NC COOPERATIVE EXTENSION





Scotland County Center

Livestock News

January 2024



Inside This Issue 1 Important Information

- 2 Animal Waste Updates
- 3 Sericea Lespedeza
- 4 Castrating Bull Calves
- 5 Control of Lice in Sheep and Goats
- 6 Horses and Mud
- 7 Tracking Calf Prices for Freezer Beef Businesses
- 8 Upcoming Youth Livestock Opportunities

Contact Us

NC Cooperative Extension Scotland County Center 231 East Cronly Street Laurinburg, NC 28352 (910) 277 - 2422 scotland.ces.ncsu.edu

Randy Wood CED, Livestock randy_wood@ncsu.edu

NC State University and N.C. A&T State University commit themselves to positive action to secure equal opportunity and prohibit discrimination and harassment regardless of age, color, disability, family and marital status, genetic information, national origin, political beliefs, race, religion, sexual identity (including pregnancy) and veteran status. NC State, N.C. A&T, U.S. Department of Agriculture, and local governments cooperating.

NC State Extension works in tandem with N.C. A&T State University, as well as federal, state and local governments, to form a strategic partnership known as N.C. Cooperative Extension.

2024 Cape Fear Cattle Conference

Thursday, January 18, 4:00 pm - 8:00 pm Southeastern Agricultural Center in Lumberton

Topics will include:

Beef Processing, Feeding Out Steers, and a Fencing Demonstration

\$10 charge at the door. Dinner will be served.

Register Here

https://go.ncsu.edu/2024CapeFearRegionalCattleConference



Soil Sample Fees \$4 starting December 1 until March 31

For any meeting listed, persons with disabilities may request accommodations to participate by contacting the Extension Office where the meeting will be held by phone, email, or in person at least 7 days prior to the event.

Disclaimer - The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University nor discrimination against similar products or services not mentioned.

Initial 10-hour Animal Waste Operator Class (OIC)

There will be an initial class on January 25 and 26 in Bladen County. Participants will be able to take the March exam. To sign up, call (910) 862-4591.

Terminating Winter Small Grain Overseed

By: Liz Joseph, Livestock Extension Agent with N.C. Cooperative Extension in Cumberland and Hoke Counties

Winter annual overseeds can help reduce winter hay use, provide high-quality forage, and suppress weeds. These winter annuals can be grazed, baled, or have chemicals applied to terminate them in the spring. Overseeding sprayfields with winter annuals allows hog farms to increase their wettable acreage during the cooler months when the warm-season perennials are dormant. The timing and method of termination can have an impact on warm-season grass recovery.

Timing of Termination

Recovery of warm season grasses is especially slow if there is a dry spring because the winter annuals can deplete the soil moisture. Having the ability to irrigate can help mitigate this impact on warm season grass recovery. However, timely removal of a winter overseed is essential for the survival of your bermudagrass. If an overseed crop is left too long it will shade the bermudagrass as it is coming out of dormancy. Over time, this can lead to a significant decline in the stand, especially if this occurs every year. To avoid this, the best time to terminate a winter overseed is late March or early April. Annual ryegrass, which is a later maturing winter annual, is not recommended to use as an overseed on sprayfields used to make hay due to the added competitive stress.

Grazing

If you have livestock, grazing is one way to terminate a winter annual overseed. Winter annuals should be allowed to develop a secondary root system to help anchor the plant and prevent the livestock from uprooting it while grazing. Most winter annuals can be grazed when it has reached a height of 8 to 10 inches and should not be grazed below 3 to 4 inches until late March/early April. At this time, the overseeded field should be heavily stocked so the forage is utilized and little stubble is left that could shade out the warm season grasses.

Baling

If you plan to harvest a winter annual overseed,

consider making silage or haylage/balege because drying conditions in the spring are not ideal for making hay. Managing harvest time is not only important to the recovery of warm season grasses, it also has a big impact on the forage quality of the harvested overseed. An overseeded winter annual should be harvested in the boot stage of growth, prior to emergence of the seed heads from the sheath. Total Digestivle Nutrients (TDN), which represents energy and is an indicator of quality, decreases significantly after the boot stage.

