



# Oregon Small Farm News

Oregon State University Small Farms Program

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### Cover Photo:

*Orchard near Hood River, OR.*


*Photo by Lynn Ketchum, Extension and  
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# Oregon Small Farm News Expands Eastward and Outward

This month we welcome subscribers of the former Mid-Columbia Small Farms Newsletter. The merger allows *Oregon Small Farm News* to represent more of Oregon through contributions by OSU Extension staff in central and eastern Oregon. For this issue, topics include irrigating pastures in central Oregon by Mylen Bohle, an overview of the growth of small farms in central Oregon by Barbi Riggs, and a mid-Columbia farm profile by Susan Kerr our small farm colleague from Washington State University.

The Oregon Small Farms website has just completed an upgrade. In addition to a new look, the site has improved navigation, a new efficient calendar, and added resources. The Organic Fertilizer Calculator has also been upgraded. Offered as a downloadable spreadsheet, it will help you select the organic fertilizers that are the most cost effective and that best match your soil and crop requirements. Find it at: <http://smallfarms.oregonstate.edu/organic-fertilizer-calculator>

Two technical reports related to farmers' markets were published this past spring. The first, *Enhancing the Success of Farmers' Markets* is an executive summary of a large research project on Oregon's farmers' markets. Find it at: <http://smallfarms.oregonstate.edu/sites/default/files/TechReport22.pdf>. The second report deals in depth with the issue of farmers' markets that fail. Find it at: <http://smallfarms.oregonstate.edu/sites/default/files/publications/techreports/TechReport25.pdf>. Other reports in this series will be posted in coming months. The Oregon Small Farms website offers information on cropping systems, marketing, stewardship and more. Check it out at: <http://smallfarms.oregonstate.edu>. 



Hay field and Umatilla River near Echo, Oregon.  
Photo by: Lynn Ketchum

# Managing Summer Weeds in Pastures

By: Melissa Fery

**P**esky weeds often go undetected in pastures, until summertime when they're in full bloom. The blaze of color, purple Canada thistle, white Queen Anne's lace or the yellow blooms of tarweed can make a landowner jump into action. Unfortunately, when weeds are blooming, most control methods are not very effective. Often, the best that can be done at this time is to mow the flowers off before seed is set to reduce the spread and then prepare a management strategy.


The first step in developing a plan for weed management is to properly identify the problem plants. Once identified, the second step is to take the time to learn about the plant's life cycle and biology. For example, find out if the weed is an annual, biennial or perennial plant. Also be sure to study up on how the plant reproduces. Does the weed reproduce via seeds, vegetatively by a portion of the plant like a root, stem or leaf, or both? Canada thistle for example, is able to reproduce from a tiny root fragment and by seeds. Hand pulling or hoeing this troublesome weed may only create a larger thistle patch.

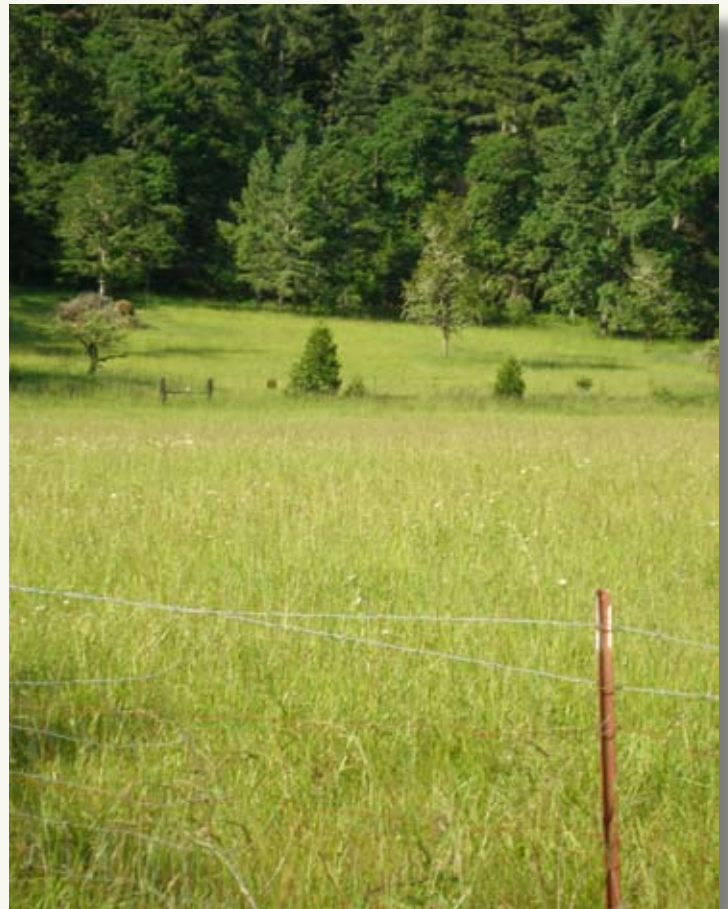
Armed with some basic information about your specific weeds, a year-round management plan can help determine what combination of weed control practices is best. Your specific plan may include mechanical, biological, cultural and/or chemical controls. No matter what the control measure, success in reducing weed populations requires attacking the plant when it is most susceptible. You'll want to be ready and plan ahead for proper timing. Walking the pastures and being able to identify weeds in an early growth stage will give you the upper hand.

Your local OSU Extension Service is available to help you identify weeds. Investing in a good resource book with color pictures will also help with weed identification. The Pacific Northwest Weed



Canada thistle in pasture. Learning to identify problem weeds in early growth stages will help in choosing effective control methods.  
*Photo provided by Melissa Fery*

Management Handbook is a great resource to help determine which control measures are effective on specific weeds. The 2007 handbook is accessible on-line at <http://weeds.ippc.orst.edu/pnw/weeds>. Additional weed publications are available at <http://extension.oregonstate.edu/catalog/>. 



