have a "good" or "happy" life
- ✓ Animals can engage in natural social or foraging behaviors

Public perceptions are changing. Many non-farm consumers have an interest in animals as moral objects and companions, some with a holistic view that focuses on environmental impacts (organic production systems). In contrast, many producers tend to think of animals as resources that when "taken care of, take care us." Regardless, more and more consumers are demanding evidence that their animal-origin products come from farms that care about and enact best practices related to animal welfare:

In a survey conducted by market researcher The Hartman Group, 44% of respondents said they wanted to know more about how food companies treat the animals used in their products. Forty-seven percent of consumers said they support companies that avoid inhumane treatment of animals, a six point increase from a similar survey conducted in 2013. In addition, 65% of respondents indicated they want animals raised in as natural an environment as possible.

—*Animal Proteins: The Consumer-Driven Demand for Transparency*, The Hartman Group, Aug. 18, 2015. http://hartbeat.hartman-group.com/article/613/Animal-Proteins-The-Consumer-Driven-Demand-For-Transparency.

A survey of west coast consumers commissioned by the poultry company Foster Farms found that 49% completely agreed they are more concerned about animal welfare and how animals are raised for food than they were five years ago. Also, 74% completely agreed they would like more large producers to raise animals for food in a humane way.

—*Foster Farms First Major Poultry Producer in the West to Earn Humane Certification from American Humane Association Meats Increasing Consumer Demand for Humanely Raised Foods* (press release), Foster Farms, March 11, 2013. http://www.fosterfarms.com/about/press/press_release.asp?press_release_id=138.

Despite recent and growing interest in animal welfare, the concept is not a new one. In 1979, the Farm Animal Welfare Committee (FAWC, formerly Farm Animal Welfare Council) of the United Kingdom developed a code pertaining to animal welfare and care standards in the U.K. These standards have been widely adopted by other organizations, including the Royal Society for the Prevention of Cruelty to Animals, American Society for the Prevention of Cruelty to Animals, and the World Organization for Animal Health (OIE). They are also used by some of the animal welfare certifying organizations in the U.S.

The Five Freedoms (text color codes correspond to colors used in Figure 1) are:

1. Freedom from hunger, thirst or malnutrition by ready access to fresh water and a diet to maintain full health and vigor.
2. Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area.

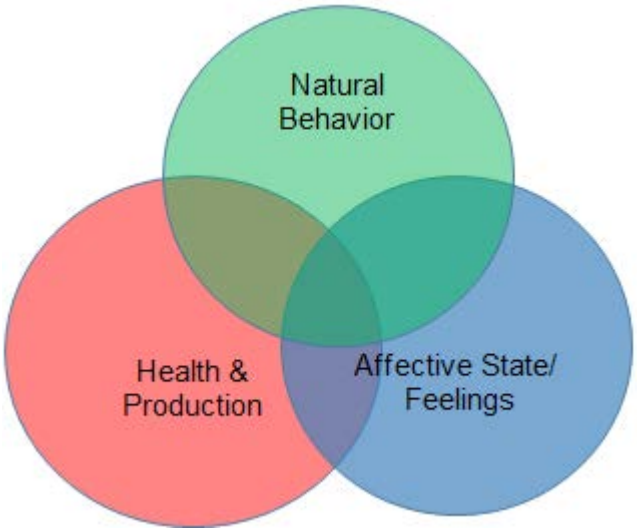

Figure 1. Animal welfare conceptual framework. Adapted from Fraser, 2008, p. 230. Affective State = an animal's experience or perception of its situation, i.e. its feelings such as pain or distress.

3. Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment.

4. Freedom to display most normal patterns of behavior by providing sufficient space, proper facilities, and company of the animal's own kind.

5. Freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering.

Despite these guidelines, producers and consumers often disagree about which management system is better for animals: conventional vs. organic vs. free range vs. pasture raised vs. grass fed. Producer and consumer values often dictate this conclusion making it possible for both groups to be able to rationally justify what they perceive as "better." However, animal welfare is not as dependent on the type of system used as the *management* of that system—animal welfare has the potential to be excellent or terrible in any system.