Chemical Burn Down

If you don't have livestock to graze and don't plan on baling the winter annual overseed, another option is to do a chemical burn down. There are several chemicals that can be used when applying a chemical burn down with the two most common being glyphosate and paraguat. Because both of these herbicides are non-selective, meaning they are formulated to control both broadleaf and grass weeds, application timing is extremely important. In general, smaller is better when trying to kill cover crops but, depending on soil and weather conditions, applying too early can be detrimental. On the flip side, if you wait too long and we have higher than normal temperatures which can cause the bermudagrass to prematurely come out of dormancy, you could injur the bermudagrass with a chemical application. Chemical burn downs cannot be done in sprayfields because the nutrients are not being removed from the field.

Winter annual cover crops are one way to increase wettable acreage when bermudagrass is dormant. Other benefits to planting them are the addition of nitrogen to the soil for use by a subsequent crop, removal of nitrogen from the soil to prevent nutrient loading, and they provide weed supression by outcompeting weeds for light, water, and nutrients. Based on your operation, select the best overseed termination method and make sure you do so in a timely manner so your warm season grass recovery is not negatively impacted.

Scericea Lespedeza: An Excellent Forage for Cattle & Small Ruminants By: Brian Parrish, Agriculture Extension Agent with N.C. Cooperative Extension in Harnett County

After reading an article in Hay and Forage Grower Magazine (Sold on Sericea hay and other Stuff), AU Grazer Sericea Lespedeza interests me. A forage that can decrease the parasite load of your livestock sounds good to me. Even Don Ball, retired Auburn University forage agronomist and a recognized authority on sericea lespedeza states, "One of the desirable qualities of sericea Lespedeza is the anthelmintic (deworming) properties for ruminants." More information on the anthelmintic properties of lespedeza can be found at the worm x website. (1) <u>https://www.wormx.info/sl</u> It is important not to confuse improved varieties of sericea lespedeza has become a noxious weed that is often rejected by grazing livestock. Don Ball, says that improved varieties are nothing like the plants being cursed in the Plains. They are almost like a whole different species being leafier, shorter, and with finer stems. The AU grazer variety which was developed at Auburn University was the first variety specifically developed to tolerate grazing but also makes good hay. (2)

Sericea Lespedeza grows well on poor dry and lower soil pH soils. It is very resistant to insect damage and even army worms leave it alone. It is also an extremely drought tolerant plant. Since it is a legume, it makes its own nitrogen. It can produce from 2.5 to 5 tons of dry matter per acre depending on the variety and weather. Once established it is very inexpensive to maintain and is a low-cost warm season alternative for economical cattle gains. The tannins in the plant make sericea lespedeza a bloat-resistant legume. It can also grow in places where other grasses will not grow. Some of the disadvantages of sericea lespedeza is that it is slow to establish and has very small seeds (335,000 hulled seeds per pound) that need to be planted at ¼ inch or less. The seeds should be inoculated with a cowpea, peanut type inoculant before planting. It is a warm season plant, so it does go dormant during the winter. The lespedeza should be allowed to establish the first year, so you can't cut it or graze it during the first year of establishment. As always soil test and then lime and fertilize based on soil test recommendations before planting. (2)

Sericea lespedeza hay dries very fast, so hay producers have to be very careful to avoid leaf shatter or loss. For this reason, it does not work well in grass mixes intended for hay. The lespedeza dries and shatters long before the grass. Many hay producers rake the lespedeza hay into a wind row to finish the drying process. After sitting in the wind row overnight the hay is then baled when the humidity reaches 60 percent the next morning. When done correctly sericea bales are leafy and very green with protein levels in the high teens and TDN (Total Digestible Nutrients) in the upper 50's to low 60's. The final cutting is usually made around September 1. The lespedeza is then allowed to regrow to replenish root reserves in the Fall. (2) I encourage you to watch the SARE USDA you tube videos; Planting and Growing Sericea Lespedeza and Growing and Harvesting High Quality Sericea Hay that were produced by Fort Valley State University Extension as these are excellent resources on this subject.



Source: American Consortium for Small Ruminant Parasite Control (wormx) Source: Hay and Forage Grower Magazine (Sold on sericea hay (and other stuff)

Castrating Bull Calves: Same Song, 47th Verse

By: Paul Gonzalez, Livestock Extension Agent with N.C. Cooperative Extension in Sampson County

Most of the cattle in this area are fall calved. That means that the bull claves will be castrated soon if they haven't been already. I thought I would beat this dead horse for my article this time. NC Cooperative Extension has been recommending castration for as long as I have been here and probably for years before. In a discussion with a producer the other day he asked why more people weren't adopting some management practice, I don't remember what now, and I told him," I don't know. We have been preaching castration for 50 years and many people still don't do it".