A Willamette Valley Pasture  
*Photo provided by Melissa Fery*



# OSPUD: New Organic Potato Production

## Research at OSU

By: Nick Andrews & Lane Selman

**R**usset Burbank potatoes have been researched extensively, however comparatively little is known about fresh market varieties, including yellows, reds, blues and purples. Even less is known about growing these varieties under organic management.

For this reason, eleven organic farmers in Oregon and Washington are working closely with OSU faculty to improve their potato production methods. This on-farm research project is affectionately known as OSPUD. Dan Sullivan, Alex Stone and Paul Jepson are the main investigators of OSPUD, but the project uses a participatory process that allows growers to set the direction of the project and make decisions co-operatively. Lane Selman is the Project Coordinator, and Gwendolyn Ellen facilitates decision-making.

Major production challenges were identified after reviewing damaged tuber collections with the research team and retired potato agronomist Al Mosley. As a result, the group has focused research efforts on tuber flea beetle, wireworm, late blight and nitrogen management. Other project objectives include variety evaluations and enterprise budgeting. The project website ([www.ospud.org](http://www.ospud.org)) highlights participating farms and collaborators and shares lessons learned thus far.

Flea beetles are common pests of potatoes and *Brassicas*. These small dark beetles have large hind legs that allow them to jump when disturbed.

Several flea beetle species feed on potatoes. Note that shiny black flea beetles feed on *Brassicas*, while dull, hairy, black or brown flea beetles feed on potatoes. Of these, tuber flea beetle (*Epitrix tuberis*) is the most important species found on participating farms in 2006. The figure below, prepared by OSPUD project entomologist Mario Ambrosino, shows the difference between tuber flea beetle damage and other common blemishes. Current field trials are evaluating straw mulch and entomopathogenic nematodes as potential tuber flea beetle management tools.



OSPUD Entomologist Mario Ambrosino inspects sweep net for tuber flea beetles. Photo by Lane Selman



Late blight caused the Irish potato famine in 1845 and continues to be a significant potato disease today. OSPUD growers identify areas on their farms, such as cull piles, that can potentially harbor late blight and other diseases. Practices can be modified to reduce inoculum and delay the onset of disease.

OSPUD is evaluating new potato varieties for numerous desirable



OSPUD project collaborators: (Standing from left): Nick Andrews, Dan Sullivan, John McQueen, Jamie Kitzrow, Robelee Evans, Suzy Evans, Jim Fields, Paul Jepson, Gwendolyn Ellen, Josh Volk, Tim Terpstra (Seated from left): Joeline Jebbia, Laura Masterson, Jeff Falen, Alex Stone (Not in photo): Mario Ambrosino, Lane Selman, Chris Jagger, Melanie Kueglar, Debbie Fields, Suzy and Steve Fry, John Eveland, Sally Brewer, Elanor O'Brien, Chris Overbaugh, Jessica Gigot, Don Horneck, Isabel Vales, Solomon Yilma, Alvin Mosley Photo by Lane Selman



qualities, including disease resistance and taste. 'Defender' and 'Jacqueline Lee' both rate high in taste tests and demonstrate late blight resistance. An expanded variety trial has been implemented this year in hopes of identifying blight resistant cultivars. Late blight resistant varieties could reduce copper use on organic farms; the only organically allowed fungicide that is effective.



Late Blight lesions on potato leaf and stem  
Photo by Lane Selman

Another OSPUD goal is to fine tune nitrogen management and monitoring strategies for organic potato production. Soil, petiole and whole plant sampling is used to investigate the timing and amount of nitrogen uptake by potatoes in organically managed soils. Zero-fertilizer trials compare fertilized plots to unfertilized plots, in order to gain insight into the natural mineralization of nitrogen from organically managed soils. Project collaborators hope to develop diagnostic petiole nitrate levels for popular organic varieties that can be incorporated into an organic nitrogen management strategy.



OSPUD collaborators Jim Fields and Dan Sullivan discuss nutrient management Late Blight lesions on potato leaf and stem, Photo by Lane Selman

Some OSPUD growers have shared their enterprise budgets, developed over years of farming, with the group. These budgets identify specific costs associated with potato production, with some fixed costs, such as tractor use, averaged across the farm. With a realistic estimate

of production cost, prices can be set to ensure financial viability.

OSPUD collaborators hope to expand the project into other areas, including evaluating existing germplasm for organic production by market niche. In October 2006, a group of 50 chefs, farmers, researchers and industry representatives convened at Gathering Together Farm in Philomath, Oregon to evaluate a number of potato varieties. The test included commonly grown varieties, lesser-known varieties with desirable qualities, and others bred at universities but not yet available to the public. Twenty-five varieties were steamed, chipped and french-fried. Characteristics including appearance, taste, texture and flavor were evaluated. Taste evaluations combined with field trials provide insight on which varieties are best suited for the organic marketplace. Testing nutritional value and antioxidant levels is also of interest in marketing a value-added product.

Potato evaluation and tasting at Gathering Together Farm  
Photo by Lynn Ketchum, OSU EESC



The OSPUD website ([www.ospud.org](http://www.ospud.org)) is a great way to find more information about the project. Once the field work is complete, a set of OSU extension publications on organic potato production will be available. For more information on OSPUD, contact Lane Selman at [selmanl@hort.oregonstate.edu](mailto:selmanl@hort.oregonstate.edu).

Josh Volk of Sauvie Island Organics on a Checchi & Magli harvester  
Photo by Lane Selman





# Out of Control Algae

By: Melissa Fery

In the summer time, water temperatures rise and the sun shines bright, helping create ideal conditions for excess algae growth in farm ponds. Aquatic plants, including algae are important to a pond's ecosystem, but it is easy for these plants to grow out of control, causing problems for water quality, fish and other wildlife.



