A New Culling Criteria: Hair Coat Shedding
Eileen A. Coite, Wayne County
Compiled from: Differences in hair coat shedding and effects on calf weaning weight and BCS among Angus dams, K.A. Gray, et al., NCSU & MSU

It’s always exciting when we learn of new university research to pass on to you, the producer. After all, that is a big part of what Extension does. So, when I learned of beef cattle research being conducted in North Carolina and Mississippi that could impact management and decisions of cattle producers, I was excited to share the news. At our annual livestock agent training held each August, agents are given time to interact with one another and NCSU specialists, in an effort to gain the most up to date knowledge, practice skills, and share ideas. This year, amongst many presentations and workshops, we learned of collaborated research being conducted by the Department of Animal Science at NC State University and the Department of Animal and Dairy Sciences at Mississippi State University with regard to the impact hair coat shedding has on calf weaning weight and body condition score of Angus cattle.

Angus producers have long been interested in finding ways to help their cattle get through the hot summer with less stress and complications from the heat, particularly because of their black hair coat. Humidity in the southeast added to the hot summer temperatures creates risks of heat related challenges for all livestock, but particularly cattle with dark, thick coats. For these reasons, researchers at NCSU and MSU teamed up to learn how much variation in shedding exists among purebred Angus cows, and the effects of this shedding on weaning weight of their calves and the cow’s body condition score. Researchers of this project adapted a scoring system to evaluate a cow’s shedding progress, referred to as a hair shedding score.

So what did they find? Through evaluating over 500 Angus cows in four different locations of MS and NC, cattle were grouped in five categories of shed-
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...ding, ranging from a full winter coat to a slick, short summer coat. All cows weaned a calf at approximately six months of age and weaning weights were recorded and submitted to the American Angus Association. Data was analyzed to show how early cattle began to shed, an indication to how well adapted they were to the heat of the southeast. The study found that there was a definite correlation between speed of shedding and weaning weights, showing cows with slower shedding to raise lighter calves at weaning. The study states that there are many possible reasons why this relationship is present. One possible reason that there is a connection between weaning weight and hair coat shedding is that prolactin levels in cows were affected. Prolactin is a hormone present in cows that affects lactation, but also has effects on hair loss. The study brought about possible conclusions that higher prolactin levels could influence hair shedding as well as milk production, leading into heavier calves at weaning.

The study concluded that even though more research is needed to fully understand this correlation, a conclusion was made that producers could lessen heat stress in their herds and improve weaning weights by culling cows that are slow or poor at shedding. Scoring cattle for shedding in late May or early summer, and removing cows from the herd that receive scores that reveal little to no shedding should increase herd productivity by increasing weaning weights of calves produced.

Irrigation Calibration Update- for Animal Waste Operators
Eve H. Honeycutt, Lenoir and Greene Counties

Recently, NCSU Specialists in the Department of Biological and Agricultural Engineering announced that using rain gauges to perform an irrigation calibration is no longer necessary for swine farms in NC.

Calibration of the irrigation system is still a requirement under the State general permit, and it must be performed every other year. Previously, NCSU and NC Soil and Water guidelines stated that using the rain gauges to test for uniformity was recommended every 3 years. New guidelines have been established that recommend rain gauges (no longer be considered) an acceptable method of calibration.

Acceptable methods of irrigation calibration include using a flow meter, and performing a field calibration. Using the flow meter is easy and only requires that the flow meter be properly connected, then the user reads the flow rate that shows up on the meter. Proper documentation must be kept as a record of the flow meter use. There is a flow meter for rent at the Wayne County Cooperative Extension office for $10 per week. Anyone can rent the flow meter by calling (919) 731-1520. Performing a field calibration is also easy and does not require any specialized equipment. Three measurements need to be recorded- the wetted diameter, the nozzle/ring size, and the pressure at the gun. To measure wetted diameter, turn the system on and measure the diameter of the spray area. For nozzle size, you may find the size stamped on the end of the nozzle. If you can’t find it, you should measure it accurately with a pair of calipers. Finally, make sure you have a working pressure gauge at the gun and record the pressure with the system in operation. Once you have these three measurements, you should look at the manufacturer’s performance chart for your equipment. It can be found online, or with the help of your Extension agent. The chart, along with your measurements, will help you determine the flow rate for your equipment. All of this data should also be documented for your records.

