Oregon Small Farm News

Oregon State University Small Farms Program



2010 OSU Extension Service Small Farms Conference

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Cover Photo:

Sheep of the Conway Family Farm. See page 6 for the farm profile.

Photo provided by Susan Kerr, Washington State University, Klickitat County Extension

Layout by: Chrissy Lucas, Oregon State University Extension Service Small Farms Program

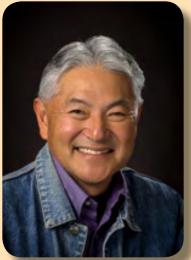
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Save the Date

2010 OSU Extension Service Small Farms Conference

February 27, 2010 Oregon State University Campus

Keynote speaker: David Mas Masumoto



David Mas Masumoto is a third generation farmer working with his family on their 80-acre organic farm near Fresno, California. In addition to growing Elberta peaches, nectarines and grapes, he has written several books, including Letters to the Valley, Four Seasons in Five Senses, Harvest Son, Epitaph for a Peach and his latest entitled Wisdom of the Last Farmer: Harvesting Legacies from the Land.

Quoting the "literary farm" on the Masomoto Farm website: "Economics and business will not adequately explain the work we do – it will take story and art. That's why Mas writes and

that's why we approach our work as artisans. There is a type of art to our approach to farming – and the power of story captures the emotional and the physical nature of our work."

Capnote speaker: Congressman Kurt Schrader (invited)

Congressman Kurt Schrader was elected to the U.S. House of Representatives in 2008 representing Oregon's 5th District. Congressman Schrader currently serves as a member of the House Committee on Agriculture. Congressman Schrader is a veterinarian and farmer who lives with his wife Martha on Three Rivers Farm in Canby where they grew and sold organic fruit and vegetables. Before being elected to Congress, he owned and managed the Clackamas County Veterinary clinic in Oregon City. Congressman Schrader still maintains his veterinary license.



Brought to you by the OSU Extension Small Farms Program
Watch the Oregon Small Farms website (http://smallfarms.oregonstate.
edu) for updates. Online registration will open during December, 2009.

New Report from California Assesses Cost of Leafy Greens Food Safety Programs

A new report from the Small Farm Center at UC Davis summaries California's experience with the Leafy Greens Marketing Agreement (LGMA). In spring of 2007, a group of California handlers of leafy greens established the

Leafy Greens Products Handler Marketing Agreement (LGMA) in response to the September 2006 E. coli outbreak that was attributed to spinach grown in the Salinas Valley. A voluntary program, the LGMA has been widely accepted by the produce industry, grocers and foodservice firms. Other states have adopted the LGMA including Arizona and Florida. In June 2009, a proposal for a national leafy greens marketing agreement was submitted to USDA's Agricultural Marketing Service (USDA AMS). Although the LGMA is an agreement between handlers, many of its compliance requirements fall upon growers to implement, as it requires signatory members to source their leafy greens solely from growers found to be in compliance with a set of food safety provisions called "best practices."

Since many of the compliance requirements of the LGMA and other food safety programs fall upon growers to implement, this study surveyed leafy greens growers in California during 2008 and 2009 to measure these compliance costs. The full report may be accessed at: http://ucanr.org/sfp/leafy-greens/. Key findings from the report are:

- Growers' costs for modifications made specifically for LGMA compliance averaged \$13.60 per acre.
- Growers reported their seasonal food safety costs more than doubled after the implementation of the LGMA, increasing from a mean of \$24.04 per acre in 2006 to

\$54.63 per acre in 2007.

- Growers with revenues in 2007 between \$1 million and \$10 million had the highest modification costs per acre (\$18.05), followed by growers with revenues under \$1 million (\$14.82) and, lastly, growers with revenues over \$10 million (\$8.29).
 - Seasonal food safety costs per acre followed the same pattern, with the costs for medium-size growers being 159 percent higher than the average for the largest growers.
- Previous research findings indicate a high degree of consolidation in the U.S. grocery sector; thus it is unlikely that growers have been able to obtain higher prices for their leafy greens in order to cover their increased food safety compliance costs.
- Since growers with revenues over \$10 million benefit from significant economies of size in complying with the LGMA and other food safety provisions, they have the greatest capacity to absorb these costs.
- Furthermore, growers with revenues over \$10 million tend to hire food safety specialists to manage their compliance programs, while the owners/managers of operations with revenues under \$1 million need to manage these complex programs themselves.

It is essential that the proliferation of public and private food safety standards in the leafy greens industry be addressed, while at the same time recognizing that a one-size-fits-all approach does not take into account the fact that leafy greens

growers are a

highly diverse

group. 🔏

Meat & Poultry Buying at Farmers' Markets: A survey of shoppers at four markets in Oregon

By: Lauren Gwin & Larry Lev, Agricultural and Resource Economics, Oregon State University

Farmers' markets can be a valuable direct marketing channel: market shoppers are often willing to pay more than supermarket prices because they value the freshness of the food and the connection with producers. Vegetables, fruit, flowers, and value-added products such as baked goods, pickles, and jam dominate U. S. market sales. Meat and poultry vendors have expanded in recent years but typically represent a very small proportion of market sales (<10%). What can be done to encourage more meat and poultry sales at Oregon farmers' markets?

We conducted "dot" surveys at four markets in Oregon, during July 2009, in Corvallis, Ashland, McMinnville, and Montavilla (Portland), to learn what percent of shoppers-buy meat and poultry, why they don't buy more, and how much extra they are willing to pay. More than 250 respondents participated at each market and more than 1600 overall.

Results

Half of all participants had never purchased any meat or poultry at any farmers' market. Approximately one quarter (24%) of the shoppers had purchased only meat, slightly fewer (22%) had purchased both, and very few (4%) had purchased only poultry. In contrast, nearly 100% of market shoppers have purchased fresh produce. Even these meat purchase levels are surprising: conversations with vendors and market observations would suggest lower percentages.

The three main reasons meat and poultry eaters don't buy more (or any) at the farmers' market were (1) price, (2) inconvenience, and (3) food safety concerns (Table 1).



In previous Oregon research on purchase limitations at markets, price has never topped 10%: clearly meats are different. Farmers' market prices are often substantially above supermarket prices for conventional or even "niche" meats. Said one shopper, "Free-range chicken is cheaper at the [local food] coop."

Regarding inconvenience, shoppers felt unprepared to buy meat: "If you don't think ahead and bring a cooler with ice, you can't buy it here." They were afraid to carry it around, unrefrigerated, for more than a short time: "It's not that I think the product is unsafe...I think it's going to spoil. What if I walk around with it on a 90 degree day?"