Castration of bull calves is a common practice in agriculture, primarily aimed at managing animal behavior, improving meat quality, and facilitating better herd management. This process involves the removal of the testicles in young male cattle, typically before they reach sexual maturity. General recommendation is as early as possible, it can be done at birth, but no later than 90 days of age. This can be done with a blade or with a band. Both have their pros and cons; the choice is typically what the producer would prefer. While the topic may raise ethical considerations, there are several notable benefits associated with castrating bull calves.

One of the primary reasons for castrating bull calves is to manage their behavior. Intact bulls can exhibit aggressive and unpredictable behavior due to increased levels of testosterone. This aggressiveness can pose a safety risk to both handlers and other animals within the herd and in feed yards. Castration significantly reduces testosterone levels, leading to a calmer temperament, making the animals easier to handle and reducing the risk of injury to both humans and other cattle.

Castration can positively impact the quality of meat produced by cattle. Bulls that are not castrated tend to develop tougher and less flavorful meat, often with undesirable characteristics such as a stronger taste and a coarser texture. This is due to the presence of testosterone, which affects the composition and quality of muscle fibers. Castrated animals, commonly referred to as steers, produce meat that is more tender, with better marbling and overall quality, making it more appealing to consumers.

Castration plays a crucial role in effective herd management. By preventing unwanted mating and unplanned pregnancies (heifer calves that exhibit early puberty), it allows for better control of breeding programs. Controlled breeding helps farmers select superior genetics, ensuring the production of highquality offspring with desirable traits. It also prevents inbreeding and allows for more efficient use of resources, as farmers can focus on raising animals specifically for intended purposes, such as meat production or breeding.

From an economic perspective, castration can yield several advantages for farmers. Steer typically sell for more that bull calves of the same weight. For example, the last sale report (December 14, 2023) from East Carolina Stockyard has 622-pound steers at \$223.50 per hundred pounds. Bulls weighing 625 pounds were \$200 per hundred pounds. That adds up to \$146.17 more per head for steers. It wouldn't take many to cover the cost of paying someone to help work the herd to castrate the bulls and still have more money in your pocket. Additionally, the reduced risk of injury or aggression from castrated bulls can lower veterinary costs and decrease potential losses associated with damaged equipment or injured animals.

While the practice of castrating bull calves is widespread, ethical concerns regarding animal welfare exist. It's important to consider the appropriate methods of castration, ensuring it is performed with minimal pain and stress to the animals. Using anesthesia or pain relief during the procedure and adhering to proper veterinary guidelines can significantly mitigate the discomfort experienced by the calves. This may become more of a necessity in the future with the scrutiny that some consumers are placing on animal production. Additionally, there are now bands on the market that are imbedded with pain reliever that lasts until the animal's scrotum and testicles become numb due to lack of blood flow. Again, the earlier the better. While there will still be some stress and discomfort, momma make everything better!

If you are unsure of how to castrate or nervous about trying, I am volunteering your county Extension livestock agent to go and show you how to use the method of your choice. It isn't hard to learn, and most agents will have plenty of experience with both methods. Just call your local office to schedule a time. Also, if you are in Bladen, Cumberland, Hoke, or Sampson counties, we have both a portable squeeze chute with head gate and trailer with panels that can be rented. So, if you have the desire, but not the equipment or facilities to castrate, we can be of help there too.

Control of Lice in Sheep and Goats

By: Aaron Blackmon, Livestock Extension Agent with N.C. Cooperative Extension in Columbus County

Lice infestation is a common issue in raising sheep and goats, especially goats. Lice can cause losses in production, reducing weight gain and milk production, causing rough hair coats, hair loss, red irritated skin, anemia, and even death. Lice are external parasites that can infest a wide range of livestock there are more than 3,000 species, most of them being parasites of birds. Goat lice are generally host-specific and only attack goats and closely related species such as sheep.

