

OSU Extension Service Small Farms Program

Garry Stephenson Small Farms Program Director Corvallis, OR 97330

Lauren Gwin Small Farms Program Associate Director Corvallis, OR 97330

Nick Andrews Clackamas & Washington Counties, 15210 NE Miley Rd Aurora, OR 97002 503-678-1264

Melissa Fery Benton, Linn, & Lane Counties, 4077 SW Research Way, Corvallis, OR 97333 541-766-6750

Amy Garrett Benton, Linn, & Polk Counties, 4077 SW Research Way, Corvallis, OR 97333 541-766-6750

Melissa Matthewson Special Programs, Statewide, Applegate, OR 97530

Maud Powell Jackson, Josephine, & Douglas Counties, 569 Hanley Rd, Central Point, OR 97502 541-776-7371

Chrissy Lucas Small Farms Program Assistant, 4077 SW Research Way, Corvallis, OR 97333 541-766-3556

Heidi Noordijk Program Assistant Clackamas & Washington Counties, 15210 NE Miley Rd Aurora, OR 97002 503-678-1264

Cover Photo by Lynn Ketchum, Extension and Experiment Station Communications, Oregon State University

Oregon State University Extension Service offers educational programs, activities, and materials without discrimination based on race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnamera veteran status. Oregon State University Extension Service is an Equal Opportunity

Audacious Plan Continues: Provide More Small Farms Extension Positions

By: Garry Stephenson & Lauren Gwin, Small Farms Program, Oregon State University

Earlier this year, we unveiled our audacious plan to establish an endowment that will permanently fund additional Small Farms Extension positions.

The new OSU Center for Small Farms & Community Food Systems was created to support the Extension Small Farms Program and its work in organic and sustainable



agriculture, strong local food economies and successful small farms.

Tell us you support this goal by donating \$1. We want hundreds of farmers and local food system folk to say, "I love it! I'm in!"

Go to http://smallfarms.oregonstate.edu/node/176058, learn more about our campaign, and donate one dollar (or more) to change the world.

What donors are saying:

"I am excited by OSU's visionary work to sustain small farms by creating the new OSU Center for Small Farms & Community Food Systems. Good work!"

"The Center for Small Farms is an extremely important resource that I want to see expanded to other parts of Oregon."

"I give back in recognition of all the help and encouragement I've received from the Small Farms Program staff. I'm grateful for their help."

"I believe small farms are an integral component of a sustainable food system and fully support additional extension service to help our community achieve this goal."

Your Farms.
Your Food.
Your Communities.
Our Future.



Aggie Bonds Now Available at a Bank Near You

By: Lauren Gwin, Small Farms Program, Oregon State University and Ivan Maluski, Freinds of Family Farmers

When young and beginning farmers start to farm or want to expand their operations, they often don't have access to affordable financial capital for land, equipment, and input purchases. The cost of land, in particular, can be a tremendous challenge.

Oregon's new Beginning and Expanding Farmer Loan Program – known as Aggie Bonds – was passed by the 2013 Oregon Legislature to address this problem. Business Oregon, the state agency administering Aggie Bonds, recently announced the program is now up and running, ready to help beginning farmers borrow money for land and capital purchases at affordable rates.

"Beginning farmers have a particularly challenging time getting into business and succeeding because of lack of access to affordable lending," says Nellie McAdams, Next Generation program director for Friends of Family Farmers. "The Aggie Bonds program is important because it provides first time farmers, and small farmers looking to expand, access to significantly lower interest rates for farm and equipment purchases."

How it Works

Farmers still work directly with their local lenders. Business Oregon works with the local lender, issuing a tax-exempt bond for the amount of the loan. The interest on the bond is exempt from federal tax, and the lender uses that income to subsidize the loan, reducing the interest rate to the farmer borrowing money.

Aggie Bonds may be used to finance loans for the following agriculture-related purposes:

- Up to \$250,000 for the purpose of depreciable agricultural property (including equipment, livestock, feed, fertilizer, and seeds) for first time farmers;
- Up to \$62,600 on used equipment for first time farmers; and/or
- Up to \$509,600 for farmland purchases.

The ideal borrower for this program, says McAdams, is someone with at least some farming experience or agriculture education. But the program is specifically designed for those who have not previously owned farmland, or whose existing farm is less than 1/3 of the median county farm size for their county.

"We've heard from folks in agriculture whose kids are just starting to take over the farm and from young or beginning farmers themselves who are interested in acquiring land, but find it a challenge," says the Oregon Department of Agriculture's Stephanie Page. "They are trying to find the resources that will allow them to make some of those large purchases that folks in agriculture have to make."

Taking advantage of the Aggie Bond Program still requires farmers to meet the standard requirements of a loan program.

"You need to have a good business plan, a good idea of what you want to do, and you have to do your homework," says Page. "It still involves working with a lender and making sure you qualify for a loan in the first place. If all that has taken place, then you can look at this new program."

For groups like Friends of Family Farmers, who worked to pass the 2013 legislation creating the Aggie Bonds program, hopes are high that it will help beginning and small farmers in Oregon find success.

"With the average age of farmers in Oregon at nearly 60 years old, we need to make it easier for that next generation to start and grow their farms and ranches," says McAdams. "Hopefully, Aggie Bonds can make this transition smoother"

More information and online application at http://www.oregon4biz.com/Business-financing-resources/Oregon-Finance-Programs/Aggie-Bond-Program/ &

Southern Oregon's May Election had Farmers on Tenderhooks

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

any years, the primary and general May elections in Oregon occur with little to no fanfare. The May 2014 election proved to be exceptional in Southern Oregon. Elections in both Jackson and Josephine counties last month attracted a great deal of attention at the local and national level, and significantly affected the local agricultural community.

For one, the passage of Measure 15-121 established the Jackson County 4-H, Master Gardener and Agricultural Extension Service District and won by a whopping 75%. The group Friends of Research and Extension (FORE) worked tirelessly to make sure that the measure passed. The new District provides stable funding for the Southern Oregon Research and Extension Center (SOREC), which likely would have closed by the end of the year due to cuts in the county budget. The tax, which represents six cents per \$1000 of assessed property value, will keep the doors of SOREC open into the forseeable future, and adds several new faculty and administrative positions to the SOREC staff.