Table 1: What MOST limits your meat & poultry purchases at farmers' markets? (choose only one)							
Answer	Corvallis	Ashland	Montavilla	McMinnville	Average		

Answer	Corvallis	Ashland	Montavilla	McMinnville	Average
Price	38%	31%	32%	21%	31%
Don't eat it	21%	21%	24%	11%	19%
Inconvenient	NA	16%	14%	20%	17%
Buy lots	9%	13%	12%	17%	13%
Food safety	17%	8%	8%	19%	13%
Can't get cuts I want	5%	5%	6%	6%	5%
Buy from farmer					
elsewhere	9%	6%	3%	6%	6%
Taste	1%	NA	NA	NA	1%

Concerns about food safety typically reflected unwillingness to buy meat and poultry at an open air market. Shoppers expressed skepticism about vendors' refrigeration methods and temperature control, both at the market and en route. "Were they really careful bringing it here?" asked one. "How can they display it without having it go bad?"

Eighty-six percent of shoppers were willing to pay more for meat and poultry at the market than for "non-local" at the supermarket. Thirty-five percent would pay an extra dollar per pound, 13% would pay two extra dollars per pound, but very few (4%) were willing to pay more.

It is encouraging that such a high percentage will pay some premium. However \$1 or \$2/lb extra may not be enough for vendors to cover costs and make even a minimal profit, given more costly production practices, small volumes, and supply chain challenges (e.g. distances to/cost of processing).

Conclusions and Recommendations

"Center of the plate" products like meat and poultry have been a major growth area at farmers' markets over the last decade. We document what many vendors and market managers already know: further expansion of meat and poultry sales at farmers' markets will require overcoming the challenges listed above.

The core meat and poultry buying group is loyal and enthusiastic, though relatively small so far. They also appear to purchase meat in smaller volumes than the average supermarket consumer. Said one, "Meat's like a treat. We buy it from a local farmer if we buy it at all."

We suggest four ways to encourage more meat and poultry sales at farmers' markets:

• "Cowpool" Discounts: encourage shoppers to buy shares (half, quarter, eighth) of a live animal, "on-the-hoof," and receive a discount from the individual cut price.



- **Keeping it Cool:** teach shoppers to plan ahead and bring a cooler or coldpacks, and/or make the market their last stop before going home. Vendors could offer re-usable, insulated bags with farm logo to attract and keep customers.
- Why It's Safe: display information on the specific practices vendors use to keep meat and poultry cold and safe.
- Meet Your Meat: plan a chef demo featuring the meat and poultry at that market, with vendors describing their farms and production practices.

These strategies require resources, both human and financial, and it will take time for shoppers to change long ingrained buying habits and expectations.

Vendors, market managers and staff, market boards of directors, volunteers, and many others have worked hard to make farmers' markets in Oregon as successful as they are. By building on those efforts, we can make meat and poultry more popular market fare.

For the full report, or if you have questions, email lauren.gwin@oregonstate.edu

Farm Profile: Conway Family Farm - Camas, WA

By: Susan Kerr, Washington State University, Klickitat County Extension Director

For more than 15 years, the Conway family (mother Lorrie, father Shaun and daughters Ashley and Amber) has raised Nubian goats and Border Leicester sheep on their modest but immaculate five acres at the suburban-urban interface in Camas, Washington. The Conway Family Farm is a testament to profitability through diversification. Lorrie Conway says, "We are constantly moving toward a more completely-integrated farming model in an effort to decrease costs and increase profits."

Progressing from serious interest and success in 4-H livestock projects, the family has added various other enterprises over the years, including:

- Direct marketed, USDA processed lamb
- Direct marketed, USDA processed chevon
- Licensed Grade A raw goat milk dairy (fluid milk, cheese, goat soaps, creams)
- Honey and beeswax candles
- Wool production with value-added yarn sales
- Blueberry production with U-pick blueberries, jams and jellies
- Lavender production with cultivar sales, bath and body products (lotions, perfume, soaps)
- Raised-bed vegetable garden produce
- Composted manure
- Fresh cut flower arrangements
- Eggs
- Agritourism events

Due to her accounting and business management background, Lorrie is devoted to record keeping. A full business plan has been developed for the farm and this document is consulted and revised frequently. The Conways have added new enterprises after assessing their potential contribution to and impact on the overall farm plan. They cannot afford to view their farm with rose-colored economic glasses; they keep and evaluate records on each enterprise and discontinue unprofitable or unrewarding ventures. All components of their farm work together to support

each other, such as using chips from the woodlot for mulch, composted manure to fertilize the blueberries and vegetables and multi-species grazing for weed control. They believe in "patient growth" and the concept of "small is beautiful." They offer new items in small quantities initially to prevent too much capital being tied up in inventory.

With only five acres, the Conways must be very space conscious and use every inch of space available on their small acreage. They use compressed plantings and heavy mulching, practices that conserve water and help control weeds. Drip irrigation is used when needed to minimize water waste and maximize irrigation effectiveness. Soil moisture levels are monitored to promote accurate irrigation timing and amounts. The Conways are developing a water collection system that will be used for irrigation of berries and gardens during summer dry periods.

The Conways were one of the first applicants in Washington to license their goat dairy after a state legislative change to the Pasteurized Milk Ordinance made hand capping and hand bottling processes legal. By obtaining their Grade A raw milk license, the Conways have been able to sell goat milk from their farm at premium prices. The Grade A goat dairy consists of 12 milking Nubian does (25 breeding animals); does are bred to purebred Nubian bucks for



Newly installed processing and cheese kitchen.

replacement dairy does or to Boer bucks for meat goat kids. Scrupulous disease-control measures are taken, including annual testing for C.A.E., Brucellosis, Tuberculosis



Agritourism events have been a successful marketing tool for the Conways; visitors become aware of the products available

and Q-fever. Demand for fluid milk now exceeds production five-fold.

Through the Grade A raw milk licensing process, the Conways have developed a reputation as knowledgeable, reputable and helpful agricultural producers. They work with Washington State Department of Agriculture personnel to assist others in becoming licensed Grade A raw milk enterprises. Lorrie has given numerous interviews and written educational articles for goat producers about the process of becoming a licensed Grade A raw goat milk dairy. A domestic Heifer International program representative contacted Lorrie to learn more about the Grade A goat dairy and shared this information with her minority and immigrant agricultural producer clientele.

In addition to agricultural products, agritourism events such as farm tours, field trips and wedding venues were added in 2005 for additional revenue as well as public education and marketing tools. All such offerings are now fee-based to help re-coup labor costs related to these efforts. In 2009, the farm conducted 22 agritourism events. In keeping with the farm's integrated approach to multiple enterprises, Lorrie modified the goat breeding program to better integrate the dairy, agritourism, chevon and live animal enterprises: the kidding season now lasts several months, resulting in more even and prolonged milk production for goat milk sales. In addition, kids born later in the spring are younger and more appealing baby animals for the public to see, feed and learn about during summer agrotourism events.

from the farm and very effective word-of-mouth publicity ensues. Other effective marketing tools for their products include their web site, farmerchef connections, participation in the Washington State Harvest Days celebration and other regional coordinated public education events.

