Dear Small Farmer and Landowner,

Welcome to the May/June Issue of the Small Farms and Acreage Newsletter. In this issue we have three very good articles that will be of interest including one I authored on Locust Borer, which is continuing to be a serious problem for our region due to the open winters we have had over the last several years. You will also find the second in a series of two articles by Susan Kerr, WSU Klickitat County Extension for those with sheep and goats concerning tube feeding. The third feature article is by Jeremy Boyer, Skamania County Wildfire Survey Project Coordinator, concerning Wildfire Safety Around the Farmstead.

In this issue you will find information on a number of excellent workshops including a no-till field day that will look at different no-till drill configurations and fertilizer application systems. No-till has shown to significantly reduce soil erosion and improve soil quality.

As a reminder, one program of particular interest that we hope you will consider is the Farm and Ranch Survival Kit Program. This is an innovative program developed by OSU and WSU Extension Services in the Mid-Columbia that provides small and large farmers alike with information about how to reduce the risks associated with owning and operating their farming businesses. Please take time to consider participation in this excellent program.

As you review this issue, if you should have any questions about any of the information found in the newsletter or questions about small farming, please give us a call. You can contact your local county extension office at the numbers found on the top of this page. Again, please let us know how we can be of help to you.

Also as a reminder, if you receive this newsletter electronically, please make sure you let us know whenever you change your e-mail address so we can make sure you remain on the mailing list.

Sincerely,

Brian V. Tuck
Mid-Columbia Extension Agent
Oregon State University
Wasco County

As an Adult Locust Borer
Calendar of Events

2005

June

1  **PreHarvest Cherry Tour.** Starting at 8:00 a.m., Orchard View Farms, 4055 Skyline Rd. http://extension.oregonstate.edu/wasco/horticulture/Calendar/ag_calendarofevents.html

2  **No-till Drill Field Day**, Doug Weimar Ranch, Wasco County, Oregon, 7-45 am to noon. Meet at 7:45 am at The Dalles Auction Yard, Hwy. 197. Please see coming events section of newsletter for more information.

6  **3rd National Organic Tree Fruit Research Symposium.** Chelan, WA. 509-663-8181 x. 222, or e-mail: granats@wsu.edu or visit http://csanr.wsu.edu/Organic/OrganicTreeFruitResearch05.htm

7  **Columbia Basin Agricultural Research Center – Pendleton Field Day.** Please see their website for more details at: http://cbarc.aes.oregonstate.edu/events.html

8  **Columbia Basin Agricultural Research Center – Moro Branch Station Field Day.** Please see their website for more details at: http://cbarc.aes.oregonstate.edu/events.html

9-12 **Visualizing Food and Farm.** Portland, Oregon. E-mail deb@growing-gardens.org


16-19 **Mid Columbia Junior Livestock Show** at Tygh Valley. Information: Lee Kaseberg, (541) 442-5289 or http://extension.oregonstate.edu/wasco/fourh/Calendar/fourhcalendar.html

17-18 **Oregon Cattlemen’s Association Mid-Year Conference**, Monarch Hotel, 12566 SE 93rd, Clackamas, 8 a.m. both days. Information: (503) 361-8941.

28 **Range Field Day, “Sustaining the Land,”** Eastern Oregon Livestock Show Grounds Clubhouse, 760 East Delta St., Union, 8 am-5 pm Program on grazing management to sustain watersheds, riparian ecosystems and forests of Pacific Northwest. Continuing education credits available to certified professionals in range management. Information: Mike McInnis, (541) 962-3812.

28 **Home Orchard Society (HOS) Orchard Bugs Twilight Meeting** 5pm-8pm, Home Orchard Society Arboretum. Join entomologist Nick Andrews from Oregon Tilth to discuss the bugs in our trees. Learn about degree days and insect life cycle tracking, beneficial insects, and how to ID some key insects and the damage they cause. Using the HOS arboretum as our classroom, come learn about organic insect controls, resources available online, and much more! See the HOS website at http://www.homeorchardsociety.org/events/ for more info.

