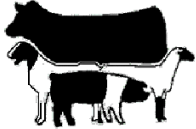


Johnston County Center

Livestock News

November 2023



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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.

Wake/Johnston Pesticide Safety School Dec 19-20, Smithfield

This school is for those seeking initial licensing in one or more pesticide license categories. Exams will be administered on day 2 beginning at 1 pm. Individuals wishing to become licensed are encouraged to pre-order pesticide manuals and are required to pre-register for the school. Visit pesticidesafety.ces.ncsu.edu for more information.

2024 Cape Fear Cattle Conference

January 18 at the Southeastern Agricultural Center in Lumberton

Beef Cattle Reproduction Field Day November 28 at 9:00 a.m. Sampson County Livestock Arena 55 Agriculture Place, Clinton, NC 28328

Topics will focus on male and female reproduction, calving season, heifer and bull development and management, expected progeny differences, artificial insemination, heat detection, advanced technologies (estrus synchronization, timed AI, embryo transfer, etc.), and pregnancy checking. Cost is \$20 per person. Bring cash or check to the meeting.

Please register by November 22 using the link: <https://go.ncsu.edu/beefrepo23>

NC Farm School 2024 Southeast

Are you thinking about starting a farm? Are you already farming and want to try a new idea to diversify your farm? North Carolina Farm School (NCFS) is a unique strategic business planning program for aspiring, new, or transitioning farmers. Our mission is increasing the number of successful farms in North Carolina. We are a network of extension specialists, extension agents, and local farmers. We want to invite you to apply for NC Farm School that will be hosted right here in Johnston County. We want to help you succeed in developing your farm plan and we are gearing up to bring you some awesome resources. Classroom sessions will be held on the dates below from 6 to 9 p.m. Snacks, drinks, course material, and online resources will be provided.

Feb 12 and 16, March 11 and 25, April 8 and 22, May 6 and 21

There will also be field days held: Feb 21- Wayne County, March 20-Lee County, April 17-Harnett County, May 15-Wilson County and May 29-Johnston County

Program cost is \$300 per person or \$550 per double registration.

Visit ncfarmschool.ces.ncsu.edu for more information and to register for the 2024 session.

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.

Animal Waste Management Updates

By: Becky Spearman, Livestock Extension Agent with N.C. Cooperative Extension in Bladen County

Statewide Animal Waste Zooms - 3 hours each

November 15 from 9 am - 12:15 pm
go.ncsu.edu/23oicnov15
 Topics: Mortality Management, Irrigation
 and new technologies

November 30 from 1 - 4:15 pm
go.ncsu.edu/23oicnov30
 Topics: Inspection Missteps, Sludge
 Management, and Soybean Updates
 (1 hour X pesticide credit at 3pm)

Check your hours - use
go.ncsu.edu/oichours2023
 or use



In-person County Animal Waste Continuing Education Classes - 6 hours

Date	Location	Time	To register, call or email:
Nov, 29	Sampson County	9 am - 4 pm	910-592-7161 or max_knowles@ncsu.edu
Nov. 30	Robeson County	9 am - 4 pm	910-671-3276 or taylor_chavis@ncsu.edu
Dec.1	Duplin County	9 am - 4 pm	910-296-2143 or amanda_hatcher@ncsu.edu
Dec. 5	Bladen County	9 am - 4 pm	910-862-4591 or becky_spearman@ncsu.edu
Dec, 6	Greene County	9 am - 4 pm	252-560-6094 or kfmohrfe@ncsu.edu
Dec. 7	Wayne County	9 am - 4 pm	919-705-1921 or stefani_sykes@ncsu.edu
Dec. 12	Duplin County	9 am - 4 pm	910-296-2143 or amanda_hatcher@ncsu.edu
Dec. 15	Lenoir County	9 am - 4 pm	252-560-6094 or kfmohrfe@ncsu.edu

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.

New General Permits

The North Carolina Department of Environmental Quality (DEQ) held public hearings and a comment period on six draft Animal Feeding Operations general permits (swine, cattle and poultry facilities with liquid waste management systems and animal feeding operations with farm digester systems). Public input will be considered in the development of the general permits, which will become effective Fall 2024.