The Conways use planned rotational multi-species grazing with their livestock. They do not rotate on a pre-determined schedule, but instead constantly monitor plant growth and recovery to determine optimum utilization of each paddock. Their rotational method builds soil fertility and organic matter as pastured animals deposit fertilizer during grazing; hoof action keeps the top soil layer receptive to precipitation. Multi-species grazing also maximizes the use of all vegetation on the property, helps control undesirable plant species and helps disrupt some parasite life cycles through non-chemical means.

Feeding programs are constantly under scrutiny to achieve desired production and health results while considering current feed prices. For example, grain has not been part of the farm's sheep ration in the past, but was included as a more economical way to meet nutritional requirements for growing lambs when hay prices escalated.

The Conways do not use hormones, routine medications or feed additives for growth enhancement in their livestock. To control pests, they practice excellent sanitation and use natural options such as fly predators for fly control. They practice low-stress methods of animals handling and have predator-resistant fencing. Animal welfare and comfort are

of utmost concern on this farm. Even the animals raised for meat have an idyllic life, the non-confined yet protected life that today's concerned consumers demand and for which they are willing to pay more to support.

Although no livestock confinement methods are used, there is periodic manure accumulation in the animal shelter areas. This manure is composted and used for soil enhancement in the raised bed vegetable garden, blueberry fields and lavender garden; it is also sold and even gifted to neighbors to maintain positive relationships.

The Conways' marketing approach is to direct market from the farm and offer an open-farm policy for customers, where picking up milk or purchasing yarn is also an opportunity to watch the sheep graze or pat a goat. They take the time to talk with customers and visitors and answer questions. They receive daily inquiries from the public about goat milk or farm information and about five calls a week from current or prospective small farmers seeking advice.

Lorrie Conway explains, "We hope that by sharing our farm with others, they will gain a sense of appreciation for agriculture. We believe that by getting the community involved with the source of their food/fiber purchases and helping them to have an understanding and appreciation for that source, we will build consumer awareness about the importance of responsible agriculture. Our annual farm tour has provided wonderful opportunities for media coverage focusing on sustainable agriculture. We have networked with regional newspapers and magazines to have feature articles done about the farm tour



and the learning opportunities that it offers." When educating others, they are willing to share their challenges as well as their successes.

A second-generation farmer, Lorrie Conway says "Certainly the quality of life our farm has provided for our family is irreplaceable. We have shared with our daughters a passion for preserving agriculture, a pride of heritage, a commitment to land stewardship, the importance of healthy food and the responsibility that we have to produce safe/healthy food and other agricultural products."

As parents, Lorrie and Shaun must be doing something right. Their two daughters have been in the 4-H sheep and/or goat projects every year they were eligible and have achieved local, statewide, regional and even national success. One daughter is a Distinguished Regents Scholar in Washington State University's pre-veterinary program; the other daughter recently graduated from WSU with an Animal Science degree, just won a prestigious statewide 4-H leadership award and is about to serve two years in the Peace Corps in Africa.

The family is involved in community volunteerism, too. Shaun serves on the Clark County Fair Board; Lorrie served on the county's Agricultural Preservation Committee and state Legislative workgroup defining barriers to entry for small dairies. She gives presentations at numerous events during the year on business, marketing and farm management topics.

The Conways have donated hundreds of hours of their time to share their love of small scale, sustainable agriculture with the public. Whether it is through telephone calls, e-mail, drop-in visitors or community events, the entire Conway family makes the time to share what they love with others. For their efforts, the Conways received a Western regional SARE Patrick Madden Award for Sustainable Agriculture in 2006.

Contact info:

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A New Pest Attacking Healthy Ripening Fruit in Oregon: Spotted Wing Drosophila, *Drosophila*

suzukii (Matsumura)

Excerpts from a publication by Amy Dreves, Glenn Fisher and Vaughn Walton available online at: http://www.nwsmallfruits.org/alerts/2009-09-09 Regional Pest Alert-Spotted Wing Drosophila.pdf

Pest of Concern

Infestations of the Spotted Wing Drosophila fly (Diptera: Drosophilidae; SWD), an exotic pest, were found in Oregon fruits. There are 3000 species of Drosophila, commonly known as vinegar flies, but only two have been found to be harmful to crops, of which SWD is one. The SWD can infest and cause a great deal of damage to ripening fruit, as opposed to overripe and fallen fruit that are infested by most of the other Drosophila species. We have just confirmed findings of SWD in blueberries in Philomath, Benton County in Oregon, and have found suspect maggots (larvae) in wild blackberries, red raspberries and some leftover late hanging Marion blackberries east of Corvallis. In addition, maggot samples from the North Willamette Research and Extension Center (Aurora, OR) are also being reared to confirm fly identity. Continued searches for SWD are currently being conducted outside Corvallis over the next weeks.

It is crucial to find infestations of this pest as early as possible when they can still be treated effectively. This document makes use of information gathered from both Florida and University of California and USDA Scientists. Several links are provided at the end of this document to aid dissemination of information. This document is based on that information and is being distributed to the Oregon small fruits and grape industries in order to rapidly inform growers, pest management consultants, and extension agents.

Description of Pest

Adult *Drosophila* flies resemble small fruit or vinegar flies that you may notice buzzing around your kitchen fruit or found around fallen fruit in the outdoors. Typically the well known vinegar flies lay eggs in damaged or decaying fruit, however SWD damage

intact
ripening
fruit.
They have
a body
length of
2-3 mm,
with red
eyes and a
yellowishbrown



Figure 1. Drosophila suzukii male fly (2-3 mm). Females do not have spotted wings. *Photography credit: G. Arakelian, Los Angeles County Agricultural Commissioner.*

colored body. The maggots are small (~3 mm) and white-to-cream colored (Figure 3). After maggots mature they may pupate. The pupae are cylinder-shaped, reddish-brown, 2-3 mm in length with 2 small projections on the end. Remember, there are many species of 'vinegar flies', so be careful not to mistake it for the common vinegar fly, *Drosophila melanogaster*, or the western fruit fly, *Rhagoletis indifferens*, a larger maggot in a different fly family.

Host Range and Potential Impact

These flies are native to SE Asia. Presently, they have been found in California, Florida, Oregon, Washington, and have been established in Hawaii since 1986. This fly attacks a variety of fruits including but not limited to blueberries, blackberries, strawberries, raspberries, cherries, apple, peach, plum, persimmon and *Rubus*. There is still no proof that the fly attacks grapes, however it has been observed in a lab no-choice food test to oviposit on table grapes and was reported to cause damage to grapes in Japan in the 30's The SWD lays its eggs within ripening fruit, which makes it an important economic pest to a range of important crops in Oregon.