In 1997, David Fraser and his colleagues at the University of British Columbia introduced a framework complementary to the Five Freedoms to demonstrate this point. They proposed there are three major concepts of animal welfare: health and production; natural behavior; and feelings (affective states). Every type of management system has tradeoffs. While a pasture system may provide more freedom of movement (natural behavior), an indoor system may provide more freedom from parasites (health). Furthermore, a pasture system may subject an animal to the "fear" of predators, but an indoor system has the potential for the animal to experience "boredom." Despite which management system is chosen, all three conceptions of welfare must be considered in an attempt to optimize welfare in that system.

An exercise for readers: apply the animal welfare framework to indoor vs. outdoor pork production systems. Note: an advantage for one is a disadvantage or the other.

Photo 1: Example of an outdoor pig production system. *Photo provided by Susan Kerr*

Photo 2: Example of an indoor pig production system. *Photo provided by Susan Kerr*

The FAWC states animals should have "a life worth living" from the animal's viewpoint. Although each individual conception in the animal welfare framework can be studied scientifically, *there is no scientific or value-free way to establish their relative importance to an animal*. However, with careful consideration

Table 1. Answer the questions below by putting a checkmark in the column you think is correct. Note: this table only includes welfare-related issues and excludes other aspects of management or production.		
Outdoors	**Which production system has:**	**Indoors**
	Fewer injuries?	
	Less lameness?	
	Higher baby pig survival rates?	
	Fewer musculoskeletal problems?	
	More natural foraging behavior?	
	Reduced risk of fighting and/or tail biting?	
	Faster growth rates?	
	More opportunities for natural social behavior?	
	Greater protection from predators?	
	Greater likelihood of early detection of illness in individuals?	
	Reduced risk of internal and external parasite exposure?	
	Better ventilation and air quality?	
	Fewer respiratory and other infectious diseases?	
	Reduce risk of heat stress or hypothermia?	
	Complete freedom of movement?	
	More opportunity for natural breeding behavior?	
	Less abnormal/stereotypic behavior due to boredom?	
	Less competition for feed?	
	Reduced health risks through heightened biosecurity measures?	
	Reduced likelihood of mismatings (too young or inappropriate mating)?	
	Reduced risk of sunburn for light-colored breeds?	
Your conclusions, taking into account your answers to the above questions, the Five Freedoms concept, and the Animal Welfare Framework components.		

of system trade-offs at each stage of an animal's life from birth to slaughter, animals can experience "good" animal welfare with "good" management.

Regardless of how one feels about "animal rights," all informed and rational individuals should be able to agree that animals under the care and responsibility of humans deserve the reasonable care defined by the Five Freedoms of Animal Welfare.

Resources

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Fraser, D., D.M. Weary, E.A. Pajor, & B.N. Milligan. (1997). A Scientific Conception of Animal Welfare that Reflects Ethical Concerns. Animal Welfare, 6, 187-205.

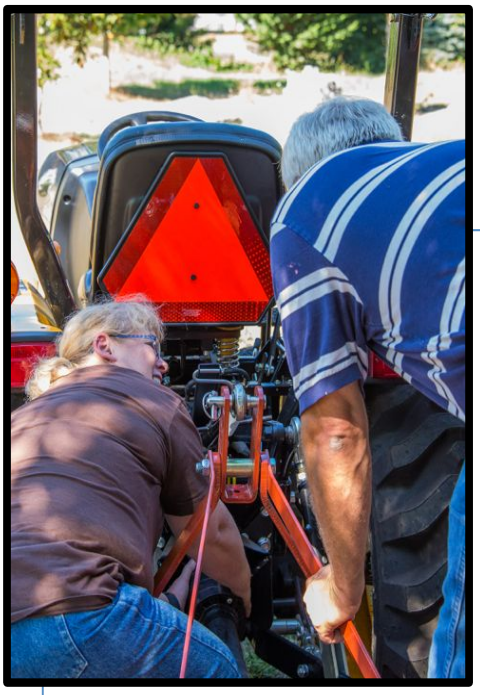
von Keyserlingk, M.A.G., J. Rushen, A.M. de Passillé, & D.M. Weary. 2009. Invited review: The welfare of dairy cattle—Key concepts and the role of science. Journal of Dairy Science, 92(9), 4101-4111.