The proposed timeline shows the new permits will be finalized in January of 2024. Farms will receive mailed packets in January and farmers must apply for a new permit in March 2024 (180 days prior to expiration of current permits).

Details can be found at: <https://www.deq.nc.gov/animalpermits2024>

License Fee Increases for Animal Waste Operators

The NC General Assembly increased exam and renewal fees and added a late fee.

- Annual operator renewal is now \$25 (was \$10).
- **There is no longer a grace period. A \$50 late fee will be assessed on January 1 if renewal payment is not received by December 31st.**
- **Not getting your invoice is not an excuse to not pay.**
- You can pay online at <https://epay.deq.nc.gov/ocp-epayments.html>
- Invoices are expected to be sent out the week of Oct 25th. Contact your agent if you don't receive it.
- The exam fee was increased to \$85.

100 Pound PAN overseed is available

Farms can change their Certified Animal Waste Management Plan (CAWMP) to apply 100 pounds to your overseed. 50 pounds can be applied in Oct, Nov, and Dec and 50 pounds in Jan, Feb and March. There is a 25 pounds combined max applied in Dec and Jan. Grazed fields can apply 75 pounds with a 37.5 pounds split in Oct/Nov/Dec and 37.5 pounds in Jan/Feb/March. Talk with your technical specialist if you are interested in changing.

Reminder: Lagoon analysis is required 60 days before or after pumping or applying animal waste.

Pearson Square - The Tool for Balancing Rations

By : Brooke Zeleny, Livestock Area Agent with N.C. Cooperative Extension in Craven, Jones, and Pamlico Counties

As small scale farming and homestead farms become increasingly popular in our agriculture industry, knowing how to properly formulate a mixed ration can improve the average daily gain of livestock, and increase the productivity of a farm as a whole. A mixed ration is a group of ingredients with each ingredient bringing a new nutritional requirement to the ration. The main nutrient requirement most producers single out is crude protein (CP). This is highly focused on in livestock production because protein builds muscle in the body. Therefore, the percentage of CP in any feed type is important for reaching gain requirements. When formulating a ration, the producer has the ability to increase or decrease the amount of CP found in the mixed ration. Simply put, a mixed ration allows the producer to have greater control of exactly what is being fed to their livestock. The Pearson Square comes into relevance for having the job of balancing a ration. It is most effective when only dealing with two ingredients. For example, let's say a farmer is currently feeding feed1 a 20% crude protein feed, and he decides the protein needs to increase to 28% crude protein. How would he increase the percentage of crude protein in the feed? This can be accomplished by adding another ingredient with a higher percent protein content. Now the farmer brings in feed2 with a 31% crude protein amount. How can he determine how much of feed1 and feed2 need to be mixed together to create the desired protein amount of 28%? One answer is to use the Pearson Square method. There are only five steps in the process. Work on a 100% dry matter basis, when calculating percentages they need to be put into decimal form. Meaning you will be using a number less than 1.

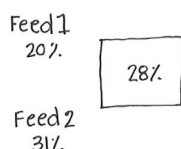
1. Setting up the square: two ingredients on the left side, desired CP% in the middle of the square.
2. Cross subtracting: disregard the negatives; in this instance negative numbers do not exist.
3. Add the two differences together on the right side of the square. Take each part on the right side of the square and divide by the total.
4. Multiply the numerical outcome of step 3 by 100% to calculate the % of the ration that each ingredient will represent.
5. Check calculations - should equal 100 lb total ration.

