Oregon Small Farm News

Oregon State University Small Farms Program

In This Issue:

Oregon State University OSU Extension Service

OSU Extension Service Small Farms Staff

Garry Stephenson
Small Farms Program Coordinator
Corvallis, OR 97330

Sam Angima
Lincoln County
29 SE 2nd Street
Newport, OR 97365
541-574-6534

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

Melissa Fery
Benton, Linn, & Lane Counties
1849 NW 9th Street
Corvallis, OR 97330
541-766-6750

Dana Martin
Deschutes, Crook, & Jefferson Counties
3893 SW Airport Way
Redmond, OR 97756

Melissa Matthewson
Jackson, Josephine, & Douglas Counties
569 Hanley Road
Central Point, OR 97502

Maud Powell
Jackson, Josephine, & Douglas Counties
569 Hanley Road
Central Point, OR 97502

Chrissy Lucas
Small Farms Program Assistant
1849 NW 9th Street
Corvallis, OR 97330
1-800-365-0201

Cover Photo:

Dancing Cow Farm - See page 3

Photo by Jerre Kosta

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

It's Not too Late to Take Part in the 2007 Census!

The 2007 Census of Agriculture is the only source of agricultural data broken down for every state and county in the nation. Government organizations, lawmakers, town planners and individual farm operations can use this information to help them plan for future facilities, services and community growth.

The Census form asks questions about the farm or ranch operation, including land in production, production types and values, and producer characteristics. The information given in the Census is confidential and cannot be used for any purpose other than aggregate statistical information. The Census does not ask about citizenship status of the farm operator(s).

Small scale producers, in particular disadvantaged farmers, including minority and immigrant farmers, have historically been undercounted by the Census of Agriculture. This gives the government and the public a poor understanding of their contributions to agriculture. Because many farm programs are implemented based on the number of farmers counted by the Census, it is essential that underrepresented communities get as accurate a census count as possible to gain access to resources and programs targeted to them.

Through the Census, producers can show the nation the value and importance of agriculture and they can help influence decisions that will shape the future of American agriculture for years to come. By responding to the Census, producers are helping themselves, their communities and all of U.S. agriculture.

What to do:

If you received a form but did not complete it, please do so! You can also submit your information online. (You will need the survey code printed on your paper copy.)

If you did not request or receive a form, call 888 / 424-7828 and someone will help you

For more information, check out Frequently Asked Questions on the 2007 Census website

Thanks to Amy Saltzman, of the National Immigrant Farming Initiative and the Rural Coalition for information on this Census.

Dancing Cow Farm, Central Oregon, Crook County

By: Dana Martin

The Dancing Cow Farm in Prineville, Oregon, operates with a clear philosophy. "Everything on our farm has to have at least two purposes," says Jerre Kosta Dodson, who with her husband, Sean, manage their 10-acre sustainable farm in Central Oregon.

Irish Dexter cattle provide beef, milk and can be used as draft animals. Lavender guinea fowl control insects and serve as farm guardians while a variety of heritage chickens provide meat and eggs. Jacob sheep produce meat and wool and the Icelandic horses are used for recreation and marketing purposes. "This year we plan to train the horses to move the chicken houses," adds Jerre, noting that recycled horse trailers provide safe night quarters for their free range chickens.

Ansley -- Jerre and Sean love their Dexter cattle.
Photo by Jerre Kosta

Sean and Jerre purchased their small farm in 2002 and worked hard to improve the land while developing a diverse farm, which has expanded to include 24 Community Supported Agriculture (CSA) members. Located five miles northeast of Prineville, the couple produces vegetables, herbs, flowers, compost, hay, wool, lamb, eggs, chickens and beef.

"When we moved here the land had been overgrazed and the fences were completed dilapidated. We spent the first year just learning about the soil and irrigation, and worked on improving our pastures," says Jerre. Since both of their mothers had suffered from serious medical conditions, the couple wanted to take a holistic, organic approach to raising animals and growing vegetables. "We learned that healthy foods begin with healthy soils and everything comes from the soil," she adds.

While focused on a healthy pasture as the foundation of their operation, the couple fell in love with Dexter cattle because of their multiple-use traits. "Their genetics are such that they finish really well on grass so we immediately became a grass-fed, grass-finished operation. We started out with 5 cows and we now have 50," says Jerre, noting that they lease an additional 80 acres to support their operation.

An intensive rotational grazing plan on the Dancing Cow Farm allows cattle to eat grass down to four to six inches before moving them to another section of pasture. Chickens, contained by portable Premier Net Fencing, follow cattle in the rotation.

Recycled horse trailer works well as shelter for free range chickens.
Photo by Jerre Kosta

"The chickens peck at cow pies which helps control the fly population, and they also spread organics on the land," says Jerre. Sheep follow along with the chickens as the animals move through paddocks set up in the pastures. "We have a real diverse pasture and the sheep pick out different forbes and legumes from the cattle," adds Jerre. "The multi-specie grazing works well and we have a nice even clipping when we're done."

To accommodate their small farm, Sean modifies and adapts various tools and equipment. These include a disc mower that easily cuts over the top of uneven ground, a small rake, a small broadcaster and a small baler. "Until two years ago, we had all loose

hay and brought everything in by hand so Sean built a buck rake," says Jerre. The couple later purchased a Japanese developed miniature-sized hay baler that is pulled by a small tractor. This machine produces round bales that weigh only 35 to 50 pounds, allowing their operation to be more manageable.

Sean preparing their land.
Photo by Jerre Kosta

This is the third year that Dancing Cow Farm has participated in a CSA program where people pay upfront for the opportunity to purchase fresh produce, direct from the farm. The Dodsons began the program with 6 people, grew to 16 last year and have opened it up for 24 members in 2008. CSA subscribers pay $380 for the season, which entitles them to about 18 to 19 weeks of fresh produce, packed up every Thursday. The fee figures out to approximately $20 per bag of produce.

"Starting in June, we fill big brown grocery bags with whatever is ripe in the garden," says Jerre. "People understand that at the beginning of the season there is going to be a lot of green, a lot of lettuce, kale and Swiss chard. As the harvest comes ready near the end of the season, we have just about everything you can think of. We grow lemon cucumbers, squash, sweet peppers, carrots, onions, potatoes, tomatoes, beans and different types of salad greens."