*Photo provided by Toni Pennington, Center for Lakes and Reservoirs, Portland State University*

Excess algal biomass (algae blooms) is prompted by non-living and living factors. Algae utilize nutrients in the water from decaying plant materials like fallen leaves, fish wastes, dead bugs and fertilizers. Nutrient enrichment along with warmer water temperatures and fewer organisms eating the algae leads to an algae bloom. Not only are these algae blooms unsightly, they can potentially create an unhealthy environment for aquatic animals.

The first line of defense against algae blooms and excessive weed growth is prevention. Reducing use of fertilizers near the pond, limiting livestock access, and ensuring that septic system drain fields function properly will reduce nutrient loading in the water. Removing fallen leaves and other decaying materials deprives algae of food needed for growth. Providing shade around the pond may help by reducing water temperature and filtering the sunlight needed for algae to photosynthesize. Research shows that barley straw is another way to prevent excess algae growth in water.

Controlling excessive algae and weed growth is an ongoing endeavor if the ecosystem is drastically out of balance. Experts believe that adding beneficial bacteria to the pond system is valuable. Beneficial bacteria maintain the nitrogen cycle, by breaking down sludge along the bottom of the pond and reducing odor.

Shading products or dyes can be used to limit light penetration for algae. Dyes are not a long term solution but may be used until vegetation can be established around the pond to provide natural shade. Dyes turn water a bright blue color. Pond rakes or skimmers are mechanical methods to remove algae masses and weeds from the pond. As a last resort, chemical treatment may be used. Algicides are fairly selective chemical controls; however caution should be used, as ponds are often connected to ground water and surface water systems. When selecting chemical treatments read the label carefully and follow application and safety directions and obtain any necessary permits.

Algae are a natural part of the pond ecosystem, but attention should be given to keep the pond in balance to prevent excessive algae growth. *✍*



*Photo provided by Toni Pennington, Center for Lakes and Reservoirs, Portland State University*

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# Exploring Value-Added Agriculture

By: Melissa Matthewson

“Your uniqueness is the only source of profitability that cannot be competed away, and thus, is the only source of sustainable profits.” –John Ikerd<sup>1</sup>

Value-added agriculture entails changing a raw agricultural product into something new through packaging, processing, cooling, drying, extracting or any other type of process that differentiates the product from the original raw commodity. Examples of value added agricultural products include garlic braids, bagged salad mix, artisan bread, lavender soaps and sausages. Adding value to agricultural products is a worthwhile endeavor because of the higher returns that come with the investment, the opportunity to open new markets and extend the producer’s marketing season as well as the ability to create new recognition for the farm. Increasingly, value-added products are hitting the local market as producers take advantage of high-demand product niches. This is the key to success in value added agriculture—niche markets are where smaller producers can be most successful in creating value and establishing a profitable business.

A study of fourteen farmers in the Southern US conducted by ATTRA and the Southern Sustainable Agriculture Working Group identified ten keys to success when pursuing a value-added business. These include: starting small and growing naturally; making decisions based on good records; creating a high-quality product; following demand-driven production; getting the whole family or partners involved; keeping informed; planning for the future; continuing evaluation; persevering and having adequate capitalization.<sup>2</sup> Take these recommendations into mind when you are designing your product and business plan.

Value added agriculture is not without its challenges to farmers. One of the largest hurdles to overcome is that of food business and safety regulations. For example, if you are interested in taking your organic blueberries and turning them into a high quality jam that you can sell at the local farmers’ market, you must be a licensed commercial kitchen in order to produce that product and sell to local consumers. You will also need to carry liability insurance if you are selling at the farmers’

market to cover any sort of illness or other food safety issues that may arise. The Oregon Department of Agriculture’s Food Safety department handles the licensing of food businesses in the state of Oregon. Find out more information on their website at [www.oda.gov](http://www.oda.gov). These regulation challenges make it difficult to get started in the value-added business, but with a solid business plan in place, producers can be successful in overcoming obstacles to their food business dream.

Another example of a significant challenge for starting a value-added business is putting together your recipes or formulations for the product you are developing. For instance, making soap from your lavender flowers requires time and effort in finding the right recipe for high-quality soap. You will also want to research the market potential for your product in order to define your customer profile, so that you are not wasting your time in formulating a product that will not sell. The Food Innovation Center is an excellent resource for small business owners interested in starting a value-added business. They can assist with formulation, education etc. Check out their website at <http://fic.oregonstate.edu/>.

Starting a value-added agricultural business is an exciting opportunity for the small farmer interested in diversifying and exploring new markets, but starting small and finding your niche is key to your long-term success. Evaluate the risks associated with the business and have a solid plan in place to keep you on the right track. *Z*

<sup>1</sup> & <sup>2</sup> Keys to Success in Value-Added Agriculture, Holly Born, [www.attra.org](http://www.attra.org)

## Resources

Oregon Department of Agriculture

[www.oda.gov](http://www.oda.gov)

Food Innovation Center

<http://fic.oregonstate.edu/>

OSU Extension Service  
Small Farms Program

<http://smallfarms.oregonstate.edu>

ATTRA

[www.attra.org](http://www.attra.org)



