NC COOPERATIVE EXTENSION

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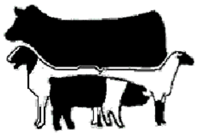
Scotland County Center

Livestock News

July 2024



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Green Industry Updates

Ashley Grubb

Area Horticulture Agent with N.C. Cooperative Extension – Hoke & Scotland County Centers

I am thrilled to be the new Area Horticulture Agent for Hoke and Scotland Counties! I moved up to North Carolina at the end of February from Houston, Texas with my husband, 5 year old daughter, dog, bunny, and a 12 foot trailer full of plants. We're still unpacking and learning the area but are so happy to be here and call this beautifu+l place home!

For the past 12 years, I was a buyer and operations manager for one of the top 100 retail nurseries in the country. My role within that organization allowed me to research and purchase plant material for the nursery, create educational programming for the local community, and oversee the growing schedule and plant selections for a 6 acre greenhouse growing operation. I was the on-site resource for insect, disease, and chemical/fertilizer questions at the nursery, and I also had the fun job of showcasing everything that was happening there through its social media channels. I worked closely with Texas A&M AgriLife Extension and the Texas Nursery and Landscape Association as well.

In terms of credentials, I have 2 degrees from Texas A&M University in Conservation Biology & Biodiversity and Entomology and I am a Texas Master Certified Nursery Professional. Outside of my professional career I have created a non-profit that works to promote monarch butterfly habitat restoration through the growing and distribution of native milkweed, while providing jobs for adults who have disabilities. I LOVE gardening. It is both my hobby and my profession. I haven't found an aspect of gardening that I don't like (even weeding can be therapeutic)! I am a lifelong learner and enjoy the process. I hope to be a useful resource for each of you and I look forward to all of the new things that you can teach me too!

Here at NC State Extension, I am ready to hit the ground running and hope to soon be able to offer a schedule of lawn and garden related programming that we can all be excited about! Please feel free to come by and say hello or send me an email! I would love to hear about the programs and horticultural topics you are interested in. If you would like to contact me, my email is Ashley_Grubb@ncsu.edu.

Animal Waste Management Updates

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

Initial 10-hour Animal Waste Operator Class (OIC)

There will be an initial class on July 22 and 23 in Lenoir County. Participants will be able to take the September exam. Contact Kaelyn Mohrfeld to register at (252) 560-6094 or kfmohrfe@ncsu.edu .

New General Permits

As of June 14, the new general permits have not come out. They will go into effect on October 1, 2024.

Draft permit details can be found at: https://www.deq.nc.gov/animalpermits2024

Records to discard after 5 years:

- Waste Analysis results
- Soil Analysis results
- Calibrations
- Crop yield forms
- Rainfall records
- Lagoon level records

** If you want to keep old files, put them in a different box or file box and show the inspector records for the last 5 years.

Check your hours and when they are due.

Reminder: Lagoon analysis is required 60 days before or after pumping or applying animal waste. Set reminders on your phone or calendar to take them in a timely manner.

Tasks to be completed yearly			
	Due Date	Task	Notes
	Daily	Rainfall Record	Record all rainfall events on an approved form.
	Weekly	Freeboard Record	Record on approved form. Do the same day of each week to help you remember to do it.
	After each irrigation event	Record information on IRR 1 & IRR 2 forms	Can use computer to keep records.
	Within 60 days of application	Waste sampling and analysis	Within 60 days before or after a waste application.
	Yearly by Dec. 31st	Sludge survey on all lagoons	Can request an extension to decrease the frequency between surveys.
	Yearly by Dec. 31st	Pay $25 OIC license fee - Late fee after Dec 31 is $75	Invoice sent in the fall - if you don't get your invoice, contact your agent, consultant, or inspector for help.
	As needed	Preventative maintenance	Perform preventative maintenance on all waste management system equipment.
Tasks to be completed every other year			
	By December 31st	Calibrations on all waste application equipment	Plan to do these during the summer when weather conditions are more favorable.
Tasks to be completed every 3 years			
	By December 31st	Soil Samples	Samples are free from April to the end of November. Samples are $4 each from around Thanksgiving until March 31. *Take samples when FREE!*
	By December 31st	Attend Continuing Education Credit Classes	Need 6 hours every 3 years.

Heat Stress in Cattle

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

It's July and we've already experienced some very hot, humid days. I can only imagine what August will bring! With hot temperatures, and not a lot of rain so far to cool things down, it's important to recognize that your animals are at risk for heat stress. Your dogs, cats, horses and livestock are all susceptible so it's imperative that you pay attention and keep an eye on them.