Small Farm School

Thursday, September 15, 2016

Clackamas Community College, Oregon City

Hands-on and classroom learning for small-scale farmers



Using tractor implements

On-farm veterinary care

Get to know your soils

Goat management basics

Irrigation scheduling

2016 Topics

- Goat management and care
- Vegetable crop planning
- Electric fencing for pastures
- Introduction to hazelnut production
- Farmer business classes
- And many more

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OSU Oregon State University Extension Service

Online registration opens July 12

http://smallfarms.oregonstate.edu/small-farm-school

Food Preservation Classes Feature Locally Grown Produce

By: Lauren Kraemer, MPH, Assistant Professor, Extension Family and Community Health

When I was hired as the Hood River and Wasco County Family and Community Health Faculty, one of the projects I took on was reinvigorating our local food preservation program. I had inherited a handful of dedicated Master Food Preservers, but their numbers were dwindling. In addition, many community members seemed more interested in picking and choosing a few classes, rather than becoming a full-fledged volunteer with 40 hours of training and the accompanying 48 pay-back hours. My first year on the job, I offered Dehydrating, Fruit Butters, and Canning Soups in a series I called "A la Carte Food Preservation Classes," paying homage to the pick-and-choose concept I was hoping to develop. They were well attended and folks wanted more. The following year, being the over-zealous individual that I am and having just completed my training to start offering more food preservation classes, I offered 40 different a la carte classes in Hood River and The Dalles. That was way too many and by fall I didn't want to see another case of canning jars for months.

Green beans from Nature's Finest in Parkdale, OR getting ready for pickling in a Hood River Pickling Class last year. *Photo provided by Lauren Kraemer*

Since then I've settled on a more manageable set of about 16-20 a la carte classes per year along with an annual Master Food Preserver training. I've also fostered some really strong connections with local growers as our program has increased its following. Because the a la carte classes happen during the growing season, it is a great fit to source local produce for the hands-on preserving that happens in each class. I've juggled the timing of the classes each year to try to coincide the topic with what will be in season. This year we started with Dehydrating in June because so many things can be dried and it's fairly timeless. I also like to make the connection that dehydrating can prepare you for all your outdoor summer adventures. This year we dried local cherries, basil, and canned salsa and spaghetti sauce from last year's classes for backpacking meals. Next up is Jams and Jellies which will utilize local strawberries, raspberries, and blueberries from valley growers. In July we'll offer Pickling and Fermenting using locally grown green beans and cabbage to highlight how to acidify various vegetables and make sauerkraut. We'll teach Pressure Canning and Tomato preserving in August, just in time for the vegetable bounty. That time of year, local produce abounds at the farmer's market and I can easily shop for

classes at any of the local Gorge markets or work with farmers to buy in bulk. They are all too happy to find a home for all their tomatoes that time of year. I finish the season with Freezing, to remind folks that it can serve as your "preserving purgatory" until you have time and interest in the fall and winter to get back in your kitchen in front of the hot stove.

One of the highlights of working with local farmers is that we can source the freshest and best tasting produce. It can sometimes feel easier to shop at Cash and Carry or Costco for these bulk produce purchases—but I never know when things have been picked or for how long they've been stored. One of the key tenets of safe and quality preserving is to choose the freshest, soundest, just-ripe produce. Most big- or giant-box stores sell produce designed to ship-well—not preserve well. Many products taste best when preserved within 24 hours of harvest—that's essentially impossible if I am sourcing grocery-store produce. A secondary benefit of sourcing local is that students see how glorious and delicious the local produce looks and tastes and they want to know where we got it. It feels great to make the connection back to local growers and keep more money in our local economy and food system. It's taken a few years to build these relationships and I had to start small. Now we have contracts through our local Extension Office with about 10 different farms so I can call them up and place an order for produce the following week. They pick it the morning of class and sometimes deliver right to the kitchen. Now that's fresh. And the proof is in the pickles.