Below is the suggested problem worked out:

Important Values:

- Feed 1 = 20% CP
- Feed 2 = 31% CP
- Desired CP% = 28%

Step ①: Setting up the square:



Step ③: Adding Parts & Dividing by total:

$$\begin{aligned}(31 - 28) &= 3 \dots (3 + 8) = 11 \\ (28 - 20) &= 8 \dots \uparrow \\ &\text{Total Parts}\end{aligned}$$

Step ②: Cross Subtracting:

$$\begin{aligned}\text{Feed 1 } 20\% & \quad (31 - 28) = 3 \\ & \quad \swarrow \quad \searrow \\ & \quad 28\% \\ & \quad \nearrow \quad \nwarrow \\ \text{Feed 2 } 31\% & \quad (28 - 20) = 8\end{aligned}$$

$$\begin{aligned}\text{Feed 1} &= \frac{3}{11} = 0.2727 \\ \text{Feed 2} &= \frac{8}{11} = 0.7272\end{aligned}$$

Step ④: Multiply by 100

$$\text{Feed 1} = \frac{3}{11} = 0.2727$$

$$0.2727 \times 100 = 27.3\% \text{ of } 100\text{lbs}$$

$$\text{Feed 2} = \frac{8}{11} = 0.7272$$

$$0.7272 \times 100 = 72.7\% \text{ of } 100\text{lbs}$$

$$27.3 + 72.7 = 100\%$$

Step ⑤: Check calculations → on a 100lb mix basis:

$$\text{Feed 1 amount in pounds} = 27.3\text{lb} \times 0.20(20\% \text{ CP}) = 5.46\text{CP}$$

$$\begin{aligned}\text{Feed 2 amount in pounds} &= 72.7\text{lb} \times 0.31(31\% \text{ CP}) = 22.54\text{CP} \\ &= 100\text{lb} \quad \quad \quad = 28\% \text{ CP}\end{aligned}$$

Conclusion: In 100lb mixed ration. To get 28% crude protein, a farmer needs to mix 27.3lbs of Feed1 and 72.7lbs of Feed2.

Step 5 tip: The pounds of ingredients from feed1 and feed 2 should always equal 100. Multiply feed lb by the original CP%. This calculation should give the new % of CP found in feed type 1 vs. feed type 2. The sum of the new CP% will equal the desired CP%.

The outcome of these calculations can be interpreted as:

- On a 100% dry matter basis, for this particular ration, for every 100 pound (lbs) mix 27.3 lbs come from Feed1 and 72.7 lbs come from feed2.
- Within the 27.3 lbs there is 5.46% CP and inside the 72.7 lbs there is 22.54% CP. Making the total CP% equal to 28% (the desired CP%).
- Visit [Pearson Square Colorado State Example](#) for more information.

Are Your Genetics Holding You Back?

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

What is a good herd bull worth? This past year has been a pretty good one for the people in the cow-calf business. This summer saw feeder calf prices the highest they have been in a long while. When calves are bringing in over \$2.50 per pound there is certainly a lot to be grateful for. Traditionally, when feeder calf prices run this high, herd bull prices fall right in line with them. Late October through December brings a bulk of our bull sales in NC, and I expect there will be a lot of hand raising and hollering on purebred cattle farms and sale facilities all over the state in the next several Saturdays.

I can understand people's excitement when it comes to investing in a new herd sire this year as most beef economists agree that the beef cycle is looking at strong prices for the next 2-4 years. With strong feeder calf prices forecasted, cattle farmers do not mind paying a little extra for a good bull to boost their calf weights and put some money back in their pocket.

There are many ways to improve your calf crop: better nutrition for your lactating cows, better herd health programs, a strong preconditioning program for your weaned calves – just to name a few, and this list could go on for quite a while! But probably the quickest and easiest way to get your calves bigger and better next season is to breed to a better bull.

The United States Constitution states that all men are equal, but when it comes to beef breeding bulls, I will argue with anyone that this sentiment no longer holds true. Some bulls are just better than others and therefore some bulls are worth more than others. When it comes to buying a bull, the same old argument comes up again and again... How much is a good bull worth? Ask anyone who has been in the business for a while and they'll give you the same 2-3 old rules of thumb.

Such as, a herd bull is worth 2 ½ times that of a finished steer. This year a finished steer would run you around \$2500-\$3500, give or take. So that'll put a bull priced around \$6500-\$8000.

Or, a herd bull is worth 5 of his feeder calves. This past year feeder calves brought anywhere from \$1100-\$1800 depending on how far along you grew the calves before selling them, so let's take the average and say \$1400. That will put a bull around \$7000.