In addition, Jackson and Josephine residents voted to ban the production of genetically-engineered crops in their counties. Jackson county's Measure 15-119 passed by 66%, while Josephine County's Measure 17-58 passed by 57% of the vote. Last fall, Governor Kitzhauber signed Senate Bill 863 into law, which prohibits counties from regulating or banning genetically-engineered crops. However, because Jackson county residents had already filed over 6,700 signatures to qualify for a ballot measure, Jackson county was exempted from the state law. Josephine County anti-GMO activists proceeded to collect the signatures for a county-wide measure in spite of the passage of Senate Bill 863.

Advocates of the two measures argued that contamination from genetically engineered crops undermines farmers' ability to sell their crops,

especially in a region where many growers are producing specialty seed crops. The measure came about after a local seed grower found out that the Swiss bio-tech company Syngenta was growing a plot of genetically-engineered sugar beets close to his field of organic chard seeds. Sugar beets and chard belong to the same species *beta vulgaris*, and will therefore cross-pollinate. As a result, the farmer had to destroy his seed crop for fear of GMO contamination.

Anti-GMO advocates also suggest that the use of genetically engineered crops results in an increase in the use of herbicides as crops like "Round up Ready sugar beets" are bred to withstand multiple applications of herbicides.

Critics of the measures argued that the counties could not afford the cost of administration and enforcement. They also expressed concern that the measures would increase government regulations and encourage citizen lawsuits brought against farmers.

The Jackson county anti-GMO measure alone attracted more than \$1.3 million, which has about 206,000 residents. Approximately \$455,000 was donated from six biotech and agricultural companies. Passage of the two measures received national media attention. All across the counties, election signs and placards decorated front lawns. The papers were filled with letters to editorials written by concerned and engaged citizens. Voter turnout topped 55%, highly unusual for a May election. Farmers in particular, demonstrated strong participation in local politics.

EM 9094, Selenium
Supplementation Strategies for
Livestock in Oregon Available
Online Now

https://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/48888/em9094.pdf

USDA Unveils New Centralized Website to Support Next Generation of Farmers

U.S. Agriculture Deputy
Secretary Krystal Harden has
implemented new Farm Bill
measures and other policy
changes to improve the
financial security of new and
beginning farmers and ranchers.
Harden also unveiled
www.usda.gov/newfarmers,
a new website that will provide
a centralized, one-stop resource
where beginning farmers and
ranchers can explore the variety
of USDA initiatives
designed to help them succeed.



USDA's New Farmers website

has in depth information for new farmers and ranchers, including: how to increase access to land and capital; build new market opportunities; participate in conservation opportunities; select and use the right risk management tools; and access USDA education, and technical support programs. These issues have been identified as top priorities by new farmers. The website will also feature instructive case studies about beginning farmers who have successfully utilized USDA resources to start or expand their business operations.

In the near future, USDA will also announce additional crop insurance program changes for beginning farmers and ranchers – including discounted premiums, waiver of administrative fees, and other benefits.

The Deputy Secretary made these announcements at the inaugural meeting of the reconvened Beginning Farmer and Rancher Advisory Committee held at the University of California Davis, California. This Advisory Committee, composed of 20 members, including Extension agents, lenders, farmers, ranchers and academics will meet through 2015 to learn, discuss, and formulate recommendations to USDA on how to support new and beginning farmers.

Common Misconceptions & Key Points About Dry Farming: Case Study of Dry Farmer With More Than 40 Years of Experience

By: Amy Garrett, Small Farms Program, Oregon State University

Ommercial and non-commercial producers in the Pacific Northwest are already facing challenges of increasing weather variability and a changing climate. Reduced snowmelt, higher temperatures and drought directly impact water supply for growers. While farmers can do little on their own to prevent climate change, they may be able to change irrigation practices, select more drought tolerant crops to grow, and use water conservation techniques to mitigate crop losses caused by extreme climate events. Dry farming is one approach to producing food without irrigation.

This article is based on the experience of a farmer that has grown tomatoes, potatoes, winter squash, garlic, favas and other beans organically and without any form of irrigation for 40 years (1974 to 2014). He started off in California and then retired in 2007 and bought 9.6 acres in Veneta, OR with no water rights where he is now growing food for himself and selling to multiple small grocers in Eugene. While being one of the most experienced dry farmers in our region, he values his privacy in his retirement and wishes to remain anonymous so he will instead be referred to as 'our dry farmer'. This will not be a comprehensive overview but instead will feature some common misconceptions and key points about dry farming from this farmer's experience.

Common misconceptions about dry farming:

- Dry farming is watering a few times in the beginning of the season and then cutting it off towards the end.
 - Watering is not complementary to dry farming - watering can create crusting and cracking in the soil surface and cause soil to dry out faster.
- Dry farming just means farming without irrigation
 - Soil preparation, timing of tillage and planting, conservation of moisture, tilth,



Breaking ground on April 9, 2014 with Ollie the protective goose supervising alongside. Photos by Amy Garrett

and plant spacing are all key points to dry farming. If the soil is worked too late and is too dry at planting time dry farming will not work. The soil must be worked at just the right time by paying close attention and monitoring soil moisture.

- Dry farming only works in cool coastal climates
 - o Dry farming also works in hotter climates inland, and is more common in California where there is less rainfall than in Oregon and temperatures get well above 100°F multiple times during the growing season. This is the climate *our dry farmer* worked in for his first 30 plus years of dry farming. He noticed that in California where water scarcity is much more of an issue, farmers tend to be more aware of moisture and tilth.

Key points for dry farming

"Dry farming is all about soil preparation. Conservation of moisture. Tilth. Without it, it doesn't work."

Soil preparation

Dry farming requires soils that have high water holding capacity and works best in soils that have some clay content according to *our dry farmer*. His soil is primarily a Veneta Loam, which has a clay content 14 inches and below. He incorporates grazing with sheep and geese, and legume cover crops into his rotation to help manage soil fertility and improve soil tilth.



Soil moisture at planting time on May 14, 2014 Photos by Amy Garrett

Our dry farmer starts to work the soil in the first dry window in the spring when the soil will stick together if you squeeze it in your hand but still crumble apart. He emphasizes timing and working the soil at just the right time. This can't be put on the calendar weeks in advance because it requires careful observation. Not only does the soil have to be worked at the right time but multiple times. He lets the field 'digest' or sit for at least 2-3 weeks after working it up once and then works it several more times weather permitting to prepare the seed bed. If it is worked after a late rain before planting, he said he gets a nice velvety seedbed.

