SPECIAL 2007 DROUGHT EDITION

With the severe drought we are currently experiencing many of us are having to look at alternate forage sources, feeds and management to make ends meet this winter. **MAKE YOUR FORAGE FEEDING PLANS NOW! Don’t wait for this November or December to locate your feed resources.** The last issue of *Forage News* had some invaluable information and articles. 

“Stockpiling Grass for Winter Feed!!!”, “Make Best Use of Your Fertilizer Dollar”, “Estimating Winter Forage Needs” and “Forage Management Calendar”. If you can’t find your last issue, the newsletter is posted on our website at:

http://mcdowell.ces.ncsu.edu/content/Forage+Newsletter+Template

….. or you can call our office and we will send you another copy. Since there is a great deal of information available online and we are limited on space in this newsletter, I have listed articles and the web addresses here in this newsletter. Again, if you do not have web access and wish a copy of these articles, call us and we will send a hard copy to you. Most of these articles can be printed directly off the web. If we can help you in any way with drought and feed management decisions, please don’t hesitate to call us at the McDowell Extension Center at 652-7874.

**Alternative Roughages Available**

Producers may have read the article in the Citizen Times about the availability of cornstalk and soybean hay out in the eastern end of the state. This type of roughage is a viable option but producer will need to arrange for transportation themselves.

Costs of between $12-15 per bale of these roughages were reported in the article. Reports of transportation costs in the article were been between $1.50-3.00 a mile. Any producers interested in these products will need to call the Hay Alert Hotline at 866-506-6222 to line up there supply now. While these products are currently available, producers out east will only bale the amount for which they have a demand.

**Winter Forage Varieties**

Consider planting winter forage varieties of Rye, Ryegrass or Annual Small Grains such as Oats etc. Annual Ryegrass (Lolium multiflorum Lam.) is not the same as Rye (Secale cereale L.), which is a large seeded small grain. Both are winter annuals that can provide high quality forage under good management. Annual ryegrass yields more forage than cereal rye in a given year. While ryegrass grows more actively than rye from late April through May, rye is more productive than ryegrass from December to February. Interseeding into existing or weaken pastures may help extend the grazing this fall and winter and allow for earlier grazing this spring. Contact the Extension Office for information on different varieties available for usage this year.
Drought Information Webpages and Sites

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Notes and Tips on Drought Management Strategies

**Crisis management in the face of an extreme drought**

- Don’t overgraze pastures. Start supplemental feeding early. Designate a sacrifice area to confine cattle. You will likely have to reseed this area next year but your main pastures will remain strong. Overgrazing will weaken grass stands causing forages begin growing later and to produce greatly reduced yields next spring.
- Use strategies to reduce pressure on the land early
  - Early wean calves. Prices are still high!
  - Sell calves as soon as they reach minimum market weight. 350-400 lbs.
- Develop a culling strategy so that pressure on the land can be further reduced if the drought worsens
  - Decide on the core herd you will keep no matter how bad it gets
  - Prioritize the cows not in the core herd so they can be sold in an orderly manner as the drought worsens
- Develop a feed plan to maintain the cows you do decide to keep
  - Make the most of grown forages.
  - Fertilize appropriately. 40% of our total forage production comes in the fall of the year. With a few good rains a good deal of forage could still be produced
  - Use good grazing management to minimize waste.
  - Consider stockpiling forages and controlling access to them later in the winter
  - Plant winter annual crops were appropriate. Forage ryes and small grains are a viable source of winter feed. Order and plant seed in September.
- Look for alternative feeds when hay supply is limited
  - Alternative forage/roughages
  - Corn stover
  - Soybean hay/residue
  - Cotton gin trash
  - Alternative concentrates can be fed to cows as a replacement for hay, but minimum amount of roughage is necessary
- Keep a close eye on your water supply. Cows need about 25 gallons of water daily in hot weather.
Notes and Tips on Alternative Feeding Strategies

Hay is the ideal winter feed for cows and that is what most producers are set up to feed. When hay is in short supply, there are alternatives to hay that should be considered.