In all honesty, I have no idea where these rules came from. I would not be surprised if years ago an animal science professor somewhere got tired of being asked this question over and over and just made this up and it stuck. Regardless, I doubt that many cattle farmers in our area will tell you they are planning to spend \$8000 in a bull this year.

So lemme settle this debate once and for all - a herd bull is worth exactly what it takes for the most stubborn SOB at a bull auction to sit there and keep raising his hand till the

auctioneer points at him and says **SOLD!**

In NC, where at least 75% of our bulls are bought and sold at auction, there is no predetermining or predicting the price that an animal will sell for. He will be worth what the buyers dictate among themselves is the most they are willing to spend on that particular day. Most bull buyers go to a sale with hopes of bringing back an outstanding young herd sire for \$1000 and most bull sellers hope their bulls will average over \$10,000. But, at the end of the auction, supply will meet demand and the bulls will bring what they will bring.

The question you really need to be asking yourself: how much is a bull worth to you or your farm?

For example, take Farm A who has 200 cows, back-grounds its feeder calves to 800-900 pounds and is selling truckload lots.

Then take Farm B, who has 20 cows and sells calves right off the cow at around 500 pounds.

Neither farm is better than the other as they are both running their businesses the way that makes the most sense for their particular situation, and just because Farm B is smaller does not mean they are making any more or less profit per calf than Farm A. However, here is where these two farms differ when it comes to investing money in a top dollar bull:

Farm A is going to have 30-40 calves (at least) off of their herd sire, plus they are raising these calves to a much higher weight and keeping them on the farm for a longer duration of time. A good bull that will pass down a higher growth rate onto these calves in their first year of their life is going to bring about a much greater return on investment in this situation.

Does that mean farm B cannot afford to invest in a good bull? Of course not. But it does mean that that this farm should be more prudent in selecting a bull and finding the right fit on sale day. With less calves to sale and those calves being sold much earlier in their life they will not be able to benefit from as much additional growth characteristics from the same bull as Farm A.

There are MANY other options for Farm A to consider should they need a more economical and efficient approach to improving their genetics, an Artificial Insemination (AI) program being one of them. Sure, AI takes a little work and does not guarantee 100% results, but for a smaller farm that is wanting to improve their genetics, this can be a much more viable option than spending \$6000-\$8000 on a top bull in a sale. A timed insemination program and a good breeding technician can equally improve your calf crop in a single day. Talk to your local extension agent or contact a vet or a genetics company that carries out on-farm AI services if this sounds like the right option for you.

The Buck (or Ram) Doesn’t Have to Stop Here!

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

Sheep and goats are short-day breeders, meaning they are sexually active and mate during the fall when the day length is shorter. Small ruminants (sheep and goats) are pregnant for about 145 days or 5 months. Determining when to introduce and remove the breeding males to the females is largely dependent on your target market.

Ethnic groups, such as those of Hispanic and Caribbean descent along with those who practice Islam, Judaism, and Christianity are the main groups who seek out lamb and goat. The demand for these animals increases during particular cultural and religious holidays. Consumers seeking lamb and goat for religious and cultural celebrations have different preferences, most notably the time of year when the animals are required. Because sheep and goats tend to have offspring in the late winter or early spring, animals might not be at the preferred size at the time of the holiday. Observance dates of some religious holidays can vary significantly from year to year. Therefore, producers who are hoping to market their animals to the mentioned groups should know when the holidays will be along with knowing consumer preferences for lamb/kid size, gender, and other characteristics to determine when their breeding season should be.

Below is a chart that includes dates for various religious holidays for 2024, when the buck or ram should be introduced, and consumer preferences for each of the holidays. Males should be left with the females for 2-3 heat cycles (34-51 days for sheep and 42-63 days for goats). Sheep and goats are usually weaned at 90 to 120 days and 40 to 60 pounds. So when planning, for most of the consumer preferences, you need to plan to have the male in with the females around 8 months before the date of the holiday. You may have missed the opportunity to have lambs and kids ready for some of the holidays listed below but this will help give you an idea for future planning.

