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2021 NC State Fair Livestock Schedule

The schedule of livestock shows at the 2021 NC State Fair will be modified to reduce costs. This allows for use of existing facilities for the shows, without the need for rental housing facilities. A schedule is listed below to aid in how you plan which species to show or to attend this year.

- Oct.6 Youth Market Turkey check in 8 am – 4pm, Oct. 7 Youth Market Turkey Show 8 am
- Oct. 9 Open Meat Goats arrival and check-in 12pm-4pm
- Oct. 10 Open Meat Goats 1 9am, Open Meat Goats 2 1pm
- Oct. 12 Junior Meat Goats arrival and check-in 12pm-4pm, Turn in weigh cards by 5pm
- Oct. 13 Meat Goat Showmanship 8 am, Junior Market Goat Show 2pm
- Oct. 14 Junior Commercial Doe Show 8 am
 Junior Beef Arrival and check-in 12pm-4pm, Market Steer and Feeder calf weigh cards due by 5pm
- Oct. 15 Junior Market Steer 9 am, Junior Beef Heifer Breeds 1 pm, Junior Feeder Calf 2 pm
 Junior Swine arrival and check-in 12pm-4pm, Junior swine weigh cards due 5 pm, Junior Swine Showmanship 6pm
- Oct. 16 Junior Breeding Gilt 8am ,Open Breeding Gilt - after the Jr. show, Gilt Sale 3pm
 Junior Beef Heifer Breeds TBD 9 am, Showmanship 30 minutes after conclusion of heifer show
- Oct. 17 Junior Market Barrow 8am
- Oct. 18 Open Beef arrival and check-in 8am-Noon
- Oct. 19 Open Beef Show breeds and times TBD
 Junior Sheep arrival and check-in 12pm-4pm, Junior Sheep weigh cards due 5pm
- Oct. 20 Open Beef Show breeds and times TBD
 Junior Sheep Showmanship 8 am, Junior Market Lamb Show 2pm
- Oct. 21 Junior Ewe Show 8 am
- Oct.22 Junior Wool Sheep arrival and check-in 12pm-4pm
 Sale of Champions 6 pm
- Oct. 23 Junior Dairy Cattle arrival and check-in 5am-11am
 Junior Wool Sheep Showmanship 8 am, Wool Sheep Show following showmanship
 Youth Dairy Goat arrival and check-in 1pm-5pm
 Junior Dairy Cattle Showmanship 5 pm
 Special Awards Show – (Tentative Time TBD Oct. 23 or 24)
- Oct. 24 Junior Dairy Cattle Show 9 am
 Youth Dairy Goat Showmanship 8 am, Youth Dairy Goat Show 11 am

Hay Directory

North Carolina Department of Agriculture’s Hay Alert is at <http://www.ncagr.gov/HayAlert/>. It lists people selling hay or looking for hay to buy. It is free to list your hay.

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.

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Warm Season Weed Management Considerations and Identification

By: Liz Joseph, Livestock Extension Agent with N.C. Cooperative Extension in Cumberland and Hoke Counties & Anthony Growe, Livestock and Row Crops Extension Agent with N.C. Cooperative Extension in Richmond County

Before you select any chemical check the label for usage rates, restrictions, weeds controlled, etc. Weed growth and development are dependent upon environmental conditions. It is important to scout fields regularly during the growing season.

If you had a weed infestation last year, chances are they will be present this year.