Throughout the year, Jerre also delivers about 30 dozen eggs per week to various locations in Central Oregon. Dancing Cow Farm participates in the Prineville Farmer's Market, a weekly Saturday summer event where local farmers market their produce. Jerre serves as president of this organization.

Sean and Jerre have faced many challenges along the way in developing their operation. As more people pursue this lifestyle, they hope government laws and regulations will change to benefit those involved with small farm production. Through the past five years, the couple has learned and utilized the expertise of OSU Extension Service faculty as well as other specialists in the business. They are excited to share their knowledge and experiences with others who are interested in making a living on small acreage.

"One of the things we would like to do is teach. We'd like to share what we have learned by having workshops, tours and offering classes about different aspects of the farm," says Jerre. "That's one of the reasons we have been so diversified. We wanted to learn about as many different things as possible."

Although the work is hard, the days are long and the sacrifices are plenty, Jerre has no regrets about their decision to develop Dancing Cow Farm. "I am fulfilling my dream of living on a farm," says Jerre. "I'm surprise that we have grown this big and sometimes have to pinch myself to really believe how much we have done. But I feel this is where we belong, this is what we should be doing."

Jerre Kosta Dodson with her Jacob sheep.
Photo by Dana Martin

Emerging Concepts in Small Ruminant Parasite Control

By: Dr. Susan Kerr, WSU-Klickitat County Extension Director

Long-time sheep and goat producers can readily list all the standard parasite control measures they have been taught over the years:

- Deworm when fecal examinations are positive
- Deworm all animals at the same time
- Place animals onto a clean pasture after deworming
- Deworm regularly
- Rotate dewormers

Unfortunately, these practices and other factors have contributed to the development of parasite resistance to dewormers. Indeed, in some areas of the south, producers have no effective dewormers and cannot raise sheep and goats without extreme losses to parasites; the common name for a major intestinal parasite—"the bankrupt worm"—has become all too true for them.

Small Ruminant Public Enemy #1

Haemonchus contortus, commonly known as the barber pole worm, is responsible for most losses from small ruminant nematode (roundworm) parasitism (See Table 1 for the most common nematodes). Figure 1 depicts the life cycle of *H. contortus*. Note that eggs are shed in fecal pellets and several larval molts and required before the parasite reaches the infective L-3 stage.

Photo 1. *Haemonchus contortus* infective larvae suspended in dew drop.

An organization called the Southern Consortium for Small Ruminant Parasite Control (SCSRPC) is devoted to addressing the problem of parasite resistance to dewormers. Their research with copper particles and certain tannin-containing plants show promise as potential non-chemical parasite control measures. Nevertheless, producers still rely heavily on anthelmintics (dewormers). Dr. Des Hennessy of Australia coined the term "Smart Drenching" (deworming) to describe selective treatment of certain animals and the SCSRPC advocates this approach.

The goal of Smart Drenching is to maintain animal health and production while decreasing the rate of development of parasite resistance to anthelmintics. Smart Drenching encourages producers to used dewormers selectively, judiciously and effectively.

The Smart Drenching System

1. Identify which wormers are effective on your farm. This is done by pre- and post-treatment fecal egg counts (see Reference #6 below for the procedure) or submitting fecal samples to Dr. Ray Kaplan's laboratory at the University of Georgia's College of Veterinary Medicine for "DrenchRIte" laboratory diagnosis of resistance. Resistance is defined as less than 95% reduction in fecal egg counts post-treatment.

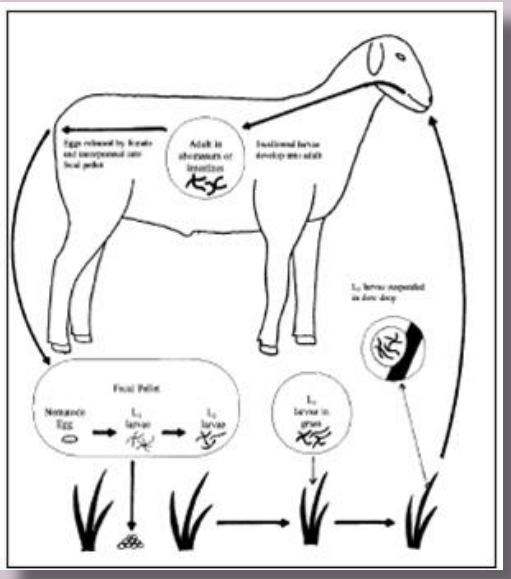

Figure 1. *Haemonchus contortus* life cycle.
From a Haemonchus contortus Management Plans for Sheep and Goats in Texas, Texas Agricultural Extension Service publication L-5095

2. Weigh each animal to be treated and administer the correct amount of dewormer to each animal. Be sure to administer the entire dose over the animal's tongue and to the back of its throat. Consult with your veterinarian when treating goats because extra-label dosages are

Sciencific name	Common name	Location
Haemonchus contortus	Barber pole worm	Abomasum
Marshallagia marshalli	-	Abomasum
Ostertagia spp (species)	Brown stomach worm	Abomasum
Trichostrongylus axei and spp	Small stomach worm/stomach hairworm	Abomasum
Bunostomum trigonocephalum	Hookworm	Small intestine
Capillaria spp	-	Small intestine
Cooperia spp.	Intestinal worm	Small intestine
Nematodirus spp.	Thread-necked worm	Small intestine
Strongyloides papillosus	Intestinal threadworm	Small intestine
Trichostrongylus colubriformis	Bankrupt worm/ black scour worm	Small intestine
Ascaris suum	Hog roundworm	Bile ducts
Chabertia ovina	-	Large intestine
Skrjabinema ovis	Pinworm	Large intestine
Oesophagostomum venulosum	-	Large intestine
Trichuris spp.	Whipworm	Large intestine

Table 1. Common nematodes (roundworms) of sheep and goats.

usually recommended.

3. Use dewormers from two different classes if resistance is suspected on the farm. See Table 2 for a list of dewormer classes.