Religion/ Tradition	Holiday	2024 Date	Introduce Male	Consumer Preferences
Christianity	Western Easter	March 31	June 2023	30 – 45 lb lamb; milk-fed and fat
				20 – 50 lb kid; 3 months or younger (avg. 30 lb)
	Eastern Orthodox Easter (Greek Easter)	May 5	August 2023	40 – 55 lb lamb; milk-fed and fat
				20 – 50 lb kid (avg. 35 lb)
	Christmas	Dec 25	March 2024	Milk-fed kids and lambs
				Larger adult animals for stew and curry
Hinduism	Navadurga/Navaratri/ Dussehra/Dashain	April 9	July 2023	Male goats; size of carcass depends on number of people to be fed; relatively tender
Islam	Start of Ramadan	March 11	June 2023	60 – 80 lb weaned market lamb
				60 lb weaned kids with all milk teeth, not older than 1 year
	Eid ul-Fitr (End of Ramadan)	April 10	July 2023	60 – 80 lb weaned market lamb
				60-lb weaned kids with all milk teeth; not older than 1 year
	Eid ul-Adha (Eid, Festival of Sacrifice)	June 17	September 2023	60 – 80 lb lamb; blemish-free animals
Judaism	Passover	April 22-30	July 2023	30 – 55 lb lambs; milk-fed and fat
	Rosh Hashanah	October 2-4	January 2024	60 – 110 lb weaned lamb; fore-quarters
Other Holidays	Cinco de Mayo (Mexican)	May 5	August 2023	15 – 30 lb (live weight); suckling kids (for cabrito)
				Large, weaned market kids (seco de chivo, barbecue)
	Caribbean (Carnival, Carifest, Jamaican Independence Day, etc.)	August	November 2023	60 – 80 lb young buck; smelly
	Chinese New Year	February 10	May 2023	60 – 80 lb (live weight) goats

Toxic Plants of the Sandhills

By: Tom Shea, Livestock Extension Agent with N.C. Cooperative Extension in Moore County

Plant identification is integral to owning and maintaining a good horse pasture. Knowing what plants are toxic can mean the difference between happy, healthy horses and a hefty vet bill or death. Nine toxic forages, trees, and weeds are common in the Sandhills area.

Forages

Alfalfa is not commonly grown in the Sandhills but is often used as hay. Alfalfa hay is safe but be toxic if it contains blister beetles if baled after a blister beetle swarm. Small parts of the beetles can be toxic to horses, and four to six grams of blister beetles can be deadly to an 1100 pound. The beetles contain a chemical called Cantharidin. Cantharidin is a contact irritant and vesicant which causes blisters. The most often affected areas are the gastrointestinal (GI) mucosa or the lining of the GI tract, including the mouth and gums. Death can follow rapidly after the development of symptoms. The last outbreak of blister beetles in North Carolina was in 2015. According to the American Association of Equine Practitioners, symptoms of blister beetles include:

- Colic
- salivation,
- anorexia,
- toxic line, purple, and blue line that forms on the gums around the base of the incisors. Indicates endotoxemia
- watery feces,
- bloody feces,
- cardiac arrhythmias,
- bloody urine,
- Thumps, rhythmic contractions of the abdominal musculature, and appears as hiccups
- increased packed cell volume (PCV),
- increased protein levels of blood,

Kentucky 31 Tall Fescue is a popular grass forage in North Carolina, especially in clay soils. Tall Fescue contains a fungus called an endophyte that helps the plant grow and thrive. This endophyte is detrimental to livestock, leading to miscarriages and Red Bag deliveries. Red bag deliveries occur when the placenta has separated from the mare's uterus lining before foaling. This caused the death of the foal because the foal was no longer receiving oxygen. Tall fescue is safe for stallions, geldings, and non-pregnant mares. Tall Fescue is a fantastic forage for nutrients; thankfully, we have new varieties of tall fescue that are safe for all horses. These are called endophyte-free and novel fescues. Endophyte-free Tall Fescue is precisely what it sounds like, and there is no endophyte. However, missing the endophyte makes the plant significantly weaker and hard to maintain. Novel fescue has an endophyte that helps the plant maintain its health but is not toxic to pregnant mares.

