Controlling Foot Rot and Scald in Small Ruminants  
By Jodie Pennington  

Presently, the ground has dried out from the rains from mid-July to mid-August. As a result of the wet ground earlier, we are seeing more problems with foot rot than expected for this time of year.  

**Foot Rot:** Foot rot is one of the most costly diseases in sheep and goats. It is highly contagious and is primarily caused by the co-existence of two gram-negative, anaerobic bacteria, *Dichelobacter nodosus* and *Fusobacterium necrophorum*. Wet humid climates are conducive to both foot rot and foot scald. The bacteria cannot by themselves, gain entry to the skin and cause foot rot, thus it is critical to minimize possible sources of damage to the hoof, especially in wet weather.  

**Foot Scald:** Foot scald, also referred to as interdigital dermatitis, is an inflammation between the toes caused by *F. necrophorum* which is a normal inhabitant of the soil. Persistent moisture on the skin between the toes can increase susceptibility to foot scald.  

**Key points for Prevention of Foot Rot and Foot Scald:**  
1. Do not buy sheep or goats with foot rot or from a flock where foot rot is present.  
   Quarantine all new additions for 30 days before introducing them to the rest of the herd or flock. Observe sheep and goats for any signs of lameness. Isolate and treat diseased animals before co-mingling with your other animals.  
2. Trim hooves and treat all animals using a foot bath before releasing them onto the farm.  
3. Avoid using facilities, equipment, and pens where infected sheep or goats have been during the past 14 days.  
4. Do not transport sheep or goats in a vehicle that has not been cleaned and disinfected.  
5. Routinely trim feet as needed to remove excessive growth and, when foot rot is likely, implement foot baths using 10% zinc sulfate every 5 to 7 days as prevention.  
6. Vaccines for foot rot in sheep have been on and off the market. Presently, a vaccine for *F. necrophorum* in cattle foot rot is on the market. Consult with a veterinarian before vaccinating the herd or flock for foot rot.  
7. Isolate infected animals from non-infected animals to minimize exposure of non-infected animals to the infective bacteria.  
8. Cull animals that chronically have foot rot and breed for animals that are less susceptible to foot rot. Vigilance, observation, and persistence are critical to prevention of foot rot.  

**For Infected Animals:**  
1. **Separate** the infected animals from the herd or flock to minimize spread of the disease.  
2. **Foot bathing**—walk through foot baths of 10% zinc sulfate every fifth to seventh day will greatly reduce the spread of foot rot to healthy animals.  
3. **Foot soaks**—In animals known to be infected, foot soaks given 3 to 4 times per week can be used as treatment for foot rot as well. If possible, allow animals to stand in the foot bath for 30 minutes. A 10% zinc sulfate can be used for prolonged soaking of feet for a more effective treatment if an animal does not respond to routine foot baths.  
4. **Trimming and treatment**—many different medications are effective when properly used. To maximize the effectiveness of trimming, the foot should be trimmed of excessive growth to expose all of the infected tissue. Check with your vet to see which antibiotic he/she recommends. Cull animals that do not respond to repeated treatment of foot rot.  

Continued on page 3……
Insects are a Possibility in Soybeans

BY: Jill Scheidt

The pods on soybeans are beginning to fill. With this stage in growth comes an increased concern about prominent pests. Weather conditions are creating situations suitable for insects not commonly seen.

For example, two-spotted spider mites are usually not a problem this time of year, but with temperatures being hot and dry, they could pose a problem. Spider mites are usually translucent in color and can be identified with a hand lens by the two dark spots on the sides of the abdomen. Spider mites also have sucking-piercing mouthparts and feed on the underside of leaves. If a leaf is held up to the light, it is possible to see the webs glistening on the underside of the leaf. Threshold levels for spider mites are 20 percent yellowing before pod set and 10 percent yellowing after pod set when mites are present. A high rate of insecticide must be used to kill spider mites. If a high rate is not applied, the insecticide will kill beneficial insects that control spider mite populations.

Thrips are similar in size to spider mites and vary in color from yellow to dark brown, but can be identified by horizontal stripes on the back of their lower body. Thrips are thought to transmit soybean vein necrosis. Thrips are a rare pest in soybeans, so threshold levels have not been determined yet.