Anthelmintic (Dewormer) Classes for Nematodes (Roundworms)	
Class	**Examples**
Benzimidazoles	fenbendazole, oxibendazole, albendazole, mebendazole
Avermectin / Milbemycins	ivermectin, eprinomectin, doramectin, moxidectin, others
Imidazothiazoles / Tetrahydropyrimidines	levamisole, pyrantel, morantel, others

Table 2. Classes of nematode dewormers

4. Hold animals to be wormed off feed for 12-24 hours before treating with benzimidazoles (Fenbendazole and Albendazole) or ivermectin, doramectrin, and moxidectin. This slows the digestive processes, allowing the dewormer to remain in the animal's body longer for increased effectiveness. Do NOT hold pregnant ewes or does off feed in late gestation. Benzimidazole effectiveness will be greatly enhanced if the animal is re-dosed in 12 hours.

5. ONLY DEWORM ANIMALS THAT NEED TREATMENT. Use the FAMACHA© system (described below) to assess animals with clinical anemia due to *Haemonchus contortus*. For other parasites, base treatment on body condition, age (parasitism is a large concern in younger animals), fecal egg count, performance/ production, pregnancy/lactation status (these dams are under higher stress and have reduced immunity), signs of illness and short-term weight gain.

The benefits of Smart Drenching are threefold: fewer animals are dewormed, so costs are reduced; there is less pressure on parasites to develop resistance; and more parasites in the "refugia" remain susceptible to dewormers. The refugia is the portion of the parasite population not subjected to dewormers and therefore not under pressure to develop resistance; it includes parasites in untreated animals as well as eggs and larvae on pasture. According to Dr. Kaplan, the refugia provides a pool of sensitive genes that dilutes resistant genes selected for by deworming (see Figure 2).

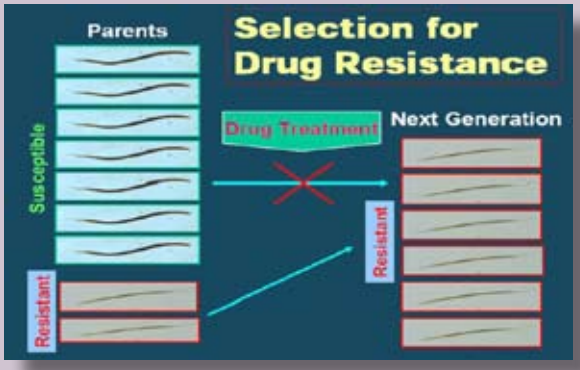

Figure 2. Depiction of selection for resistant parasites.
Graphic by Dr. Ray Kaplan.

The FAMACHA© System

The FAMACHA© System originated in South Africa. It is a method of identifying individual sheep and goats that are heavily parasitized, based on physical evidence of anemia caused by *Haemonchus contortus*. A colored chart (see Figure 3) is placed next to an animal's conjunctiva (pinkish tissue inside the lower eyelid) to assess each animal's level of anemia. A scale of one to five is used; a score of one is the reddest and most healthy and a score of five is palest and most anemic. Animals with scores of four and five should be treated or culled; those with scores of one or two do not need treatment; various factors will help a producer decide whether or not to treat those with a score of three.

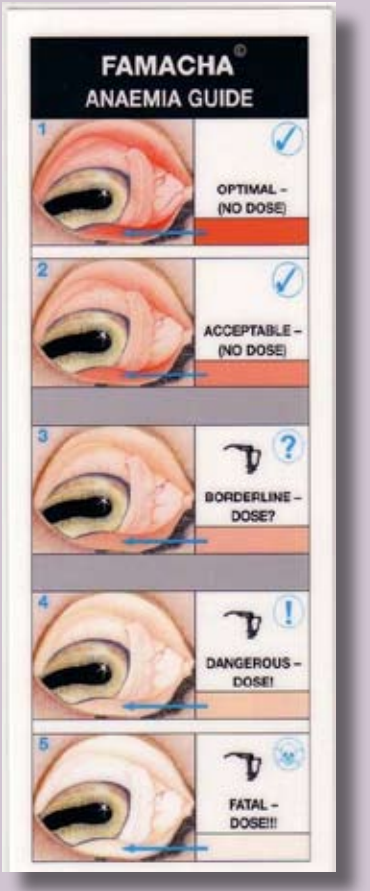

Figure 3. FAMACHA© chart - FAMACHA© is subject to copyright rules and no part may be altered or copied in any way without written permission of the copyright holders, the Livestock Health and Production Group of the South African Veterinary Association. Colors shown in this reproduction of the FAMACHA© card are not accurate to the original ans should not be deemed as an accurate representation of the actual FAMACHA© card.

This system helps producers identify the parasite equivalents of "Typhoid Mary" in their herds: 20 to 30% of animals harbor 70 to 80% of the herd's worms and are responsible for the majority of environmental contamination with worm eggs. The FAMACHA© System helps identify heavily-parasitized individuals so producers can make appropriate management decisions (treat or cull).

Parasite Control through Management

Non-chemical parasite control measures will become even more important as resistance to dewormers grows. Here are some key practices that can help producers reduce the need for chemical deworming:

1. Never graze pastures below 3". Infective parasitic larvae live in water droplets on pasture plants and are much more common in the lower 3" of forage.
2. For similar reasons, try not to let animals graze on wet pastures.
3. Rotate pastures and allow as much rest time as possible between re-grazing—at least three weeks; six months is much more effective in ensuring larval death.
4. If possible, practice multi-species grazing. Only

a few parasites are transmissible between species, so following sheep or goats with horses, for example, will help reduce the number of small ruminant parasites on pastures.

5. Do not overstock animals—never graze more that six to eight small ruminants per acre of irrigated pasture.
6. Select for animals that are healthy and resilient despite parasite infections; cull individuals that require repeated deworming to survive.
7. Do not feed animals directly on the ground.
8. Protect feed troughs, water sources and trace-mineral salt feeders from manure contamination.
9. Provide as much browse as possible for goats.