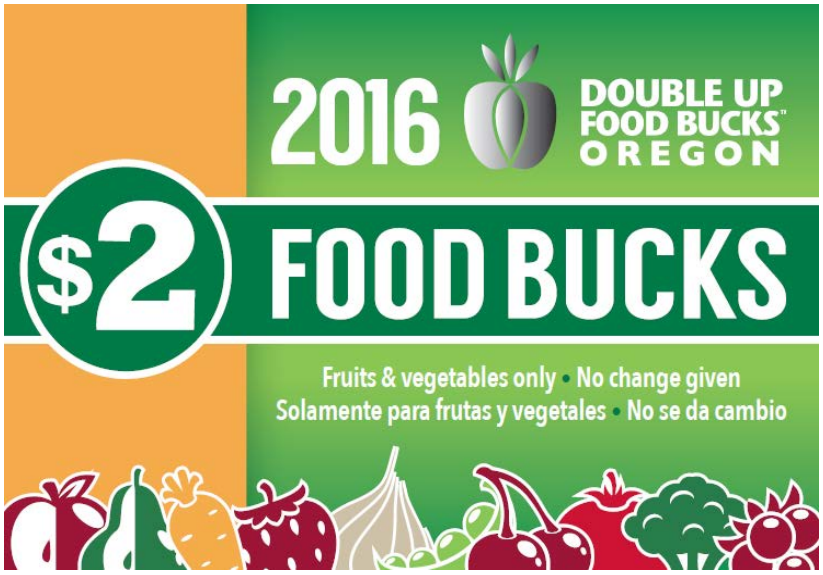
Organic farming pioneer Dahinda Meda died this past April at the age of 76. He is best known as co-founder of Café Mam the first organic coffee company to establish a fair trade agreement with Mayan families in Mexico. He is known in Oregon for his organic blueberry farm near Eugene and his years of service to the Oregon Country Fair.

Dahinda Meda (third from left) with Charles Duryea, David Masumoto, and Norma Grier at Grateful Harvest Farm near Junction City, Oregon, February 2010.

Double Up Food Bucks Launches to Provide More Fresh, Locally Grown Produce to Low-Income Oregonians

By: Katie Furia, Program Manager, Farmers Market Fund

Farmers Market Fund (http://www.portlandfarmersmarket.org/programs-and-services/snap-participants/), an independent 501(c)3 companion organization to Portland Farmers Market (http://www.portlandfarmersmarket.org) has launched *Double Up Food Bucks*. This new statewide program provides cash incentives to low-income Oregonians who receive benefits through SNAP (http://www.oregon.gov/dhs/assistance/food-benefits/pages/index.aspx) for purchasing locally grown fruits and vegetables at farmers markets and through community supported agriculture (CSA).



Trudy Toliver, Executive Director of the Farmers Market Fund, said, "*Double Up Food Bucks* will help to feed Oregonians in two ways: by putting food on the table for low-income families, and supporting Oregon's family farms. It improves the human health and the economic health of our local communities."

Starting in May, *Double Up Food Bucks* is benefitting 51 farmers markets, managed by 38 different organizations across Oregon, serving rural and urban communities. The markets are located in the Portland metropolitan area, the Willamette Valley, the North Coast, Central Oregon, Southern Oregon, and Eastern Oregon. The population in the beneficiary counties totals 3.5 million people, representing approximately 90 percent of the state's overall population.

The program is funded by a $500,000 grant from the USDA's Food Insecurity Nutrition Incentive Program and $1 million in matching funds from local foundations, corporations and the farmers markets themselves.

"This grant earned by the Farmers Market Fund ensures that thousands more low-income Oregonians can get tasty and healthy food at farmers markets throughout Oregon," said U.S. Senator Ron Wyden of Oregon. "I have been proud to support our farmers markets' goal of increasing access to quality food because that both helps fight food insecurity statewide for working families and benefits local growers of fruits and vegetables."