Conservation of moisture and tilth

"You have to work with the moisture you have."

When direct seeding, *our dry farmer* drops the seed into place and steps it in to create good seed-soil contact and helps bring moisture to the surface for germination. The rest of the soil is kept loose to a depth of 4-6" to help with root development and maintain

the moisture. In the case of a heavy rain event or overhead irrigation, the soil gets compacted on the surface. When it dries, it cracks, which only quickens the drying out of the soil below the first few inches. So heavy rain and overhead watering hinder the ability of the soil to retain it's moisture. He says that, "no rain is ideal between second week of June through first week in September." This helps to maintain soil moisture in the root zone and creates an environment for very little weed pressure.

Plants need wider spacing in dry farming systems so that they are not competing with each other for resources as much. He explains that his spacing is also set to the width of his tractor, which makes it easier on him as a one-man show in addition to producing larger plants.

Crop selection

Our dry farmer grows tomatoes, potatoes, winter squash, garlic, favas and other beans. He continues to grow these crops because they do well in his system. In addition, he saves seed from some many of his crops,



May 14, 2014, Bean seed is stepped in to help with seed soil contact and helps to bring moisture to surface for germination.

Photos by Amy Garrett



June 30, 2014 Right: Blue Hokkaido squash. Left: Dry beans and Big beef tomatoes. Bottom: Abenaki Corn. Photos by Amy Garrett



which leads to plants that are more and more adapted to his conditions over time. The variety of tomato he grows is Big Beef, which began as a volunteer on his farm and he has been planting and replanting for about five years. The maxima squash are Blue Hokkaido, which he developed more than 30 years ago. The

bean varieties he is growing are Vermont cranberry, Jacobs's cattle, Koronis, Whipple and Cannellini. The corn is Abenaki and a cross of various heirloom dent corns that have done well on his farm in previous years.

Why dry farming....

While dry farming may not be a good fit for every farm, it could offer greater crop security for some in times of uncertain water supply (e.g. water right issues and climate change). It may also offer a way to get started in crop production on a piece of land while saving money for an irrigation system. Another reason people may choose to dry farm beyond lack of water might be taste. According to *our dry farmer*, "Growing tomatoes for higher yields with irrigation leads to a tremendous crash in quality and watery tomatoes." In California, some chefs even pay a premium for dry farmed tomatoes.

Dry farming may not be compatible with your farm because the crops you are choosing to grow or because you have a sandy or shallow soil with low water holding capacity. Whether or not this particular system is a good fit for your land, it highlights and provides an example of how given the right conditions one could grow a variety of specialty crops on land without water rights. The

more tools to manage risks associated with water scarcity in the face of climate change the more resilient our agriculture will be in the future.

Resources

California Agricultural Water Stewardship Initiative: http://agwaterstewards.org/
Ecofarm Water Stewardship Project: http://agwater.wordpress.com/

Food Safety Modernization Act Update

By: Lauren Gwin, Small Farms Program, Oregon State University

As we explained in the March issue of OSFN, the U.S. Food and Drug Administration (FDA) will allow another round of public comment on elements of two key Food Safety Modernization Act (FSMA) rules: (1) Produce Safety and (2) Preventive Controls for Human Food

FDA had hoped to have the revised rule language out for public comment by now, but the rules are still being reviewed by the Office

of Management and Budget, the White House agency that reviews all rules before public release. The current estimate for when we, the public, will see them is August.

As a reminder, FDA has only revised certain parts of the proposed rules, offering alternatives for key provisions that raised the most concern: water quality standards and testing, standards for the use of raw manure and compost, animal grazing and animal intrusion, certain requirements related to "mixed-use" facilities, and procedures for the withdrawal of qualified exemptions.

As soon as the revised rules are public, we will be working hard with our in-state and national allies (especially the <u>National Sustainable</u> <u>Agriculture Coalition</u>) to analyze the changes and how farmers and local food systems will be affected. While the summer is a tough time of year for farmers to focus on anything but farming and marketing, we encourage you to learn about and weigh in on the revisions.



Photo provided by the National Sustainable Agriculture Center

We'll post information and analysis on our FSMA webpage: http://smallfarms.oregonstate.edu/node/175900.

Once again, stay tuned. 🄏



Monday September 22, 2014



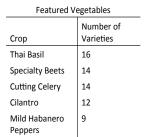
NWREC Vegetable Variety Trial Field Day

Public vegetable variety trials are returning to the North Willamette Research and Extension Center (NWREC). Come to Aurora for field observations and tastings of novel vegetable varieties from public breeders and seed companies. Jim Myers and Lane Selman of OSU will be on hand to talk about the importance of breeding and trialing varieties that are adapted to the Pacific Northwest.

Click below for directions to NWREC

North Willamette Research and Extension Center

15210 NE Miley Rd, Aurora, Oregon







For updates please visit the NWREC webpage http://oregonstate.edu/dept/NWREC/ or contact heidi.noordijk@oregonstate.edu 971-801-0392









3rd Annual Small Farm School Saturday, September 6, 2014

Clackamas Community College, Oregon City 8:00 am – 4: 30 pm

Are you a beginning farmer?

Are you a small acreage rural land owner?

Join us at Clackamas Community College for a full day of field and classroom learning.

Registration and workshop details will be available on-line July 15, 2014. Check out http://smallfarms.oregonstate.edu/small-farm-school for updates.

For more information contact: heidi.noordijk@oregonstate.edu 971-801-0392

2014 Topics

- Farm business and marketing strategies
- Pasture and grazing management
- Vegetable and tree fruit production
- Raising poultry and pigs
- Soil health and land care
- · Irrigation management
- Tractors use, safety, and maintenance
- Veterinary care
- and many more





Keeping Veterinary Expenses Low

By: Susan Kerr, WSU NW Regional Livestock and Dairy Extension Specialist

With the cost of feed, fuel and fertilizer rising substantially in the past few years, livestock producers who want to be profitable constantly need to look for ways to reduce production costs. One item on your expense ledger that can be reduced through judicious planning is veterinary expenses. This article was created by request to guide producers through this process.

Relationships Rule

After you have selected a veterinarian in your area that provides services to the animal species you raise, make an appointment for an initial farm visit. Consider this a consultation and make the most of it. You will be paying for the professional's time and expertise, but this initial fee will pay off by preventing a myriad of future problems. This relationship will be a two-way street: your veterinarian will become a trusted and dependable professional consultant and service provider for you, and you will become a loyal client and essential component of an effective Veterinarian-Client-Patient Relationship (VCPR).