Signs of Parasitism

Animals affected by internal parasites can display any or all of these signs:

- Pot belly
- Rough coat
- Diarrhea
- Bottle jaw
- Weakness
- Lack of stamina
- Poor production or performance
- Pale mucous membranes
- Death

If You Must Deworm

Unless you decide to use intensive genetic selection for parasite resistance and cull affected animals heavily, you will need to deworm some animals when warranted. First of all, know what dewormers are effective in your herd or flock (see Step 1 of Smart Drenching above). Another recommendation is to confine and deworm herd/flock additions with a dewormer from each of the three major classes simultaneously; drylot these new animals and do not allow access to pastures and the rest of the herd/flock until fecal egg counts are negative.

Use dewormers sparingly and intelligently to prolong their effectiveness on your farm. Practice the non-chemical means of parasite control mentioned above to increase the sustainability of your small ruminant flock or herd. As SCSRPC member Dr. Steve Hart stated recently at the Northwest Oregon Dairy Goat Association's annual conference regarding parasite resistance in the Northwest, "Y'all are in good shape right now. Don't ruin it."

For More Information

1. www.scsrpc.org
2. www.attra.org/attra-pub/PDF/parasitesheep.pdf
3. www.attra.org/attra-pub/PDF/sericea_lespedeza.pdf
4. www.attra.org/attra-pub/PDF/copper_wire.pdf
5. http://animalscience.tamu.edu/ansc/publications/sheeppubs/B5092-parasitesheep.pdf
6. http://animalscience.tamu.edu/ansc/publications/sheeppubs/L5094-monitor_parasites_ruminants.pdf
7. www.lsuagcenter.com/en/crops_livestock/livestock/sheep_goats/Parasite+Control+in+Sheep+and+Goats.htm
8. http://cal.vet.upenn.edu/projects/parasitc/haemonc/txcntrl.htm
9. www.aces.edu/pubs/docs/U/UNP-0006/
10. www.aces.edu/pubs/docs/U/UNP-0078/UNP-0078.pdf?PHPSESSID=0caa21459f41703df80919f2f8c46f71

New Publication Available

Domestic Rabbits: Diseases & Parasites

This publication focuses on diseases and parasites that hinder rabbit health. Factors in disease prevention and control are addressed as well as specific information about bacterial, viral fungal, parasitic nutritional and hereditary diseases. Learn more by downloading this publication at: http://extension.oregonstate.edu/catalog/pdf/pnw/pnw310-e.pdf

NW Farmer to Farmer Exchange: Learning from Farmers

By: Nick Andrews & Andrew Rodman

While the eyes of America were tuned to Hollywood on Oscar night, the real stars of our culture were meeting in the woods and talking farming. The occasion was the sixth annual NW Farmer to Farmer Exchange, a gathering that brought 48 organic farmers together at Brietenbush Hotsprings to share stories, ideas, and skills. What came out of this event was not a celebration of escapist entertainment, but rather real ways to improve biologically responsible farming to further the organic revolution. Topics of discussion included creative control methods, increasing efficiency, growing farmers, safety children on the farm, among others.

New Lessons

Farmer Aha's and Uh Oh's are always revealing. Here are some highlights shared at the exchange. Scott from Nash's Produce in WA, gets creative when preparing a stale seedbed for direct seeded crops. Rather than flaming he now uses a light basket weeder on a 10 day-2 week old bed. This works well, he drives fast, and saves propane. Elanor O'Brien from Persephone Farm has had success controlling cucumber beetles by planting a perimeter crop of Maxima winter squash around her cucumber rows. Buttercup and Capocha varieties work well too also and have the advantage of being marketable. She finds trap cropping to be effective. Slugs are often problematic, especially in the Coast Range. Wali Via from Wintergreen Farms reported using woven poly wire or tape of electric fence laid on bare ground - about 400' of it - as control. They have at least two lines of wire. Slug survivors of the first line are zapped by the second.

Farm Efficiency

Efficiency on the farm can be achieved by a good crew, good equipment, or just refining your system over time. With tight profit margins and increases in energy costs, efficiency becomes a cornerstone of profitability.

Steve Fry uses a conveyor that attaches to the back of the tractor, it swings 27' out into the field. The conveyor runs off the tractor, and everyone gets into a productive groove. Using this tool, a 10-12 acre crop of winter squash can be picked in three days. The squash are loaded to the conveyor and a goose-neck puts them into a tote or pickup bed towed behind the tractor. A conveyor shipped from Michigan costs about $12,000 but paid for itself in one year, with an increase in productivity. The photo shows a similar conveyor used the same way by Praying Mantis Farm in Canby. Another benefit is that soil compaction during wet fall weather is reduced since the tractor doesn't have do drive over as much of the field.

A tractor driven conveyor used for harvesting pumpkins and winter squash at Praying Mantis Farm near Canby.
Photo provided by Nick Andrews

Blue Heron Farm up in the Skagit uses three tractor-mounted Planet Junior seeders on a bar for their carrots. They experienced poor stands when the seedbed they were preparing wasn't really smooth, so they dragged a 4x4 piece of wood behind the tractor - in front of the seeder - and got a much finer seed bed and better results. Casey and Katie Kulla from Oakhill Organics are wild about the gator they bought to move pickings and haul everything around the fields and into the barn, it works well even in very wet weather. Meanwhile, John Eveland from Gathering Together Farm swears by small flatbed pickup trucks for the same usage.

Nick Andrews from OSU Extension suggests that when seeding with large and small seeds, to use rice hulls in roughly a 50/50 by volume with your seeds. It helps since the rice hulls hold the small seeds (i.e. phacelia, crimson clover, red clover, etc.) so they don't settle to the bottom of the hopper in either a drop spreader or seed drill, especially when they are mixed with larger

seed. The most efficient workers are motivated and skilled. This will always save a farm in the long run. One farm owner noted that they no longer to shy away from letting workers go if they aren't performing well. If she isn't happy with the people, it really impacts her happiness and efficiency, as well as the morale and productivity of her other workers. All in attendance noted that mentoring your employees well is the best way to avoid problems down the road.

Safety and Hazards

Worker safety on the farm is an issue that many overlook to their own peril. Staff safety meetings are required every month. Safety laws are strict, and if you have more than about 12 employees you can trigger a visit from an inspector.

Even organic amendments should be handled with care. Be sure to follow to the letter the safety instructions on the label. Some powdery amendments require the use of a respirator. Be aware however, that if an employee is asthmatic, that using a respirator could trigger an attack.

