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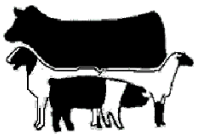
Livestock News

May 2019



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Contact Us

NC Cooperative Extension
Johnston County Center
2736 NC Highway 210 STE A
Smithfield, NC 27577-9556

Phone: 919-989-5380
Website:
https://johnston.ces.ncsu.edu/

Dan Wells
Livestock Agent
dgwells@ncsu.edu

One hundred-four youth from across Johnston County participated in the annual Youth Livestock Show & Sale April 22-24. There were 10 steers, 18 heifers, 48 market goats, 77 market hogs and 17 market lambs entered in competition. The sale grossed over $145,000.

Winners for the Market Show included:

Species	Grand Champion	Reserve Champion
Steer	Schyler Crocker	Shelby Anderson
Heifer	Riley Wood	Justin Wood
Market Lamb	Lydia Crocker	Lydia Crocker
Market Goat	Andrew Roberts	Hattie Jo Powell
Market Hog	Kaylee Pittman	Kaylee Pittman

Showmanship Winners Included:

Beef	Novice	Junior	Senior
Grand Champion	Abby Jones	Lydia Crocker	Kadence Overby
Reserve Champion	Kaylee Johnson	Charlotte Wood	Schyler Crocker
Market Lamb	**Junior**	**Intermediate**	**Senior**
Grand Champion	Kennedy Lee	Lydia Crocker	Kadence Overby
Reserve Champion	Caroline Coats	Karina Erskine	Morgan Barefoot
Market Goat	**Junior**	**Intermediate**	**Senior**
Grand Champion	Scarlett Denning	Erin Burns	Kadence Overby
Reserve Champion	Kaylee Johnson	Hattie Jo Powell	Sara Brewer
Market Hog	**Junior**	**Intermediate**	**Senior**
Grand Champion	Thomas Tart	Carter House	Tanner Bentley
Reserve Champion	Makenzie Eason	Connor House	Brittany Beasley

Scholarships were presented to: Taylor Rhodes, Luke Adams, Hunter Lee, Justin Wood, Brittany Beasley, Sara Brewer, and Abby Jones.

Frank Lee and Ronnie Powell were inducted into the Johnston County Agriculture Hall of Fame.

Animal Waste Management

Sprayfield Options

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

Many of you may look at your sprayfields this spring and wonder what may come. After the intense rain from Hurricane Florence, along with a wet winter, sprayfields are in less-than-desirable shape. Fertility is probably low as fields are lacking in micronutrients and potassium that was washed away. Now is the time to make some decisions on summer sprayfields.

If you need to re-plant a sprayfield, a soil sample is the best way to start. Before spending precious cash on seed, make sure your soil is healthy enough to support new grass. Sometimes, spending the cash on soil health will reap more benefits than new seed.

There are a few alternatives you can consider for grasses. Below are some of your summer annual options.

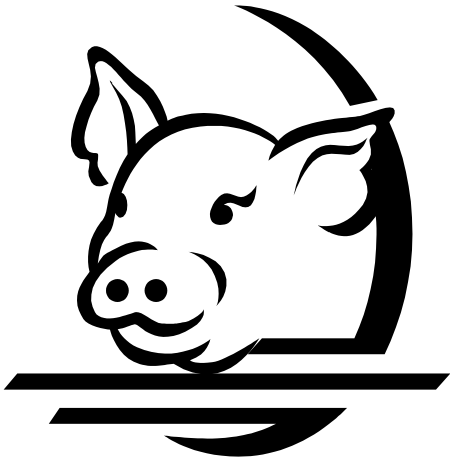
- Pearl Millet
- Sorghum/Sudan
- Crabgrass
- Improved seeded Bermuda varieties

Each of these grasses are great for sprayfields, and most of them have PAN rates similar to Bermuda. Bermuda does not tolerate wet soil very well, so if you know your stand is declining, try one of these options. Each of these will transition nicely with a fall planting of a small grain like rye, oats, wheat, or triticale. The combination summer and fall planting will make for a perfect year round sprayfield option that has great PAN rates for your waste planning needs.

Millet, Sorghum/Sudan, and Crabgrass all make for excellent pastures. They are more difficult to dry, so getting hay can be a challenge. Those that have had the best luck with these three choices usually make haylage by wrapping the wet bales in plastic. The wrapped forage makes great feed for cattle through the winter.