# It Is All In the Soil Survey

By: Sam Angima

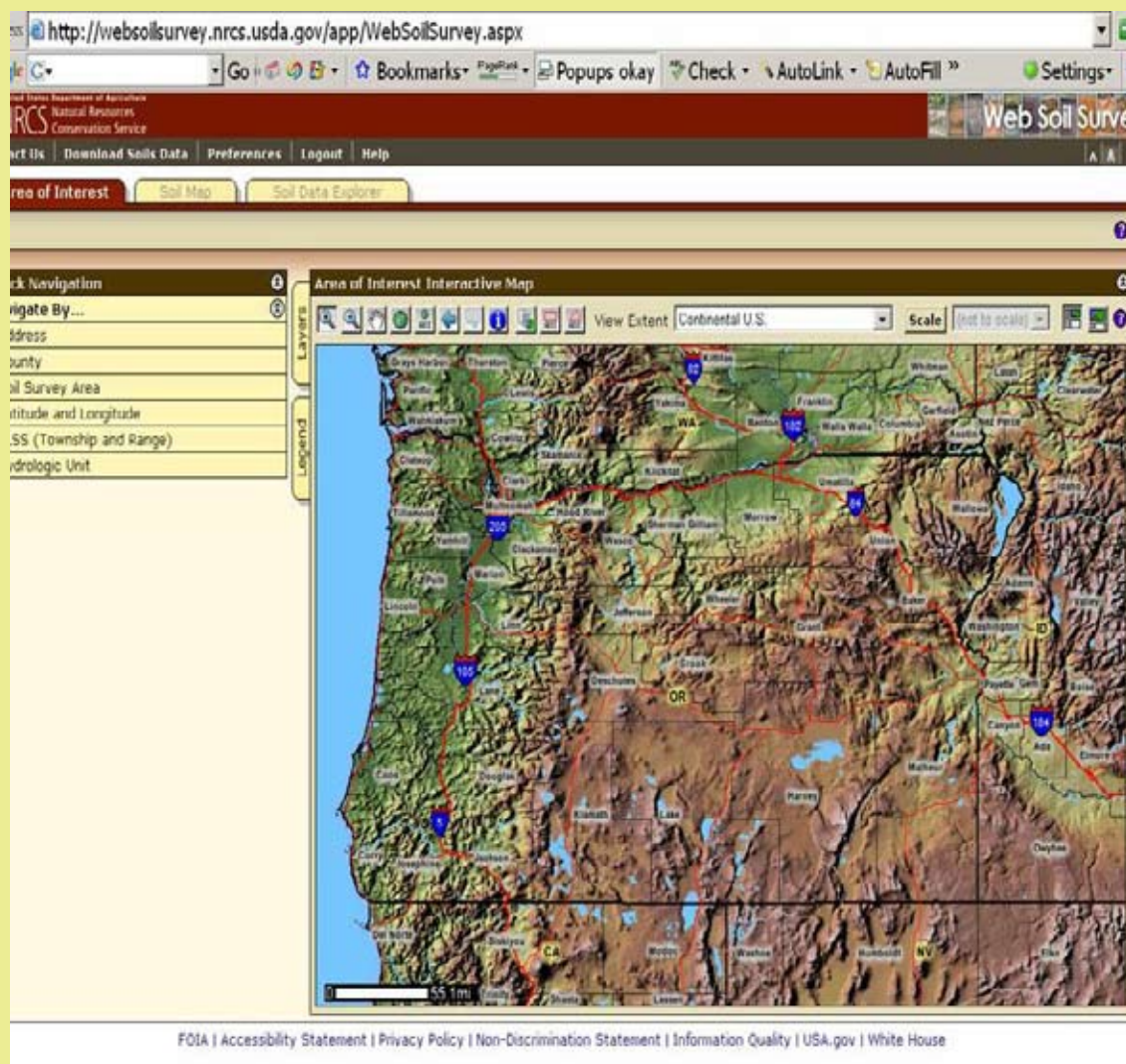
The small farm's basic and fundamental resource is soil. Understanding what type of soil you have and its limitations can help you decide on what and where to invest and what outputs to anticipate. The best source to get this information is in the county soil surveys. The most recent soil survey is now available on the web at <http://websoilsurvey.nrcs.usda.gov/app/>

Soil surveys contain a lot of information for nearly every one that uses soil for agriculture, forestry, municipal and even recreation purposes just to name a few. The survey also highlights limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment. In this article I will provide steps to follow to find out how suitable your soil is for agriculture.

Before you follow this procedure, make sure you have a fast internet connection and a faster computer will save lots of time. A color printer is useful too. First thing you want to know is the type of soil you have. You can find this by going through the web soil survey and selecting the “zoom in” tool. Use the tool to locate your farm or area of interest on the map. Now use the AOI (area of interest) tool and just click along to select the extent of your property. I suggest using the polygon AOI tool to select irregular areas and remember to double-click the mouse once you reach back where

you started to complete drawing the polygon and select the shape. At this point the program zooms in maximum to just show the area you have selected. On the left column you will see total acreage selected and you will be notified too if soil data and soil maps are available. If you are not able to successfully complete this step with this procedure, use your address to locate the area of interest. Just click on address under quick navigation tab and type in your address, city, state and zip code.

Next you want to select the middle tab at the top of the map called “soil map”. This will show all different types of soil on your selected area, the percentage each occupies in your property, and the county. To most people this is the most important step in this exercise. For



Oregon: Zoom in to desired location of your property using the “zoom in” tool (source: Web Soil Survey)



example you can use this tool to know exactly how much area you have that has specific soils or use the information for fencing needs depending on the soil criteria you find on the map. Likewise if you want to fertilize your pastures and do not know how much area you have, this tool can help you determine that area to fertilize etc.