Children on the farm.

Raising small children on the farm can be a challenge of epic proportions. While the rewards are great, challenges are formidable, especially for small operations consisting of only a couple. This will result in one person switching off with the childcare and the farm work. Infants can be carried around with you in the fields to get the work done, until they become mobile, when all bets are off. Safety is always a concern with kids around. Use extra care. Multi-tasking by trying to work while looking after them can result in poor results all around. One farmer noted success keeping his young daughter occupied with her own small garden, she could lord over. Empowering and an incredible learning experience. Some of the more experienced parents in attendance reminded others that the early childhood years are the most important, and not to skimp on time or attention. The farm will always be there, but kids are only real young once. Children raised on the farm will grow up to have widely varied skill sets. Whether or not they take up farming as an occupation, they will be connected to their food. This sensibility will follow them for the rest of their lives.

Young Farmers

If you can't grow your own help, and interns come with their own set of pitfalls, where do new farmers come from? Many of the farmers present at the Exchange started out working on other organic farms, some for little money. Some had formal academic training at University of California Santa Cruz, UC Davis and other Universities. Some knew Willing Workers on Organic Farms (WWOOF) volunteers who had made the transition to working on organic farms. A few of the farmers present recounted that they would not have survived low-paid internships if not for the assistance of friends and family. Apprenticeship programs are strictly defined by Federal Rules. According to the Bureau of Labor, you cannot use interns to avoid paying someone else for work. Terms of compensation are strictly spelled out as well, such as room and board. It is best to pay interns at least minimum wage. For more information contact the Bureau of Labor.

One innovative idea that was presented was a farm school on wheels – Green Tortoise style – housing a half dozen or more students. This rolling class and living space could cruise around to different farms and learn with an experienced traveling mentor on multiple farms around the country. This would allow students to get practical experience while seeing how different farms resolve their problems.

Several participants felt that minimum wage is a baseline that most farms should be able to offer new farmers. This puts the onus on interns to perform as a crew, even with the learning curve. Others pointed out that due to the economics of farming, the pay scale for experienced farm workers is often not much more than minimum wage, so they have trouble justifying minimum wage to inexperienced workers who approach them asking for internships. As an employer of new workers, don't be stressed if you can't offer constant supervision to a "green" farmer. Many times emergencies come up that preempt any continuum of training, but these should be looked at as learning opportunities in themselves in the dynamic, multi-faceted world of the farm.

This article is just a glimpse at some of the information shared. Without exception participants seemed to enjoy the Exchange. Suzy Evans was applauded for keeping the group together and organizing the Exchange since its inception. Oregon Tilth and Organically Grown Company were sincerely thanked for their ongoing sponsorship, at the end of the meeting everyone said goodbye and look forward to a fruitful season followed by another successful meeting next winter.

Plan Now for Pasture Renovation this Fall

By: Melissa Fery

Renovating and reseeding a pasture requires time, money, and a little luck. If you begin the planning process this spring, you'll save yourself from trying to make hasty last minute decisions in the fall. Non-irrigated, Western Oregon pastures are typically planted in early September to early October, depending on weather conditions, but preparation begins now.

The renovation options that await you are numerous and diverse. From killing your existing pasture in the spring and leaving the land fallow all summer, to intensively mowing the pasture or periodically disking the soil to reduce weed pressure, preparing a good seedbed should be a top priority.

This is the season to take soils samples from your fields for analysis. Prior to renovation is a perfect time to evaluate the soil's fertility and apply needed nutrients. Many soils have an acidic pH, which would benefit from incorporating lime before seeding. White clover, a common pasture legume, prefers a soil pH near 6.5

For long-term success of a planting, select grass and legume varieties that are adapted for the property's soil conditions and intended use. For example, plants suited for a field that will be grazed and cut for hay are different than plants for an exercise area. In general, ryegrass tolerates somewhat poorly drained soils, but orchardgrass prefers well-drained soils and tall fescue varieties are adapted to most soil conditions.

Selecting which fields to renovate and how that will affect your grazing system is another consideration. Generally, it is recommended to renovate no more than 25% of your fields or acres in a given year to allow for grazing the remaining acreage. A newly planted pasture should be given a year to become established before animals graze.

Perhaps most importantly, evaluate your current pasture management and determine ways to improve. If you feel the only solution to a better pasture is to finance a complete renovation, also be ready to implement good management practices so the new seeding is a long-term investment.

To explore options in detail download the free Extension publication "Pasture and Hayland Renovation for Western Washington and Oregon" available on-line at http://smallfarms.oregonstate.edu

Spring growth on pasture renovated last fall (2007).
Photo provided by Melissa Fery

2008 Living on a Few Acres Conference in Central OR

By: Dana Martin

The annual Living on a Few Acres Conference, held March 15 in Redmond, proved to be a success as 125 people from throughout Central Oregon attended a variety of classes taught by OSU Extension faculty, agency and business specialists and small farm producers.

Classes covered topics ranging from horse care, hay production, weed control and irrigation management to growing fruit trees in cold climates, food preservation, fire-resistant landscapes, rodent control, wildlife habitats and small equipment repair and maintenance.

A panel of small farm producers, including Jim Fields of Fields Farm in Bend, Jerre Kosta, Dancing Cow Farm in Prineville and Gary Bishop, Bishops Farms in East Bend, shared stories of their operation and discussed what practices work best for them. Jim also shared some tricks of the trade for extending growing seasons in Central Oregon.

Dr. Jim Hermes attracted a large group of people interested in raising free range chickens while Dr. Bernadine Strik spoke about growing requirements of berries in Central Oregon as well as possible markets for berry crops.

A few statistics were gleaned from the 80 event evaluation returned by participants. More than half of those attending LOAFA live on fewer than 10 acres;

Mylen Bohle of the OSU Extension Service in Crook County, teaches a class on identifying quality hays.
Photo provided by Dana Martin

65 percent have resided on their property for less than five years; and about 64 percent of the participants listed their previous farm or acreage experience as a "new experience".

More information from these evaluations will be evaluated as we move forward in assessing the needs and developing the OSU Extension Service Small Farm/Small Acreage program in Central Oregon.