• Alternative roughage/forages
  - Crop residues…i.e. corn stalks  5% protein, 50% TDN (worth this year about $65/ton or $20 to 25 per 4 x 5 roundbale)
  - Salvaged drought damaged crops….corn silage, corn hay, soybean hay. Variable quality, but better than corn stalks, especially the silage and soybean hay. This year soybean hay is worth about $100/ton or $35 to 40 per 4 x 5 roundbale.
  - Roughages…..cotton gin trash.  12% protein and 50% TDN
  - Others…..RPB (recycled poultry bedding). 22% protein, 50% TDN

• Alternative concentrates
  - Corn gluten feed. 20% protein, 84% TDN
  - Soybean hulls. 12-14% protein, 80% TDN
  - Wheat midds. 17% protein, 80% TDN
  - Whole Cottonseed 22% protein, 90% TDN
  - Other local alternatives

The ideal situation is to feed cows free-choice roughage even if it is of poorer quality. You can easily supplement small amounts of concentrate to overcome nutrient deficiencies. Look hard for sufficient forages if you have a shortage of labor. If there is not enough roughage/hay available to feed free choice, then you must limit what feed is available and feed a higher level of concentrates.

• Cows should get a minimum of 4 lb/day of hay or other roughage, but obviously more is better. About the only way to feed this small amount is to unroll round bales for them so they can all eat at the same time.
• Concentrates can be fed at a high rate (i.e. 18 lbs/day) to meet the rest of their nutrient needs.
• Example ration 1 (1200 lb lactating cow):
  - 4 lb/day hay
  - 10 lb/day corn gluten feed
  - 10 lb/day soybean hulls
  - 0.25 lb/day limestone
  - Free-choice mineral
• Example ration 2 (1200 lb lactating cow):
  - 10 lb/day corn stalks
  - 16 lb/day corn gluten feed
  - 0.5 lb/day limestone
  - Free-choice mineral

• For other examples visit with your Livestock Extension Agent for personal attention.
• Cows limit fed forage and concentrate need special management considerations:
  - Make sure fences are good. Cows will not be full and will be looking for feed.
  - Make sure hay is spread out so all can eat at once. Make sure feed bunk space is adequate and about 24 to 30 inches per cow.
  - This kind of program takes extra labor. Make sure it is available.
• Be creative. For example, a ration of ½ corn stalks and ½ soybean hay fed free-choice will meet needs of most lactating cows.

As with any nutritional program it is essential to monitor body condition. Make sure cows are maintaining condition, and sort based on condition so the thin cows don’t have to compete with cows in better condition, and so you can give them extra feed.

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Utilizing Corn Stover For Roughage
By Dr. Matt Poore and Dr. Jim Turner

Producers who have planted corn and are harvesting the crop for grain can bale the stover as well to use as a roughage for their cattle. Nitrates can be a big question. About 50% of the nitrate gets degraded in silage but none is degraded in corn stover hay. If you have any question about high nitrate levels in the stover, have it tested!!!

Corn stover is about 5% crude protein and 50% TDN. Producers should be willing to pay $15-25/bale (700 lb) or about $60-75/ton. We have had some experience with this at the Center for Environmental Farming Systems.

Here are some suggestions. After the corn is combined, as soon as possible run a bushhog (rotary cutter) over the field and cut it as close as you can without scalping the ground. A cotton stalk chopper would be better because it is made to take this kind of abuse. Don't assume it is dry. The pith dries slowly, and it may not be dry even though the grain is, so really make sure it is dry before raking and baling. Then rake it up into windrows. A ground driven wheel rake will work as will a side delivery. This can be tough on the rake, so the heavier duty the better. Bale it with a conventional round baler, again, heavy duty will be most desirable. Net wrap will be a plus, but with string put on extra wraps to help it hold together. You may need to tighten down tension on the baler to get a tight bale because of the spongy nature of the crop.

We fed corn stalks supplemented with corn gluten feed earlier this summer at Center for Environmental Farming Systems. The cows were pretty slow to get on the stalks until we didn't give them other hay, and then they took to it. They seem to waste more than they would hay. Perhaps rolling out would be a better way to get good utilization.

Grazing is a good option for either the stalks or damaged corn if water and fence can be worked out. Unfortunately that will be an issue in most situations. Considerations are weed potential and nitrates.