With the hot temperatures during the day, and the nights not being much cooler, your cattle are at serious risk for heat stress because they never quite get cooled off. Their ideal comfort zone is between 41 and 77 F, we are a long way from those temperatures here in eastern NC. There are several ways you can help keep your cattle cool—and can be applied to other livestock and domestic species!

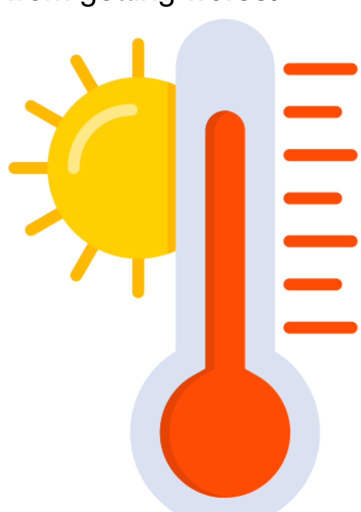
Avoid handling and moving cattle: restrict movement, processing, and stress to times when it's not so hot. Early morning and low stress handling is probably your best bet.

Extra water is key: for cattle on pasture, make sure you provide extra water. The water needs to be clean, cool and readily available in order to do it's job. Water intake increases during the summer months, so it's important that you have an overabundance of water available to your animals. The intake will actually decrease if the water temperature gets above 80 F, so you must constantly check and refill your water sources to encourage consumption. Mature cows nursing calves need 20-30 gallons of water per day in the summer.

Observe animals regularly: you know your animals and you know what is normal behavior for them. Watch animals for abnormal behavior and indications of problems, the sooner you can determine these the sooner you can fix the issues.

Provide shade: when it gets too hot for us outside, we all like to cool down under some shelter or shade. The same is true for our animals, especially dark hided animals. Our young and old animals are particularly sensitive to heat stress. Direct sunlight causes the body temperature to increase and reduces the animal's ability to dissipate it's own body heat.

There are several signs of heat stress that you should be on the lookout for during these hot summer months. Elevated breathing rate, restless and increased time standing are some of the early stages of heat stress for our livestock animals. Open mouth breathing and drooling means that the animal is even more stress and needs to be treated. Heat stress can damage the growth, reproduction and viability of your animals. If you own animals, you must constantly observe them for signs of stress so that you can prevent these symptoms from getting worse.



Controlling Grassy Weeds in Bermudagrass Stands

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

During this time of the year, I spend a lot of time talking to livestock owners and hay farmers about how to control weeds in their Bermuda fields. I still get the occasional call about broadleaf weeds here and there - things like dogfennel, pigweed, horse nettle, etc. - but mostly I get asked about *grassy weeds*.

“Grassy weeds” is a general term for weeds that are either a true grass (such as Bahia grass or crab grass) or are so similar in appearance and growth habit (such as nutgrass or sandspurs) that effective chemical control is harder to achieve than with broadleaf weeds.

Since these plants are so closely related to Bermuda grass it is much harder to achieve a chemistry that will kill or suppress the target grass and not also hurt the Bermuda. The timing of product application is much more critical and the cost is often much more significant.

Here are some of the more commonly used grass control products labeled in NC and some strategies to best use them:

Roundup- while Roundup (Glysophate) is a staple in a late winter/Spring burndown spray (although with less efficacy over time), it has some limited uses in the summer growing season. One example is for early season control of crabgrass in hayfields when sprayed immediately after the first cutting, 1-3 days post-baling. This will not give season-long control of crab by any means, but you can burn the Crabgrass back for several weeks and moderately clean-up your second cutting.

Pastora – (Nicosulfuron & Metsulfuron) Pastora has several uses for grass control. The Metsulfuron component will help to suppress Bahiagrass during the season, especially if applied April/May. The bigger advantage with Pastora is the post-emergent control of both Crabgrass and Sandspurs. Both of these weeds can be controlled with Pastora IF you time the spray quickly after these weeds emerge in the Spring. If sprayed when they are less than 2” or at the first 1-2 leaves stage you can control the first flush effectively. However, if you wait and let these weeds get over 2” effective control decreases rapidly. The most difficult part of this is identifying either of these weeds that early.