Pre-emergent Herbicides: suppresses weed seed germination

Post-emergent Herbicides: applied to weeds after germination while actively growing

Warm Season Weeds

Annual Grasses (sandspur, foxtail, goosegrass, crabgrass, crowfoot grass, broadleaf signalgrass)

- Utilize pre-emergent herbicides in the spring before germination
- Post-emergent herbicides can be used after germination but before weeds reach four inches in height

Perennial Grasses (nimblewill, vaseygrass, bahiagrass, Johnsongrass, dallisgrass, smutgrass, broomsedge)

- Only post-emergent herbicides are effective
- Limited herbicide options
- Herbicide application timing is very important
 - Needs to be applied before weeds reach eight inches in height

Annual Broadleaves (ragweed, bitter sneezeweed, pokeweed, arrowleaf sida, sicklepod, pigweed, Florida pusley)

- Utilize pre-emergent herbicides in the spring before germination
- Post-emergent herbicides can be used after germination but before weeds reach four inches in height

Biannual & Perennial Broadleaves (dog fennel, common mullein, horsenettle)

- Pre-emergent herbicides are only effective on seeds that have not germinated
- Post-emergent herbicides are most effective during the first year of the biannual plant's lifecycle (before flowering which occurs during the second year)
 - Horsenettle should be sprayed during the flowering stage
 -

Sedges, Rushes, and Others (nutsedge, green kyllinga, globe sedge, porcupine sedge, path rush, oval sedge, annual sedge)

- Pre-emergent herbicides usually NOT effective
- Post-emergent herbicides are most effective when applied before seedhead formation

Biannual & Perennial Broadleaves



Horsenettle



Dog Fennel



Common Mullein

Annual Grasses



Sandbur



Yellow Foxtail



Goosegrass



Crabgrass



Broadleaf Signalgrass



Crowfoot Grass

Perennial Grasses



Johnsongrass



Nimblewill



Vaseygrass



Bahia grass



Dallisgrass



Smutgrass



Broomsedge

Annual Broadleaves



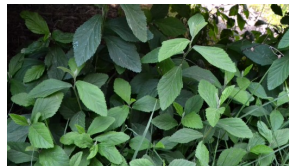
Ragweed



Bitter Sneezeweed



Pokeweed



Arrowleaf Sida



Sicklepod



Pigweed Species



Florida Pusley

Sedges and Rushes



Globe Sedge



Path Rush



Purple Nutsedge



Yellow Nutsedge



Green Kyllinga



Annual Sedge

Interseeding Alfalfa into Bermudagrass

By: Brian Parrish, Agriculture Extension Agent with N.C. Cooperative Extension in Harnett County

Alfalfa interseeded into bermudagrass offers many benefits including; It allows the crop to produce its own nitrogen once established, It improves the quality of the forage (+ 30 or more RFQ points), It makes an excellent supplemental feed or cash hay crop, The mixture also helps the alfalfa component dry down faster, and then if all else fails you should still have your bermudagrass.

Keep in mind that Alfalfa requires more management and attention to details for success than does bermudagrass. Also, keep in mind that hay or former crop field herbicides can remain active in the soil for months and can kill or damage alfalfa seedlings. Choose an alfalfa variety that has been successfully grown in our area that also has good disease ratings with a Fall Dormancy of 4, 5, or 6. Ideal soil textures for alfalfa are Sandy Loam, Silt Loam, and Clay Loams. Marginal soil textures are loamy sand, and silty clay. Undesirable soil textures are sand and clay. Avoid sites that are too sandy. Soil depth is also important. A soil depth of greater than 4 foot is ideal. A soil depth of 3 to 4 foot is marginal and a soil depth of less than 3 foot is undesirable. Frequency of water logging or high water table is also a very important factor because alfalfa does not like wet feet. (Frequency of water logging or high water table- Never is ideal, only during dormant period is marginal, and sometimes during periods of active growth is undesirable.)