Fruit Damage

Infestation of fruit reveals small scars and indented soft spots on the fruit surface left by the female's ovipositor ("stinger"). The egg(s) hatch in a short time, about 1-3 days, maggots soon begin feeding inside the fruit. Fruit damage is caused by the feeding from maggot

development. Within as little as 2 days, the fruit begins to collapse around the feeding site. Thereafter, fungal and bacterial infections and secondary pests may contribute to further damage. These damage symptoms may result in severe crop losses. The implications for exporting producers may also be severe, depending on quarantine regulations.

Figure 2. D. suzukii larvae (-3 mm), reared from blueberries in Oregon. Photography credits: M. Reitmajer, Oregon State University Research Technician, Corvallis OR and D. Bruck, USDA-ARS Horticultural Crops Research Laboratory, Corvallis OR

Conclusion

The SWD is a potential serious pest in Oregon fresh fruit production systems. If you suspect you have SWD in your fruit, it is essential that samples of fruit or adult flies be sent directly to: Jim LaBonte, ODA Plant Division, 635 Capital St. NE, 97391-2532, Salem OR, in order to positively identify adults. This will aid OSU, ODA. and USDA researchers to direct their research efforts during the coming crop season. Your help in this regard is greatly appreciated. &

Prepared by

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WASHINGTON STATE UNIVERSITY EXTENSION

Northwest Organic Farm Food Safety Summit – Good Agricultural Practices Workshop

November 5, 2009 Portland, Oregon

Course Location: Sheraton Portland Airport Hotel 8235 NE Airport Way Portland, OR 97220 503-281-2500

For more information regarding GAPs and to register please visit our website: http://foodsafety.wsu.edu/ag/index.html

Space is limited to 150 participants. Cost for the course: \$50

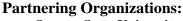
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Oregon Department of Agriculture



Successful Whole Farm Management Workshop Series

The OSU Oregon Small Farms team is collaborating with partners to offer Growing Farms: Successful Whole Farm Management workshop series in the winter and spring of 2010.

Growing Farms launched in 2009 in four regions in Oregon where 105 farmers benefited from the series. Participant evaluations gave the team powerful feedback to improve the series for the future.

This eight week course is designed to provide beginning specialty crop and livestock farmers with the tools and knowledge to manage both the biological and financial risks of farming. Participants will assess their farm enterprise and gain the ability to develop a whole farm plan. This program targets farmers in their first 5 years of their farm business.

The workshops address these six broad topics:

Dream It: Strategic Planning
Do It: Farm Operations
Manage It: Farm Finance
Sell It: Marketing Strategies

Grow It: Production

Keeping It: Managing Liability

Specific dates and locations for the 2010 Growing Farms workshop series have not been finalized, however if you are interested, please contact the regional workshop coordinator in your area.

Central Oregon:

Dana Martin (541) 548-6088

North Willamette Valley:

Kristin Pool (503) 678-1264, ext 118

South Willamette Valley:

Melissa Fery (541) 766-3553

Southern Oregon:

Tracy Harding (541) 776-7371

2009 Growing Farms Alumni have this to say about the workshop series:

"This course is exactly what I was looking for to help me determine the feasibility of developing my small farm. I now have an extensive resource library available to me to assist with all phases of the farm feasibility, planning, execution, and follow-up that relates very well to my background in project management."

"The speakers were excellent, especially the farmers and hearing how they dealt with the problems and the joys of farming. While the amount of information we received was amazing as well as practical, what really helped us was seeing and hearing about successful operations and actually inspiring us to give it a go with a firm belief that we can make it work."

"The course saved us a lot of money. It helped us with the reality on starting a farm."

Composting and Blueberry Production

By: Ryan Costello, Soil Science Graduate Student, Oregon State University

lueberries are an increasingly common high-value Crop for small farmers across Oregon. Research has shown that blueberries favor acidic soils that are high in organic matter. In Oregon, blueberries have traditionally been grown in fir sawdust, which in the past has been freely available, relatively cheap, and tends to be acidic. Sawdust has traditionally been used in blueberry plantings as a mulch and in some cases is incorporated into the soil during planting. However, with the decline in lumber needed for housing and the increase in wood products for biofuel usage, sawdust has increasingly become more rare and expensive. Also, sawdust application often increases the need for nitrogen fertilizer, because microbes require extra nitrogen to fuel the sawdust decomposition process. Because of these factors, some Oregon farmers have begun looking for alternatives to sawdust.

Compost: Good For The Soil, Plants and Farmers

The use of composts in blueberry production has many potential benefits. Not only is it an efficient method of managing waste streams and recycling nutrients, it also increases soil tilth and can decrease the need for fertilizer applications by supplying a variety of nutrients to the plants with less immobilization of nitrogen. Some farms located near sources of waste streams such as dairies or vegetable processing facilities will receive a "tipping fee" for receiving and processing the waste on their farm. For more on composting benefits, methods and other information, see Kristin Pool's article in Small Farm News Fall 2008 and the On-Farm Composting Handbook (NRAES-54).

Current OSU Research

Dan Sullivan, Associate Professor at Oregon State
University, along with graduate student Ryan Costello,
has begun a research project this year to evaluate
the use of composts in blueberry production. In
partnership with Small Farms Extension Agent
Nick Andrews and his staff at the North Willamette
Research Station, the research during 2009 has focused
on making various kinds of composts out of feedstocks
which are freely available to Oregon farmers. The

feedstocks being evaluated include dairy solids, spent hops, spoiled grass hay, broiler littler, landscape trimmings, mint hay, grape pomace, and vegetable processing waste.

The ongoing research also involves trials to amend the composts with elemental sulfur to drop the pH, as finished composts usually end up at a pH of around 7. The finished composts, with pH both amended and non-amended, will be evaluated through trials with potted blueberry plants in the winter and summer of 2010. Additional research is also being conducted to evaluate the sensitivity of blueberries to salinity, as some composts (especially those that are manure-based) can be high in salts and amending composts with sulfur increases salts.

Case Studies Around Oregon

The following two case studies of small farms in Oregon illustrate the wide variety of ways that compost can be made and used in blueberry production:

Case Study 1 – N2K Farms in Hillsboro, Oregon

N2K is a blueberry farm which has been in business for over 20 years in Hillsboro, Oregon. The farm has 86 acres planted to northern highbush blueberries of

several varieties. with the major variety being Duke Around 18 months ago N2K's owner, Chuck Rood. entered into an agreement with a local yard debris recycler.



Close-up of applied compost at N2K Farms Photo provided by Ryan Costello

The recycling company delivers tree-trimming residues to the farm, usually



Windrow of landscape debris at N2K Farms. Photo by Ryan Costello

delivering a truckload once per day. The residues are deposited in long windrows, 10-15 feet tall and 15-20 feet wide at the base. No additional water is added to the windrows, which are allowed to sit for 6-8 months without disturbance. After at least 6 months, the yard debris recycling company brings a grinder to the site and grinds the composted residues. N2K then pays the recycling company a small fee to use the grinded compost on their farm, which Chuck has stated is significantly less than he was paying for sawdust.