The most obvious point revealed from the evaluation shows that 90 percent of those attending the 2008 LOAFA conference (of evaluations returned) rated it at a high level. Nearly everyone expressed that the classes were too short and they want more information! We are now in the process of setting up more indepth workshops to cover many of these topics.

Small Scale Organic Grain and Pulse Production: A New Blog

Market farmers, for various reasons, find grain production enticing. In part, there are the aesthetics of grain waving in the wind, golden shocked sheaves, the aromas and exertion of threshing and winnowing, as well as the historic place grains have occupied in the small farm. And for farmers who see their operation as part of their customers' diet, it doesn't seem right that something as fundamental and easy to grow as grain is missing from the identity preserved equation. That is, the farm producing the grain is an important factor in the consumer's purchase. On the other hand, the economics are challenging, especially at a small scale and when compared to market vegetables. The reality is that grains are cheap and plentiful, even at today's prices. That said, grains can be integrated into a market farm, and many farmers have successfully incorporated grains into their CSA's and farmers' market stalls.

Josh Volk of Slow Hand Farm has recently set up a blog which will allow market farmers growing grains, edible seeds and dry legumes, or people who interested in the subject, to share ideas and information. The scope of the discussion will include selecting and growing varieties, harvesting and cleaning, as well as marketing and cooking. The blog address is: http://grainsandpulses.blogspot.com/

We encourage all Growing for Market readers who are interested in growing, harvesting and marketing grains, edible seeds and pulses to visit and participate in this blog. There is a lot for all of us to learn.

Anthony Boutard, Ayers Creek Farm - Josh Volk, Slow Hand Farm - Nick Andrews, OSU Extension Service

Handling Practices to Reduce On-Farm Food-Born Illness

By: Sam Angima

Food-borne illness outbreaks have made numerous headlines in the past two years and the Center for Disease Control and Prevention (CDC), estimates that every year, 76 million cases of food-borne illness and 5,000 associated deaths occur in the United States. For example, in the fall of 2006, over 199 people became ill and 3 died as a result of eating E-coli contaminated spinach. While this was traced to specific large farms, it is imperative to understand how contamination can occur in any farm. As the vegetable and fruit growing season progresses, producers need to be up-to-date on practical steps that can be taken to lessen the instances of food-borne illness originating on the farm.

The Pathogens

To prevent the spread of pathogens that cause food-borne illness, it is important to understand what those pathogens are and how they survive. A number of food-borne pathogens are present in the intestinal system of healthy animals. Foods can become contaminated or cross-contaminated if they come into contact with even a small amount of pathogen-contaminated intestinal contents. These pathogens are then capable of surviving without an animal host sometimes up to a year in manure slurry and contaminated soils, while others can survive on fruits and vegetables.

Site Selection & Irrigation Water

Food safety must first begin on-farm with site selection of land. Soils that have had previous microbial contamination should be tested for current microbial persistence and soil fertility. While manure may be a valuable and cheap nutrient to increase soil fertility, it can also increase the risk of E-coli, Salmonella, and Campylobacter and other pathogens contributing to microbial contamination. To reduce this risk, manure should be aged, composted prior to being put onto food crop producing fields and should be incorporated into the soils prior to planting food crops. Safe application of manure to food crop soils range from 90 to 120 days *prior to harvesting* of crops. Food producing acres should ideally be upwind and upstream from animal wastes, contaminated water, and other contaminants. Irrigation water, also a potential medium through which food-borne illness may be spread through direct contact with a food crop (such as water directly hitting the fruit), may enter the plant or food through a puncture in its skin. It may also be spread through the root system of the plant. To limit the spread of food-borne illness through irrigation waters, use only potable or drinkable water. Having irrigation water sources tested for contaminants may assist a producer in identifying pathogen risks associated with their irrigation water or its source.

Manure should be aged or composted prior to application to food crop producing fields.
Photo by Sam Angima

Field Management & Handling

Field management is very important in decreasing the spread of food-borne pathogens. Staying out of wet fields will reduce the risk of cross-contamination that can be spread through the soils. Removing field soil from products and their harvesting bins prior to moving them into packing areas, as well as avoiding harvesting of fruits and vegetables that have dropped to the ground, are good methods to adopt. Attempting to keep all animals, including pets and wild animals out of food crop fields and packing areas is a reasonable step that will decrease the risk of cross-contamination. Keeping farm machinery and harvesting tools clean and stored to avoid potential cross-contamination is also another measure to reduce risk. Wash, rinse and sanitize harvesting, storage and transportation bins and store harvested products at the proper

temperatures to avoid potential contamination or cross-contamination. Instilling proper hygiene methods, including using soap and warm water for workers to use, should be developed for your farm and anyone tending or harvesting your food crops. Institute hand-washing prior to entering the field, as well as exiting fields. Maintain clean hand-washing stations, restroom facilities, packing facilities and modes of transportation and avoid working in field or in direct contact with crops if you are ill. Following pesticide label directions is a must for every producer, whether organic or conventional.

Consumer Education

By educating your consumers that you are implementing extra steps to reduce the risk of food-borne illness, they too are reminded of methods that they can take to reduce the spread of food-borne illness after the point-of-sale. Furthermore, consumers will develop a sense of trustworthiness for your produce. Offering information on proper storage, handling and washing of food crops can be used as an additional selling point. Educating consumers on safe methods of preservation, thawing and cooking food products to lessen the risk of food-borne illness can help farmers develop a strong and confident relationship with their consumers. The most important aspect of decreasing the spread of food-borne illness is to educate both yourself and your consumers on the paths that dangerous pathogens may enter food and to minimize those risks through proper production, harvesting, preparation and consumption of foods.