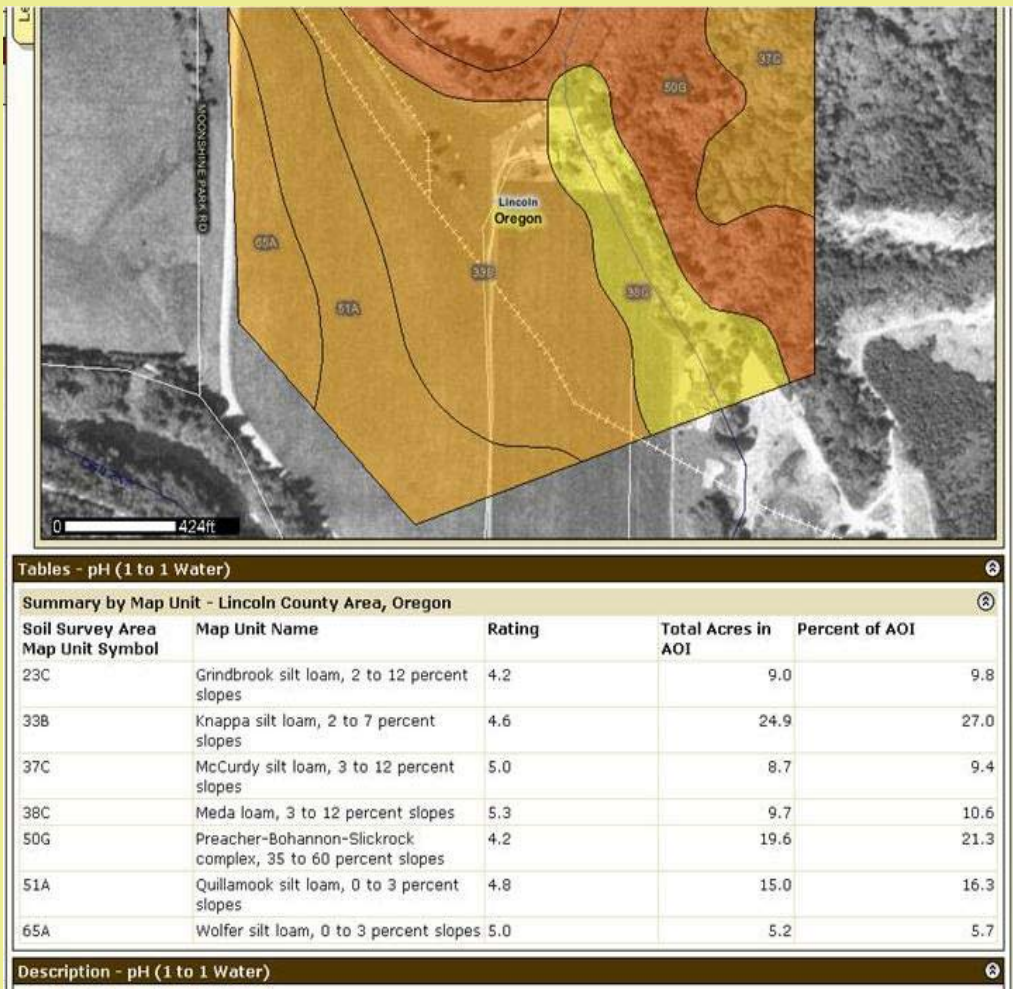
For more detailed soil information, click on the third tab called “soil data explorer.” Here you will get five different tabs that give you details on your specific soils. First tab will give you a short soils 101 course on terminologies and terms used to describe soils. The second tab gives you suitability and land capability classification of your selected area. Of importance here is the land classification section where you can find out farm land classification and forage suitability group and also vegetative productivity where you can find crop and forestry productivity indices for your soil and also yields for irrigated and non-irrigated crops. The land classification ratings can help you know for sure if you are growing crops suitable for your area. Class 1 soils are very productive while class 8 soils have severe limitations for any crop production. With this information you can determine maybe why some crops do not do well in your location if you have class 7 or 8 of soils and are trying to grow a niche crop that requires class 2 or 3 soils. Under each title you choose, there is a detailed description beneath the soil map that explains what you are seeing and how such details were calculated.

The soil properties and quality tab describes soil physical and chemical properties of your soils. Most important is the soil pH for each soil series in your selected area plus cation exchange capacities (CEC), electrical conductivity, soil organic matter, % sand, % clay,% silt, and for those on coastal soils, sodium adsorption ratios are important. These are important chemical properties to know if you have not done a soil test yet. Also depth to water table might be important on bottom soils that are prone to flooding and you can find this under the water features heading.

The last two tabs are soil reports and publications. These are for those familiar with soil classifications and want to read more about their soils. Here you can find information on the specific soils you have and how they are classified and how they are distributed in your property. The wealth of knowledge in the online soil survey is immerse. Use this free tool

to understand more about

your soils and how you can manage them. If you have any questions on your soils or how to use this web soil survey call the small farm team or emails any of us. The local USDA-Natural Resource Conservation Service and Soil and Water Conservation District personnel can also help you understand the type of soils in your property. *✍*



Example of soil pH rating for different soils in selected area (source: Web Soil Survey)



# Farm Profile: Lefever-Holbrook Ranch

By: Susan Kerr

**T**he Lefever-Holbrook Ranch in Goldendale, Washington, actually has its beginnings on the west side of the state in the town of Pacific. Paulette Burns was one of five children raised in Pacific on four acres. In addition to the children, an assortment of small-scale agricultural products were raised or produced on the farm, including beef cattle, vegetables, dairy calves, hogs and chickens. Paulette says, "We didn't have a lot of money but we learned the value of producing our own food." The family picked wild berries for home use and used fresh eggs to make their own bread. "My mother was into health food before it was the rage," Paulette reflects.

As she moved into high school, Paulette became active in FFA, raising and/or showing market lambs, hogs, beef, chickens and plants. Public education about agriculture was always important to Paulette, so while in FFA she was involved with live animal displays at Pike Place Market and other Seattle venues. In addition, Paulette was involved with a week-long agricultural display on the Auburn High School lawn; busloads of youth from far away schools would come to see and learn about farm animals at this event.