The compost is used to replace sawdust. It is usually applied at a depth of around 2 inches, and the application is made with a mulch spreader that is towed behind a tractor. The Field Manager, Joe Guerrero, stated that the mulch spreader does occasionally have some problems handling the larger sized woody particles of the compost which can cause the spreader to jam, but that it is still able to functionally spread the compost.

N2K is currently evaluating compost as a sawdust replacement, by comparing compost-applied sections of the field with other field areas that have conventional sawdust management. They are planning to take soil tests this fall. Chuck Rood, farm owner, hopes to reduce fertilizer application on beds mulched with compost next year. Chuck reports that plants growing on beds mulched with compost have comparable vigor and yield to beds mulched with sawdust. Mulching with compost increased weed pressure, requiring additional herbicide applications.

Case Study #2 – Wilt Farms in Corvallis, Oregon Wilt Farms is an organic blueberry farm outside of Corvallis that is owned and managed by Bob Wilt. The farm has around 75 acres of northern highbush

blueberry, with varieties including Bluecrop, Jersey and Duke. The farm includes blueberry plants up to 40 years old, the original blueberry plants that Bob helped to plant with his father when the farm was started. The farm was conventionally managed up until the last decade, when Wilt Farms made the shift to organic



and began using compost.

The compost at Wilt Farms is made from many different

Finished Compost at Wilt Farms. Photo by Ryan Costello

locally available waste streams, including horse, cow and chicken manure, sawdust, straw, and seed screenings. These different organic materials are mixed into long windrows where they will be turned an average of once a week with a ride-on compost turner for 12-14 weeks. The compost piles are carefully managed during the "active" phase and the mix is adjusted if the temperatures are too low or too high, and moisture added if needed. Once this active phase is done and the pile's temperature drops below 110F the windrows are moved into a large pile and left to cure for at least 1 year before application, leaving a fine particle size for the finished product. The compost is usually applied at a depth of around 3/8" with a sawdust spreader, although the farm is currently working to fabricate their own large capacity over-therow compost spreader.



Blueberry rows managed with compost at Wilt Farms. Photo by Ryan Costello

Bob has stated that for the last five years compost has been, "The cornerstone of the nutrition for our farm, so we work at it pretty hard." He has significantly decreased the nitrogen fertilizer application rate to his fields since he began applying compost. He stated that he has seen a decrease in the amount of diseases and harmful pests, and has also seen the infiltration rate of his soil greatly increase. Bob also reports that penetrometer measurements demonstrate reduced soil compaction with compost (soil is looser) application, making it more suitable for roots.

To Find Out More

The North Willamette Research Station is planning a composting workshop for spring, 2010. Participants will how to manage and produce compost. Contact Nick Andrews Nick.Andrews@oregonstate.edu for more details on the workshop. Contact Ryan Costello at Ryan.Costello@oregonstate.edu to learn more about the OSU composting research discussed in this article.

References

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Gough, Robert E. 1994. "The Highbush Blueberry & its Management." New York: Food Products Press. p. 80-81.

Dietz, Diane. 2006 October 6. "Biofuels Shaving Sawdust Supplies". The Register-Guard.

VALUE-ADDED PRODUCER GRANT PROGRAM

Grants to plan & implement value-added projects to increase the customer base and revenue of commodity producers

Farmers, ranchers, foresters & fishermen may receive USDA Rural Development matching grants for either planning or working capital purposes to implement value-added ventures — i.e., for marketing or processing projects that will add value to the commodities they produce or for on-farm renewable energy generation projects.

The goal of the program is to generate new products, expand market opportunities, and increase the producer's share of revenue from the commodities they produce. Grants are awarded annually via a national competition. USDA only accepts applications during certain periods.

The application postmark deadline for 2009 VAPG proposals is **November 30**. VAPG grants may be used for either Planning or Working Capital activities (but not both).

Planning grant — \$100,000 maximum per project (no minimum Eligible uses — feasibility analysis & market study; business plan; marketing plan (identification of market window, potential buyers, distribution system, & promotional campaigns); legal evaluations

Working Capital grant — \$300,000 maximum per project (no minimum)

Eligible uses — working capital needs — e.g., purchase of inventory, office equipment & supplies; pay salaries, utilities, & office rent; legal & accounting costs; conduct marketing campaign; branding & packaging materials.

Working Capital applicants must have both a detailed business plan & an independent feasibility study on their project.

GET STARTED NOW!

1. Establishing your eligibility is critical to success with this program.

AM I ELIGIBLE? Use on-line "Eligibility Self-Assessment Tool": www.rurdev. usda.gov/rbs/coops/vapgea.htm For more information, for an easy-to-use application template, or to get on our VAPG notification list:

VAPG Coordinator Martin Zone Portland 503-414-3361 martin.zone@or.usda.gov State Office Jeff Deiss Portland 503-414-3367 jeff.deiss@or.usda.gov

OREGON STATE UNIVERSITY EXTENSION OFFERS EXPLORING THE SMALL FARM DREAM

Have you always dreamed of operating your very own small farm? This class will allow you to explore the idea so you can make a solid decision, or if you are already operating you will learn how to fine tune and make your business more successful. Topics of discussion are: the decision making process, assessing your skills and knowledge, researching the landscape with a guest farmer as an interviewee, market research, resource assessment, infrastructure, financial resources, and creating a plan of action. Sponsored by the OSU Small Farms Extension, Umpqua Community Development Corporation, and the Small Business Development Center of Umpqua Community College. Mondays, November 2, 9, 16, 23 from 6:00pm-9:00pm at the UCDC office at 605 Kane St., in Roseburg. Cost is \$100 dinner. For information contact, Melissa Matthewson 541-776-7371 ext. 208 melissa.matthewson@oregonstate.edu

Cooperative Farm Education Program Takes Root in Southern Oregon

By: Stu O'Neill, Rogue Farm Corps - Jacksonville, OR

In the fall of 2003, a group of farmers in the Little Applegate Valley came together to talk about the importance of education, mentoring, and internships for beginning farmers. Like so many others, this group got their start in agriculture by interning on numerous small farms across the West, and knew first-hand how quality mentoring helps interns learn the skills necessary to become



An introduction to the Rogue Farm Corps internship program at the beginning of the farm season. *Photo by Khaliqa Rhogmans*

farmers. Recognizing the urgent need to train a new generation, they formed an educational non-profit to carry out the mission.

In 2007, with the support of a grant from Western Sustainable Agriculture Research and Education (SARE), three of these farmers designed a curriculum and handbook for training interns on their farms. This 27-module curriculum is intended to expose interns to numerous aspects of farming and create a well-rounded educational experience to go along with the day-to-day work on the farm, combining in-field exercises and classroom discussions.