Walk through your property and facilities with your veterinarian; his/her trained eye will be able to detect threats to your animals' health and safety you might have overlooked. Have your records ready and be able to answer questions your veterinarian will ask such as vaccination, deworming, nutrition and breeding histories for your animals. Working with your veterinarian, establish an annual herd health plan that focuses on prevention practices and monitoring protocols that detect problems promptly. Large commercial operations such as dairies often schedule weekly veterinary visits to perform routine health procedures, review health records, examine animals and provide consultation services.

Discuss your feeding program in depth and ask your veterinarian how to monitor animal health and production to assess its effectiveness. Ask about local mineral deficiencies or toxicities and for recommendations about what minerals to provide to your animals.



Photo from http://nih.lesamisdelabasilique.org/goat-hoof-trimming-stand-plans.html

Consider asking your veterinarian to conduct prepurchase examinations on herd additions. This is certainly a good idea for high-value breeding stock. Your veterinarian can perform a physical examination on individuals you are considering purchasing and make recommendations about laboratory tests to determine the presence of diseases of concern. Fertility examinations can be conducted as well.

Veterinarians as Teachers

During an initial farm visit, your veterinarian can teach you how to perform essential management tasks. Some examples include:

- Taking temperature, pulse rate and respiration rate
- Giving oral medications
- Administering injections
- Trimming feet
- FAMACHA scoring small ruminants
- Docking tails (sheep)
- Castrating
- Disbudding
- Taking sterile milk samples (dairy animals)
- Body Condition Scoring

Veterinarians as Business Owners

Veterinarians provide essential services to animal owners. They also have a business to run and want to be financially successful so they can continue to help animals next week, next month and next year. As with other aspects of the service sector, loyalty is appreciated. Buy some medications and vaccines from your veterinarian—he/she will stand behind the quality and handling of these products, unlike products shipped from discount warehouses or online businesses. Paying for services and medications promptly will make your veterinarian more likely to take your 2 AM call for advice or prioritize your 8 PM emergency farm call. Remember the two-way street relationship mentioned above? The veterinarian assists you in caring for your animals properly and you reciprocate by supporting his/her business.

ELDU, VCPR, E-I-E-I-O!

You can avoid costly fines and even jail time by establishing a VCPR and following your veterinarian's advice about medication use in food animals. The number of licensed and approved medications is low for some food animal species, but appropriate mediations can be used as needed with your veterinarian's supervision and approval, provided you use such medications exactly as directed by your veterinarian, including food animal product withholding times. Extra-label drug use (ELDU) is using any medication in any way other than exactly described on the medication label; it is legal only when a valid VCPR exists. Your initial farm visit with your veterinarian will establish your VCPR.

A VCPR exists when the following is true:

- 1. The veterinarian has assumed the responsibility for making clinical judgments regarding the health of the patient and the client has agreed to follow the veterinarian's instructions.
- 2. The veterinarian has sufficient knowledge of the patient to initiate a general or preliminary diagnosis of the medical condition of the patient. This means the veterinarian is personally acquainted with the keeping and care of the patient by timely examination of the patient by the veterinarian, or medically appropriate and timely visits by the veterinarian to the operation

- where the patient is managed.
- 3. The veterinarian is readily available for followup evaluation or has arranged for veterinary emergency coverage and continuing care and treatment.
- 4. The veterinarian provides oversight of treatment, compliance and outcome.
- 5. Patient records are maintained.

Prevention Rules

"Good fences make good neighbors"; they also reduce veterinary emergencies by keeping animals safely where they belong. Use smooth hot wires—not barbed wire—and monitor and maintain fences regularly to avoid costly bills related to injuries.

Meeting animals' needs for the proper amount and balance of nutrients is the underpinning of your entire health and prevention program. Well-nourished animals are better able to withstand health threats from parasites, viruses, bacteria, bad weather and other stressors. Be sure to have enough space for all animals to access all the feed and water they need; watch for boss animals that keep others from getting their share and address this situation as needed. Make any ration changes slowly to give intestinal microbes time to adjust. Keep grain safely locked away from animals—unregulated consumption can be deadly.

Animals need a place to rest and relax. Shelter from the baking sun and cold rain and wind reduces animal stress and maintenance requirements. Animals forced to be in mud for prolonged periods experience significant stress, especially young stock; this stress can start a cascade of problems resulting from increased disease susceptibility. Work with your local Conservation District to address mud issues on your farm for the sake of animal health and water quality protection.

Good ventilation is needed for proper air quality for animals housed in barns. Ask your veterinarian about this during your initial farm visit. Sometimes natural ventilation is sufficient, but in some cases fans are needed to ensure the amount of air turnover needed to keep air fresh and pathogen loads low. Failing to address air quality will almost guarantee you will see your veterinarian again to treat pneumonia cases.

Monitor, Monitor, Monitor

The most proactive livestock managers take time each day to look at their animals to assess health and well being. Experienced managers can quickly gauge each animal's attitude, appetite, gait, manure, coat, body condition, eyes, etc. and make a determination about health or illness. Prompt identification of health problems also helps contain veterinary expenses, both for an individual animal and at the start of a herd-wide problem.

If You See a Problem...

If you notice something of concern, collect as much factual information about the situation as possible and call your veterinarian. Do not watch a problem all day, then call the veterinarian after 5 PM—this may earn you an emergency fee in addition to a farm call charge. Some issues can be handled easily over the phone and others will require a farm visit. If you can haul the

animal to your veterinarian's clinic, this might save you a bit on your bill.

If the veterinarian comes to your farm, have the animals needing attention caught up so they can be examined and treated quickly. Have the animals' records available and tell your veterinarian about any treatments you have already administered. Be knowledgeable about the animal(s)' recent behavior, appetite, attitude, manure and urine production, etc. and share this information with the veterinarian.

Annual Tune Ups

By focusing on prevention and monitoring, you should be able to prevent most problems and quickly detect any that arise. This approach will keep veterinary expenses minimal and promote best outcomes. Plan on an annual farm visit with your veterinarian to discuss any concerns you have, review vaccination and nutrition programs, address risks and maintain an effective VCPR.