In 1978, Paulette began raising Natural Colored sheep. She sold breeding stock and meat animals as well as wool for hand spinning. "This was when the spinning craze was just taking off in the cities," Paulette says. She served on the committee for the first Shepherd Extravaganza during the Folk Life Festival at the Seattle Center. She displayed her sheep at various shows, sales and fairs throughout the Pacific Northwest and had a high-selling Natural Colored ram.

In 1979 Paulette moved to the Lefever Ranch in Goldendale, Washington. However, moving from the wet to the dry side of the state precipitated a change from Romney to Rambouillet sheep, which were better suited



The Lefever-Holbrook Ranch of Goldendale, Washington

for hot, dry and windy Klickitat County. Paulette also began to teach spinning classes and sell USDA-inspected lambs to stores and directly to urban and rural consumers. "I was interested in getting added value in all areas of my sheep enterprises," she explains.

She promoted lamb by sponsoring free lamb tasting events at local grocery stores and community events. Entering a new phase of life and agriculture, Paulette moved on to raising and selling braided



Paulette, Daniel, Matthew, Madison, and Conor



garlic, herbs, pumpkins, Indian corn, more mushrooms and antiques. She began a food catering business for local events at museums, churches, etc. Her involvement with catering went large scale when Paulette became associated with Bishop Services, a multi-enterprise business in Goldendale.

The Lefever-Holbrook Ranch started in 1989 as a sheep and beef enterprise. Four children—Daniel, Matthew, Madison and Conor—became part of the operation as well. Dan and Matt purchased and showed 4-H market lambs. Matt decided to raise wether sires and ewes (animals used in terminal crosses to produce market lambs) for his Goldendale FFA Supervised Agricultural Experience (SAE) project. He purchased his first ram to breed to Suffolk-Hampshire cross ewes “and the fun was on,” Paulette remembers.

Matt was first in Washington state in the SAE Sheep Proficiency Award. He was judged one of the top four in the nation and won the national FFA trip to Costa Rica in 2002. Matt was the first in Washington to raise wether-type Suffolk breeding sheep. Lefever-Holbrook animals sell and show extensively throughout the Pacific Northwest. Firm believers in Best Management Practices that will improve the sheep industry, the Lefever-Holbrooks test their animals for both Spider Syndrome and Scrapie-resistance genetics. For examples of the flock’s accomplishments, visit [www.clublambpage.com/nwwethersire/lefever\\_holbrook.html](http://www.clublambpage.com/nwwethersire/lefever_holbrook.html)

While Matt is away at college, siblings Madison and Conor are moving into the showing and care of the 60-ewe flock. Their weekends are spent at fairs, market sales and jackpots as well as shearing, feeding and doing all the other routine chores that go along with keeping a sheep flock healthy. Time is also devoted to keeping the ranch’s herding dogs and livestock guardian dogs fed and happy and healthy.

Between raising children and sheep, Paulette still fits in time to serve on school committees and raise vegetables, flowers, berries and herbs. As a WSU Master Gardener and someone with an

insatiable interest in learning, Paulette is always trying out something new in the garden. She is especially interested in native plants. Paulette is also a 4-H volunteer, which gives her plenty of opportunities to help youth learn through hands-on experiences.

Speaking of learning, Paulette was and is the driving force behind the Northwest Lamboree, an educational event for and about the sheep industry. The event is attended by youth and adult sheep enthusiasts from throughout Washington and Oregon. Held in Goldendale, the Lamboree just completed its third successful season. It is important to Paulette and the other Lamboree organizers that the Lamboree educates the public about all types of sheep enterprises, from breeding stock to market lamb projects, from fiber sheep to hair sheep.

What’s the next endeavor for Paulette and the Lefever-Holbrook Ranch? As Paulette says, “Who knows?” Her advice is to “change with the flow of life, do the best you can, enjoy family, friends and the road you are on. Eat good food and find the ‘funnies’ every day. A good cup of coffee starts the day right! Walk the garden and connect to the dirt. Go barefoot!” ☞



Madison and Conor with a market lamb



# Irrigated Pastures

By: Mylen Bohle, Area agronomist, OSU Extension Service Crook County and Garry Stephenson

As summer approaches and the soil dries, forage plants become dormant. Some years in drier areas of Oregon dormancy may begin in the late spring. If you have irrigation rights, your pastures can provide supplemental nutrition even during the dry summer months. Although this article target irrigated pastures many of the principles apply to other crops.


There are a number of irrigation methods used in Oregon, including flood, hand line, wheel line, gated pipe, little and big gun, linear, and pivot irrigation systems. The method of choice depends on the system that came with the farm, the size of the farm and the amount of labor, time and money available. Some small farms use solid set systems for pasture. These systems are efficient but require care to protect the pipe from the livestock.

Determining when to irrigate and how much water to apply are specialized tasks. Though many techniques exist, monitoring soil moisture may be the easiest irrigation scheduling technique. This technique can help you determine when to irrigate, whether irrigation periods are sufficiently spaced, and whether the proper amount of water is applied during each irrigation. See the resources for more information that the end of this article for a useful field test for estimating soil moisture. During the growing season, the soil should dry out to about 50% of the soil water hold capacity before it is

irrigated back to its capacity. Water holding capacity is a determined by soil texture, organic matter content, and soil depth. The time between irrigations varies depending on the time of year. For instance, during spring in Central Oregon, the frequency of irrigation could be every two to three weeks; in the summer it could be every 5 days, depending upon the water holding capacity of the soil.

Moisture evaporates from the soil and plants are said to *transpire*, that is, they give off moisture through their leaves. Considered together, these two processes are referred to as *evapotranspiration*. Evapotranspiration or average daily water loss from the soil plant system varies by season. As you might guess, water losses are greater during the hot, dry, longer days of summer than at any other time of year.