Taking the idea of mentoring interns one step further, farmers in the Little Applegate Valley began experimenting with sharing the responsibility of teaching this curriculum to their interns each season. This would allow the farmers to deepen their commitment to quality mentoring by exposing their interns to different farms and perspectives throughout the community.

Rogue Farm Corps is the product of these conversations and experiments. The mission of Rogue Farm Corps is to create hands-on educational programs to train the next generation of farmers

and land stewards, to support our cooperative agricultural economy, and serve as a model for other communities.

Farms Next: Training the Next Generation

Rogue Farm Corps Farms Next Internship Training program offers beginning farmers the opportunity to expand their knowledge and experience of sustainable agriculture by creating an exchange of information and skills across

a broad spectrum of small farms and ranches in our community. In 2009, the program has grown to serve fifteen interns on nine farms, with three additional farmers participating as instructors.

Interns participating in the Farms Next program live and work full time on a host farm, learning indepth skills unique to the host farmers operation. Participating farms span the entire region of Southern Oregon from Ashland to the Applegate to Grants Pass. Two to three days per month, interns gather together for a tour and class on one of the participating farms, experiencing the diversity of agricultural operations in our community.



Josh Cohen of Barking Moon Farm giving a farm tour to local Rogue Valley interns.

This benefits the intern by exposing them to numerous local farmers and offering instruction in agricultural systems that might not be employed on their host farm. And this benefits the farmers by sharing the responsibility of mentorship across the community. In addition to the hands-on educational offerings, participants in the Farms Next program are offered a sense of community and social networking unavailable to many farm internship programs

Supporting Our Agricultural Economy

Farm internships provide quality hands-on opportunities for beginning farmers. Well-trained interns are in a better position to become successful producers, increasing the pool of farmers in our community.

The number of small farms in the U.S. is declining. In addition, with the population of farmers aging, attracting beginning farmers is vital to our food security. In 2007, the average age of farmers in the U.S. was 56. In contrast, the number of people interested in sustainable small-scale agriculture is increasing.

Small farms face major financial obstacles in running economically viable operations. A 1997 USDA report stated that the average farm grossing under \$50,000



Tim, an intern at Dancing Bear Farm, checks out a mobile chicken coop.

Photo by Khaliga Rhogmans

a year had
negative cash
flow from
farm income.
Interns
provide small
farms an
opportunity
to exchange
education and
mentorship
for much
needed help
on the farm

The community of small farms and ranches are creating

a new sustainable agricultural economy as consumer demand for local and organic foods increases. This niche is revitalizing rural communities across Oregon and increasing the viability of small farms. In order to meet the needs of this growing sector of our economy, beginning farmers need a venue to learn the valuable skills necessary to manage their own farms and contribute to the development of a strong agricultural community.

Creating a Food Secure Future

The return of the small family farm is a cornerstone of our transition from a food system based on multinational agribusiness to one based on community resiliency, sustainability and a strong local economy. Most of us are aware of the dangers of continuing the current model as the base of our food system: consolidation of farmland, poor labor conditions, GMO's, environmental degradation from chemical fertilizers and pesticides, and so much more.

Viable small family farms offer us another way forward. In Southern Oregon, we are privileged to have numerous farms and supporting organizations that are leading the way. Together we can create a food system based upon preservation of farmland, cooperation, and a strong local economy with respect for labor and the environment.

There are many efforts underway to ensure that small family farms are able to prosper and thrive. Quality farm education is one important piece of the puzzle. Rogue Farm Corps would like to partner with local farmers who are interested in mentoring the next generation and beginning farmers looking for opportunities to learn. Together we can create a food secure future.

Contact Information:

Stuart O'Neill Executive Director stu@roguefarmcorps.org

Rogue Farm Corps PO Box 624 Jacksonville, OR 97530 www.roguefarmcorps.org Melyn Smith Program Director farminternship@gmail.com

Season Extension Using Mulches

By: Sam Angima

Local foods awareness in Oregon has increased tremendously over the last five years. Our local schools are among institutional groups that are now looking at expanding the local foods in their breakfast and lunch menus in the "farm to cafeteria" programs. As these programs expand, what does it mean to our local growers? It might mean expanded markets for fresh vegetables and local meats. The dilemma however is that schools are closed in summer when our produce is abundant while there is scarcity of fresh vegetables in the fall and winter terms. Also there is competition for locally grown food between consumers and schools in the fall and winter as backyard gardens are not producing enough at this time.

How do we as local growers maintain year-round production without necessarily increasing our expenses or consumption of non-renewable resources? There is no magic bullet but a good way to start is to try to understand how heat and cold affect plants and therefore utilize ways of protecting crops from extreme heat and cold and enhance growth of crops for quicker but higher quality end product under adverse conditions. In the fall and winter, supplying the necessary heat is one of the limiting factors in plant growth. Use of a combination of mulches and high tunnels and being able to move them to desirable locations is one way of insulating against heat lost and capturing solar radiation.

In order to reduce external sources of heat to allow for crop growth, manipulating the ground as a heat reservoir and radiating body can greatly lengthen, at minimal cost, the extension of the growing season. Heat from the ground protects crops at night when covered with row covers or plastic mulches. As the ground gets cooler in the fall, it radiates less heat, reducing metabolic activity in the plant which translates to less growth. Utilizing plastic mulches in the fall on soils can change ways in which heat is captured and stored for fall growth on crops.

PLASTIC MULCHES

Plastic mulches have been used commercially on

vegetables since the early 1960's. Plastic is laid over a soil bed generally 4-6 inches high and 30 inches wide, with a slope of 1.25 inches from the center to the edge. Soil under the plastic mulch usually remains loose, friable, and well-aerated. The color of a mulch determines its energy-radiating behavior and its influence on the microclimate around the plant.



Color affects the surface temperature of the mulch and the underlying soil temperature. Also the degree of contact between the mulch and soil quantified as a thermal contact resistance influences performance of the mulch. If air space is created between the plastic mulch and the soil by a rough soil surface, soil warming is reduced. What are the different types of mulches?

Black Plastic Mulch

This is themost widely used option in all the plastic mulches. It is an opaque blackbody absorber and radiator. Much of the solar energy absorbed by black plastic mulch is lost to the atmosphere through radiation and forced convection. The efficiency with which black mulch increases soil temperature can be improved by optimizing conditions for transferring heat from the mulch to the soil. Because thermal conductivity of the soil is high relative to that of air, much of the energy absorbed by black plastic can be transferred to the soil by conduction if contact is good between the plastic mulch and the soil surface. Therefore, it is recommended that as you prepare your fall beds, the soil tilth should be fine and slightly compressed to take advantage of this concept. Soil temperatures under black plastic mulch during the daytime are generally 3-5° F higher at 2-4-inch depth compared to those of bare soil.