How *Double Up Food Bucks* Works

SNAP benefits are distributed through the Oregon Trail Card, an electronic benefits-transfer card similar to a debit card. Most farmers markets process SNAP transactions at market information booths, debiting the Oregon Trail Card in exchange for $1 tokens that shoppers can use at vendor stalls. *Double Up Food Bucks* increases the buying power of SNAP recipients by providing a dollar-for-dollar cash match up to $10 to purchase fruits and vegetables at 51 participating markets.

The SNAP matching programs have helped Oregon families around the state eat more fresh produce over the past several years. However, most programs matched only up to $5 and each operated under different rules. *Double Up Food Bucks* is raising the

match to $10 and providing a recognizable brand with uniform rules for all 51 markets. This launch furthers Farmers Market Fund's mission to increase access to fresh local food for low income and underserved populations.

Photo provided by Farmers Market Fund

This statewide program increases the number of participating farmers markets and boosts data collection on the impact these programs have on increasing the amount of local fruits and vegetables purchased. In a 2015 SNAP customer survey at the markets slated for the *Double Up Food Bucks* program, 92% of the 628 SNAP shoppers surveyed reported purchasing more fruits and vegetables as a result of the match.

One shopper who has used the SNAP match said, "Every cent counts - having a little extra help means that I can get more fresh fruit and veggies. It also helps my community, around my neighborhood and local farms. I can maximize my money and health."

The *Double Up Food Bucks* program goals aim to reach even more shoppers:

- Increase the number of SNAP recipients redeeming their benefits at participating farmers markets by at least 25 percent from 2014.
- Increase sales of fruits and vegetables at Oregon farmers markets purchased through SNAP by $790,000 over 2014 levels.

Impressive Statewide Support

As a requirement of the USDA grant application, the Farmers Market Fund team needed 100 percent local matching funds from foundations and partners. Support for the proposal garnered pledges of cash and in-kind support from about 50 partners, totaling more than twice the matching funds required.

The largest pledge of $175,000 came from the Meyer Memorial Trust. "Meyer Memorial Trust's support for this program, coupled with investments in the state's food system landscape totalling $3.4 million since 2012, helps to broaden the reach of the Double Up Food Bucks program," said Doug Stamm, Meyer Memorial Trust's CEO. "Doubling the impact of dollars spent at farmers markets improves access and health for consumers with limited incomes."

Long-time Farmers Market Fund supporter New Seasons Market pledged $90,000 to the program. This follows eight years and about $250,000 of ongoing financial support they have provided to farmers market for SNAP matching and other family friendly programs. Their foundational and loyal backing nurtured the budding of Farmers Market Fund and many other farmers market's SNAP incentive programs.

"New Seasons Market is committed to ensuring that healthy, local foods are available to everyone. We are pleased to support the Farmers Market Fund as they provide much-needed resources to farmers markets in Oregon. We believe that farmers markets are a crucial component in our regional food economy. Using these funds toward matching SNAP dollars benefits not only food insecure families and individuals, but also our small farmers," said Wendy Collie, New Seasons Market CEO.

Other key funders and supporters include Kaiser Permanente Hospitals, Portland Farmers Market, Oregon Food Bank, and numerous farmers markets and food systems organizations around the state.

For more information, contact:

Katie Furia, Program Manager for Oregon Double Up Food Bucks, Farmers Market Fund, 503.241.0032

Survey to Identify the Needs of Small-Scale Farms and Urban Animal Agriculture Producers in the Western States of the US: Livestock and Poultry Owners

By: Alda Pires, University of California-Davis

The growing consumer interest in local food production and sustainability and increased preference for fresh, local and organic products in recent years has been linked to an increased number of small-scale farms, community supported agriculture, and farmer's markets in the Western US (CA, OR, WA, and CO). This increasing popularity of small-scale farms and urban agriculture has led to a growth of production of livestock animals in urban and peri-urban areas.

One of the recognized challenges faced by small-scale farmers is the lack of access to technical information and veterinary oversight. This might create an increased risk of occurrence of zoonotic and emergent diseases, drug or chemical residues and foodborne pathogens in the food chain. We are seeking your help in this needs assessment regarding animal health concerns on small-scale farms and for peri-urban and urban animal agriculture in California, Colorado, Oregon, and Washington State. This study is led by Dr. Alda Pires (University of California), Dr. Dale Moore (Washington State University), and Dr. Ragan Adams (Colorado State University).