If you still need to make dry hay and just need to give your existing Bermuda stand a facelift, I would suggest seeding bare areas with improved varieties of seeded Bermuda. These varieties include Cheyenne, Mowhawk, Wrangler, and several others. Bred for high yields, these grasses perform similarly to our old stands of Coastal Bermuda.

To make the best decisions for your farm, make sure you know your soil type so you can choose the grass that will match it in terms of drainage and fertility. Contact your local Extension Agent for help with fertility and soil mapping.



Don't Be Crabby About Crabgrass

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

Crabgrass is hated by most farmers, especially those who make hay to sell to horse owners. Crabgrass has a high capacity to reseed, survive through drought, and is adapted to many soil types, making it a great weed, however, these qualities are more reason why you should consider using crabgrass as a forage on your farm. Crabgrass is a high-quality summer annual forage that can be incorporated into a grazing system or cut for hay.

There are several species of crabgrass including large or hairy crabgrass which is the species most commonly used as forage. Crabgrass has wide pale green leaves covered in course hair and spreads by long stolons or runners that form roots at nodes. Crabgrass will grow in a wide range of soil types and tolerates drought but should be planted on sites that are not excessively droughty during the summer months. It is tolerant to a broad spectrum of pH levels, growing in soils with levels ranging from 5.5 to 7.5.

The forage quality of crabgrass is usually higher than that of other warm season grasses such as bermudagrass and bahiagrass. The crude protein content of crabgrass ranges from 21% in the early growing period to about 16% in late August. Most grazing animals need a maximum of 12 to 14% crude protein thus the protein content is more than adequate. As forage crops mature the stem material accumulates which is less digestible than leaf matter, a primary reason for declining nutritive value throughout growing season. However, with crabgrass the quality of the stem is quite high, especially compared to other warm season grasses. The University of Arkansas did an in depth study on crabgrass and found that the amount of fiber (NDF, neutral detergent fiber) remained relatively constant and quite low during July and August at 55 to 62%. By comparison, other common warm season forages contain higher fiber concentrations ranging from 64 to 82 percent in bermudagrass to 70 to 78% in bahiagrass. The Arkansas study found that crabgrass was broken down in the rumen 44% faster than bermudagrass due to the lower fiber concentration. The dry matter yield of crabgrass can vary based on soil fertility and moisture, but will typically yield 3 to 5 tons per acre.

Crabgrass seeds will begin to germinate when the soil temperature is around 58 degrees so planting can usually begin by mid-April, after the danger of frost has past. Planting after mid-June is risky due to the variation in rainfall later in the summer. Seeding rate should be a minimum of 2 pounds of pure live seed (PLS) per acre, but planting 3 to 5 pounds of PLS per acre helps ensure a stronger stand. The seed needs to have good soil contact and can either be drilled or broadcast over the soil surface. The seedbed should be fresh, clean, and firm. If drilling, the seed should be drilled at ¼ inch deep and no deeper than ½ inch. Using a cultipacker after broadcasting seed helps improve germination and may avoid washing of seed by a heavy rain. If you are broadcasting into an existing stand of grass think about competition. If the established grass is very tall or thick the crabgrass seed will have a hard time getting adequate sunlight. It is recommended to broadcast into perennial grass stands that are thinning. If there is adequate soil moisture, some crabgrass seed will germinate within a few days, though the stand may continue to thicken over 2 months or more from additional seedling establishment.

A maximum of 120 pounds of N is recommended to be applied in 2 to 3 split applications during the growing season with the first application being made after the seedlings have emerged. A second N application can be made after the first grazing or hay harvest if additional forage is needed. It is not recommended to apply N after mid-August, since little growth response would be expected. Apply lime, P, and K according to your soil test results.

Grazing can begin when the crabgrass is 4 to 6 inches tall and shouldn't be grazed lower than 3 inches and responds well to rotational grazing. If you plan to use crabgrass for hay production it should be cut in the boot to heading stage, normally around 18 to 24 inches tall which should allow at least 2 harvests per year. When harvesting for hay leave at least 3 inches for regrowth. If crabgrass is cut before it makes mature seed, leave 6 inch uncut strips between mower swaths or allow it to go to seed at the end of the season. Crabgrass hay is dark in color and may appear to have a lower quality than what it actually contains. A forage analysis would show you its true nutritive value. Crabgrass contamination in bermudagrass hayfields intended for horse hay can be a concern because the darker color of the dried crabgrass has less eye appeal which can also discourage horse owners from purchasing hay that contains crabgrass.

