FROM THE COUNTY
AGENT'S DESK...

Thankfully, spring is upon us. Daytime temperatures warming into the 60s is a sure bet to get those cool season grasses, such as fescue and orchardgrass, started off with a bang. Hopefully, anyone wanting to fertilize cool season grasses have long since gotten their soil test in and fertilizer on the ground, but I know that it’s been hard to get in many fields this time of year with as much moisture as we’ve had. It’s not too terribly late to pull soil tests on bermudagrass or native warm season grass fields if you intend to correct any nutrient deficiencies, but it needs to be done ASAP.

I harp on it a lot, and it’s for good reason; fertility and weed control are probably the top two most important input costs on a pasture based agriculture operation that give you most return on investment. It’s not some new-fangled magic potion fertilizer. It’s not a new $7000 bull. And, it’s sure not a brand new 4 door 1 ton pickup. So, spend that $6-7/acre in chemical cost, and get that phosphorus and potassium up to a
more optimum level. Then, maintaining that fertility is easy in non-hayed pastures. Good grazing practices will keep you from likely ever having to put out anything but nitrogen. Even then, introducing some legumes to a pasture will ultimately reduce the need for N fertilizer too. Good decisions can get a grazing pasture to a point that fertilizer input can zero, but correcting years of neglect in this department can come with a high overhead. For more information on pasture soil fertility and the things that you can do to improve it, come by or give me a call sometime. 870-895-3301.

Also, if anyone is interested in attending the AFGC Forage Bus Tour on April 24th, let me know. I may be driving over to Pocahontas for it, and we could share a ride. The details are on the flyer that is included with this newsletter.

**Spring Bangs Vaccinations**

Brad Runsick, Fulton County Extension Agent

The fall brucellosis vaccinations are coming up soon. Livestock and Poultry technician, Franky Sharp, and I will tentatively be out on **Wednesday, May 6th and Friday, May 8th**. If we don’t have any more than we can get done in one day, then we’ll do them all on Wednesday. If you have heifers to be vaccinated, please let us know by Wednesday, April 29th. Return the enclosed cut-out card to our office at P.O. Box 308, Salem, AR 72576 or call us at 870-895-3301. Include detailed directions to where the heifers will be. **Please don’t assume that Franky and I necessarily know where you’ll be.** We both visit lots of farms throughout the year, and the names and locations start to run together sometimes!

Return 4/29/15

To: County Extension Agent – Staff Chair

In reply to your inquiry, I have ______ heifer calves, 4 to 12 months of age, which I would like to have vaccinated for Brucellosis (Bang’s Disease).

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CES-443 Brucellosis Vaccination Reply Card (8-01)

Vaccinations are free of charge. Heifers must be at least 4 months old but not older than 12 months old to be eligible for vaccination. We will use the same procedure as in the past and notify you by letter before you are scheduled for vaccinations. You will need handling facilities to confine and work the calves. Also, you or a representative for you must be present at the time of vaccination or the technician will not vaccinate the heifers. If no one is there, we’ll have to move along to the next stop. Remember, the time that we schedule for your stop could be give or take an hour or so. It depends on how fast or held up we are at prior stops.
How Much Is Your Time On the Farm Worth?

John Jennings, Professor - Extension Forages

Often in conversations with producers about cost and expenses on the farm, I hear comments about how you can’t count expense of your time for work on the farm. They say “my time isn’t worth much”. I also hear comments like “my time is too valuable to waste doing x, y, or z” (you fill in the blank here). But most people haven’t taken time to figure out what their time could be worth. On the farm, there never seems to be enough time to get everything done. Time is like money, but everyone has the same amount. Like money, we often wonder “where did the time go?”. You spend time doing something every day and at the end of the day that time is gone. You can’t really save time, but you can do farm practices that require less time. Some practices save money and also require less time which makes life better. So why not consider spending your time in more ways to make money or to save money instead of just spending it. For example, taking soil samples may require an hour of work per field when you figure time for finding the soil probe, a bucket, soil bags or boxes, sampling time, and time to deliver samples to the county Extension office. But suppose you typically apply 250 lbs/acre of 17-17-17 fertilizer and the soil test results showed you didn’t need phosphorus for those fields. In this case soil tests just saved you $18 per acre so for 40 acres you just saved $720. Now what was that time worth?