There are five species of goat louse, that fall into two categories based on their feed habits: **Sucking Lice** and **Chewing Lice**. *Sucking Lice* feed by penetrating the skin with their mouth and taking a blood meal from their host, while *Chewing Lice* (also known as biting lice) have a more robust mouth which allows them to chew and feed on the hair, scabs, and skin of the host.

Both sucking and chewing lice undergo a simple metamorphosis cycle. Female louse attach their egg towards the base of the hair near the skin, the egg hatches in about 7-10 days. There are three nymphal stages each lasting about 5-10 days until maturity. The louse keeps a similar appearance in each development stage, except for the egg(nit) stage. Adult lice may live for several weeks, and they spend their entire life on the host animal, when an adult lice is dislodged it can live without a host for several days and could acquire a new host. Lice population varies seasonally, depending on the condition of the host animal, lice populations in sheep and goat herds generally increase around the fall of the year and peak in late winter or early spring. Animals under nutritional or environmental stress usually carry a larger louse population than the ones under normal conditions.

Lice are generally transmitted from one animal to another, this is a good reason to quarantine new animals for at least two weeks before introducing them to your herd. This allows you to observe and treat any diseases, illnesses, or infections. Louse-infested animals will display a dull, matted hair coat, and the animal will scratch or rub excessively.

Effective control of lice in goats/sheep can be achieved by proper production management along with chemical control. We must first look at herd management, during winter months sheep and goats need a high-energy diet, proper stocking density to keep them from being overcrowded, and if there's bedding provided it should be changed or freshened regularly. Satisfactory chemical control of louse requires two applications at 10-14 day intervals, the first application to treat adults and the second to treat young lice emerging from eggs since most chemicals do not treat eggs. The same treatment should be applied to live-stock facilities where animals bed and congregate.

Contact your local Livestock Extension Agent for more information or assistance in controlling external parasites in small ruminants.

Caution: Young kids are especially sensitive to over-dosing.

Insecticide	Formulation	% Active Ingredient	Signal Word	Pests
Permethrin				
Atroban 11% EC Insecticide Schering Plough	Emulsifiable Concentrate	11%	Caution	black flies, eye gnats, horn flies, horse flies, house flies, lice, mange mites, mosquitoes, scabies mites, sheep keds, stable flies, ticks
Catron IV Boeringer Ingleheim	Aerosol	5%	Caution	deer flies, fleece worms, horn flies, horse flies, house flies, gnats, stable flies, ear ticks, screwworms
Durvet 10% Permethrin Durvet, Inc.	Emulsifiable Concentrate	10%	Caution	face flies, horn flies, stable flies, mosquitoes, lice, mites, ticks
GardStar 40% EC Y-Tex	Emulsifiable Concentrate	40%	Danger	black flies, deer flies, eye gnats, horn flies, horse flies, house flies, lice, mange mites, mosquitoes, sheep keds, stable flies, ticks
Martins 10% Permethrin Control Solutions, Inc.	Emulsifiable Concentrate	10%	Caution	face flies, horn flies, stable flies, mosquitoes, lice, mites, ticks
Zeta Cypermethrin				
Python Dust Y-Tex	Dust	0.075%	Caution	horn flies, keds, lice, ticks

Safe Pesticide Use:

1. Read the label before using any pesticide, pay attention to all warnings and precautions.

Horses and Mud

By: Taylor Chavis, Livestock Extension Agent with N.C. Cooperative Extension in Robeson County

According to the National Weather Service, there is an expected increase in rainfall for this winter season for eastern NC; with rain comes mud. If you already have horses, below are some factors to consider that will help to minimize mud and other negative factors on the farm during this winter season:

- Access pasture drainage. Examine the area that you plan to keep your horse(s) and determine that there is appropriate drainage.
- Think about gate placement. Mud will occur in high-traffic areas and places that horses will naturally gather. Shifting gates away from these areas will help to minimize mud.
- Consider the amount of horse traffic. If horses can be put in a stall for a certain amount of time to allow the pasture to rest it will help to minimize soil compaction, overgrazing, and the amount of mud.
- Use pastures to help manage water flow. Making sure that there is plenty of vegetation in the pasture will act as a natural filter to slow water down, preventing soil runoff and creating bare spots.
- Manure management. Consider removing manure from high-traffic areas that can turn into mud.
- Footing materials. Installing footing materials like sand, gravel, or wood chips in high traffic areas can help to minimize mud. Sand is comfortable for the horse. Gravel is good draining and provides firm support, but larger than 5/8 inch can be uncomfortable for the horse to stand on. Wood chips are also a stable material, but will require more frequent placement as they decompose.