28-29 **2005 OSU Acidified Foods School**, Weigand Hall, OSU, Corvallis, Oregon. For more information please contact Mark Daeschel at 541-737-6519 or e-mail: mark.daeschel@oregonstate.edu

July

9-10 **Hood River Cherry Days,** Hood River Valley Fruit Loop. Information: (541) 386-7697 or www.hoodriverfruitloop.com

16 **2005 Washington State Sheep Producers’ Ram and Ewe Show and Sale**, Grant County Fairgrounds, Moses Lake. Event will feature Purebred Show, lamb luncheon, sheep sale. Show open to consignment by members. Health certificates available for out-of-state buyers. Information: Jim Acuff, (208) 777-3082. Sale catalog or information, contact Carrie Anthony, (509) 826-0535, e-mail wssp@televar.com or visit www.wssp.org.
26 Home Orchard Society (HOS) Compost Tea Twilight Meeting 5-8pm – Home Orchard Society Arboretum. Join local compost tea entrepreneur Jim Tofler from Willamette Organics as we study up on the science of brewing aerobic compost teas for the home orchard. We will be using microscopes and dissolved oxygen meters to test a batch of tea brewed at the arboretum. Learn about the community of fungi, bacteria, and other microorganisms that play a role in creating this valuable tool in organic disease control and nutrient availability. Take home recipes for brewing your own batch, and where to find brewed tea in the Willamette Valley. See the HOS website at http://www.homeorchardsociety.org/events/

29-31 Solwest Energy Fair, Grant County Fairgrounds, John Day, Oregon. For more information: http://www.solwest.org/

August

25-27 Farwest Show, Portland. Green industry trade show featuring more than 450 growers, nursery tours and 50 hours of seminars. Information/Registration: (800) 342-6401 OR www.farwestshow.com

Coming Events

No-Till Drill Field Day

On June 2nd from 8 am to noon, small grains producers in the Columbia Basin will have a unique opportunity to observe different no-till drills under field conditions. The No-Till Drill Field Day, which is sponsored by The Wasco County Soil and Water Conservation District, Natural Resource Conservation Service, Oregon State University Extension Service and Morrow County Grain Growers, will be hosted at the Doug Weimar Ranch in Wasco County.

Field day participants will have the opportunity to observe side by side plantings by five different configured no-till drills (Flexicoil, Concord, and Conserva-Pak) using different types of openers. Fertilizers and spacings in a recrop winter wheat field. Participants will also have the opportunity to see the individual drills and talk with the operators. There will also be presentations by local vendors.

For further information, please contact the Wasco County Natural Resource Conservation Service at 541-298-8559 ext 3 or the OSU Wasco County Extension Office at 541-296-5494. Note, field day participants are asked to meet at The Dalles Auction yard on highway 197 at 7:45 am on June 2nd to caravan out to the Weimar Ranch.

Farm and Ranch Survival Kit Helps Farmers and Ranchers Reduce Risk

Keeping families farming and creating a hopeful future is the goal of an innovative new program available through WSU and OSU Extension. “The WSU/OSU Farm and Ranch Survival Kit” is a free home study course available to area farmers and ranchers. It is designed to help farm families reduce the risks associated with owning and operating their farm business.

“This program is geared for farm and ranch managers who wish to take control over their lives. Sponsored in part by the Western Center for Risk Management, the course gives participants the skills to solve everyday challenges that arise from farming and ranching in today’s dynamic environment.

This program is a home study course so participants can learn at their leisure without having to attend outside meetings or classes. Registered farmers will received six bi-monthly installments of “The Farm and Ranch Survival Kit” delivered via mail or e-mail. Each issue will have 8 pages of practical, useful information in an easy to read format. Participants will also receive a three ring binder to compile and organize the complete kit for future reference. Additionally, those who have
Coming Events....continued

internet access may utilize the Small Farm website to view additional resources and download updates on timely subjects. As part of the program, WSU and OSU will sponsor concentrated workshops that provide more in-depth learning on specific topics.