Having your irrigation system calibrated ensures that you are applying your nutrients at the proper rate. It is also a requirement of your permit, so don’t forget this important procedure as you prepare for the fall season.
Drenching in sheep and goats is the oral application of medications into the throat of the animal. This is the recommended way to administer dewormers to sheep and goats. There are other methods of administering dewormers such as injectables and pour-ons, but I will only focus on the oral method in this article. Intestinal parasites are the biggest threat to sheep and goats causing numerous health problems like weight loss, low birth weight, unthriftiness, and even death. The best medications will not work properly if they are not given to the animal correctly. In Australia resistance to drenches is becoming a noted steadfast problem as well as other parts of the world, due to the incorrect methods of drenching. Parasite resistance is not a welcome problem among any farmer. For a refresher on oral drenching I have included some key steps a producer needs to remember to do before and after drenching a sheep or goat.

Before drenching an animal make sure the drench gun is calibrated and is not leaking. Check the nozzle for rough edges that may cause discomfort when medicating. Then think about how you are going to medicate the animals, as in how much you will administer to each of them. If the animals are various in sizes, group them into smaller groups according to their size. Then physically weigh the heaviest animal in the group and treat all animals in that group to that weight to make sure enough dewormer is given. Remember underestimating the weight of the animal promotes parasite resistance and has been one of the main contributing factors in parasite resistance, so don’t guess. Be sure to read and follow the specific labeled directions on the medication given.

When giving medications make sure the sheep/goats are properly restrained and can’t leap around when you are orally drenching. Hold the animals head horizontal by placing your hand under his chin. This encourages that the animal will swallow the whole amount given. Sheep and goats can suffer serious injury, or even death, if they are not restrained properly if the gun strikes the tissues at the back of the mouth. So be patient and don’t rush. Place the nozzle in the gap between molar and incisor teeth and then over the back of the tongue. Be sure the animal swallows the medication before letting the head go. If drenching is not done properly the animal will not receive the medication within the stomach and it can possibly go into the lungs, which can be fatal to the animal.

After giving the drench, be sure to record what and how much you gave to your animals and then place all unused drench back into original container. Be sure to clean your equipment by following the manufacture’s cleaning instructions. If you have any questions or need help with drenching contact your local County Livestock Agent.

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For beef cattle producers, the winter can be the hardest time of the year. Producers have to get the tractor out everyday and have to purchase a lot of hay to get their cows through the winter successfully. Here is an alternative to that vicious cycle. Have you ever thought about stockpiling your fescue so you don’t have to feed hay constantly through the winter? Studies have shown the average saving to be $0.89 per cow per day as opposed to feeding hay.

Tall fescue is a hearty grass and responds well to fertilization in the late summer. If a pasture of fescue is allowed to accumulate from late summer and fall until winter, cows can be fed efficiently without the mud associated with a long winter hay-feeding season. This is also a much more economical alternative to feeding hay all winter. If you want to “stockpile” fescue, you would apply 50 to 75 pounds of nitrogen per acre to a healthy fescue field in late August to early September. For our area, the ideal time is September 1 to 15. It is important to graze or clip the fescue to about 3 or 4 inches and let it rest...
Forage Management Tips

September

- Fertilize and lime cool season grasses.
- Keep the grazing pressure on the summer grasses and completely use them before grazing cool season forages.
- Continue to watch for armyworms on established and seedling stands of forages.
- Overseed or no-till winter annuals onto summer perennial grass after they have been closely grazed.
- Make a winter feed supply inventory so deficiencies can be avoided now (by purchasing hay or planting more winter pasture).