In the Arkansas 300 Day Grazing Program we often hear how certain practices not only save money, but require a lot less time. For example, many producers harvest hay all summer to feed hay all winter. That approach requires a tremendous time investment and financial cost. Hay harvest on a typical farm may require two to three weeks or more during summer and feeding during winter can require two hours or more per day totaling over 270 hours. I talked to a producer this winter about his forage program. He said that the stockpiled forage system that he started years ago has been one of the best things he has ever done. He said “It takes me and my six year old son about 35 minutes twice a week to move an electric fence wire on the stockpiled bermudagrass and fescue fields to feed 250 cows. There is no way I can feed hay that fast. Plus it’s lots cheaper than hay.” Another producer commented that he spent a day in the fall planting winter annual forages and the winter grazing from it saved him a huge amount of hay feeding.

Recommended 300 Day Grazing practices were verified through over 150 demonstrations and more than $300,000 documented savings. The program was featured in articles, interviews, magazines, and conferences throughout the Southeast and Midwest. The 300 Day Grazing team hosted five groups from other states on demonstration farms tours. Now the program is also being copied in some manner in programs developed by the University of Kentucky, Oklahoma State University, Samuel Roberts Noble Foundation, and University of Georgia. An Arkansas research study is underway at SWREC that shows that the 300-day grazing approach is also cost-effective for southern forage systems. However, the program has met opposition from some producers who are convinced that it just won’t work. The most common comment from producers regarding why they don’t adopt 300-day grazing principles is “I just don’t have time to do ...... (fill in the blank).” So a new educational approach is being proposed for the 300 Days Grazing Program called “It’s About Time”. In the “It’s about time” program we will document the time-effectiveness
along with cost effectiveness of key practices that can be adopted by small parttime operators as well as large commercial operators. We will measure how much time is needed for hay harvest and hay feeding. We will look at hay yield per acre to determine if improving yield would save on harvest time requirements. Time required for winter grazing vs. hay feeding will be documented along with the costs of each method. Other livestock and forage practices will be evaluated for time requirement vs economic return. Sometimes just taking time to think about how you spend your time is the most valuable thing you can do. What is your time on the farm worth? We hope to find out with the new “It’s about time” program.

Calf Scours

Dr. Tom Troxel, Extension Beef Specialist

Calf scours or diarrhea is a very costly problem for many producers. Calf scours is not the actual disease that plagues the calves; it is only the clinical sign. Calves suffering from scours can become critically ill in a short time. The pathogens that are the causative agents are not the actual causes of death in affected calves. Dehydration, electrolyte depletion and acid-base imbalances are the underlying causes of the animal’s demise.

Several types of causes that can lead to diarrhea in calves. The type of agent responsible for the neonatal diarrhea is usually determined by the calf’s age as well as the integrity of the calf’s immune system. If the calf fails to receive the proper amount of colostrum, it will be more susceptible to the pathogens that cause neonatal diarrhea.

Bacteria

The most important bacterial cause of scours in calves is Escherichia coli (E. coli). It typically affects calves from one to five days of age. By releasing a toxin in the intestine, it precipitates what is termed a hypersecretory diarrhea. Signs include severe watery diarrhea that is generally yellow to white in color. Calves are normally nonfebrile and exhibit no blood, fibrin or mucus in their stool. This particular E. coli is called the K99 strain due to a specific protein found on its outer surface. Failure to promptly treat this disease may lead to certain secondary problems such as meningitis or polyarthritis.

A pathogen that can be highly fatal in young calves is Clostridium perfringens. It is usually seen in calves less than seven days old. The clinical signs produced by this bacteria are due to its release of an enterotoxin. There are six types of toxins released by C. perfringens, of which types B, C and D seem to be the most important in calves.

This disease has a sudden onset, and some calves will die without showing any symptoms of disease. It is usually associated with an increased intake in the calf’s diet. Therefore, if management practices (penning the cows separate from the calves) or the weather cause an increase in the interval between meals, a calf may overconsume milk and thereby establish the proper environment for the bacteria to grow.
Clinical signs include lethargy, abdominal distention, bloody diarrhea and uneasiness (straining or kicking at abdomen). Postmortem lesions normally seen are bloody, fluid-filled small intestines which give rise to the common name "purple gut."

Viruses

Primarily, two viruses can lead to diarrhea in young calves. One is a rotavirus and is very prevalent across the U.S. Estimates are that 80 to 90 percent of adult cattle are seropositive for this virus. The rotavirus survives well in the environment, affects the small intestines and leads to a decreased consistency diarrhea. Most calves infected are from 5 to 14 days of age. It leads to a mild disease that has a low mortality rate. Affected calves may only show clinical signs of diarrhea for 1 to 2 days.