Rain and associated factors, like mud can cause problems in horses. Rain can cause rain rot. Rain rot, also called rain scald, is a skin condition that is caused by bacteria that live in the outer lay of the skin. The bacteria multiply in damp, humid conditions. Rain rot can cause painful, crusty scabs that when removed pulls clumps of hairs away from the skin, leaving bald spots on the hips, face, back, and other areas of the horse.

Below are some tips to avoid rain rot and the possibility of spreading rain rot:

- Don't share tack, equipment, or blanket between horses you suspect may have rain rot
- Keep infected horses isolated

- Minimize exposure to bugs and bacteria
- After treating infected horse(s), wash hands thoroughly
- Have a covered area for your horse
- Keep coat clean especially for horses turned out more than others

Muddy conditions can cause problems, like thrush, hoof abscesses, hoof cracks, and pastern dermatitis. Thrush is a bacterial and fungal infection of the soft tissues of the foot that results in the degeneration of the frog, left untreated it will penetrate the sensitive layers of the foot and cause lameness. Hooves will absorb water and become very soft in wet and muddy conditions. If the feet dry out quickly, the hoof may contract rapidly, resulting in hoof wall or sole cracks. Hoof infection and subsequent abscesses may occur when bacteria in the environment penetrate the cracks. The soles of horse's feet contract and expand, as does the hoof wall, but the sole periodically exfoliates. Persistent muddy conditions and wet-dry cycles may cause some horses to lose more sole than is normal, resulting in thin, sensitive soles. Overgrown hooves are at greater risk for cracking and infection.

Below are tips to avoid hoof-related problems:

- Clean horses' legs regularly and keep the hair around the fetlocks trimmed
- Clean the feet often and provide regular, balanced trimming
- Remove soiled bedding materials, manure, and leftover hay. Removal of waste material will decrease surface water contamination, reduce harmful bacteria, and provide a healthier environment for the horse to rest in.
- Rubber mats or large wood chips maybe used to prevent muddy conditions

If you have questions, please contact your local livestock extension agent.

Tracking Calf Prices for Freezer Beef Businesses

By: Anthony Growe, Livestock and Row Crops Extension Agent with N.C. Cooperative Extension in Richmond County

With any small business, input costs should be major determining factors when beef producers set prices for their products. For small-scale production, most of these input costs are out of the producer's control. Inputs such as calves, feed, fertilizer, fuel, refrigeration, and processing are some examples of variable costs which the enterprise may have to cover when setting price points. Fixed costs such as labor and management should also be considered to ensure the operation achieves at least break-even income.

Additionally, the model which the producer chooses to market the meat is a variable that influences input costs. Selling individual cuts of meat will require a larger amount of freezer storage, power, and more labor in marketing the product compared to bulk sales (selling by hot carcass weight). Bulk sales allow the producer to move portions of an animal quickly after processing but often at a lower return. This article will primarily focus on bulk freezer beef sales as this model requires less infrastructure and lower marketing expenses which is attractive to smaller producers. Regardless of the marketing model used, an enterprise that does not consider all potential costs and falls short on net income will incur debt and will not succeed.

Considering Input Costs for Profitability Based on the North Carolina Department of Agriculture's market report, feeder calf prices for 550-pound steers are around 220 dollars per hundredweight or \$2.20 per pound. A year ago, a 550-pound steer of an equal grade sold for 145 dollars per hundredweight or \$1.45 per pound. **Beef producers that source feeder calves from their own cowcalf herd should take this 34 percent increase in calf value into consideration when setting their beef prices. When feeder calf prices increase significantly and beef prices are not adjusted, profits become thin or negative. Three major expenses associated with freezer beef enterprises are: the calf, feed (grain or grass), and processing costs.**

Net Income of Freezer Beef Let's build on the previous numbers to calculate the input costs and net income of selling bulk freezer beef. The feeder calf, feed, hay, minerals, pasture maintenance, processing, labor, and fuel are significant costs that should be taken into consideration. For simplicity, I have categorized input costs into four main categories: Calf, Feed, Processing, and Labor/ Marketing.