Planting: First select a well- drained site. Then make sure the soil pH is at 6.5 and the subsoil (8 to 24 inches) is at or above 5.5 pH well in advance of planting. It is very important to have the soil pH right before you plant alfalfa! Alfalfa also requires significant (P) phosphorus and (K) potassium fertility of the soil. Fertilize based on soil test recommendations. Good (K) potassium fertility is essential / critical for alfalfa! Plant alfalfa in the Fall of the year with the best planting dates for the Coastal Plain of NC from Sept 1 to Sept 30, with possible planting dates ranging from Sept 1 to Oct 20th. If interseeding alfalfa into bermuda have the bermuda cut short (1-2 inches) at planting. If interseeding alfalfa into bermuda spray the bermuda with glyphosate before planting. Spray glyphosate (Roundup) at 9 oz. / acre if 5.5 lb. a.i. formulation or at 12oz / acre if 4 lb. a.i. formulation. The

glyphosate will stunt (not kill) the bermuda giving the alfalfa an opportunity to establish. Plant with a no till drill at 22-25 lbs. per acre. Based on what we observed from some of our test fields a 15" inch or greater row spacing may give a better mix of alfalfa and bermuda. Alfalfa interseeded into bermuda on a 7" inch row spacing ended up looking more like a pure stand of alfalfa in our test fields. Make sure the alfalfa seed is planted no deeper than ½" inch with ¼" inch ideal. After planting spray with an insecticide to control mole crickets and other insect pests. (Examples Karate or Mustang Max at the highest labeled rates.)

Stand Maintenance: Keep in mind that Good (K) fertility is critical! Apply nutrients B and Mo as recommended by soil tests. Taking a tissue sample 1 week prior to the second cutting of the year to determine any other fertility needs is a good practice. Scout and spray for alfalfa weevils in February and March and Scout for armyworms during the Summer. References: Dr. Dennis Hancock UGA, Dr. Miguel Castillo NCSU.



Beef Cattle Culling Decisions

By: Randy Wood, Livestock Extension Agent with N.C. Cooperative Extension in Scotland County

When to cull a brood cow can often times be a tough decision for beef cattle managers. Every good, profitable cow on your farm will one day get too old to do her job, or her teeth will wear down, or she will check open on the chute one day. Cows need to be culled from the herd for many reasons, with the most obvious being not bred or age. Most profitable cattle farmers however will have several factors they look at when deciding if a cow needs to be culled from the herd. The real trick is doing this before she turns into a non-profitable cow.

Stocking Rate

The first thing you need to have an idea on when deciding how aggressive to cull your cows is your stocking rate, or more simply how many cows can your operation support. While every farmer has their own take on how many cows they can stock per acre, there is no magic number. Some farms will base this number based on a dry year to be safe and to have enough feed resources in a bad year. Other farms will put this number closer to a "normal" year to maximize calf production. Once you have a target number you feel comfortable with you can get a better idea how picky to be on deciding who stays and who goes for the coming year.

Open/Bred

This is by far the simplest and most direct factor. Is a cow bred or open for the next calving season? Obviously, this requires a pregnancy check on your cows at some point. Normally most farms do not worry about this until her current calf has been weaned. How much does it cost to keep an open cow around until the next season? That cost varies by farm, but it will be anywhere from \$300-\$600. So, an open cow will have to produce enough calves the remainder of her life to get back to break even from what it costs her to "take a year off" if you carry her open till the next season. Very often, a true cull will be open, and a lot of the other factors identified with the rest of the article can be moot if you cull open cows. There are times however when a declining cow will breed back, so let's look at some other factors to help you decide how many mature cows need to be leaving your farm before the next calving season.

Age

As with stocking rate, knowing at what age a cow will decline in productivity is more an art form than a science. Some cows will start to decline by 8 or 9 years, while other cows can go to 12 to 13 years without

missing a beat. Most farms that have multiple generations of cows will start to see a trend. Even if an older cow is bred, at some point her milk production and mothering ability will decline. Or even worse her health will deteriorate during the winter and you will be stuck with a feeble, slow moving cow that will bring very little at a slaughter auction as a cull. Culling her before this happens is the real trick. Most farms will learn there tends to be a maximum age for most of their cows.

Performance

Performance is a broad term that is used as a mixture of her milking ability and her calf's ability to grow and put on weight. In a nutshell, it is a catch-all term for how well her calf is compared (size and weight) to the rest of the calf crop. A cow's worst calf from a performance standpoint will be her first calf she raises as a two-year-old. By her 3rd calf, she's pretty much in her prime. If her 3rd calf is still at the bottom of the crop for weight, she's not going to improve.