Blackpatch is a fungal disease of clover that causes excessive salivation in horses. Blackpatch infects legumes in humid/ wet conditions over 80 degrees Fahrenheit. The fungus that causes the blackpatches is *Rhizoctonia leguminicola*. The plants infected with *Rhizoctonia leguminicola* produce a mycotoxin called slaframine. Slaframine toxicosis causes excessive salivation. The horses will struggle to swallow the excessive saliva, frequently urinate, and have diarrhea and lacrimation. Horses will recover 24-48 hours after removing the infected clover. It is essential to prevent dehydration, especially in temperatures in the 90s with high humidity. Dehydrated horses may require electrolytes or IV fluids.

Trees

Cherry trees (*Prunus* sp.), including black cherry, chokecherry, and fire cherry. These trees are part of the *Prunus* family, including peach and plum trees. When these leaves wilt, they produce cyanide and can affect horses within a few hours. Horses typically only eat the leaves if they are hungry or bored. It is best to remove the cherry trees from horse areas altogether. Symptoms include:

- Death
- Abortions
- Rapid Breathing

- Bright red gums
- Convulsions
- Low blood pressure
- Weight loss
- Hindlimb incoordination
- Coma
- Respiratory failure

The toxicity of **oak trees** (*Quercus* sp.) comes from acorns, especially in the spring. The primary toxins are tannins and gallotannins. Oak toxins affect the kidneys and cause impaction colic when ingested in large amounts. Similar to cherry tree leaves, horses will typically only eat acorns when they are hungry or bored. Impaction colics require veterinary care and can lead to a twisted gut and death. According to the Cummings School of Veterinary Medicine, symptoms of oak toxicity include:

- Colic
- Straining to urinate
- red/brown urine
- Ventral edema
- Diarrhea
- depression

Red maple (*Acer rubrum*) tree leaves are just as toxic as cherry tree leaves but are seasonally toxic. The leaves become toxic when they are damaged or begin to wilt. The leaves edges will become red or yellow in the fall. The underside of the leaf will have a silver sheen. The best step to avoid poisoning from red maple leaves is to remove the trees from in and around pasture areas altogether. Symptoms often to not appear for four days. Symptoms of red maple poisoning are:

- Lethargy
- Discolored urine
- Darken gums
- Death

Weeds

A weed is a plant that is not valued where it is growing and is usually of vigorous growth (Merriam-Webster). Some are toxic, like **annual buttercup** (*Ranunculus hebecarpus*). Buttercup are little yellow flowers that can quickly take over a pasture. The only way to deal with annual buttercup is pasture management and herbicide. Buttercup is prevalent in pastures that are overgrazed. Contact with a buttercup while grazing around it can lead to symptoms. Symptoms of buttercup toxicity are:

- Blisters on the mouth, gut, and skin
- Diarrhea
- Colic
- Swelling on the nose, lips, and the skin

Pigweed (*Amaranthus retroflexus*) is commonly found growing in dead patches of dead grass where hay is fed. This broadleaf weed is found throughout the United States. It grows from late winter through the summer. Pigweed accumulates high levels of nitrates. When ingested, it throws off the potassium levels leading to kidney failure and possible death. Symptoms of Pigweed poisoning are:

- Dark gums
- Respiratory distress

Wild parsnip (*Pastinaca sativa*) can lead to phototoxic reactions in horses. This invasive weed can cause these issues without the horse eating them. Photosensitive skins happen after horses eat the plant, Utah State University recently reported that these symptoms can occur by contact with skin. Wild parsnip looks similar to carrots. They are part of the same family. This tall plant can cause skin reactions in people and other animals, especially on sunny days. A chemical called furanocoumarins is found in the plant sap and causes skin reactions.

The Importance of Sampling for Commercial Poultry Producers

By: Margaret Ross, Eastern Area Specialized Poultry Agent with N.C. Cooperative Extension

Commercial poultry producers have a lot of recordkeeping to keep up with and sampling records are a big part of their routine. Understanding when and how producers should sample is key to getting an accurate sample analysis back from the laboratory.