Resoucres:

www.avma.org/public/PetCare/Pages/VCPR-FAQs.aspx.



Beginning Soils Wednesday, August 13, 2014

Advanced Soils Thursday, August 14, 2014

9:30 am to 3:30 pm

at North Willamette Research and Extension Center
15210 NE Miley Rd, Aurora, Oregon

Registration fee: \$50 per person per day or \$90 for both days

For more information and to register visit http://smallfarms.oregonstate.edu/soilworkshop

Beginning Soils Topics

- soil types, texture and web soil survey
- soil test- taking samples and interpreting results
- nutrient management with fertilizers, composts and manures.
- · cover crop selection and management
- tillage equipment showcase

Advanced Soils Topics

- soil structure and water relations
- nitrogen management, testing and mineralization
- nutrient deficiency symptoms
- using the cover crop calculator hands-on
- equipment calibration



Pre-registration is required. Please bring a brown bag lunch, water will be provided. We will be outside so please wear a hat and clothes you don't mind getting dirty.

Mobile Poultry Processing: New Services in the Willamette Valley

By: Lauren Gwin, Small Farms Program, Oregon State University

In June, two new mobile poultry processing units Legan operating in the mid- and south Willamette Valley, offering two different services to Oregon small farmers

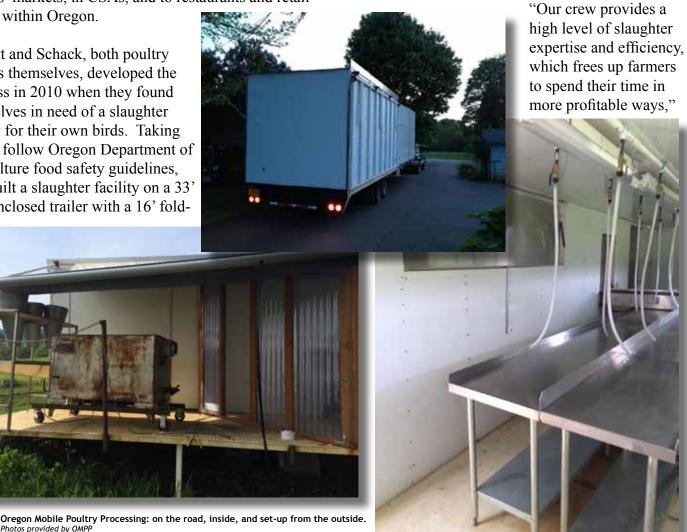
Oregon Mobile Poultry Processing

Oregon Mobile Poultry Processing, owned by Rachel Prickett of Provenance Farm and Brian Schack of Schack Farm, is based in Philomath and is the first licensed mobile poultry slaughter business in the state. OMPP comes to customers' farms and does the processing for them, for a per-head cost. Because OMPP is state licensed and operates under the federal 20,000 bird/year exemption, farmers can sell birds at farmers' markets, in CSAs, and to restaurants and retail

outlets within Oregon.

Prickett and Schack, both poultry farmers themselves, developed the business in 2010 when they found themselves in need of a slaughter facility for their own birds. Taking care to follow Oregon Department of Agriculture food safety guidelines, they built a slaughter facility on a 33' fully enclosed trailer with a 16' foldout deck. The trailer has an automatic plucker, scalder, and kill cones on the outside deck. Inside are stainless steel processing tables, sinks, and chill tanks. The unit travels with a 10-person crew and can pull into any farm with a potable water source and a 220v electrical outlet. The crew can process, chill, and shrink-package up to 500 Cornish-cross broilers in a typical work day.

Prickett and Schack are finding a mobile poultry processing facility to be well received by Oregon farmers. Many farmers find it cost prohibitive to build their own state licensed facilities; others lease farmland and are unable to construct an on-farm slaughter area.



Photos provided by OMPI

says Prickett. "Oregon's poultry farmers have high standards for their animals' wellbeing and appreciate reducing stress on their birds by keeping them onfarm for slaughter. We provide farmers with cleaned and packaged birds they can be proud to sell to the discerning retail customers and chefs of the Willamette Valley."

OMPP serves the region within a 100-mile radius of Philomath and has a minimum of 200 birds per day at a site. They are often able to group smaller producers together to meet the minimum on a particular day.

Cascade Pacific Equipment Rental

The other new MPPU, a project of Cascade Pacific Resource Conservation & Development, is not a standalone "unit" but a set of high-quality poultry processing equipment, delivered by trailer, that farmers can rent and use to process their own birds. Farmers can then sell their birds direct to consumers, at their farms, under Oregon's 1000 bird exemption. The equipment is housed at Cascade Pacific RC&D's Berggren Demonstration Farm in Springfield.

"One of our primary goals" explains Jared Pruch, Cascade Pacific's Food and Farm Program Coordinator, "is to help build a strong local food system in the south Willamette Valley. We hope that the MPPU can serve as a community resource that provides one more tool to help small farms thrive." Cascade Pacific built the unit with funding provided by Meyer Memorial Trust's Community Food Systems initiative.

The unit – which includes a plucker, scalder, killing cones, stainless steel table, knives, sanitizer system, hand washing station, canopy, and chilling tanks – is housed at Cascade Pacific's Berggren Demonstration Farm. Farmers who want to use the equipment must attend a training session, held monthly at the farm, and then can rent the unit for \$25 for a 24-hour period, plus a \$0.25/mile delivery charge. Farms must have a certified potable water supply and on-farm capacity for cooling and waste disposal; Cascade Pacific also recommends farms check with their insurance agent to make sure processing is covered under their policy.

Angela Andre, Berggren farm manager, says that the MPPU meets an important need for their region's

Publications, Online, and Local Resources

- Best Practices for Open Air Poultry Slaughter, OSU Small Farms Program: the guide outlines the important sanitation, record-keeping, and legal aspects of processing birds under the 1,000 Bird Exemption.
- Meat and Poultry Processing
 Regulations in Oregon: explains
 federal and state poultry processing
 regulations, including the 1000 bird
 exemption.
- Profitable Poultry: Raising Birds on Pasture. This great SARE publication outlines the start-up costs, management practices, and expected revenue from a small farm in Wisconsin.
- Oregon Department of Agriculture.
 ODA has information on poultry processing rules and regulations on their website.
- Niche Meat Processor Assistance
 Network. NMPAN is a network and info hub focused on small meat and poultry processors and the farmers, marketers, and meat buyers who depend on them.
- New Entry Sustainable Farming
 Project, Tufts University: online
 resources for new entry farmers
 including enterprise budgets, poultry
 profit calculators, and other helpful
 guides.
- <u>Union Point Custom Feed</u>. This feed mill near Brownsville carries non-GMO feed products milled from regionally sourced grains. 541-954-0945.

small farmers. "There are only a few licensed places to get your birds processed, and for most farmers they are not close. The added expenses of time and travel cut into an already meager profit margin."