Feet/Teeth Problems

As cows age, usually two things on her body start to break down. Her teeth and her feet. Cows' teeth will wear down over time. Grazing (especially in our sandy soils) and eating hay all take their toll on her teeth. Once her teeth get significantly wore, her ability to eat starts to decrease. If a cow cannot eat efficiently, she will go down-hill in a hurry. This leads us to the other issue on an aging cow, her feet. Some cows' feet will continue to grow as she ages. This is a highly heritable trait that needs to be aggressively eliminated from your herd. Overgrown hooves cause problems in two ways. One, they are more apt to break off. A broken hoof is a hurt hoof. It will heal over time, but it will be very painful until it heals. Even if a long hoof does not break, it will start to hurt her and makes it difficult for her to walk normally. A cow that cannot walk around and graze is a cow that is going to get skinny. The secret to these issues is culling these cows before they cause they start to decline.

Cull cow revenue is a significant cash generator on beef farms, but it is one that often gets overlooked. Remember a cull cow gets sold by the pound just like feeder calves. If you are consistently selling cows that are way underweight and are consistently in the slow pen at the weekly sale, you need to cull more aggressively and get these cows to the sell before they go downhill. Remember, a check from cull cows spends just as good as a check for your feeder calves.

Weaning Sheep and Goats

By: Stefani Sykes, Livestock Extension Agent with N.C. Cooperative Extension in Wayne County

Weaning age and times varies with producers but most of you are either in the process of weaning or will be doing so shortly! As you know, it's a stressful time for both the kids and lambs, as well as the moms. Depending on your method and setup, it can be stressful for you as well!

Weaning is typically done around 60-90 days of age, although some will do it sooner and some will do it later. While age is the most common way to determine weaning timing, it's generally better to do it based on weight. If the lambs/kids weigh 2.5-3 times their birth weight, it's probably a good time to go ahead and start weaning. They should be consuming at least 1% of their body weight in feed at this time. Ewe body condition can impact the decision to wean earlier or later as well!

Creep feeding often reduces some of the stress of weaning. Starting this before the actual weaning process, makes everything run a little more smoothly. Often a high protein grain mix, as well as palatable hay and clean water are used to start the lambs/kids on. A high quality start grain, usually 18% protein, is used for creep feed. The feeder should have a large enough gate that the young can get to the supplemental feed, but small enough that the adults can't! Ewes should have a reduction in grain feed, as well as a lower quality hay at this time—this will reduce their milk production.

Vaccinations and any other management tasks should be done at least two weeks before weaning, you want the process as smooth and stress free as possible. In order to decrease stress to the offspring, move the moms to a new place, rather than the lambs/kids. Young animals are more susceptible to coccidiosis and internal parasites, especially in this stressful period with a somewhat immature immune system. It is imperative you keep an eye on your weaned animals and watch for any signs of parasite problems that can be exacerbated by stress.

Fenceline weaning is employed successfully in cattle, where the calves can still see the cows and it has been proven to reduce stress. The

same amount of research hasn't been done on small ruminants, so we don't know if it is more or less stressful to use this method. A two-stage process however, has proven to be less stressful. In this process—lambs are prevented from suckling one week prior to separation from their moms. Then after a week, they are separated. The method employs the use of an anti-sucking device, a "nose ring" that clips between the offspring's nostrils. This does reduce weaning stress!



Evolution of the Horse

By: Katie Carter, Livestock Extension Agent with N.C. Cooperative Extension in Craven, Jones, and Pamlico Counties

When we think about the modern horse, we think about beauty, grace, and strength. However, horses haven't always looked the way they do today. In fact, the first horses were the exact opposite of the majestic creatures we have come to know. The evolution of the horse is one of the incredible transformations throughout our history, going through multiple evolutionary stages over a 60-million-year time frame. Horses went extinct in parts of the world only to be reintroduced at a later date and continue to leave their marks in history.