Reseeding management is key to continue to have successful stands of crabgrass. It should be managed to produce seed sometime between June and frost in the fall to ensure a volunteer stand the next year. Harrowing or light tillage in the fall prior to planting winter annuals or in early May will help encourage volunteer crabgrass.

There are currently three commercially available varieties, Red River, Quick-n-Big, and Impact, developed at the Noble Foundation in Ardmore, Oklahoma. Quick-n-Big comes on faster than Red River and is more productive later in the season. Impact is a later maturing variety that has later seedhead production and longer vegetative periods when compared to Red River. Each variety can be purchased separately. A blend of Impact and Red River is also available. When purchasing seed it is possible to purchase new or aged seed. It is recommended to use aged seed especially if a quick thick stand is desired.

It may be difficult to look at crabgrass as a beneficial forage versus a weed but it can add a lot of nutritive value to your grazing system or hayfields. If you have questions about incorporating crabgrass into your farm, please contact your local Extension agent.

Preparing Your Calves for Weaning

By: Ashley Robbins, Livestock Extension Agent with N.C. Cooperative Extension in Chatham County

If you are a cow-calf producer then the future of the beef industry starts with you. Simple management practices in the areas of nutrition and animal health will better equip your calves to succeed at the next stage of development and have the potential to make you more money.

It is very important that you take special measures to ensure the health of your calves before they leave your farm. If you think you don't need to process your calves because it doesn't affect you then you are sadly mistaken. Vaccinating, castrating and dehorning calves will directly determine if that calf will succeed or fail during the next stage of development which in turn directly affects the success of the US Beef Industry and ultimately comes back to affecting you as a producer. When you think about why you're farming, the bottom line is to put a high quality product on the market to feed people. In order to do that calves need to be healthy and that starts with you, the cow-calf producer.

It is a good idea to work with your veterinarian on specifics for vaccinating your calves. Vaccination protocols will vary between management strategies, if calves are leaving your farm directly at weaning then they should at least get one round of vaccines and dewormed, if they will be leaving your farm 45 - 90 days post weaning then they should receive 2 rounds of vaccines and dewormed. Calves should be given a modified-live and clostridial vaccine initially while they are still nursing and then boostered 3- 4 weeks later. Other vaccines like Inforce3 are very good to give when calves are going to be stressed, like weaning. These vaccines help protect calves against various viruses that are detrimental to their health. Calves also need to be dewormed. There are many types of dewormers on the market and they can be given a variety of ways; pour-on, oral, and injectable. Talk with your veterinarian to determine which might be the most affective in your area.

Calves that are weaned can be marketed as such and will bring a premium at the sale since buyers know that they will be less stressed and will go the feed faster than a calf that has not. Studies have shown that calves weaned for 90 days will perform better at the feedlots and shrink less during the transition. The majority of buyers want calves weaned for at least 45 days if you cannot hold them for the entire 90 days. Getting calves off the cows is not only beneficial to the calf but to the cow as well. During this later stage of gestation the cow needs to put on some weight since she will lose weight after calving. Also, her body needs to work on growing the calf inside her rather than feeding the one on the ground. Making cows work through their gestation has shown to affect them negatively which will directly affect their ability to raise their next calf.

Another management strategy that will help your calves be successful and increase your profits is nutrition, more specifically, creep feeding. Creep feeding with grain has been proven to improve weaning weight by as much as 100 pounds over non creep fed calves. Creep feeding high quality forages has been shown to be similar or slightly less then gains from grain-based creep programs. Creep grazing is often the most economical way to add extra weight on calves since it is usually cheaper to grow high quality forages than to buy grain. Calves prefer milk over creep feed and tend to forage and nurse to capacity before touching specific creep feed or forage. Creep feeding does not affect daily milk intake but grain based creep feeding will decrease forage intake. On the other hand, if you have a cow or heifer that is a low milk producer, the calves nursing those animals will compensate for this by increasing creep feed intake and will be able to keep their growth performance equal to the other calves in the heard. Feed efficiency is key when creep feeding, typical ranges are 5-9 pounds of feed to 1 pound of calf weight.

Research has been done to determine what length of time is ideal for the most return on investment when creep feeding. Studies have shown that only creep feeding for 1 month prior to weaning will have no effect on the weaning weights of calves or their post-weaning performance. However, creep feeding for 60 – 90 days before weaning has been proven to increase weaning weight and post-weaning performance of calves. Ultimately though, 60 days of pre-weaning creep feeding has been shown to be more economically efficient than 90 days of pre-weaning creep feeding. Regardless of length of time on the creep feeder, calves will be 'bunk broke' and can be marketed as such. These calves will have less shrinkage at the sale barn and will outperform other calves during the next stage of development.