[Food handling information credit: Crystal Weber, University of Missouri Extension]

Resources

Farm Internship Curriculum from Western Sustainable Agriculture Research & Education (SARE)

ATTRA - the National Sustainable Agriculture Information Service - is making available a free, online version of a Western SARE curriculum for interns designed to be used by individual farmers during the course of the workweek. Ideally, a farmer will use the In-Field Curriculum when he or she is demonstrating a new task to interns. A companion handbook was authored by Maud Powell (an OSU Extension Small Farms faculty member) and developed and tested by Oregon farmers and interns. It details successful methods of recruitment, hiring, negotiating with, training, and managing interns. The curriculum and handbook are available at: http://attra.ncat.org/intern_handbook/

New from ATTRA: Ruminant Nutrition for Graziers

Cattle, sheep and goats have the ability to convert plant carbohydrates and proteins into available nutrients for human use, making otherwise unusable land productive. However, proper care of the land and its grazing animals requires a sound understanding of ruminant nutrition. This 2008 ATTRA publication provides managers with tools and references to consider biological and climatological variables and make decisions that ensure the ecological and economic viability of a grass-based ruminant livestock operation. The publication is available online at: http://attra.ncat.org/attra-pub/PDF/ruminant.pdf

AGA Announces Grass-Fed Standard

The American Grassfed Association (AGA) announced February 20 that its board has voted to start certifying grass-fed meat operations under a new industry-backed standard administered by Food Alliance, according to Sustainable Food News. AGA's grass-fed marketing claim standard exceeds the requirements for USDA's grass-fed standard, and specifies a total forage diet, no confinement, no antibiotics and no added hormones. The story notes that Food Alliance may start inspections under the new grass-fed standard by May. For more information go to http://www.americangrassfed.org/

Financing Change & Changing Finance

Carine Goldin knows a lot about French cuisine, having formerly owned a small French restaurant and bakery, and having extensively studied the art of fine cheese making. But when Carine decided to build a goat cheese production facility in Molalla, Oregon, she needed additional financing to cover the costs of starting a new farm-based enterprise. With the help of a Mercy Corps Northwest small business loan, Carine was able to purchase the necessary equipment, supplies *and goats* to open the doors of her new business. And now her delicious Goldin Artisan Goat Cheeses are available at restaurants, farmers' markets and stores throughout the Pacific Northwest.

Mercy Corps Northwest Business Development Services—Now Statewide in Oregon and Washington

Mercy Corps Northwest (MCNW) is the regional economic development office of Mercy Corps, the Portland-based international relief and development agency established in 1979. **MCNW's regional micro-enterprise programs have promoted self-sufficiency and healthy communities,** contributing to the strength of the northwest economy through small business development and self-employment since 1998. MCNW became a CDFI (Community Development Financial Institution) in 2002.

Since 1998, MCNW has been providing business advisory and development services for small businesses, including small farmers and food producers. Through several programs, MCNW helps small business owners build solid business skills, develop assets through a matched-savings program, and obtain the capital they need to start or grow their enterprise. The matched savings program, or "Individual Development Accounts" (IDAs) are funded by Oregon's new tax credits. The program provides a three to one match of a business owner's savings, dedicated to purchasing assets for the business. MCNW also provides small business loans to people who do not have access to other avenues of credit. The goal is to provide financing for those critical assets, like a greenhouse, tractor, or processing equipment, which can boost the potential and productivity of a small business. To date MCNW has made over 120 loans to small businesses, totaling more than $1.25 million. MCNW services are available in several languages including Spanish and Russian. MCNW is now working with partners, like the Oregon State Extension Service to extend our loan programs and small business support services statewide.

The First Rung on the Capital-Access Ladder

MCNW makes loans from $500 to $50,000 with an average loan size of $12,000 at fixed 12% interest rate.

Our loan fund can serve as the first rung on the capital-access ladder for many new and expanding businesses that commercial banks, the SBA or USDA cannot help. MCNW staff work in collaboration with expert partners including Oregon State Extension agents, to provide clients with the specific one-on-one business mentoring that they need to move their business towards long-term financial stability and success. After a successful loan and some technical assistance, the business owner will have established their track record and credit history, and will then be ready to go back to that bank for traditional financial services.

For more information on MCNW's small business loan program and our other educational and financial services for low-income clients, contact your local OSU Small Farms Agent or Mercy Corps Northwest loan officers, Brian Fassett at bfassett@mercycorpsnw.org , 503-236-1580 extension 203 or Anthony Gromko at agromko@mercycorpsnw.org or 503-236-1580 extension 207. You can also visit the website, www.mercycorpsnw.org for more information.

A Northwest Pickle Farmer: Angel Garcia owns a 30-acre farm outside Molalla, Oregon but couldn't harvest the strawberries that he had planted last year due to labor shortages. Responding to this predicament, he plowed the strawberries under and decided to plant cucumbers. He secured a purchase contract from Bay Valley Foods, the nations largest pickle producer, to produce 450 tons of pickling cucumbers. Then, with a short-term operating capital loan for labor, soil amendments, and bee rental for pollination (from a Tajikistan refugee and MCNW client), as well as some business advisory assistance from Mercy Corps Northwest and PCUN (Northwest Treeplanters and Farmworkers United), he was able to deliver 500 tons of cucumbers to the cannery that will be sold in the Pacific Northwest under the labels of Nalley and Steinfeld's. This season was successful enough that Angel paid off his loan and used the profits to purchase a truck so he can drive next year's crop to market himself.

Purchasing Chicks

By: James Hermes, Extension Poultry Specialist

As spring is now upon us, many begin to think about raising some baby chicks for the home flock or to supply eggs for sale. There are several considerations for those contemplating purchasing a few chicks.

Where to Purchase

Most feed stores sell chicks during the spring of the year; they are usually available until the middle of May. Purchasing local has the advantage of viewing the birds prior to purchase, however the selection is generally restricted to a few relatively common breeds. Some feed stores will order chicks of a particular breed for purchasers. Mail order from hatcheries around the country via web or phone is a good way to get the more exotic breeds. These fancy breeds will not usually be of show quality. Chicks mail order very well, as long as there are no weather extremes at either end of their journey. They do not require water or feed for 3 or 4 days. It is important however to pickup chicks as soon as they arrive so they can get water and feed.

Breed

The breed of chicken is important depending on the purpose of the birds. The most common for backyard flocks of chickens are probably "sex-links" which are actually crosses that can be sexed by using a genetic marker, usually color. These birds lay brown shelled eggs and are considered a dual-purpose breed, good for eggs and meat. If greater egg production is desired, "production red" or White Leghorns can be used. These breeds or strains have been selected for increased egg production. The production reds lay brown shelled eggs while the Leghorns lay eggs with white shells. Production hens can be expected to produce about 250 eggs per year, compared to the dual purpose types that lay about 150 to 200 eggs.