The unit solves that problem by letting farmers do their own, on-farm processing for far less cost than purchasing and maintaining their own equipment. This cooperative approach, Andre says, is important not only for processing but for marketing.

For More Information

Cascade-Pacific MPPU: Katy Giombolini, 541-505-4735, katy@cascadepacific.org, www.berggren-farm.org.

Oregon Mobile Poultry Processing: Diana Forsberg, (541) 250-0102, info@mobilepoultryprocessing.com, www.mobilepoultryprocessing.com



Angela Andre demonstrates how to use the processing equipment, Photos provided by Cascade Pacific RC&D.

gractor Safety and Operation for Adults

Monday, July 14, 2014 8:00 am to 4:30 pm

at North Willamette Research and **Extension Center** 15210 NE Miley Rd, Aurora, Oregon Registration fee: \$50 per person

Topics

- Tractor Safety
- Tractor Operation
- Basic Maintenance
- Implement hook-ups
- Tractor Driving

This class is intended for beginning farmers or those looking to buy a new tractor. Pre-registration is required. Please bring a brown bag lunch, water will be provided. We will be outside so please wear a hat and for safety no loose fitting clothes or open toed shoes.

For more information and to register visit: http://smallfarms.oregonstate.edu/adult-tractor-safety-and-operation

Oregon State University Extension Service offers educational programs, activities, and materials without discrimination based on race, color, religion, sex, sexual orientation, national origin, age marital status, disability, or disabled veteran or Vietnam-era status. Oregon State University Extension Service is an Equal Opportunity Employer.

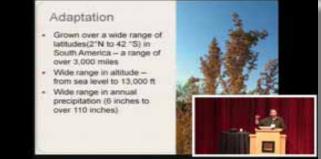


Small Farms Conference 2014 Videos

Videos from the 2014 Oregon Small Farms Conference are available on the OSU Small Farms vimeo site at http://smallfarms.oregonstate.edu/2014sfc/vimeo-videos











Keynote Session

Michael Ableman

Coming of Age: Stories, Images, and Manifestos from the Frontiers of Food and Agriculture

Farm Stands: Selling by the Roadside

What if you want to have a permanent building, sell other farm's products or have liability concerns? Learn how to get started and the steps you'll need to take if you're considering a farm stand.

Growing Quinoa in the Pacific Northwest

WSU plant breeder Kevin Murphy and local grower and plant breeder Frank Morton discuss quinoa research projects in this region, best varieties suited for our marginal growing conditions, best management practices for production and marketing options for quinoa growers and sellers.

Financing Your Farm

Panelists cover traditional bank lending, Farm Service Agency down payment assistance and other programs, the state's new Beginning Farmer and Rancher Loan Program - "Aggie Bonds", and innovative ways people and communities are investing in local farms.

Small Farm Profitability

A reality check on the risks and challenges of making a living on a small farm while providing positive advice for finding success. Panelists: Michael Ableman, Foxglove Farm; Beth Hoinacki, Goodfoot Farm; Laura Masterson, 47th Avenue Farm

GROW Healthy Food Environments for Oregon's Rural Communities

By: Tammy Winfield, MS, GIS Technician, GROW Healthy Kids & Communities; Deborah John, PhD, Assistant Professor & Health Extension Specialist, Project Director/Lead Investigator (w/ K. Gunter), GROW Healthy Kids & Communities, OSU College of Public Health & Human Sciences

The problem of obesity in children is in the forefront of nationwide research efforts. There are documented physical, mental, and social health outcomes associated with childhood obesity that contribute to lifelong, chronic health problems. Obesity occurs when, over time, over-consumption of high calorie, less nutritious foods and beverages is coupled with low physical activity energy expenditure, resulting in unhealthy weight gain. According to the Centers for Disease Control and Prevention, obesity-related conditions, specifically heart disease, stroke, type 2 diabetes and certain types of cancer, are the leading causes of preventable death – preventable through lifestyles that include healthy dietary and physical activity habits. In the U.S., the estimated annual medical cost of obesity in 2008 was \$147 billion with the medical costs for people who are obese \$1,429 higher than those of healthy weight.

Rural residency tends to increase the risk of being overweight or obese for both children and adults. Access to, affordability of, and availability of a wide variety of healthy foods, including fruit and vegetables, is limited in rural areas despite the rural agricultural landscape. The location of farmers' markets. convenience stores, food co-ops, restaurants, and fast food options influences the dietary

and physical activity practices of children and families. Rural communities have unique challenges regarding access to healthy foods, including no or limited access to local agriculture or farm-fresh food and full service grocery stores but easy access to convenience stores, drive-through and eat-in restaurants, and school meal programs. Rural residents also have unique perceptions of the barriers to having a healthy food environment, including the affordability of farm-fresh foods.

To date, most research-based strategies to combat the childhood obesity epidemic have been developed and tested in non-rural settings and aim to change *either* behaviors *or* environments. Launched in 2011, OSU's

<u>Generating Rural Options</u> for <u>Weight (GROW)</u> Healthy

Kids & Communities does both. Working closely

with six Oregon rural communities and residents, GROW researchers are gathering information on both real and perceived food and physical activity environments and using it to better understand the factors influencing health behaviors in rural places.

GROW's overall goal is to *prevent* obesity in rural children by improving their opportunities –at home, in school, and in the community – to make healthy eating and physical activity an easy and preferred behavioral choice.

The GROW Approach

GROW is a USDA-funded, participatory childhood obesity prevention study

conducted by Oregon State University Extension researchers in partnership with rural people and communities. Working at multiple levels and across sectors, local GROW teams – which include county

"Improving the health of the Nation requires working across systems. ... efforts to promote healthy eating are not likely to be successful without considering the process by which food is produced, distributed, and marketed. Likewise, both agricultural systems and health systems are influenced by the built and natural environments in which they exist." -- Cooperative Extension's National Framework for Health and Wellness, March 2014.