It is important to take into consideration, how you are planning on marketing your calves, how much time you have, cattle prices/trends, and the cost/availability of feed and forage supplements, when deciding on your creep feeding and/or weaning program. Whichever you chose paired with a processed calf will no doubt set your calves above the rest, allowing them to be successful and improving your bottom dollar.

Parasites in Horses

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

It's Spring time again! You're not the only one enjoying the nice weather. Parasites are back, thriving in the nice warm sunshine and the host to these nasty little critters are your horses! You may ask yourself, "How do I keep my horse from being negatively impacted by parasites?" Research shows that keeping a routine deworming schedule is the most effective way to keep your horse safe from the negative effects of parasites. That's the easy part, the next question is what dewormer do you give at what time of year and for what parasite? Let's break this down starting with the parasites themselves. A parasite in adult horses that is of concern is Small Strongyles. Small Strongyles are present in all horses but are relatively mild pathogens and only produce disease when the parasites are present at very high numbers. Other parasites that pose are problematic in horses are Roundworms, Tapeworms, Large Strongyles, Pinworms, Bots, and Threadworms.

The lifecycle of most internal parasites involves eggs, larvae (immature worms), and adults (mature worms). Eggs or larvae are deposited in the manure of an infected horse, which ends up on the ground where swallowed while the horse is grazing, where the larvae mature into adults within the horse's digestive tract (stomach or intestines). With some species of parasite, the larvae migrate out of the intestine, into other tissues or organs, before returning to the intestine and maturing into egg-laying adults. Contrary to popular belief, horses can have large numbers of internal parasites while still appearing to be relatively healthy. But in some individuals, especially young horses, parasites can take a visible toll. Common signs of a parasitic load are dull rough haircoat, no energy, loss of condition, slowed growth in young horses, pot belly (especially in young horses), colic, and diarrhea.

There are several different dewormers currently available such as oral paste, feed additive, and nasogastric tub. No deworming product is 100 percent effective in eliminating every horse of all internal parasites. As long as the parasitic load is reduced, improvements will be made in the health of the horse. There is no single deworming program that suits all horses and all situations. The best program for your horse(s) depends on number and ages of the horses on your farm, pasture management and where you live. It is best to have your regular vet help you create an appropriate deworming program for your horse or farm.

Horse Wormers and the Parasites they Treat

	Bots	Encysted Small Strongyles	Pinworms	Roundworms (ascarids)	Strongyles Small & Large (bloodworms)	Tapeworms
fenbendazole *Panacur, Safe Guard, Safe Guard EquiBits*			X	X	X	
fenbendazole (double dose for 5 days) **or** **moxidectin** *Panacur PowerPac*		X				
ivermectin *Horse Health Ivermectin, Zimecterin, Bimectin*	X		X	X	X	
ivermectin w/praziquantel *Zimecterin Gold, EquiMax*	X		X	X	X	X
oxibendazole *Anthelcide EQ*			X	X	X	
pyrantel pamoate *Exodus*			X	X	X	
moxidectin *Quest*	X		X	X	X	
moxidectin w/praziquantel *Quest Plus*	X	X	X	X	X	X

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Summertime Water Management for Small Ruminants

By: Kelly McCaskill, Livestock Extension Agent with N.C. Cooperative Extension in Moore County

As warmer temps are quickly approaching you might want to take a moment to review your current water situation for your herd of sheep or goats. Access to cool, clean drinking water is important for every species of livestock year round but it's especially important when temperatures start to rise. Small ruminants drink ½ to 3 gallons of water a day depending on how much fresh forage they are ingesting and if they are lactating or not. Water availability and quality can greatly affect how well an animal performs during the summer months.

Distance to water is one consideration. Livestock should generally not have to walk more than 500 feet to get to a water source. If water is further away than this animals will not only drink less but may even start to lose body condition because of the extra energy exerted getting to their water source.
The quality of the water is another thing to consider. There are two main types of water sources for livestock; surface water, such as a pond and pumped water i.e. a well or city water. Surface water can provide a low cost, high quality water source to livestock if managed correctly but because of water pollution concerns are no longer the preferred method of watering animals. A water trough or automatic waterer filled by a well or city water is usually the best option for livestock systems.