October

- Finish using summer grasses before grazing the cool season ones.
- Overseed bermudagrass and other warm season grasses with winter annuals such as rye if you haven’t already done so.
- Sample soils to be overseeded or planted next spring so the limestone can be applied early enough to react; two to four months are required for lime to effectively neutralize soil acidity.

Stockpiling for the Winter Continued...

several weeks before the fertilizer is applied. The nitrogen source that you apply is also very important. Ammonium nitrate gives the best response and liquid nitrogen gives the least response. Also, make sure that other soil nutrients such as potassium and phosphorus are at least at medium levels and pH is about 6.0 to get the best response.

Another important aspect of preparing to stockpile fescue is the timing of the rainfall. You want to make sure to get your fertilizer out before the rain. Use the rain to your advantage. By November you will know how much forage you will have for the winter to graze. During a normal year, you can expect to have about 2,500 to 4,000 pounds of grazable forage dry matter per acre. This amount of forage is equivalent to about five to eight 4’ x 4’ round bales of hay per acre.

When you are planning how you’re going to stockpile your fescue, it is important to think about your herd and their needs. A 1,200-pound gestating cow can be maintained on about 20 pounds of stockpiled fescue dry matter per day. With about 15% waste, one acre would feed 100 to 160 cows per one day. Lactating cows will need 30 pounds per day with a 25% waste allowance, meaning one acre would give you 65 to 100 “cow days.” In other words, one acre of stockpiled fescue will give a dry cow enough to eat for well over 100 days and a lactating cow for 65 to 100 days. You can often manage your lactating cows with just adding a mineral supplement during the winter when you are implementing nutritional stockpiled fescue practices.

According to the research, the best technique to graze your cows is called “strip-grazing,” or “frontal-grazing.” This is when you allot your cows a strip of grass using a roll of polywire and temporary posts every one to three days. When they graze the target height of 2 inches, they are moved to a new strip. Start the cows near the water giving them fresh strips and slowly move them away from the water. There are many advantages to this including cows become tamer because you are in close contact with them every day. Also, manure is more evenly distributed than with a typical hay feeding system, so your soil fertility will increase. In addition, your cows are cleaner because there is less mud, meaning your calves will most likely be healthier.

You can also stockpile other grasses, including bermudagrass and rye/ryegrass. If you would like more information on how to stockpile these other grasses, please contact your local county livestock agent.
Calendar of Events

- **September 14th Graded Feeder Calf Sale**, Clinton 7:30 am to 4:00 pm take in cattle, Sale at 7:00 pm, for more information [www.nccattle.com](http://www.nccattle.com) or (910) 592-7161
- **September 16th & 17th 9:00 am to 4:00 pm - Initial Certification for Animal Waste Operators**, Duplin County Center (910) 296-2143
- **September 30th - October 9th - Wayne Regional Agricultural Fair**
- **October 14th - 24th - NC State Fair**
- **October 28th 9:00 am to 12:00 noon - Alternative Technology Tour - Julian Barham farm** (*3 hours continuing education credits for animal waste operators*)
- **November 3rd Fall Forage Management Day**, Duplin County to register call (910) 296-2143 (*continuing education credits for animal waste operators*)
- **November 9th 9:00 to 4:00 Eastern Cattle Conference**, Clinton, to register contact: NC Cattlemen’s Association [www.nccattle.com](http://www.nccattle.com) or (919) 552-9111 (*2 hours continuing education credits for animal waste operators*)
- **November 15th Mortality Composting Tour**, Wayne County NRCS/Soil and Water office (919) 734-5281 option #3 (*continuing education credits for animal waste operators*)
- **November 16th 9:00 to 4:00 Managing Nutrients and Pests in Pasture - Based Livestock Production Systems**, CEFS, Goldsboro. Registration fee $20.00 (includes lunch) [www.cefs.ncsu.edu](http://www.cefs.ncsu.edu) (*continuing education credits for animal waste operators & pesticide applicators*)

For more information about any of these events, please call Kim Davis at 731-1520