For more complete information see the publication “Corn Stalks and Drought-Damaged Corn Hay as Emergency Feeds for Beef Cattle” available online at http://www.ces.ncsu.edu/disaster/drought/corn_stalks(update).pdf

Commodity Brokers

I have had questions about sources of commodities and will have a more complete list of brokers at my office soon. For now here are a few:

Harris-Crane, Inc. Charlotte, NC (800) 432-7755
Performance Feeds, Lawsonville, NC 888-777-5912
Deal Right Feeds, (704) 873-8646
Southern States, (Doug Robertson) 828-778-4093
G&M Milling, (Elizabeth Moretz) 828-783-8192
Harvesting Soybeans for Hay? Consider Prior Use of Chemicals
Dr. Matt Poore, Dr. Alan York, and Dr. Jim Green
North Carolina Cooperative Extension Service, N.C. State University

With the entire state experiencing moderate to severe drought conditions, many North Carolina livestock producers are short on hay and are seeking alternative sources of feed for their winter needs. There are many options. One is to harvest drought-damaged crops and/or crop residues that would not normally be used as cattle feed. Growers need to understand the nutritional value the damaged crops and/or crop residues, and they need to know about any potentially damaging chemical residues.

Harvesting soybeans for hay is one possible alternative. Currently, many soybean fields have been damaged to the point that they may produce very low bean yields, but the forage yield may still be significant. A grower could harvest such fields for hay so they still have something to can market. It is important to harvest soybeans before leaves start to yellow to produce an adequate quality feed. Soybean hay is about 12 to 15 percent protein and 55 to 60 percent TDN, so it makes a very good feed for brood cows. Before harvesting soybeans for hay, the grower should consult with their FSA office so they fully understand crop insurance assessment procedures.

But first, growers must review the label restrictions for pesticides used on the crop. When soybeans are planted specifically for hay, the grower uses only chemicals that allow use of the crop for hay. Growers wishing to harvest drought-damaged soybeans for hay should check the label of any chemical they have used for restrictions on feeding. Many herbicide labels have restrictions that do not allow feeding of hay from treated soybeans. Most herbicides have restrictions that you should understand.

We have had many inquiries about the use of the herbicide glyphosate (Roundup and many other brands), because over 80 percent of the state’s acreage is in Roundup-Ready beans. There is a 14-day restriction between last application of glyphosate and harvesting soybeans for hay. In many cases, glyphosate is tank mixed with other chemicals that have a restriction, so keep that in mind. Chlorimuron ethyl (Classic) or flumiclorac pentyl ester (Resource) are commonly used in tank mixes, and both have labels that say do not harvest and feed for forage. Cloransulam-methyl (FirstRate) is another common tank mix. Cloransulam-methyl has a 14-day waiting period.

Chemicals that have no restrictions listed on the label mentioning hay feeding include: pendimethalin (Prowl and generic brands), s-metolachlor (Dual Magnum, Dual II Magnum, and generic brands), sethoxydim (Post, Post-plus) and trifluralon (Treflan and generic brands). Other chemicals that have a waiting time include: bentazon (Basagran; 30 days), metribuzin (Sencor; 40 days pre-emergence, 70 days post-emergence directed), and 2,4-DB (numerous brands; 60 days).

Most other chemicals have labels that specifically state that hay should not be fed. This is because most companies have not gone to the expense of doing the research that shows their product will not be toxic to cattle, and will lead to no milk or tissue residues when cattle are fed hay made from soybeans to which the product has been applied. For more information on feeding management, and help with understanding chemicals and label restrictions contact your Cooperative Extension Agent.

NOTE: A complete list of all soybean herbicides and their feeding restrictions can be found online at “http://www.ces.ncsu.edu/disaster/drought/Soybean_Hay.pdf” or can be obtained from the Extension Office.

We have a soybean producer here in McDowell County who has indicated he has a few acres of soybeans he would consider selling for a producer to cut as hay. If you are interested call my office at 652-7874 for more details.
Be sure to visit our McDowell Cooperative Extension Commercial Agriculture Web page at:
http://mcdowell.ces.ncsu.edu/ag

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