Additionally, Pastora is effective on Vasseygrass, especially if mixed with 6 ounces of Glysophate. Unlike the early spring applications with other grasses, Vasseygrass needs to get some size to it before being sprayed. Waiting until July or even August so the spray gets maximum surface area contact with the plant is the most effective time. It may take up to two years’ worth of spraying to fully control Vasseygrass.

Panaromic/Impose/Journey - (Imazapic) Any of these Imazapic products will give pretty reliable post-emergent control of a broad spectrum of broadleaf and grassy weeds - including sandspurs, crabgrass and sedges.

So, for a field that is wrapped up in all types of weeds, this is a good fallback option. However, the downside of this chemical is that it causes significant damage to and growth suppression of Bermudagrass. Bermuda will be yellow and stunted for at least three weeks post application. Imazapic should not be used on first year Bermuda stands, and should only be applied to healthy, actively growing Bermuda that is not drought stressed.

Outrider - (Sulfosulfuron) this is a product that is narrower in what in controls but gives good results for certain species. Nutsedges, Kylinga species and Johnsongrass are all very effectively controlled with Outrider. One note when using Outrider for Nutgrass control; two applications 4-5 weeks apart will give better long-term control than a single application.

Pre-emergents- Prowl H2O & Rezilon - pre-emergent products are very effective on annual species like ryegrass, crabgrass and sandspurs if applied prior to these species germinating. For summer grasses like Crabgrass, a late-winter/early spring application can give good control for most of the following growing season. Often the active ingredient will run out by the end of the season, but these products will usually give you 2 clean cuttings of hay. Both Prowl H2O and Rezilon are similar in their application windows and timing but each have minor differences discussed below:

Prowl H2O (Pendimethalin) can be difficult to apply as it is very weather dependent. Prowl needs to be watered-in (rain or overhead irrigation) to get into the soil to work. Unfortunately, this rain event needs to happen no more than 48-72 hours after application as Prowl breaks down quickly in the sun. Applying in the rain is not a good strategy as it will decrease efficacy, so timing your spray event right ahead of a rain is a critical, and often difficult, factor when using Prowl.

Rezilon is also weather dependent and must have a rainfall to be activated but it does not have the photosensitivity issue like Prowl does, so if you miss a rain shower for a week or two after application Rezilon will still be partially effective. One downfall Rezilon does have, however, is it restricts newly established Bermuda (1-3 years post sprigging) from sending out runners (Rhizomes). Horizontal spread is critical for Bermuda to establish in a field so Rezilon should not be used until a stand has fully filled-in.

Heat Stress in Small Ruminants

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

Summers in North Carolina can be brutal, with high temperatures and humidity. Late in June, we experienced temperatures over 100 degrees. This harsh climate is not just challenging for us but also for our animals. It's alarming to know that cattle can start experiencing the effects of heat stress at a mere 70 degrees Fahrenheit. Their water intake doubles between 70 and 90 degrees Fahrenheit. Heat stress can significantly impact their reproduction performance, meat quality, and growth rates, and in severe cases, even lead to death. This underscores the importance of our role in preventing and managing heat stress in animals.

Sheep and goats, being more tolerant than horses, swine, llamas, alpacas, and cattle, have evolved in desert climates. Their large ears serve as a natural cooling mechanism. For wool sheep, shearing in the spring before the major heat arrives is crucial. Research has shown that an inch-thick wool can help keep sheep cooler than those with shorter or longer wool. However, they have less tolerance when stressed, as seen when being worked. This is where our proactive approach comes in. If you need to do anything with your sheep or goat, plan to do it early in the morning to beat the heat. This early action can make a significant difference in preventing heat stress.

We can't forget our companion animals and livestock dogs. They are also affected by the heat. One of the leading causes of death in livestock dogs is heat stress from working and their high drive. Ensure to provide extra water and shelter for your companion animals and livestock dogs during hot days. Avoid using working dogs in temperatures above 90 degrees. When taking companion animals for walks during the summer, walk them on dirt or grass. Asphalt and concrete hold heat and will burn the paw pads of your companions.
Here are some tips on preventing stress and the signs to look for in your animals.

- Monitor watering systems more frequently
- Provide shelter or shade if there is no natural shade
- Feed pasture instead of hay when possible
- Avoid working, moving or riding animals between the hours of 10 a.m. and 4 p.m.
- Do not haul animals on trailers between 10 a.m. and 4 p.m.