If chickens will be grown primarily for meat, Cornish Cross, or broilers are the best choice. While all chickens can be used for meat, the Cornish Cross, are the most efficient in terms of weight gain and feed usage than all other breeds or crosses. These birds should be ready for processing at about 6 to 7 weeks of age.

Fancy breeds are pretty to look at but generally make poor production birds. These should not be used if production efficiency is desired. Finally, bantams are simply small birds that produce small eggs due to their size. Again, they are pretty to look at but not very productive.

Finally when purchasing chicks it is important to purchase vaccinated birds. The vaccination will prevent Marek's disease, or "Range Paralysis". This can be a devastating disease of chickens that can affect up to 40% of an unvaccinated flock, and there is no treatment. There is an small increased cost for these birds but it well worth the extra cost. For those who raise organic birds, the vaccine does not affect their organic status.

Feed

Young chicks should be fed a chick starter diet until they are about 6 weeks old. Chickens grown for meat should be fed a starter formulated for meat chickens. Other starters will not support the rapid growth of the Cornish Cross breed.

Opportunity for Small RURAL Renewable Energy Projects

Resource: USDA

The USDA Rural Development (RD) opened its application period for Section 9006 (§9006) grants on Thursday, March 6th. If not, details follow and are also available on Oregon-RD's web site at http://www.rurdev.usda.gov/or/9006re.htm

Did you know that one of the "sweet spots" for §9006 grant funding is small renewable energy projects costing less than $200,000 that use well-known, reliable technologies - e.g., small wind and rooftop solar installations? This is because such applications are allowed to submit a simpler application, and because such projects generally receive higher, more competitive scores than larger projects.

An example of a successful small wind §9006 application is available online at: http://www.rurdev.usda.gov/or/biz/Sample_Wind_App_06.pdf and Oregon-RD has an application template on its web site (see the URL above).

The opportunity represented by small wind has already been noticed by Energy Trust, which has undertaken a "small wind initiative." Its web site has lots of good resources: http://www.energytrust.org/RR/wind/small/index.html Similar information about rooftop solar is available at: http://www.energytrust.org/solar/commercial/index.html

And of course, excellent incentive programs exist through the Oregon State Department of Energy for both wind: http://egov.oregon.gov/ENERGY/RENEW/Wind/windhome.shtml and solar: http://egov.oregon.gov/ENERGY/RENEW/Solar/index.shtml

PROGRAM SUMMARY:
The §9006 program offers grants and/or loan guarantees for the purchase and installation of renewable energy generation and energy efficiency improvements. Assistance is limited to small businesses and farmers & ranchers. Projects must be located in a rural area. §9006 grants and guarantees may be used individually or in combination. Together they may finance up to 50% of a project's cost. Grants can never finance more than 25% of the project or $500,000 (for renewable projects) or $250,000 (for efficiency projects) - whichever is less.

HOW TO PROCEED:
Detailed information on the §9006 program and how to apply is available on RD-Oregon's web site at: www.rurdev.usda.gov/or/energy.htm For more information, you may contact RD's Energy Coordinator Don Hollis at 541-278-8049 x129 or don.hollis@or.usda.gov or any of RD's Business Programs staff at www.rurdev.usda.gov/or/bizcontact.htm

DEADLINES!
There will be two rounds of §9006 grant competition in 2008. The first-round application deadline is April 15. The second is June 16. (Nearly $8 million will be available in the first round, with the balance awarded in the second round. Awards will probably be announced in June for the first round and September for the second round.)

§9006 loan guarantees are also available from RD on an over-the-counter basis provided applications submitted by June 16.

We look forward to working with rural Oregonians on their proposals!

Jeff Deiss, Business & Cooperative Program Director
USDA Rural Development, Oregon State Office
1201 NE Lloyd Blvd., Ste. 801, Portland, OR 97232-1274 jeff.deiss@or.usda.gov
503-414-3367 phone; 503-414-3397 fax
Visit our web site at www.rurdev.usda.gov/or/rbs.htm

Calendar

April

9 - Rural Living Basics
Rural residents learn the basics of drinking well water and septic systems to protect your family's and livestock's health, your property investment, and the safety of groundwater resources. Corvallis, OR. For more information contact Chrissy at (541) 766-3556. FREE

12 - Horses & Mud
Take a look at manure as resource, pasture management, rotational grazing, sacrifice areas, cost share programs, & free nitrate water screenings. 9:00 AM - 4:00 PM Benton County Fairgrounds, Corvallis. For more information contact Chrissy at (541) 766-3556. $20

23 - Cover Crop Field Day
Learn to estimate Nitrogen contributions from cover crops. Meet OSU researchers, extension faculty, and other growers. Hear about new SARE-funded research into cover crops. Look at different cover crop stands including oats and crimson clover, oats and common vetch, crimson clover, phaceliaand common vetch, triticale and common vetch. Mustard Seed Farms, 7300 McKay Rd. St. Paul. For more information contact Nick Andrews or Jan Egli at 503 678 1264 x110. FREE

23 - Living on the Land Series
Living on the Land is a workshop series tailored for small acreage landowners. There are 5 classes & a field tour. Class topics include: Managing Weeds, Water Quality and Conservation, Making a Plan for Your Land's Resources. 6:00 PM - 9:00 PM. Lebanon Senior Center, 65B Academy Street, Lebanon, OR. For more information call Chrissy at (541) 766-3556. $20/person or $30/couple

25 - Grasshopper Integrated Pest Management (IPM) Workshop
The workshop will offer latest technology for dealing with grasshopper outbreaks. Latest tools on how to manage grasshoppers, biological and ecological role of grasshoppers, grazing management, cost share program for grasshopper suppression. Hands-on demonstration of calibrating an ATV sprayer - OR pesticide credits available. Contact Cory Parsons, OSU Extension Service, Baker City. 541-523-6418 or cory.parsons@oregonstate.edu FREE

Please visit our website http://smallfarms.oregonstate.edu/events for more Spring events.

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 immeadiately post. If you have questions please contact Chrissy Lucas at Chrissy.Lucas@oregonstate.edu or 541-766-3556