Green stinkbugs are bright green and are identified by the presence of small brown or black spots. Green stink bugs have piercing sucking mouthparts and punctures can be identified by the horizontal stripes on their antennae. Direct feeding damage can lead to a reduction in seed quality and quantity. Young seeds can be deformed, undersized or even aborted. Older seeds will be discolored and shriveled. The germination rate also will be reduced for beans produced as a seed source. Indirectly, feeding damage by stink bugs can delay plant maturity and cause the abnormal production of leaflet.

Green stinkbugs can usually be found on the edges of fields first. Threshold levels for green stinkbug are 1 per foot of row during seed production.

Bean leaf beetles feed on pods once seed development begins. Bean leaf beetles are small insects about one-quarter inch long with black spots or stripes on their back. Their most identifying characteristic is the black triangle located on their forewings, just below the head. Bean leaf beetles can clip pods and feed on developing seeds. Threshold levels for bean leaf beetle are 10 or more bean leaf beetles per foot of row and 10 percent defoliation or at least 15 bean leaf beetles per foot of row and at least 10 percent pod damage.

Pod worm moths, also known as corn earworm, like to lay eggs in an unclosed canopy in soybeans. Identify moths by the black banding on the hind wings. Pod worm eggs hatch 7-10 days after moth flights. Six weeks after moth flights is when pod worms could stop foliage feeding and begin feeding on pods and become a problem. Don't spray unless pod worms reach threshold, which is 1 pod worm/ft., because beneficial clover worms carry a fungus that kill pod worms, and may take care of the pod worms without a need to spray an insecticide. Pod worms come in all colors, from brown with yellow spots to white with black spots and green. To distinguish pod worms from green clover worms, look at their legs. Pod worms have four pairs of large abdominal pro-legs right in the center of the body while clover worm only has three pairs.

Hero, Warrior II and Mustang Max are effective insecticides to control all of these insects in soybeans. Read the label for appropriate rates and water use for each pest. Remember if multiple insecticides applications need to be made, use a different mode of action to prevent insect resistance to insecticides.

University of Missouri Extension 4-H

Enrollment starting now! If you have children or grandchildren that would like to be involved in 4-H there’s no time like now to get them started.

4-H brings young people, ages 5 to 19, and adults together to learn everyday skills through hands-on learning. Working on activities from animal and plant sciences to robotics, 4-H'ers learn problem-solving skills that can make a positive impact upon our community. Through 4-H, young people learn to:

- Meet the diverse challenges of today’s world
- Build self-confidence
- Learn responsibility; and
- Make positive decision

Clubs meet monthly for group activities and club business. Each club elects officers and has an approved adult leader who supervises club activities. Club members also enroll in projects in their areas of interest.

How to join:

Joining 4-H is as easy as contacting the extension center. A staff member will explain the enrollment process and membership dues. Young people are welcome to join at any time. The 4-H program year runs from September 1 to August 31.
Fall Control of Musk Thistle

By John Hobbs

Fall can be a good time for growers and custom applicators to handle certain weed problems in pastures and other non-crop areas. People sometime question how late fall treatments can be made while maintaining their effectiveness. The questions often focus on what impact frost has on the susceptibility of weeds to herbicides.

Most perennial and biennial weeds found in Missouri are relatively cold-tolerant and can be controlled with applications made following a few light frosts. Several studies were conducted in Iowa to determine the effectiveness of fall 2,4-D applications for musk thistle control. The experiment was conducted in a bluegrass pasture with a heavy musk thistle infestation. Musk thistle rosettes were 4 to 12" in diameter at the time of application. The pasture was being grazed so the sward height was approximately 4" and allowed good coverage of the rosettes. Effective control (95-100% kill) of musk thistle in the month of October was achieved with one quart of 2,4-D. Applications were made after several nights when temperatures fell below 32 degrees. The growth habit of musk thistle provides protection from freezing temperatures since the leaves are close to the soil surface. Increasing the 2,4-D rate to 2 qts/A did not significantly improve musk thistle control in these studies. Day time temperatures should be above 70 degrees when herbicide applications are done for effective control. Only straight 2,4-D was used in the Iowa studies; however, you would expect similar results from other products registered for use in pastures. In most situations it would be advantageous to use a combination treatment such as 2,4-D + Banvel, Grazon Next HL, or Grazon, etc. to provide more consistent results or a broader spectrum of control. In summary, many perennial and biennial weeds can still be effectively killed even after a few hard frosts. Plants having a prostrate growth habit such as musk thistle will be more tolerant of frost since they are protected somewhat by heat released by the soil. With most plants it is possible to determine whether the foliage has been severely affected by frosts, thus scouting the field prior to application is important to ensure that active foliage is still present.