The first horse was known as Eohippus and was the size of a small dog standing about 14 inches tall and weighing roughly 12 pounds. A drastic size difference compared to the horses in our barns and pastures today! Horses today have a wide array of coat colors, but Eohippus was fawn colored with white spots for camouflage. It resembled a deer more than a horse. Eohippus did not have hooves, but instead had toes. On the front legs, Eohippus had 5 toes, the middle toe being the largest. The hind legs only had 3 toes again the middle toe being larger than the other toes on the foot. The foot structure was adapted for traveling over woodland terrain and the middle toes are the only digit retained today. This is known as the hoof. The feet of Eohippus weren't the only skeletal structure that differed from modern horses. Eohippus's teeth and jaw were designed for munching on leaves, bushes, and fruits but not grass. With evolution, the jaw and teeth were adapted to allow for grazing on grasses.

In the final stage of evolution, domestication happened. About 5000 year ago, around 1000 B.C., domestication spread across Europe, Asia, and North America. These first horses to be domesticated are similar to the horses we see and know today. These horses were used for many things such as work horses, pulling heavy loads, war mounts and forms of transportation. With breeding for various traits and qualities, horses have come a long way from their small, extra toed ancestors. We still use horses today for many things but they are mostly considered companion animals used for showing and gaming.

Fall Showmanship Circuits

By: Dan Wells, Livestock Extension Agent with N.C. Cooperative Extension in Johnston County

Showmanship circuits consist of multiple youth livestock shows at various locations and dates across a region. In our readership area of North Carolina there are two showmanship circuits: The Eastern Carolina Showmanship Circuit and the 4-H Farm Credit Showmanship Circuit. Each has different rules and procedures, but the concept behind all is that both circuits have several participating shows, and a child may compete in as many of the shows as he/she likes. Awards are given for each individual show, but participants also become eligible for circuit awards by competing in a minimum number of the shows. Circuit winners are recognized at the NC State Fair (Eastern Circuit) or at a year-end banquet (Farm Credit Circuit.) Following is a bit more information about each circuit. Even if you don't have children showing, please consider attending and supporting a show in your area.

Eastern Carolina Showmanship Circuit

This circuit began in 1992 for heifers and lambs. Some years later, separate circuits for meat goats and swine began in the same area. In 2019, the meat goat and swine circuits combined into the ECSC, resulting in one organizing body for all four species. Shows in this circuit are all east of Raleigh.

County	Goat Show	Lamb Show	Heifer Show	Swine Show
Halifax	August 7	August 7	August 7	N/A
AGR (Johnston)	August 13	August 14	August 14	N/A
Jones	August 21	August 21	August 20	N/A
Lenoir	August 27	August 28	August 28	August 28
Elizabeth City	September 3	September 4	September 4	September 4
Edgecombe	September 11	September 12	September 12	September 11
Duplin	September 17	September 18	September 18	September 16
Sampson	N/A	September 25	September 25	September 25
Wilson	September 25	September 24	September 26	September 21
Pitt	September 26	September 14	September 21	N/A
Wayne	October 1	October 2	October 3	September 30

4-H Farm Credit Showmanship Circuit

This circuit is sponsored by Carolina Farm Credit and Cape Fear Farm Credit. Shows in this circuit are held in the south-central area of North Carolina.

County	Goat Show	Lamb Show	Heifer Show
Randolph	August 7	N/A	August 6
Guilford	August 14	August 14	August 14
Stanly	August 21	N/A	August 21
Anson	N/A	N/A	August 28
Cumberland	September 9	September 7	September 10
Richmond	September 11	N/A	N/A
Lee	September 15	N/A	September 16
Union	September 18	September 18	September 18
Moore	September 25	September 25	September 25
Robeson	October 2	October 9	October 9