Clear Plastic Mulch

Clear plastic is recommended for fall crops due to the

high gain in heat units by the soil. It absorbs little solar radiation but transmits up to 95% with relative transmission depending on the thickness and degree of opacity of the plastic. If you look closely, the underside of clear plastic mulch usually is covered with condensed water droplets. These droplets are transparent to incoming shortwave radiation but do not transmit outgoing longwave infrared radiation, therefore, tremendously increasing the heat gain in the soil. On clear sunny days, soil temperatures under clear plastic mulch are generally 6 to 14° F higher at a 2-4-inch depth compared to those of bare soil. Weeds can be a big problem under clear mulch but in the fall, the physiology of most weed seeds prevents them from germinating and competing with crops. Also it is recommended to use transplants for fall crops thereby eliminating germination problems under plastic cover.

Red Plastic Mulch

Red plastic mulches have been used substantially in tomato production because some experiments have shown up to 12% increase in marketable fruit yield compared to other plastics. However, when environ-

mental conditions for plant growth are ideal, the red plastic mulches' influence on yield is minimal. In terms of soil



Red plastic mulch has been shown to improve up to 12% increase in marketable fruit yield of tomatoes compared to other plastics in years when environmental conditions are not normal.

Photo provided by Sam Angima

warming, they perform like black mulch but cost-wise are more expensive.

Infrared-Transmitting Mulch

These mulches are intermediate between black and clear plastic mulch in terms of increasing soil temperature. The color of these mulches can be blue-green or brown. The advantage with these plastic mulches is being able to warm soil temperatures without the weed problem of clear plastic mulches.

White, White-On-Black, or Silver Reflecting Mulch

These plastics are not recommended for fall crops because they can result in a slight decrease in soil temperatures. They usually reflect solar radiation back into the plant canopy and are usually used in summer when soil temperatures need to be cooler.

BIODEGRADABLE MULCHES

Despite the low cost of black plastic mulches, the overall cost of disposing used mulches is quite high. That is why there is a move to develop biodegradable plastic mulches. Biodegradable plastics are made



Compostable plastic is stable until the end of the growing season but can be tilled in or composted Photo provided by Sam Angima

with starches from plants such as corn, wheat, and potatoes. They are broken down by microbes. Field studies on tomato and pepper crops have shown that biodegradable plastic mulches perform just as well as polyethylene film, and they can simply be plowed into the ground after harvest. Another advance in this technology is the photodegradable plastic mulch that also comes in tinted brown, black and clear. It degrades with sunlight with time but the section in contact with the soil does not degrade and has to be removed later. Other mulch options (and some are still under development) include paper mulch, planters paper, and recycled Kraft paper.

It is important to remember that growing crops in the fall under protection requires soil warmth as well as above ground warmth coupled with providing enough light for photosynthesis. Ultimately, the market price and prevailing markets of produce will determine the profitability of growing late fall crops. What is certain is that more and more people are demanding locally grown foods and those growers who innovate to capture this market will benefit from investing in late season crop production.

[Content credit: ATTRA Season Extension Techniques for Market Gardeners, Center for Plasticulture at Penn State University and North Carolina A&T State University Black Plastic Mulch Program]

Herbicide Carryover in Hay, Manure, Compost and Grass Clippings

any farmers and home gardeners have reported damage to vegetable and flower crops after applying horse or livestock manure, compost, hay, and grass clippings to the soil. The symptoms reported include poor seed germination; death of young plants; twisted, cupped, and elongated leaves; misshapen fruit; and reduced yields. These symptoms can be caused by other factors, including diseases, insects,



and herbicide drift. Another possibility for the source of these crop injuries should also be considered: the presence of herbicides in the manure, compost, hay, or grass clippings applied to the soil.

The Herbicides of Concern

Aminopyralid, clopyralid, fluroxypyr, picloram, and triclopyr are in a class of herbicides known as pyridine carboxylic acids. They are registered for application to pasture, grain crops, nonresidential lawns, certain vegetables and fruits, and roadsides. They are used to control a wide variety of broadleaf weeds, including several toxic plants that can sicken or kill animals that graze them or eat them in hay. Based on USDA-EPA and European Union agency evaluations, when these herbicides are applied to hay fields or pasture, the forage can be safely consumed by horses and livestock – including livestock produced for human consumption. These herbicides pass through the animal's digestive tract and are excreted in urine and manure. They can remain active in the manure even after it is composted. They can also remain active on hay, straw, and grass clippings taken from treated areas. The herbicides leach into the soil with rainfall, irrigation, and dew. As with many other herbicides, they can remain active in the treated soil.

The chemicals of greatest concern are picloram, clopyralid, and aminopyralid because they can

remain active in hay, grass clippings, piles of manure, and compost for an unusually long time. These herbicides eventually break down through exposure to sunlight, soil microbes, heat, and moisture. Depending on the situation, the herbicides can be deactivated in as few as 30 days, but some field reports indicate that breakdown can take as long as three

to four years. Degradation is particularly slow in piles of manure and compost. When mulches, manures, or composts with herbicide activity are applied to fields or gardens to raise certain vegetables, flowers, or other broadleaf crops, potentially devastating damage can occur.

Crops known to be sensitive to picloram, clopyralid, or aminopyralid are: Beans; Carrots; Compositae family; Cotton; Dahlias; Eggplant; Flowers, in general; Grapes; Legumes; Lettuce; Marigolds; Mushrooms; Peas; Peppers; Potatoes; Roses, some types; Spinach; Sugar beets; Strawberries; Sunflowers; Tobacco; Tomatoes; Umbelliferae family; Vegetables, in general.

Livestock and Horse Owners

If you buy hay for your animals, ask the farmer or seller which herbicides, if any, were used in producing the hay. Consult a copy of the herbicide label from a farmer or online. A simple indicator that these herbicides were not used in the production of hay is the presence of legumes, such as lespedeza, clovers, or alfalfa. If the hay has legumes in it, it has not been treated with any of these herbicides. The absence of legumes in hay, however, does not mean that these herbicides are present. If you do not know the herbicide "history" of the hay, do not sell or give away the manure from animals who consumed the hay for use in rowing plants or to make compost as it may

contain one of the herbicides of concern. Manures that contain these herbicides can be safely spread on grass pastures or grass hayfields. Note: It takes 4 to 7 days for most animals' digestive tracts to clear and the manure produced to be free of any herbicide residue.

Farmers and Gardeners Wanting to Use Manure or Compost

Before acquiring or using manure - fresh, aged, or composted – ask what the animals were fed, the origin of the hay, and what, if any, herbicides were used on the hay or pasture. Some livestock owners can tell you this, but many might not know the products used or origin of the hay they purchased. They may suggest the manure is "safe" because their animals have not been affected. If you don't know which, if any, herbicides were used, use the bioassay described below to test for the presence of these herbicides. Do not use the manure or compost to grow sensitive crops without knowing its herbicide history or testing to see that it is safe. If you find yourself with a small quantity of contaminated manure or compost, spread it on a grass pasture, grass hayfield, or non-sensitive, nonfood crop area.