Build Garden Soil with Green Manure Crops

By: John Hobbs

With autumn breezes blowing in, it is easy to turn to indoor activities and neglect a few of our garden duties. Yes, there is still work to be done in your garden! Now is the perfect time to consider improving your garden by adding organic matter.

Organic matter improves the garden soil in many ways. It is home to many kinds of microorganism including earth worms that break down plant and animal residues into more organic material. Soils with adequate amounts of organic matter contain more nutrients for the plant to use and hold more water for the plants to utilize than soils low in o.m. Improving o.m. also develops a loose and crumbly top soil. This allows for ease of cultivation and water enters the soil with ease as compared to a soil with low organic matter and is packed.

Some home gardeners do not have easy access to animal manures or other plant degradables including saw dust or wood chips to improve organic matter and build the soil. Green manure crops are an easy and economical way to improve organic matter content in a garden soil. Green manure crops (also called cover crops) are planted after this years garden harvest is over. They occupy the garden area during fall and winter months and are plowed under in early spring. The tops do provide good organic matter, but it is the extensive, fine root systems that provide good organic matter to build the soil. Another advantage of a winter cover crop is soil erosion is reduced.

Several grasses can be used for a cover crop. Annual ryegrass, oats, and rye are excellent winter annuals that can be planted in the fall and plowed under in the early spring. Ryegrass can be put on at a rate of 3 pounds per 1000 square feet and oats at a rate of 11/2 pounds per 1000 square feet. Broadcast the seed and incorporate it in no more than 1/8 to 1/4 inch deep into the soil. Grass should be plowed down in early spring when they are not over 6-8 inches tall. This should give the green plants time to decompose. If grass becomes too tall to plow, it should be mowed before plowing. The leaf tissue will decompose faster if it is turned under before it has dried excessively.
If You’re a Victim
By: Janet LaFon

Last month I shared some information about protecting yourself from identity theft. You may be using some of that information and feel more secure because you’re being cautious. However, identity theft can happen even when you take precautions to protect yourself. And if it does, you can spend a lot of time and money trying to clear your name.

So what do you do if you discover you are a victim? The Federal Trade Commission suggests the following four steps (be sure to keep records of all conversations and copies of all correspondence):

1. **Place a fraud alert on your credit reports, and review your credit reports.**
   These alerts can help prevent a thief from opening any more accounts in your name. Contact any of the three national credit consumer reporting agencies to add an alert to your credit report. They are required to contact the other two, so you don’t have to call all three. Once you place the fraud alert, you are entitled to order free copies of your credit reports.
   - **Equifax:** 1-800-525-6285; www.equifax.com
   - **Experian:** 1-888-397-3742; www.experian.com
   - **TransUnion:** 1-800-680-7289; www.transunion.com

2. **Close the accounts that you know, or believe, have been tampered with or opened fraudulently.**
   Call each company or business and speak with someone in their fraud departments. It’s important to follow up in writing, especially with credit card companies and banks.

3. **File a report with your local police or the police in the community where the identity theft took place.**
   Get a copy of the report, or at least the number of the report. This can be useful when dealing with creditors who need proof of the crime. If the police are reluctant to take your report, contact another law enforcement agency, or the Missouri Attorney General’s office at 1-800-392-8222.

4. **File a complaint with the Federal Trade Commission.**
   This can help law enforcement officials across the country to track down identity thieves and stop them. You can call the FTC’s Identity Theft Hotline toll free: 1-877-438-4338.

Adapted from: Federal Trade Commission website.

---

**Fall Remains Best Time to Plant a Tree**
By: Patrick Byers, Horticulture specialist, Greene County

If you want to plant a new tree in your yard or field, now is the time to do it. Fall tends to be a better time to plant trees because the soil is warm enough to support root growth. There is also usually plenty of rain in the fall to keep soil moist. An added advantage is that the roots of the newly planted plant do not have to support the development of a new canopy of foliage. Your local nursery will have several types of trees available: bare root, ball and burlapped, and container grown. When specifically should these plants go into the ground? Evergreens (usually container or ball and burlap) should be planted in September. Container grown or Ball/burlap deciduous woody plants should be planted October to November. Bare root nursery stock should be planted in late October to November. For more information contact your local extension office and ask for guide sheet: **G6850 How to Plant a Tree** or visit our website at http://extension.missouri.edu.