If your goal only is to have a green pasture, irrigate whenever the weather is dry. If you irrigate for production, follow an irrigation management plan based on the infiltration rate, water-holding capacity of the soil, and amount of moisture lost to evapotranspiration. Use weather and soil information to ensure adequate but not excessive irrigation. This information is available for a variety of areas of Oregon through *Agrimet* (see for more information below). An irrigation specialist at the local USDA Natural Resources Conservation Service office can provide help develop a water management plan.

Do not leave large livestock in the pasture while irrigating; they may damage equipment. To avoid plant damage and soil compaction, wait 3 or 4 days after irrigating before turning large livestock back onto pastures. As always, wait until the pasture is above 6 to 8 inches in height before grazing, and graze no shorter than 3 inches. 

## For More Information:

Estimating Soil Moisture by Feel and Appearance, NRCS, USDA. This classic field aid to irrigation management is now on-line: <http://www.mt.nrcs.usda.gov/technical/ecs/agronomy/soilmoisture/index.html>

Agrimet. Oregon Crop Water Use Charts. Pacific Northwest Region, Bureau of Reclamation. [http://www.usbr.gov/pn/agrimet/or\\_charts.html](http://www.usbr.gov/pn/agrimet/or_charts.html)

For more information on irrigation scheduling methods and other water use issues, consult the Center of Irrigation Technology, CSU Fresno at: <http://www.wateright.org/>

## Irrigation Tips for Sprinkler Systems

- Never use a nozzle smaller than 9/64 inch.
- Repair all hole and gasket leaks.
- Irrigate during low wind periods.
- Maintain adequate nozzle pressure -50-60 psi.
- Use the same nozzle size throughout the system.
- Invest in a soil probe, a pitot tube, an oil filled pressure gauge, and a drill bit set to check for nozzle wear.
- Pressure drop from the pump to the first nozzle should not exceed 10%.
- Pressure drop from the pump to the last nozzle should not exceed 20%.
- Sprinkler systems are designed with a 50% overlap for efficient water distribution.
- Every gallon of water pumped is reflected in energy costs.



# Small Farms are Big Business in Central Oregon

By: Barbi Riggs, Livestock Agent, OSU Crook County Extension Service

**D**eschutes, Jefferson and Crook Counties, the tri-counties of Central Oregon, have become increasingly diverse from the newly transplanted citizens to the crops we grow. The Tri-counties have attracted people from many different backgrounds that are searching for a quality of life that is associated with rural living; raising crops, produce and/or livestock. The USDA Agriculture Census has shown that the Tri-County area has increased the number of farms with less than fifty acres by 428 operations from 1997 to 2002. Also on the rise are the small farms that generate income of less than \$10,000 annually. In Deschutes County alone, 1338 farms fall into this category; 474 farms and 221 farms for Crook and Jefferson counties respectively also fall into this category. For many of these small farms income from the property is not the only source of revenue and is not depended upon for the livelihood of the family.

This increase in small farms, particularly the non-commercial small acreages goes hand in hand with the number of people with little or no experience managing rural properties. The result is often damage to the natural resources of the property and a lower property value. Degraded natural resources often lead to invasion of weeds, soil erosion, and a decrease in diversity of forage species and inhibition or cessation of forage production. Over the past few years there has been an increasing need for education and awareness of not only basic production practices but for the opportunities for diversification of commodities produced on these small acreages and the advantages of finding a niche market.

This past spring, the Oregon State University Extension Service held a one day program to address these needs. *Living on a Few Acres* offered over 30 classes that addressed topics from weed management, irrigation, poultry, small fruits and grapes, just to name a few. Attendee's owned an average of 9 acres and lived in the Tri-county area from 6 months to 29 years. Many of the participants produce common crops for the region and owned livestock. The common thread between all attendees was a desire to improve management skills and research alternative production practices.

Programs similar to this are held throughout the state by OSU Extension Service. Extension personal are committed to creating a strong community and making agriculture a lasting enterprise. It provides valuable resources for education and outreach for property owners. Experts are available to answer questions about forestry, crops, irrigation, rangeland, livestock, gardening and many more. Phone calls and personal visits are always welcome. *S*



Aerial photo of Central Oregon Small Farms  
Photo provided by Barbi Riggs



# News and Notes

## Small-Scale Poultry Workshop

Mark your calendars!

On September 8, 2007, OSU Small Farms Extension will host a day-long workshop on small-scale pastured poultry production and marketing.

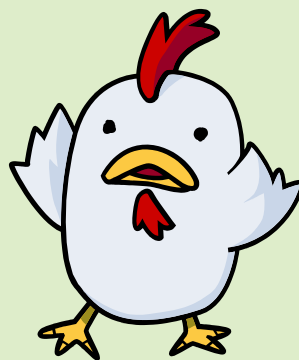
This class is for small farm entrepreneurs or other farmers interested in adding laying hens, broiler chickens or turkeys to their small farm operation.

Topics will include:

- general management
- nutrition and health of poultry
- choosing an alternative poultry production system
- marketing opportunities
- rules and regulations for direct marketing and poultry processing

The workshop will end with a two-hour field tour of Norton Creek Farm, a local pastured poultry farm near Blodgett, Oregon.

The workshop will take place in Benton County on September 8, 2007. Registration information and workshop information will be available by July 15, 2007, on-line at [smallfarms.oregonstate.edu](http://smallfarms.oregonstate.edu) or by calling (541) 766-3556.



## Scrapie Tag Reminders

*Order in Time for Fair!*

As most producers are aware, in order to ship or sell animals out of state or within the state, you need to have those animals officially identified with a Scrapie tag, in addition to keeping records. This requirement also applies to auction yard sales. And with the approach of fair time, remember that scrapie tags are required at all fair and shows.

USDA offers tamper-resistant ear tags, free of charge. Call USDA at 1-866-USDATAG to order tags ahead of time. Orders take approximately 2 weeks to be processed and shipped by the tag manufacturer, so order your tags 3-4 weeks prior to your sale or shipment.