The other virus leading to neonatal diarrhea is a coronavirus. This virus also infects the small intestine and sometimes the proximal colon. It causes a more severe, prolonged disease than rotavirus. Most cases are seen in calves 1 to 3 weeks of age. Clinical signs include diarrhea and occasionally mucus or bloody discharge and increased straining if the colon becomes involved. Coronavirus leads to more intestinal damage and a longer recovery period than rotavirus.

Protozoa

Two types of protozoa cause diarrhea in calves. Cryptosporidia mainly affects calves 1 to 3 weeks of age and leads to a mild decreased consistency diarrhea. Calves usually exhibit good appetites but may show weight loss and emaciation if diarrhea continues for days to weeks. This disease has a low mortality rate and is primarily due to poor sanitation and management practices. One species of the Cryptosporidia is zoonotic, so people who treat infected calves should be diligent about sanitation practices.

Coccidiosis is a protozoal disease affecting calves 3 weeks of age and older. It usually involves young stressed animals. Stress may be related to overcrowding, sudden changes in feed or poor sanitation. These infections are usually self-limiting, and mortality rates are low. Symptoms include mild to severe bloody diarrhea, decreased appetite, lethargy (sluggishness) and dehydration. Clinical diagnosis is made by finding significant numbers of parasites in a stool sample. Hygiene, dry conditions and isolation of infected animals are indicated for further prevention of coccidiosis.

Prevention

It is important to remember that when dealing with calf scours the key is to prevent the disease from occurring in the first place. In order to decrease the incidence of disease in the herd, a good producer should (1) maximize colostrum transfer, (2) increase environmental sanitation, (3) reduce stressors such as overcrowding or poor nutrition and (4) vaccinate bred cows for E. coli, rotavirus, coronavirus and C. perfringens at 60 and 30 days before calving.
Treatment

Recommendations for diseased calves are: 1. Correct fluid deficits. 2. Treat electrolyte imbalances. 3. Provide nutritional support. 4. Administer a broad spectrum antibiotic. Once dehydration status is estimated, oral or intravenous fluids may be used. Electrolyte powders can be added to oral solutions in order to correct imbalances. Since young animals have little energy reserve, these will be used up quickly during a diseased state. It is important to replace energy stores with oral or IV fluids containing glucose or dextrose supplements.

A broad spectrum antibiotic may be used in some types of infection. Antibiotics only work against bacteria, but if you have a viral infection, antibiotics will prevent a secondary bacterial infection from occurring. In the case of coccidiosis, a sulfa-antibiotic (sulfadimethoxine, sulfamethazine) or Amprolium should be used because they are effective against these parasites. It is important to consult with your local veterinarian, since he/she will know what diseases may be prevalent in your particular area. That will allow you to be more effective at preventing or treating calf scour in your herd.

For more information about cattle diseases, contact your local county Extension office.

Getting a Handle on Tough Perennial Summer Weeds

Brad Runnicks, Fulton County Extension Agent

As a general rule, perennial weeds are harder to control than annuals. And woody, brushy species are tougher than their herbaceous little brothers. However, with a handful of good management practices, you can take back control of your fields from the likes of greenbrier, blackberries, horsenettle (bull), persimmon, red sorrel, sericea lespedeza, and others.

For starters, if you’ve got good fences, you might consider multi-species grazing with some goats. Goats, as most know, will do a great job of keeping lots of these “weed” species in check. Good grazing management is another means of weed control. Let your desirable grass outcompete weed species. Overgrazing and poor fertility management = bare ground, and bare ground = weeds. Having enough grass or grass/legume canopy cover in a field will greatly reduce the amount of weed seeds that can survive after germination. Going into summer with pasture that have been slicked off by livestock is a bad idea. Not only does it weaken the good grasses’ ability to withstand the coming dry times, but it also contributes to weedy fields.

Unfortunately, lots of these weeds are called weeds for a reason. They’re invasive. Sometimes they overcome even really good grazing management. We can’t always control the environment and the canopy like we want to. Or maybe, we’re not set up to deal with goats. And so, sometimes, herbicide application is what the doctored ordered.
But, even this has the potential to give us bad results. Bad timing, incorrect herbicide selection, or environmental conditions can all affect the effectiveness of a well-intentioned spray.

Timing
Unlike winter annuals that are sprayed when they’re at their smallest, you’ll get better results sprayer perennial weeds once they’ve got some growth on them. For most, this is in late May-June. Each species has an ideal growth stage to be controlled with herbicide. The plants need plenty of leaf on them to be able to absorb your application.