Each installment of the newsletter will focus on one or two topics. Examples include how to add new enterprises to your farm and profits to your bottom line, finding your customers and getting the good word out about your products, counting pennies so it makes good cents, how to pass the baton to your kids who want to farm, getting along with each other when business is the name of the game and creating a success road map for your farm and ranch future.

“The Farm and Ranch Survival Kit” is available free to a limited number of participants on a first come, first serve basis. To register contact WSU Extension-Klickitat County, 228 W. Main St., Goldendale, WA 98620 Phone: (509)773-5817 E-mail: ce6620@coopext.wsu.edu or OSU Extension Service, 400 East Scenic Dr., #2.278, The Dalles, Oregon 97058 Phone: (541)296-5494 Brian.Tuck@oregonstate.edu.

Resources

Publications
OSU Extension Publications

The following are new publications from Oregon State University. Please see the OSU Web Site at for more information on these and other publications at: http://eesc.oregonstate.edu

EC 1472, Keeping Your Horse Healthy
Reprinted April 2005, 4 pages, $1.00 (E. Sestric, K. Keen, and L. Coates-Markle)
http://eesc.oregonstate.edu/agcomwebfile/EdMat/EC1472.pdf

EC 1473, Preventing and Treating Parasites in Your Horse
Reprinted April 2005, 4 pages, $1.00 (E. Sestric and L. Coates-Markle)
http://eesc.oregonstate.edu/agcomwebfile/EdMat/EC1473.pdf

EC 1474, Preventing and Treating Colic in Your Horse
Reprinted April 2005, 4 pages, $1.00 (K. Keen and L. Coates-Markle)
http://eesc.oregonstate.edu/agcomwebfile/EdMat/EC1474.pdf

EM 8413, Pest Management Guide for Wine Grapes in Oregon

Web Pages

The Northwest Ag Plastics web site found at http://www.nwagplastics.com/ has the 2005 pesticide container recycling schedule. The service is free to those who have the emptied, triple rinsed containers that contained crop protection products, micro-nutrient material, and spreader stickers. Any rinsed container from pints to 55 gallon drums is accepted.

Published Soil Surveys for Washington
http://soils.usda.gov/survey/printed_surveys/washington.html

Newsletters

Here is the latest issue of Northwest Gardeners¹ eNews, an online newsletter from OSU Extension and Experiment Station Communications.
http://extension.oregonstate.edu/gardening/

University of Wyoming Enterprising Rural Families website is an excellent resource. You can obtain their monthly newsletter and access to other resources that are very useful. Their website is located at: http://eruralfamilies.org/

Washington State University AgHorizons Newsletter Series. Another good resource for small farmers. The website to subscribe can be found at:
http://pnw-ag.wsu.edu/AgHorizons/newsletter/index.html
Locust Borer
By Brian Tuck,
OSU Wasco County Extension Faculty

I am starting to get inquiries about damage to locust trees by Locust Borers (dead and dying limbs and trees). Like many insect problems we have faced this year, this insect has been building up in numbers due to the warm winters we have had over the last several years. To help those with locust trees better understand this insect pest and how best to manage it, I have attached the following OSU Publication "Locust Borers in Oregon" by Jack DeAngelis and Phil Hamm. This is a very concise review of Locust Borers and how best to handle infested trees. The bottom line is that there is no one solution to solve the problem. Through control of the adults in the late summer and early fall and reducing moisture stress and providing a little extra fertilizer, your locust trees will be better able to withstand an insect infestation.

Should you have any additional questions about Locust Borers, please contact the Wasco County Extension Office at 541-296-5494.

The locust borer, *Megacyllene Robiniae* (Foster), is a pest of black locust (*Robinia pseudoacacia*) and its several varieties. This beetle attacks the trunk and larger branches (more than 2 inches in diameter) of its host tree. The beetle prefers trees that are at least 4 years old, though it less often attacks trees or branches greater than about 6 inches in diameter.

The adult beetle itself (Figure 1) causes no harm except to lay eggs that hatch into the wood-boring larvae.

As the larvae develop, they riddle the tree with tunnels (Figure 2). Otherwise healthy trees can survive a fair amount of locust borer damage, although weakened limbs may break in strong winds. Many times, however, locust borers attack trees that already are weakened or dying. Thus, it may seem that the locust borer has killed them.