Extension, organizational decision-makers, and community residents – have mapped features of the local environment and learned people's different perceptions of what helps and hinders a "weight-healthy" lifestyle in their communities.

GROW developed two unique participatory action research tools to facilitate an objective understanding of the rural food environment: Healthy Eating Active Living: Mapping Attributes using Participatory Photographic Surveys (HEAL MAPPSTM) and the Rural Community Food and Physical Activity Environmental Resource Audit (R-CFPA). They complement each other but are used to gather different types of information. HEAL MAPPSTM uses participatory photo mapping by community members and facilitated community conversations to reveal community perceptions of what helps or hinders weighthealthy behavior (and readiness to address barriers). R-CFPA engages community stakeholder teams to identify, spatially locate, and map the community's available food and physical activity resources, including environmental features and amenities, observable influential characteristics, place-based programs, and retail outlets. The realtime data provided by both HEAL MAPPSTM and R-CFPA inform community decision-making and action.

Preliminary Results Related to Rural Community Food Environments

The overall food environment in these rural communities largely consists of convenience stores or small, local grocery stores. When large, national chain grocery stores were present, the produce was perceived as unaffordable. Small local or bargain grocery stores were not perceived as places to buy produce.

Our participatory research revealed that the GROW communities do have a variety of local food resources, including farmers' markets, farm stands, CSAs, and home-based operations selling products



GROW communities' local food resources include farmers' markets, farm stands, CSAs, and home-based operations selling products like eggs and vegetables. While food types and amounts varied by community, each had at least 2 local food options, and residents perceived local food as supportive of healthy eating.

like eggs and vegetables. Yet most of these resources are dispersed and often well outside city limits, likely explaining why so many residents did not know about them. The perceived and real lack of local food options was most strongly evident in communities in less agricultural regions, where fresh fruits and vegetables were considered unaffordable or of poor quality due to being shipped or stored.

With facilitation by the GROW team, communities came up with a variety of potential strategies to improve access to affordable, healthy food and even strengthen the local rural economy:

- Food banks or pantries and community gardens were both identified by communities as two possible ways to improve access to healthy food. Most communities perceived food assistance as supporting healthy eating, though a few communities noted a lack of healthy food at the food bank/pantry. Many communities also have either a community garden or a school garden and expressed interest in working with OSU Master Gardeners to enhance access to community gardens and learn how to grow vegetables.
- A food co-op or food hub could connect local

food producers and local consumers; it might also be able to move excess fruits and vegetables from producers to local food pantries and community meal sites. Most of the GROW communities already have community meal events at senior centers, churches, or the local food bank/pantry, and food assistance programs are perceived as supporting healthy eating. Building on these preexisting relationships by connecting local food producers with community meal providers could improve access to healthy foods.

- education for diverse audiences about growing food, may help low-income people meet their fruit and vegetable needs. All but two GROW communities have a community garden, a school garden, or both, and residents expressed interest in having more garden-based education and activities. Communities could partner with local governments or organizations like Master Gardeners to build on existing gardens and create new ones, with a focus on learning how to grow and prepare healthy food.
- Rural communities with small, local grocers or convenience stores could facilitate partnerships between storeowners and local food producers. All six GROW communities in Oregon have convenience stores within easy access of most households. Healthy convenience store initiatives that include local foods could improve access to healthy, locally produced, fresh food in these stores. Many of the stores are SNAP-certified retailers, so this could also help low-income people access healthy foods while providing revenue for local producers. Local restaurants might also be interested in sourcing from local producers.

A rural food desert is defined as a census tract in which at least one half of the population lives more than ten miles from a large food store. This is true for most of the GROW communities. There is a clear need for creative partnerships between communities, businesses, and food producers to bring about easier access - closer to town and more affordable for community members – to local farm/agriculture products. Siting a large food store in a small rural community may not be economically feasible. Utilizing "non-traditional" venues for purchasing fresh foods – like feed stores. convenience stores, or food co-ops – and creating and fostering new partnerships between food producers and retailers are fresh, innovative ways to bring more healthy foods to rural communities, while at the same time increasing economic development. This approach, coupled with efforts to educate the public on the "what, where, and when" of local fresh food availability in their communities – community gardens and gardening classes, farm stands and farmers markets - are a solid foundation for building sustainable rural healthy food environments. %



Relay Seeding Cover Crops in Fall and Winter Harvested Vegetables

By: Nick Andrews, Small Farms Program, Oregon State University

ots of vegetable crops (i.e. winter squash, some brassicas, tomatoes, peppers and eggplants, etc.) are harvested late. This makes it difficult to establish over-wintering cover crops after harvest. On many farms, these fields are left bare over the winter. Sometimes there are opportunities to establish cover crops by relay seeding (inter-seeding) them into established vegetable crops. This allows the farmer to protect soil from compaction, surface runoff or erosion, build organic matter, and provide cover crop nitrogen (N) to the following year's crop.

Cover crops can be relay seeded when the vegetable crop is established, and most early-season weed control has been completed, but before the canopy of the vegetable crop has closed, preventing light from reaching the soil.

In collaboration with the West Multnomah Soil and Water Conservation District (http://www.wmswcd.org/) we have tried relay seeded and post-harvest cover crops with several growers. This article shares some lessons we are learning about relay seeding. First, a couple caveats though.

1. We don't have much experience relay seeding into drip irrigated vegetables. If the drip irrigation can provide enough moisture to germinate the cover crop, this might work. Be sure to remove drip tape before cover crop gets too big. If overhead irrigation is available during the few weeks after relay seeding, cover crop establishment will probably be more even. Monitor cover crop growth to make sure it isn't

- suffering from drought stress. See comments below about cover crop establishment.
- 2. Plastic mulches are popular for weed control, and increased crop performance, especially in Solanaceous crops like tomatoes. Clearly, the plastic mulch makes it impossible to establish cover crops in the bed. There is some discussion about establishing cover crops in the alleys between mulched beds. I haven't seen this in practice, but it does seem feasible, and these cover crop strips may provide some benefit compared to fields left completely bare over the winter. If cover crop is large, it might make plastic mulch removal more difficult.