Signs of Heat Stress

- Excess panting
- Excess saliva
- Increased sweat
- Laying down
- Labored breathing

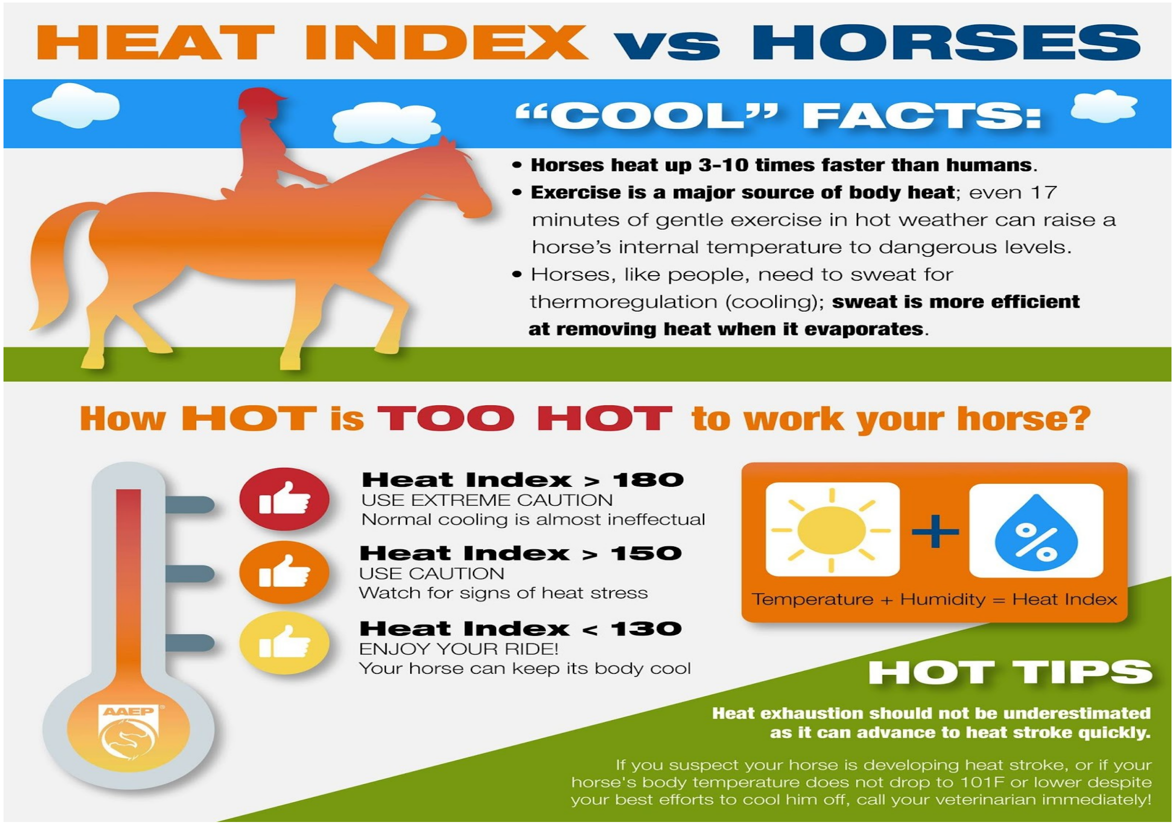
What to Do

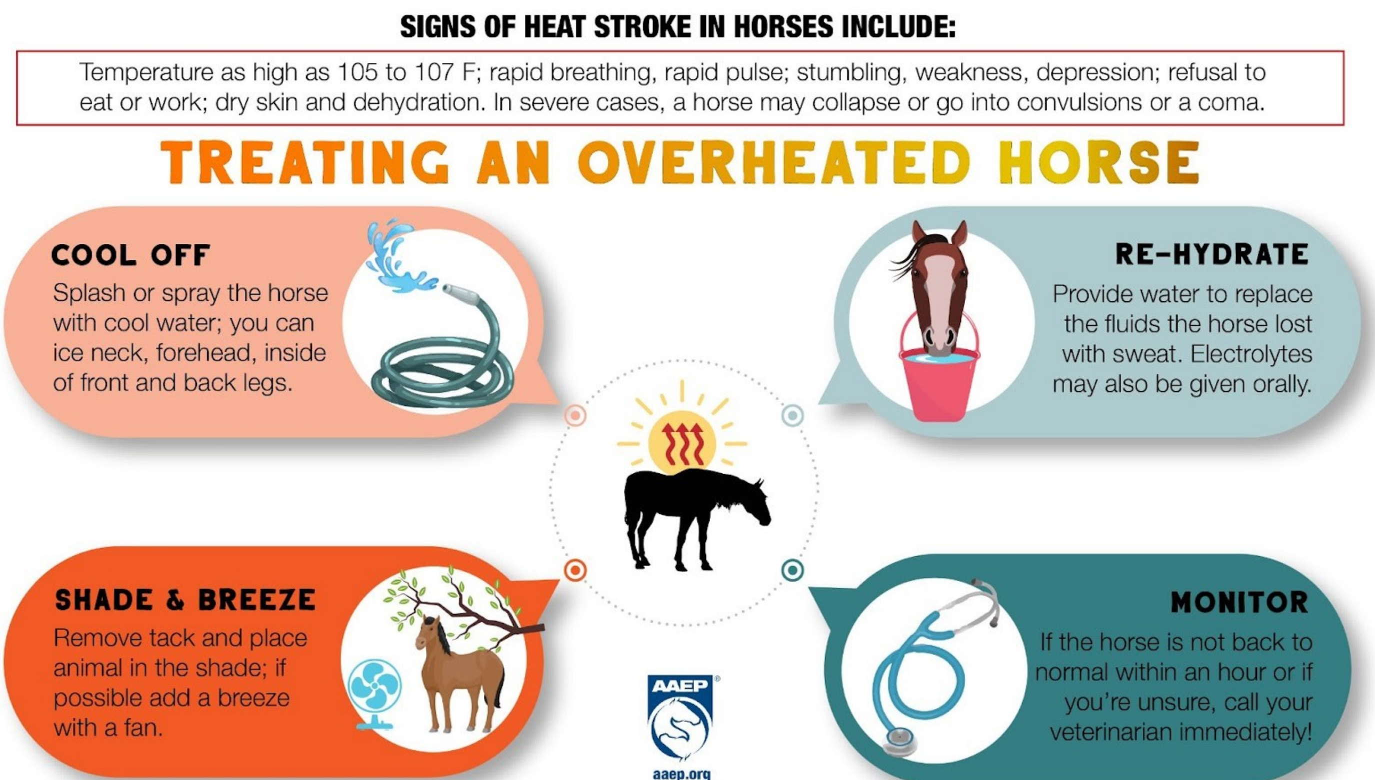
- Treat heat stress as an EMERGENCY
- Call your veterinarian, heat stress often must be treated with IV fluids.
- Provide electrolytes

When is it too hot to ride your horse?

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

The summer heat is here to stay and the humidity will continue to rise. It's important to be mindful of when you choose to ride your horse and what you do during that ride. These infographics from the American Association of Equine Practitioners (AAEP) can help you make smart decisions when planning your rides this summer.





All About Tractor and Hay Baler Safety!

Safety precautions and provisions to consider this hay season.

By: Morgan Simpson, Summer Intern with N.C. Cooperative Extension in Bladen County

As a new summer intern, I was delighted with the opportunity to attend a tractor and equipment safety training seminar on my first day of the job. At the seminar, extension agents from across various neighboring counties learned about the importance of safety when working with numerous types of equipment including tractors and hay balers. This information is especially important today since we are now in the heart of hay season.

PTO Safety: You cannot outrun it!