Beetles fly and lay eggs in early fall. There is only one generation a year. Eggs are laid in cracks in bark along branches and in the main trunk. Eggs hatch in about a week, and larvae bore immediately into the bark until they reach the relatively thin layer of living phloem tissue. There they feed.

By mid-June of the following year, larvae may have grown to 1 inch long while feeding under the bark. At this point, the larvae begin to bore into the sapwood and heartwood, pushing the boring material (sawdust) out of the tree. This material may accumulate at the base of the tree and can be the first sign that the tree is infested.

**Identification**

The locust borer beetle is about 0.75 inch long, black with bright yellow stripes and very long antennae. A yellow W-shape pattern extends across the beetle’s back. You may find adult beetles visiting goldenrod flowers to feed on pollen. The locust borer can be confused with the painted hickory borer, which looks similar.

**Control**

Keep trees vigorous and reduce stress. Providing extra water and fertilizer will help to trees to better withstand an insect infestation.

Woodpeckers and other birds are important natural enemies of the locust borer.

Chemical control of the locust borer has not been very successful. Carbaryl is currently registered for use in controlling adult borers on locust trees. If you attempt to protect individual trees, it is important to apply insecticides at just the right time. For high-value ornamental trees, spray an insecticide on the trunk and lower limbs when adults are flying but before they lay eggs; that is, apply from mid-August through mid-September.

Sprays must be applied before eggs hatch and larvae are able to bore into trees. Remember that locust borers may not be the primary cause of death for otherwise healthy trees. More often, already weakened or diseased trees are overcome. Therefore, it may not pay to treat until you solve the other problems, which could include drought stress, root disease, and other root injuries.

For additional information, call your county office of OSU Extension.
In the last issue, we discussed reasons to tube feed and reviewed relevant anatomy. In this issue, we’ll get down to the “brass tacks” of tube feeding.

Steps to Tube Feeding
1. Determine that tube feeding is necessary. If a newborn lamb or kid has not nursed within 12 hours of birth, it should be tube fed. If an animal is nursing or can take a bottle, there is no need to tube feed.

2. If the animal is hypothermic (cold), warm it before administering colostrum. Neonates must be warmed before colostrum can be absorbed properly. Stick your finger in the animals’ mouth—if it seems cool, the animal needs to be warmed up. Take it indoors, fashion a wool sweater for it, put it under a safe heat lamp, place it near a wood stove or do whatever it takes to warm it. A moribund animal may need to be immersed in warm water for rapid warming. Dry all neonates thoroughly before putting them outdoors.

3. Warm the fluid to be administered to about 104°F. There is no need to feed colostrum if the animal is older than 24 hours old—milk will do. Electrolytes should be administered if the animal is weak due to dehydration from diarrhea. Frozen colostrum should be thawed in a warm water bath, not a microwave; microwaving will destroy the antibodies in the colostrum.

4. Assemble sanitized equipment, including a feeding tube and a 60-cc dose syringe. Tube feeding kits are available through livestock catalogs and farm supply stores. An open-ended 0.4 meter-long piece of soft, flexible polyethylene tubing, six millimeters in diameter, with a smooth end is a safe and effective stomach tube.

5. Place the tube alongside the neonate’s body, with the mouth of the tube at the animal’s mouth and the end at its last rib, where the stomach is located. Note how far the tube will have to be inserted to reach the last rib.
6. Sit in a chair and restrain the animal by facing it away from you, gently holding it by its shoulders between your knees; the animal’s body will dangle down between your legs. If an assistant is available, she should hold the animal by the shoulders and let its body dangle. Never tube feed an animal on its side or it may inhale the fluid you are administering.

7. Hold the animal so its head is in a normal position. Dip the tip of the tube in clean water and slowly insert the tube in the animal’s mouth. There is no need to use pressure or force, just gently advance the tube toward the back of the animal’s mouth. The animal should swallow the tube readily and you can see the swallowing motion if you watch carefully. **THE GOAL IS TO INSERT THE TUBE INTO THE ESOPHAGUS, NOT THE TRACHEA.** If the tube enters the trachea (windpipe), the animal should cough, gag and react violently, but a moribund animal may not react. An animal that has swallowed the tube can still bleat and cry; an animal that has inhaled the tube can not make these noises.