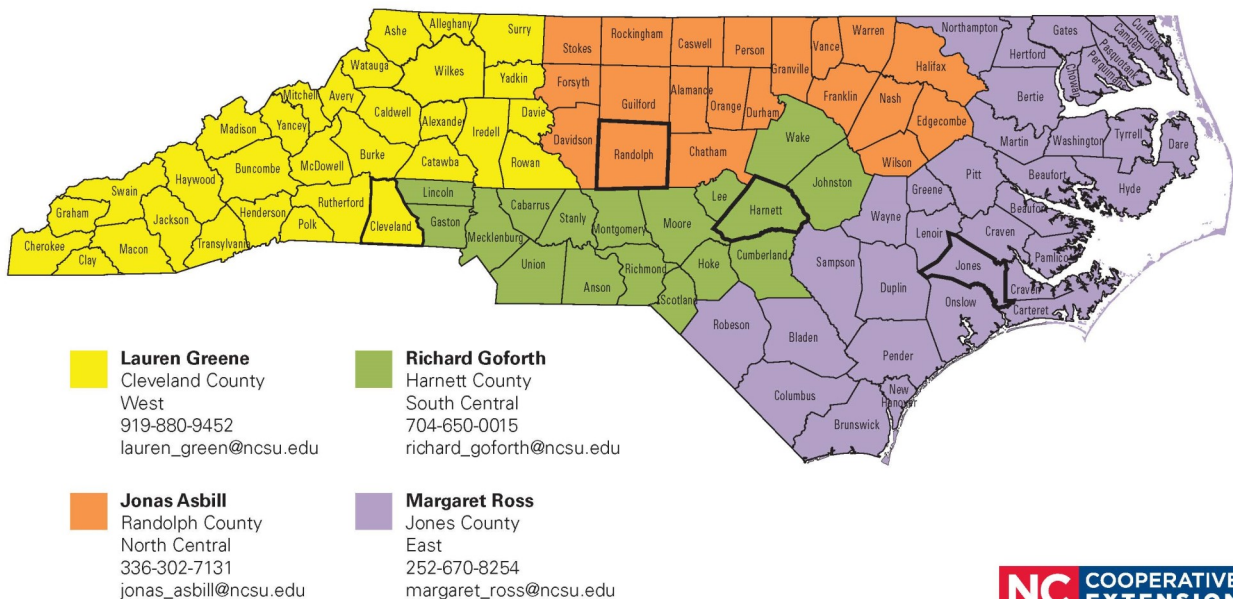
Litter sampling is required within 60 days of a litter application, meaning the producer has a 120-day window to sample. When sampling stockpiled litter or a dry stack- a representative sample should be collected by taking core samples at least 18" deep in several different locations on the stack. If the litter has been stored for a while and crusted over, remove the top 3-4 inches before taking core samples, then mix the samples in a plastic bucket and place about a quart of material in a clean plastic bag and ship the sample to the laboratory in a suitable container to be analyzed.

Sampling in-house litter should be done by inspecting the house and estimating the percentage of floor space used for different activities such as feeding or watering. Then take core sections of litter in those defined areas to get a representative sample of the house. Mix samples well in a plastic bucket. Put one quart of material in a clean plastic bag and ship it to the laboratory in a suitable container.

For both stockpiled litter (dry stack) and in-house litter sampling, the accompanying paperwork should be properly filled out, including an email address. The North Carolina Department of Agriculture laboratory will only mail you a hard copy if requested. Also, if you are using a third party applicator, it is your responsibility as the producer to provide the waste analysis to the third party applicator, as it will be used in determining proper litter application rates. Be sure to check fees before you send your samples off as they are subject to change. A few tips for proper sampling: always submit representative samples to get an accurate depiction of your waste, keep your samples cool- if you are going to store them for more than one day, they need to be refrigerated, and do not put the paperwork inside the sample containers.