Great care should be taken in using contaminated manure or compost to grow commercial food crops. Consult the herbicide product label to determine if the pesticide is labeled for use (legally permitted to be applied) to that crop. If the product has already been applied to the soil, tilling it several times during the growing season, irrigating the area, and planting it into a non-sensitive cover crop for a year or two will help the herbicides break down. Conduct a pot or field bioassay, as described below, before planting any sensitive crops in the area.

Farmers and Gardeners Wanting to Use Hay or Grass Clippings

If you want to use hay or grass clippings as mulch or in your compost pile, find out what, if any, herbicides were used on the field or lawn.

Be particularly careful

ak down. Conduct a pot or below, before planting any running out of the banother pot. Plant the water, and let them

about obtaining grass clippings from golf courses and other commercial turf fields where these herbicides are commonly used. Most homeowners do not use these herbicides because they are not labeled for use on residential lawns. If you find yourself with contaminated hay or grass clippings, spread them on non-sensitive, nonfood crop areas, burn them, or arrange to have them disposed of safely. If the hay or grass clippings have already been applied to the field or garden, remove them, till the soil, sow a non-sensitive cover crop, and let it grow for a year or two to help the herbicide break down. Conduct a pot or field bioassay, as described below, before planting any sensitive crops in the area.

How to Test for the Presence of Herbicides: Pot and Field Bioassays

Some laboratories can test for the presence of these herbicides, but the tests are expensive and not as sensitive as a plant bioassay that you can perform yourself. This simple pot bioassay involves growing beans or peas, which are very sensitive to the presence of these herbicides, in the manure or compost. First, take a number of random, representative samples (small shovelfuls) from throughout the pile of manure or compost, being sure to get deep inside the pile. Mix thoroughly. If there are separate sources of manure or compost, conduct individual assays for each. Prepare 3 to 6 small (4- to 5-inch) pots with a 2:1 mix of the manure or compost and a commercial potting mix with fertilizer. Fill several control pots with only the commercial potting mix. Put saucers underneath each pot, or position the pots far enough apart so that water running out of the bottom of the pots will not reach another pot. Plant three pea or bean seeds in each pot, water, and let them grow for two to three weeks, until

there are three sets of true leaves. If the peas or beans in the control pots grow normally and the ones in the pots with manure or compost do not, you can assume the manure or compost is contaminated with an herbicide which will adversely affect sensitive plants. If they all grow normally, it would be reasonable to assume that the manure or compost is fine. Keep

in mind, however, that the test will be only as good as the samples you take. It would be better to err on the side of too many samples than too few (at least 20 per pile). You can create a similar test for hay or grass clippings by filling the pot with commercial potting mix and spreading a thick layer of the hay or grass clippings on top. This bioassay is explained in detail on the Washington State University Web site: http://www.puyallup.wsu.edu/soilmgmt/Pubs/CloBioassay.pdf

If a field or garden site has previously been treated with one of the herbicides of concern or been contaminated through the application of treated manure, compost, hay, or grass clippings, a field bioassay can be conducted. Plant peas or beans in short rows scattered throughout the affected area. If herbicidal symptoms appear, do not plant sensitive plants; plant grasses. Test again the following year. If the test plants grow normally, it should be safe to grow broadleaf crops.

For a complete copy of this paper, go to http://ncherb.org

Sources: Dr. Jeanine Davis & Dr. Sue Ellen Johnson, North Carolina State University

Interested in Small Scale Poultry Processing Exemption?

Are you a small scale poultry producer interested in processing up to 1000 birds per year, at your farm, in open-air conditions, for fresh, on-farm sales? Lauren Gwin, at Oregon State University, wants to hear from you.

Currently Oregon law does not allow open air slaughter of poultry for sale. Producers wanting to slaughter their own birds, up to 20,000 per year, must build a state-licensed and –approved facility. (Contrary to what you may have heard, our state doesn't recognize USDA's 1000 bird exemption, only the 20,000 bird exemption.)

This might change. Lauren is working with the Oregon Department of Agriculture on a proposal to allow poultry producers to slaughter up to 1000 birds (any poultry) per year on their farm, for on-farm, fresh sales only. Exact requirements have not been set, but producers would likely be required to keep sales records and a customer list.

Lauren wants to hear from all producers – and would-be producers – who would likely operate under this exemption if it were available. We need to show ODA, and the Legislature if necessary, enough demand for it to move ahead.

Contact her at lauren.gwin@oregonstate.edu, or 541 737 1569. Please say where you farm (city or county). (Names will not be shared with ODA or the legislature, only numbers of people and counties where there is demand for this exemption.) If you want to receive updates or requests for comment on proposed rules, please give your email address or phone number.

Calendar

October

31 - Well Water Nitrate Screening

Well owners are invited to a free nitrate screening clinic. Bring ½ cup of untreated well water in a clean, water-tight container. Albany Farmers Market, Albany, OR. 9:00am to 1:00 pm. For more information contact Chrissy, 541-766-3556 or Chrissy.Lucas@ oregonstate.edu. *Free*

November

2- Exploring the Small Farm Dream

Topics of discussion are: the decision making process, assessing your skills and knowledge, researching the landscape with a guest farmer as an interviewee, market research, resource assessment, infrastructure, financial resources, and creating a plan of action. Umpqua Community Development Corporation office at 605 Kane St., Roseburg, OR Mondays, November 2, 9, 16, 23 from 6:00pm-9:00pm. For information contact Melissa Matthewson 541-776-7371 ext. 208 melissa.matthewson@oregonstate. edu \$100 - includes dinner.

5 - NW Organic Farm Food Safety Summit

Provide farmers with: An update pending food safety regulations and industry mandates; A forum for discussing and exploring issues and concerns pertaining to establishing an on farm food safety program; and Specific information about identifying and addressing food safety risks on the farm. Sheraton Portland Airport Hotel, Portland, OR. Cathy Blood, 509-335-2845 or blood@wsu.edu \$50

7 - Well Water Nitrate Screening

Well owners are invited to a free nitrate screening clinic. Bring ½ cup of untreated well water in a clean, water-tight container. Corvallis Farmers Market, Corvallis, OR. 9:00am to 1:00 pm. For more information contact Chrissy, 541-766-3556 or Chrissy.Lucas@ oregonstate.edu. *Free*

18 - What Can I Do with My Small Farm?

Class at Willamette Valley Ag Expo Linn County Fairgrounds, Albany, OR, 7:00 pm to 8:30 pm. *Free with paid admission to the Expo.*