Overhead irrigated vegetables grown without plastic mulch provide opportunities to relay seed cover crops. To choose the best species, consider your cover

Cover Crop	Lifecycle	N-fixer	Beneficial insects	N scavenger
Alfalfa	Perennial	X	X	
Clover, crimson	Annual	X	X	
Clover, red	Perennial	X	X	
Fava bean	Annual	X	X	
Vetch, chickling	Annual	X	X	
Vetch, common	Annual	X	X	
Vetch, hairy	Annual	X	X	
Buckwheat	Annual		X	X
Mustard, tame	Annual		X	X
Phacelia tanacetifolia	Annual		X	X
Radish	Biennial		X	X
Turnip	Biennial		X	X
Annual ryegrass	Annual			X
Cereal rye	Annual			X
Winter oats	Annual			X
Winter wheat	Annual			X
Triticale	Annual			X

Table 1. Functions provided by popular winter hardy cover crops in the maritime PNW.

Adapted from information provided by, The Xerces Society for Invertebrate Conservation (http://www.xerces.org/).

cropping objectives (see table 1). Are you trying to grow your own N for your next crop by using legume covers? Are you trying to take up residual plant-available N (PAN) before it is leached by winter rains? Cereals or grasses are better at this than legumes. Are you trying to provide flowers in the spring for pollinators and other beneficial insects? Legumes and other flowering broadleaf covers can do this if allowed to flower the following spring. Are you trying to manage weeds? Cereals are more competitive than legumes, but high legume seed rates (i.e. 2x) can provide good weed control.

Timing of seeding is critical with relay seeded cover crops. If seeded too early, cover crops

can compete with the vegetable crop like a weed. If seeded too late, the cover crop may not establish under the vegetable canopy. Our trial plots have been on commercial farms, so we typically relay seed when the farmer is doing their last weed cultivation with tractors. In our experience, this is sometimes a little too late for good cover crop establishment. Shade from the quickly developing vegetable crop canopy can prevent the cover crop from establishing well. We were initially concerned that vining cover crops like common vetch

Figure 1. Relay seeding into organic butternut squash. Praying Mantis Farm, Canby

might grow into the vegetable canopy and interfere with harvest. In practice, vetch got established, but didn't grow large enough to be a problem. Cereals grow more quickly, and while we did not have any major issues with cereals interrupting harvest, this seemed more likely to be a potential challenge. For example, oats establish more quickly than cereal rye, so this issue seems less likely with cereal rye.

At some sites, the field was weedy, or had hard and dry soil. These conditions made it more difficult for the relay seeded cover crop to establish. Try to create a reasonably fine seedbed with good weed cultivation or strip tillage before seeding cover crops. Small seeded species (i.e.

clovers) seem well adapted to relay seeding because seeds germinate well when left close to the surface. We used no specialized equipment to incorporate cover crop seed between the rows of vegetables. Cereals and vetches often established quite well, but it seemed less consistent than with small seeded species. Experienced farmers have also observed this. Small seeds can more easily fall into soil pores and be sufficiently incorporated by overhead irrigation.



Figure
2. Relay seeding covers in pepper (left) and eggplant (right). Ralph Locke's GM Farm, Sauvie Island.





Figure 3. Red clover well established by the time of butternut squash harvest. Praying Mantis Farm.

When relay seeding into established vegetable crops in July or August, weather can be hot and dry. Keep in mind that while your established vegetable crop may thrive on weekly irrigations, seedling cover crops may require additional short irrigation sets so that they don't dry out before they develop tap roots. Because the cover crop seedbed is often not ideal, it is worthwhile using slightly higher seeding rates than would normally be used for post-harvest cover crop seeding. Mixtures of different relayed cover crop species can provide multiple benefits (see table 1), and make it more likely that cover will be established.

In the spring, the cover crop is managed the same as a post-harvest cover crop. Generally about four weeks before planting the next vegetable crop, the cover crop is terminated. If you hope to enhance pollinators and



Figure 4. A robust red clover cover crop following butternut squash harvested in November. Praying Mantis Farm.

other beneficial insects, allow the cover crop to flower. If you can't leave the whole cover crop standing, consider leaving some strips to flower. In order to estimate cover crop N release to the next vegetable crop, you can harvest cover crop biomass and use the OSU Organic Fertilizer and Cover Crop Calculator described in PNW 636: "Estimating plant-available nitrogen release from cover crops".

As we have found out, relay seeding can be challenging, but when conditions allow cover crop establishment, high biomass cover crops can be established where bare soil or weeds would otherwise prevail. Feel free to contact nick.andrews@oregonstate.edu to discuss cover cropping options.



Figure 5. Left to right: common vetch, crimson clover and cereal rye successfully relay seeded into fall brassicas. Photos show cover crop canopy the following spring at Kruger's Farm, Sauvie Island. Winter wheat and clover boxes.

Calendar

July

9 - Caneberry Field Day

Topics will include: Research updates on the organic blackberry research program (weed management, irrigation, fertilizer source, and cold hardiness will be addressed), learning about sampling time for primocane tissue nutrient testing in blackberry, marketing caneberries to chefs, pesticide registation update, redefined IPM programs after SWD, meet WSU's new berry crop scientist, breeding for machine harvest in raspberry, evaluating and walking through the caneberry breeding plots. North Willamette Research and Extension Center, 15210 NE Miley Road, Aurora, OR. 1:00 PM - 5:30 PM. For more information contact 503-678-1264 x 7810 **\$5 Donation** Requested

14 - Tractor Safety for Adults

Join us for a full day covering the basic functions and operations of a tractor. Saftey, parts, basic maintenance, hooking up implements and driving will be covered during this event.

North Willamette Research and Extension Center, 15210 NE Miley Road, Aurora, OR. 8:00 AM - 5:00 PM. For more information

contact 503-678-1264 x 110 or heidi.noordijk@oregonstate.edu **\$50**

16 - Blueberry Field Day

Topics will include: organic blueberry production systems--from establishment through maturity, rootstock evaluation and field performance of "blueberry trees," meet WSU's new berry crop scientist, nitrogen fertigation management, pesticide registation update, mummy berry--ideas for control, re-defined IPM programs after SWD, challenges with new blueberry cultivar adaptability in BC, what blueberry cultivars/selections look good? North Willamette Research and Extension Center, 15210 NE Miley Road, Aurora, OR. 1:00 PM -5:30 PM. For more information contact 503-678-1264 x 7810 \$10 **Donation Requested**

<u>http://smallfarms.</u> <u>oregonstate.edu_for_more</u> <u>upcoming events!</u>