Soil sampling should be done at least every three years. There is accompanying paperwork for soil samples as well. Be sure to check peak season fees. Currently, there are no fees for samples submitted from April 1 - November 30. A \$4 / sample fee should be submitted from December 1 - March 31. To properly take a soil sample, you should first pick up a soil sample kit from your local Cooperative Extension office. Agents there will be able to answer any questions you may have on how to properly take a soil sample. First, be sure to use iron or stainless steel tools and only sample dry areas of 10 acres or less (per box). Avoid combining soils that may have different treatment histories. You should collect 15-20 cores at the appropriate depths: 0-8" for plowed soils and 0-4" for no-till soils. Use a plastic bucket to mix the cores well and fill the soil sample box to the appropriate line. Be sure not to put soil samples in a plastic bag. Ship to the laboratory in a suitable container.

You can find all these forms at your local Cooperative Extension office. If you have commercial poultry questions, feel free to contact your Area Specialized Poultry Agent.



go.ncsu.edu/Extension-ASA-Maps

JANUARY 2022

2023 Eastern Carolina Showmanship Circuit Winners

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

The 2023 Eastern Carolina Showmanship Circuit wrapped up in October and awards for each species were presented at the NC State Fair. Livestock Shows in the Eastern Carolina Showmanship Circuit were held in Halifax, Smithfield, Kinston, Elizabeth City, Tarboro, Kenansville, Trenton, Wilson, Greenville, Goldsboro, and Clinton.

Participants in the circuit were required to attend at least four shows to be in contention for circuit awards, with their top six scores (beef, goat, and sheep) or top five scores (swine) being counted towards their circuit total. The highest point winner in each age division received a championship belt buckle, with reserve winning an embroidered jacket. Third through fifth place exhibitors each received gift certificates from livestock supply vendors.

Sponsors for the 2023 circuit included:

Signature Circuit Sponsors; Smithfield Foods-Hog Production Division, Quality Plus Automotive Service

Platinum Sponsors-AgCarolina Farm Credit, NC Pork Council

Silver Sponsors- NC Hereford Association, Picole Farm

Swine Showmanship Winners *Denotes a tie that was broken on head-to-head competition or dropped scores.

Placing	Novice	Junior	Intermediate	Senior
1	Harley Barwick	Cody Formisani*	Mackenzie Cox	Billie Faith Fulcher
2	Sarah Morgan	Arlee Shaye Fulcher	Lucy Formisani	Travis Cox
3	Clayton Rouse	Riley Ballance	Halle Taylor	Hannah Cooper
4	Southerlynn Carter	Emma Pulcini	Connor Barwick	Logan Ballance
5	Wesley Smith	Genevieve Pulcini	Evan Mayo	Isaac Linton

Goat Showmanship Winners

Placing	Novice	Junior	Intermediate	Senior
1	Adelyn Jane Hemilright	Macon Parker	Kennedy Lee	Hattie Jo Powell
2	Brooke Bright	Carson Norris	Emma Taylor	Erin Burns
3	Southerlynn Carter	Anderson Lee	Mary Grace Baker	Chesney Holliday
4	Sawyer Hemilright	Delaney Davis	Darci Boucher	Carlie Blalock
5	Hunter Taylor	Emma Briley	Magdalene Parker	Abby Gaskins

Heifer Showmanship Winners

Placing	Novice	Junior	Intermediate	Senior
1	Makenzie Davis	Emma Beasley	Abigail Blankenship	Lydia Crocker
2	Wyatt Beasley	Massey Cassell	Grayson Blankenship	Caleb Davis
3	Olivia Cassell	RubyAnn Pipkin	Wyatt McCoy	Emily Oberman
4		Jackson Pipkin	Laithan Blankenship	Mazie Bunn
5		Lucas McCoy	Makayla Davis	Daisy Brown

Lamb Showmanship Winners *Denotes a tie that was broken on head-to-head competition or dropped scores.

Placing	Novice	Junior	Intermediate	Senior
1	Valerie Poole	Tenley Barbour*	Darci Boucher	Emma Britt
2	Zoie Bright	Kaylee Casper	Kendall Ayscue	Hattie Jo Powell
3	Bristol Patterson	Meredith Poole	Annah Claire Sullivan	Emma Raynor
4	Karson Harris	Kennedy Winslow	Lexi Barbour	Lane Markham
5	Nathaniel Poole	Loralei Cox	Caitlyn Anderson	Jacob Meads