When talking about tractor safety, the implement that is typically mentioned first is the PTO (power take off) shaft. This shaft spins incredibly fast to transfer power from the tractor to the implement. A PTO shaft operating at 540 rpm has the capability to wrap 7 feet per second. Therefore, one cannot rely on their own reflexes to prevent injury. To help prevent injury, be sure to refrain from wearing loose or baggy clothing and tie up any loose hair that may get caught in a moving PTO shaft. Do not operate PTOs around bystanders, especially children.

Never make a repair with the PTO shaft engaged. When lubricating, adjusting, or cleaning a baler (or any other implement), be sure that the tractor is off, that all parts have stopped moving, and that the PTO is disengaged. Always be sure to check that all shields and guards are in place before operation to prevent injury. However, please note that accidents can still occur even when a guard is in place. Guards and shields are not a replacement for smart safety practices. Use both guards, shields, and safety practices together to best prevent injury.

Moving Parts: Watch out!

Pulleys, belts, and chains are common parts within a hay baler. Clemson University concluded that, on average, these hay equipment parts boast a 66 feet per second pull-in rate. With this kind of speed, not only is personal injury a safety threat, but so is the threat for fire. Tractors should always be equipped with a 10-pound dry chemical (ABC) fire extinguisher. To prevent fires from occurring, be sure to frequently clean out the machine from dust, debris, and any other material that could trap or hold heat. Proper greasing and maintenance can decrease the amount of friction or heat generated by these moving parts.