8. Check correct placement of the tube by several methods:
   - Seeing the animal swallow as the tube is introduced and advanced
   - Watching the tip of the tube advance in the esophagus on left side of the animal’s neck
   - Being able to insert tube to 100% of previously-noted length (a tube inserted into the trachea cannot be advanced this far)
   - Feeling the tube in the esophagus on the left side of the animal’s neck (the tube cannot be felt if it is in the trachea)
   - No gagging or coughing

**BEST METHOD:** Attach a 60-cc dose syringe to the mouth of the feeding tube after it has been fully inserted into the animal; pull the plunger back. As shown in the photo, if the tube is placed properly, it should be very difficult to get the plunger to move past a few cc marks. This is because the negative pressure created when the plunger is pulled back will cause the thin muscular walls of the esophagus to be pulled against the hole in the end of the tube, blocking any air flow in or out of the holes in the tube; also, there normally isn’t much air in the esophagus or stomach. If the tube is improperly placed and is in the trachea, it will be very easy to pull the syringe’s plunger back. This is because the trachea has sturdy cartilage rings and can withstand the negative pressure created when the plunger is pulled back; the tip of the feeding tube is not obstructed and the air naturally present in the trachea and lungs is pulled back into the syringe very easily. If you understand, master and perform this check every time you pass a feeding tube, you will never accidentally drown an animal while tube feeding.
Tube-Feeding Ruminants...continued

9. Remove the plunger of the dose syringe and firmly attach the empty syringe to the mouth of the feeding tube. Pour warmed fluid in. Let fluid trickle in via gravity. Do not force it in or the pressure may rupture the stomach. Thick colostrum may not flow in well and may need to be diluted with thinner colostrum to flow freely. Try to keep air from entering the tube and stomach.

10. As shown in the photo, after the required amount of fluid has been administered, crimp off or plug the end of the tube as it is withdrawn from the animal; this prevents the animal from inhaling any fluid as the tube is withdrawn across the pharynx.

How Much and How Often?
An animal should receive at least 10% of its body weight in colostrum in the first 24 hours of life. For example, a 10-pound lamb should receive one pound (16 ounces) of colostrum during its first day. Frequent small meals of two or three ounces are better than one or two huge meals. If all goes well, the animal will only need to be tubed once, then can be returned to its dam to nurse free choice. Animals that do not respond well or do not get stronger within a few hours should have a thorough physical examination.

Biosecurity and Sanitation Concerns
Johne's Disease, Brucellosis, mycoplasmosis, O.P.P., C.A.E. and other diseases can spread to your herd through infected colostrum. If you are using colostrum from another herd, be sure the source is disease-free or pasteurize the colostrum. It is a challenge to pasteurize colostrum without destroying its beneficial antibodies. The key is to keep the colostrum between 132.8°F and 134.6°F for 60 minutes. To disinfect tube feeding equipment, rinse well immediately after use. Wash thoroughly with warm, soapy water to remove all debris. Dilute one ounce of bleach with 21 ounces of water and submerge all equipment in this solution for two minutes. Remove, rinse well, air dry and store in a clean place. Wash your hands well before and after tube feeding.

Conclusion
Review of the steps above will show that it is easy to learn how to tube feed neonatal small ruminants with confidence. Every sheep and goat producer should master this skill and have sanitized equipment and frozen colostrum ready during lamining and kidding season. For assistance with learning how to tube feed or locating tube-feeding equipment, contact your veterinarian or county Extension educator.
Wildfire Safety Around the Farmstead

By: Jeremy Boyer, Skamania County Wildfire Survey Project Coordinator

Spring is here, the wildfire season is just weeks away so it’s time you should start thinking about how to make your home and the other structures you value more defensible against wildfire. Depending on how much brush, grass, trees and shrubs (or “fuel” as firefighters call it) are on your property, making your home more defensible against wildfire doesn’t have to take a lot of time and hard work. However, the more time you can afford to spend on making your home defensible against wildfire, the better. Making your home more defensible against wildfire is not an either/or proposition. When a wildfire occurs, you’ll be grateful for any work you’ve done around your home. Whether your home survives a wildfire is highly dependent on how much fuel is around it. Homes with a better chance of surviving wildfire are “Firewise”. Making your home “Firewise” is really just routine yard work. The “home ignition zone” is the immediate ground around your home. This is where you want to focus your initial labor with the recommendations below.