Producers who are enrolled in the voluntary Scrapie Flock Certification Program (SFCP) may also place an order for the Premier's tamper-resistant 2x tags, free of charge, by calling the same USDA phone number. Please be certain to ask for the SFCP tags, not mandatory tags, so that the correct Flock ID number and "SFCP" are printed on the tags.

If you have any questions, please call Victoria O'Nion at (503) 399-5871.

## Organic Seed Production Guides Available

The Organic Seed Alliance has recently published three new guides for Pacific Northwest farmers. The guides focus on organic radish, spinach and bean seed. Each publication covers the principles and practices of seed production, including growing information, isolation requirements, harvesting and cleaning information, and common pest problems. The guides are available on-line at [www.seedalliance.org](http://www.seedalliance.org) and are funded by a grant from Western SARE.





# Manure Exchange Program

By: Mary Logalbo, Marion Soil and Water Conservation District

**M**arion Soil and Water Conservation District has a new free program that will benefit the livestock owners and gardeners of our District and beyond. The Manure Exchange Program brings together gardeners and landowners searching for sources of local, free, organic fertilizer with livestock owners and managers with excess fresh and composted manure.

The goal of the program is to help farmers that need to dispose of manure because they do not have the land available to utilize the nutrients on their farm. The program works in conjunction with the local Agricultural Water Quality Plan by removing a potential source of water pollution from farms. The exchange program will also benefit others in the community seeking a nearby source for fresh fertilizer. This is a great way to recycle our natural resources!

Marion SWCD is maintaining a list of livestock owners that wish to share their manure. The livestock owners provide information on how they wish to be contacted, the type of manure they have, and where they are located. Interested gardeners may obtain the list from our office or by checking our website at <http://marionswcd.net/manure.html> to find a source of manure near them. The program is designed to help people share manure with one another and there will be no



fees charged for the material. Unless the farmer has tested the pile to determine weed seed viability, Marion SWCD recommends that you treat it as raw organic matter and compost it further before use.

The program is still seeking livestock owners to participate in the program. For more information on the program or to sign up as a manure donor, please contact Marion SWCD

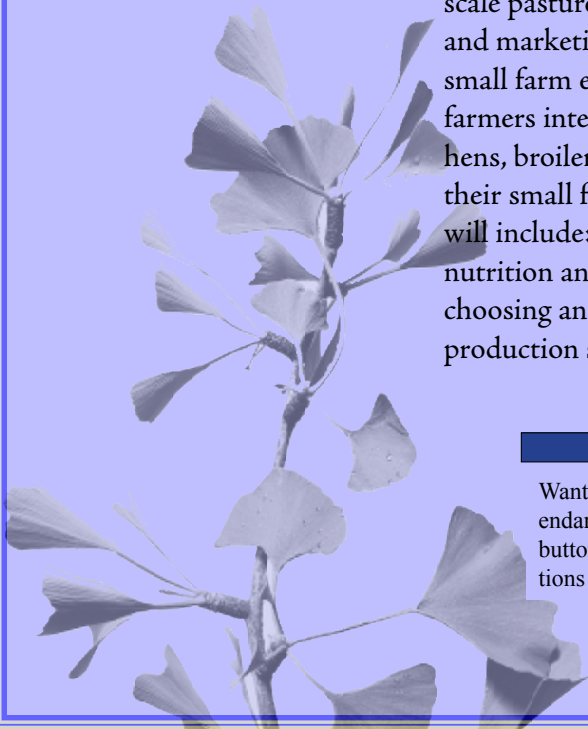
at 503-399-5741 ext. 110. There is an information sheet that any livestock owners wishing to participate must complete and submit via e-mail, FAX, or mail. This manure source sign up sheet is also available via on our website.

Please contact Mary Logalbo 503-399-5741 ext. 110 for additional information.



What should you do with your stall waste?  
Photo provided by Garry Stephenson

# Calendar



## August

### 15 - Pasture Management 101

Pasture Management 101 is for the small acreage landowner who has pasture or is thinking about putting in pasture. Topics will include how to establish a new pasture and how to renovate a damaged one as well as how to identify which forage grasses are growing in your pasture. Topics also include grass growth cycles and proper grazing management. OSU Extension resource materials will be available for small landowners. 5:30 PM - 8:30 PM. Southern Oregon Research and Extension Center. 569 Hanley Road, Central Point, OR. For more information contact Melissa at (541) 776-7371. \$5

## September

### 8 - Pastured Poultry Workshop

OSU Small Farms Extension will host a day-long workshop on small-scale pastured poultry production and marketing. This class is for small farm entrepreneurs or other farmers interested in adding laying hens, broiler chickens or turkeys to their small farm operation. Topics will include: general management, nutrition and health of poultry, choosing an alternative poultry production system, marketing

opportunities, rules and regulations for direct marketing and poultry processing. The workshop will end with a two-hour field tour of Norton Creek Farm, a local pastured poultry farm near Blodgett, Oregon. The workshop will take place in Benton County. Registration information will be available by July 15, 2007, on-line at [smallfarms.oregonstate.edu](http://smallfarms.oregonstate.edu) or by calling (541) 766-3556.

### 22 - Irrigation for Small Landowners

This workshop is for anyone who is currently designing, installing or repairing irrigation systems on their small acreage. Co-sponsored by OSU Small Farms and Jackson County Soil and Water Conservation District, the workshop will cover the range of irrigation options for small landowners, from overhead systems to micro-sprinklers. The workshop includes a field visit and lunch. 9:00 AM - 5:00 PM. Southern Oregon Research and Extension Center. 569 Hanley Road, Central Point, OR. For more information contact

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](mailto:Chrissy.Lucas@oregonstate.edu) or 541-766-3556