The condition of the hay baler gate lock should be frequently examined. Gate locks help control the hydraulic "open and close" functions of the large, rear back door of the baler. Be sure to never work beneath the reach of the door without the lock engaged- hydraulics can fail and cause severe injuries.

Baler belt pins should also be replaced periodically (check your baler specifications for exact replacement times). These pins are extremely important as they work to join and hold two ends of the large rear baler belts together.

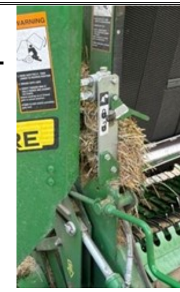


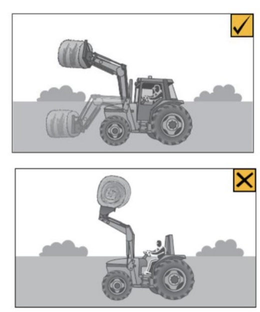
Figure 2: A baler fresh out the field. An example of how easily debris can get caught in the working parts of the machine.

Transporting Round Bales: Watch your head!

There are numerous ways to move round bales of hay including tractor loaders, trailing bale movers, or 3-point hitch carriers. Always be sure that the equipment is large enough to carry and stop the weight of the load. When traveling on public roadways, be sure to have a SMV (slow moving vehicle) sign always present and be sure to use straps or tie downs to properly secure the load.

Remember that round hay bales are extremely heavy (600+ lbs.). If the weight of the load is not distributed correctly, a bale may cause a tractor to roll, tip over, or become unbalanced. Equipment operators should take extreme caution when working on a sloped or uneven surface, as these conditions can increase the chance of a roll-over. Proper tire air pressure is also needed to handle these heavy loads.

Perhaps the most dangerous activity when moving hay is the act of lifting the load. Be sure that the equipment is large enough to handle the load. Bale spears have been known to break when under too much pressure. Front end loaders can also be dangerous. If a bale carried on a front-end loader is raised too high, the bale may roll down and crush the operator before they have time to react. When lifting hay bales, equipment operators must also be mindful of hot power lines above them. Hitting a powerline may cause electrocution or death to the operator. Caution must also be exhibited when stacking hay bales. Don't stack bales so high that they might fall and crush bystanders. To best prevent injury, do not move hay when others are standing nearby



Front-end loader from www.worksafe.qld.gov.au

References: *Farm Safety: Safety Considerations for Hay Season. Clemson University. (2014).*
Safety Considerations for Hay Baling Season. The Ohio State University. (2017).

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 and has continued each year since then. Shows in this circuit are all east of Raleigh. Registration is not required for this circuit but you must enter each show individually. There will be a form available to order t-shirts and provide contact information. Updates can be found at the Eastern Carolina Showmanship Circuit Facebook page.

Show	Sheep	Goat	Swine	Heifer
AGR	8/10	8/09	8/10	8/10
Halifax	8/18	8/18	*N/A*	8/18
Jones	8/17	8/17	8/17	8/16
Lenoir	8/24	8/23	8/24	8/24
Albemarle	8/31	8/30	8/31	8/31
Edgecombe	9/7	9/6	9/7	9/7
Duplin	9/14	9/13	9/12	9/14
Pitt	9/19	9/22	*N/A*	9/17
Wilson	9/20	9/19	9/17	9/21
Sampson	9/29	9/29	9/28	9/28
Wayne	9/28	9/27	9/26	9/29

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 Central region of North Carolina. Updates are posted to the 4-H Farm Credit Showmanship Circuit Facebook page. Registration is required for this circuit by July 19 and will be found on the Lee County Extension Page at lee.ces.ncsu.edu.

County	Heifer Show	Goat Show	Lamb Show
Randolph	8/3	8/3	N/A
Stanly	8/17	8/17	8/17
Anson	8/24	N/A	N/A
Cumberland	9/6	8/31	8/31
Cabarrus	10/12	10/12	10/12
Richmond	9/7	9/7	N/A
Chatham	9/20 or 9/21 for all species, TBD		
Lee	9/12	9/11	N/A
Union	9/16	9/16	9/16
Moore	9/21	9/21	9/21
Robeson	10/7	9/28	10/7