Herbicide Selection
2, 4-D does an excellent job of controlling a broad spectrum of winter annual and biennial weeds, but it isn’t nearly as good on perennial or brushy species. Buckbrush and oaks are the exception. A combination of Grazon P+D (2,4-D and picloram) and Remedy (triclopyr) at 1 quart per acre Grazon P+D and 1 quart per acre of Remedy is the recommendation that I often give for the best broad spectrum summer weeds. This will do a good job on most everything we’ve got with the exception of cedar, persimmon, and greenbrier. However, if you are only targeting one species, there are usually better options for that particular weed. For example, if targeting prickly pear, Grazon will do a decent job, but Surmount would be better. As always, include about non-ionic surfactant at a rate of 0.5% of the total tank volume. Here are some recommendations for our most common weeds:

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<tr>
<th>Weeds to be controlled</th>
<th>Herbicide and Rate</th>
<th>Timing</th>
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<tbody>
<tr>
<td>General, broad spectrum</td>
<td>1 qt./acre of Grazon P+D and 1pt./acre Remedy Ultra or 1% Grazon P+D and .25% Remedy Ultra if spot spraying</td>
<td>anytime plants are actively growing between May and October</td>
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<tr>
<td>Honeylocust</td>
<td>1 qt./acre of Grazon P+D or 1% solution of Remedy Ultra if spot spraying</td>
<td>anytime plants are actively growing between May and October</td>
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<tr>
<td>Blackberry</td>
<td>Remedy Ultra, 1 qt./acre or Cimarron Plus at 0.5 - 1 oz/acre 1% solution Remedy if spot spraying</td>
<td>when plants are in bloom</td>
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<td>Horsenettle</td>
<td>1-2 quarts per acre of Grazon P+D</td>
<td>between bloom and fruit set</td>
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<tr>
<td>Sericea lespedeza</td>
<td>1.5 pt./acre of PastureGard HL or 1 quart/acre Remedy Ultra</td>
<td>late spring to early summer, before bloom when plants are 12-15”</td>
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<tr>
<td>Red sorrel</td>
<td>1 qt./acre Grazon P+D</td>
<td>anytime it is actively growing</td>
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<tr>
<td>Wooly croton (goatweed)</td>
<td>1-2 pt./acre of 2,4-D amine</td>
<td>May – June when plants are &lt;12” during the growing season and just prior to periods of expected rainfall</td>
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<td>Persimmon</td>
<td>2-4 mL of undiluted Tordon 22K applied to the soil upslope from the tree within the drip line (a cheap, worming gun works well)</td>
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Environmental Conditions
Many brushy perennial species can be controlled anytime from May – October. The key is that they must be actively growing. That means that there must have been adequate rainfall in the days leading up to the spray application. So, no spraying when it hasn’t rained in 3 weeks. Also, dusty plants such as those along a dirt road will not take a herbicide application very well.

Brad A. Runswick
Fulton Co. Extension
CEA-Agriculture/4H
870-895-3301
brunsick@uaex.edu

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Follow us on Twitter @FultonCountyAg

All of the meetings and activities listed in the newsletter are open to all interested individuals.
Plan to Attend
Arkansas Forage and Grassland Council's 2015 Forage Bus Tour

If you want to improve your forage and livestock operation, this conference is for you!

What: 2015 AFGC Spring Forage Bus Tour
When: Friday, April 24. Registration starts at 8:30 a.m. and buses leave at 9:30 a.m. Return by 4:30.
Where: Tour registration headquarters will be at the Pocahontas Livestock Auction Barn in Pocahontas, AR
What you will see: Two area livestock farms of different sizes and grazing programs.

- Grazing systems on stocker calf and cow/calf operations
- Unique electric fencing strategies
- Practical forage options and management for grazing 300 days per year
- Comparison of livestock water options
- Environmentally sound practices for forage and livestock management

Tour registration cost is $25 per person and $10 for students and includes lunch, handout materials, and comfortable bus transportation.

To reach the Pocahontas Livestock Auction take HWY 67 into Pocahontas, turn onto Townsend Street (at the intersection of Hwy 67 & 304, at the T-Ricks Citgo gas station) and go west about ¼ mile to the Livestock Auction Barn.

For more information or to preregister contact the Cooperative Extension office in Randolph County (870) 892-4504 or Lawrence County (870) 886-3741 or call John Jennings at 501-671-2350.