Calf Cost Currently, the calf is the greatest expense of a freezer beef business. Even if the beef producer is also a cow-calf operator, the market value of the calf itself should be taken into consideration when tracking expenses which ultimately dictate beef pricing. Let's assume the cost of a weaned 550 pound calf at \$2.20 per pound is \$1,210.

Feed Costs According to a local feed mill, November prices for a 14% complete feed is \$360 per ton. If a calf is

finished on 20 pounds per day over 90 days or 15 pounds per day over 120 days (1,800 pounds total), feed costs will total \$324 per head. Hay will be required in winter months (fed about 120 days) and assuming consumption is 20 lbs per head per day, hay costs will be \$127 per head at \$45 per bale. Also, free choice mineral should be provided to aid in the development of the calf. Mineral price is about \$22 per 50 lb bag and cows can consume around 4 ounces of mineral per head per day. For a 300 day span, mineral costs will total \$33 per head. Additionally, since calves will have pasture access before and during finishing, pasture management costs will total \$55 per acre (which covers fertility and herbicide costs). With a stocking rate of 2 calves per acre, this brings pasture costs to \$27.50 per head.

Processing Costs Using a processing cost of \$1.10 per pound in addition to 150 dollars in fees, a 600 lb. beef carcass will cost at least \$800 to process. Another cost that can be overlooked is the fuel required to get the steer (s) and beef to and from the processor. Fuel costs are highly dependent on distance required to travel, type of vehicle being driven and how many head are taken in one trip. In this example, let's assume that fuel costs are 25 dollars per head so total processing and transportation cost is \$825 per head.

Labor and Marketing One of the biggest input costs producers often do not include into their cost analysis is labor. Labor is a significant cost and needs to be taken into consideration to ensure it is covered in product pricing. If a group of calves is fed/checked daily for 11 months at 15 minutes per day, this adds up to 84 hours of labor. In addition, the producer will spend time loading and hauling calves to the butcher and potentially bringing product back to the farm, so let's total labor at 90 hours. Let's assume that a small producer is finishing 3 calves at a time. Total labor per calf is 30 hours and at \$20 per hour, labor cost is \$600 per head. Marketing is also a cost that should be penciled in. Let's say \$18 per head based on the time spent talking on the phone and communicating with potential customers. When focusing on net income of the freezer beef business, we can see how two different calf prices affect profitability. Assuming a gross income of \$3,600 per head (charging \$6 per pound hanging weight for a steer that yields 600 lbs on the rail), calf prices at \$2.20 per pound result in a net income of \$435.50 compared to net income of \$820.50 when calf market price is \$1.50 per pound.

Like all business owners, producers wanting to profit in the freezer beef trade should regularly track their operation costs to ensure their prices are set to reach at least a break even income. Variable input costs, such as feeder calves, are constantly fluctuating and it is important that they are ready to adjust their prices to cover those expenses.

Upcoming Youth Livestock Opportunities

By: Kaelyn Mohrfield, Livestock Extension Agent with N.C. Cooperative Extension in Lenoir and Greene Counties



The Mid Atlantic Showcase is a spring pig show circuit for youth exhibitors consisting of 7 sanctioned shows.

> February 24th- The Paramount- Johnston County Livestock Arena February 25th- Tobacco Road Classic- Johnston County Livestock Arena March 3rd- East Coast Extravaganza- Johnston County Livestock Arena March 9th and 10th- Thunder Classic- Lenoir County Livestock Arena March 16th- Albemarle Spring Fever- Albemarle Area Livestock Arena March 17th- The Final Draw-Albemarle Area Livestock Arena

Please follow the Mid Atlantic Showcase on Facebook for more information and times to be released.

"Judging in January" will be held at the NCSU Beef Unit by the NC Hereford Association on February 3rd. For more information see the link below.

https://youthlivestock.ces.ncsu.edu/event/2216908296/judging-in-january-hosted-by-the-ncjha/

The Eastern Showmanship Clinic will be held at the Lenoir County Livestock Arena on February 17th.

This event will be geared for beginners looking to learn more about sheep, goats, and cattle. For more information see the link below.

https://youthlivestock.ces.ncsu.edu/event/2409589289/nc-showmanship-clinic/