The basic goal is to create “defensible space” around your home so radiant heat or firebrands (windblown embers) do not have fuel to ignite. Defensible space is also a zone around a structure where firefighters have space to defend it from an approaching wildfire. You make your home defensible against wildfire by having at least 30 feet of “lean, clean and green” defensible space all the way around the home. Here are some first things you should do:

- Calculate how wide your defensible space should be. In general, you need at least 30 feet on flat ground and 100 feet on steeper ground (slopes greater than 40%). If your home is above a bluff or other terrain feature that could draw in fire, make defensible space wider on that side.

- Firewise homes don’t have to be unnatural looking or devoid of landscaping. Landscape with plants with lush, green, succulent leaves such as Oregon grape, dogwoods or snowberry. Firewise homes can have trees near the home. Thin trees so there’s at least 10 feet between crowns. Prune lower branches 15 feet high or high as possible. Remove flammable species such as juniper and tall bitterbrush shrubs.

- Keep a lush, green well-watered lawn for at least 30 feet around the house. Keep lawn clean of needles, branches, twigs and other fuels.

- If you have an opportunity to replace wood roof, siding or deck, replace it with less combustible non-wood building materials such as metal, asphalt, composite or fiber-cement. Fire resistant materials are rated A, B and C, with A being the most fire resistant.

- Keep your driveway or access road wide and free of any obstacles so fire engines have space to maneuver. Build a turnaround so a fire engine could operate or make a quick escape. You want to make it as easy as possible for firefighters to protect your home.

- Remove all needles, branches, twigs, dead grass off roof, out of roof gutters and away from house.

- Do not stack wood or other flammable material next to home during the fire season. Place anything flammable at least 30 feet away and if possible, uphill.

- Cut brush, low-hanging branches, tall grass, shrubs and any other flammable vegetation away from exterior propane tanks.

- Rake and pile brush, needles, and wood into piles. Burn piles during safe weather conditions before the fire season. Later on, you may have to obtain a burn permit from Oregon Department of Forestry to legally burn piles. Many county dumps accept “yard clippings”.

- Install a street address sign at the entrance route to your home. The sign should be large, easy to spot and reflective so your home can be found at night. This is also helpful for non-fire emergency responders such as ambulances.

- Implement the 6-step process in Living with Fire brochures available at land management agency offices, fire districts or county extension agent.
Wildfire Safety Around the Farmstead...continued

There’s a huge amount of information available for homeowners on how to create “Firewise” homes. Just for starters:

- [www.firewise.org](http://www.firewise.org)
- [www.firesafecouncil.org](http://www.firesafecouncil.org)
- [www.firesafespokane.com](http://www.firesafespokane.com)
- [www.firefree.org](http://www.firefree.org)

*Living With Fire: A Guide for the Homeowner*
Oregon State University extension offices
Oregon Department of Forestry stewardship foresters

You have the power to make your home “Firewise” so that it can even resist a large, powerful, raging wildfire. However, you should worry about not just raging infernos. Even a small wildfire of modest intensity can do a lot of damage to your home if there’s not enough defensible space. Your basic goal should be to remove all dead flammable vegetation from on and around your home and maintain 30 feet wide zone of “lean, clean and green” for defensible space.

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Mid-Columbia Small Farms and Acreage’s Newsletter Subscription Form

To receive a paper copy of the newsletter please fill out this form and enclose a check for $6.00 for six issues (one-year subscription). Make checks payable to *Sherman County Extension* and mail your check along with this form to:

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*P.O. Box 385*
*Moro, OR 97039*

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