The objectives of this survey are to conduct an assessment to determine the needs of farmers related to management practices, biosecurity, and food safety, and of veterinarians who might serve them.

Many thanks to the farmers who have taken the survey so far. Preliminary results show that 86 % of the respondents raise poultry, 40% goats, 28% sheep, 32% cattle, and 25% swine. Twenty-two percent of the respondents did not know of a veterinarian who would treat their production animals. Seventy-five percent of the respondents were primarily raising their animals for the sale of animals or animal products. The top reported sources of information were: internet (75%), extension agents (35%) and feed stores (15%).

Results of this needs assessment survey will provide information about the needs and trends of small-scale farms and urban animal agriculture and will allow the implementation of risk-based interventions and outreach activities.

Are you a **livestock and/or poultry small-scale farmer or backyard producer in Oregon**? We are seeking your help for this multi-state survey regarding animal health concerns on small-scale farms, or for peri-urban and urban animal agriculture in the West.

The survey takes about 15-20 minutes and can be accessed and can be found at: http://ucanr.edu/survey/survey.cfm?surveynumber=15917

This survey will be open until July 30, 2016.

Should you have any questions at any time, please feel free to contact Alda Pires at 530 754 9855, apires@ucdavis.edu.

Calendar

July

6 - Blueberry Field Day
1:00 PM - 4:00 PM. North Willamette Research and Extension Center, 15210 NE Miley Rd, Aurora, OR. Contact: Bernadine Strik at 541-737-5434 or Bernadine.Strik@oregonstate.edu

***6* - Native Seed Collection**
Learn how to save seed from our Southern Oregon native plants. Useful for restoration and native horticulture. 6:00 PM - 8:00 PM. Southern Oregon Research & Extension Center, Auditorium, 569 Hanley Road, Central Point, OR. Contact Sheila Lee at 541-776-7371 or lee.s@oregonstate.edu ***$15 or $25 for couples***

8 - Rural Living Basics: Living with Your Well & Septic System
learn the basics of groundwater, water wells, and septic systems. Learn steps to protect the health of your family, neighbors, animals, your property investment, and the safety of groundwater resources. 6:00 PM - 8:15 PM. Silverton Grange Hall, 201 Division St. Silverton, OR, OR. Contact: Chrissy.Lucas@oregonstate.edu or 541-766-3556 ***FREE***

18 - Pasture Management
In this brief course we will introduce the concepts of pasture management and show how you can use pasture management to increase animal health, improve profitability and also improve the health of your soil and forage resource base. 5:30 PM - 8:30 PM. OSU Southern Oregon Research & Extension Center, 569 Hanley Rd, Central Point, OR. Contact Paula Burkhalter at 541-776-7371 EXT 208 or paula.burkehalter@oregonstate.edu ***$20/$30***

***20* - Vegetable Insect IPM Series - Cucumber, Flee Beetles, & Symphylans**
Workshop will cover Integrated Pest Management principles, pest and beneficial id, scouting and trapping, insect life cycles, disease transmission and organic strategies for managing pests. 9:00 AM - 1:00 PM. North Willamette Research and Extension Center, 15210 NE Miley Rd, Aurora, OR. Contact heidi.noordijk@oregonstate.edu ***$35***

***2* - Aurora Crop Up © Dinner & Market Showcase**
Dine on delicious dishes built around Oregon's Specialty Crops grown in the local regions surrounding each dinner site. Specialty Market Showcases will be happening before dinner at each site providing opportunity learn more about the Specialty Crops. 5:30 PM - 9:30 PM. North Willamette Research and Extension Center, 15210 NE Miley Rd, Aurora, OR. ***$25***

We add events everyday so check our online calendar at for the most up to date events http://smallfarms.oregonstate.edu

Want to add your event to our calendar then please submit your information at http://calendar.oregonstate.edu/advanced/list/extension-smallfarms/ "Click the Submit an event button." Events have to be approved and will not immediately post. If you have questions please contact Chrissy Lucas at Chrissy.Lucas@oregonstate.edu or 541-766-3556