No matter what your water source, you should test the suitability of your water for animal consumption. A solution analysis can be performed by the NCDA & CS agronomic division at the cost of $5 per sample. This analysis includes pH, mineral element concentrations and soluble salts. The pH of water is determined by its geographical location as well as surrounding environmental factors. Ideally we want our drinking water to be neutral, or as close to 7 as possible but a normal range for groundwater is 6 to 8.5. Mineral element concentrations are important to know because if levels are too high there can be toxicity issues. The minerals commonly tested for are N (measured as NH4 -N, NO3 -N and/or urea), P, K, Ca, Mg, S, Fe, Mn, Zn, Cu, B, Na and Cl. Soluble salts are generally low in surface water but can cause increased thirst and decreased palatability if levels are high.

During warm months water troughs can quickly become hot when in direct sunlight. Algae growth can also be an issue in troughs, especially when made of white translucent plastic. You can discourage algae growth in several ways:
<u>Goldfish</u> Add 4-6 goldfish per 100 gallons of tank capacity. Water temperature should be at least 60°F for best fish survival, so spring-fed waterers or tanks with a constant water turnover may have inconsistent algae control. Remember you're trading the presence of algae for the presence of fish feces. When small, take the goldfish inside the house before fall frost and put them back out again in summer. They survive outdoors better as they get larger.
<u>Chlorine Bleach</u> Add 2-3 ounces of 5.25% sodium hypochlorite (unscented laundry bleach) per 100 gallons of tank capacity every week. The chlorine will dissipate more rapidly in hot weather or if organic material is present in the tank. Do not use pipeline sanitizer or swimming pool chlorine. To determine gallonage of a square or rectangular tank, multiply in feet: (length x width x depth x 7.5). To estimate gallonage of a round tank, multiply in feet: (diameter x diameter x depth x 6).
<u>Copper Sulfate</u> Add copper sulfate (Bluestone or Blue Vitrol) at the rate of 1/8 teaspoon per 100 gallons of water to kill existing algae. It should then be mechanically removed. Cover or shade the tanks to help slow algae growth.
<u>Zinc Sulfate</u> Dissolve 1 cup of zinc sulfate in 1 gallon of warm water and put 1/2 cup of this solution per 100 gallons of water in tanks as often as necessary (it will depend on number of animals drinking, amount of organic material in trough, and weather). If bird manure on the roof is not a factor, direct runoff from galvanized roofs into waterers will do the trick as well.
If you are unsuccessful in keeping algae away you will want to clean your troughs regularly with a brush and a dash of bleach. Make sure to rinse the removed algae from the tank before refilling it.

A change in seasons is always a good time to reevaluate your management practices. If you have any questions or concerns about your small ruminant herd contact your local extension agents or veterinarian.

Fencing for Livestock

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

I have recently received a number of calls about fencing for livestock animals. Fencing is a major component of good grazing management and keeping livestock out of other pastures, private property, and highways. Good fencing provides control over the movement of livestock and how well forages are utilized. There are many types of fencing that can be used for livestock, but the purpose and goals of the fencing system should be considered before installing.

There are two types of fencing, permanent and temporary fencing. Permanent fencing is meant to last a long time and should be built using high quality materials. Permanent fencing should be built around the farm so that it establishes a fixed property line between neighboring properties. Pastures and/or cropland that will be used year after year should be fenced with permanent fencing. Temporary fencing are movable fences that are used for a short time period in one location and then moved to another area. Temporary fences cost less to install, but are usually not effective and do not take the place of permanent fences. Temporary fences are usually used for controlled grazing and to break pastures into smaller paddocks. Water resources should be carefully thought about when deciding the layout of the fence and if it will be permanent or temporary fencing. Water can be easily accessible from multiple pastures if properly planned.

There are several types of wire that can be used to construct the fences. Woven wire fences are made up of horizontal lines of smooth wire held apart by vertical wire. The space between horizontal line wires vary 1.5 inches to 9 inches. The spacing between wires gets wider as the fence gets taller. Barbed wire fencing is made of two strands of smooth, steel wire twisted together with two or four barbs spaced about 4 to 5 inches apart. Board fences are made up of 1 to 2-inch-thick, 4 to 6-inch-wide boards nailed to wood post space 8 to 10 feet apart. They are usually built to 4 to 5 feet high. Board fencing is usually more expensive. High-tensile fencing is becoming more common for livestock producers because it is easier to construct, last longer, and requires less maintenance. High-tensile fences are made with wires that have strengths of 170,000 to 200,000 pounds per square inch. High-tensile fences can stand 1,100 pounds of livestock pressure before losing elasticity. Treated wood post should be used to withstand pressure by tightly pulled wire. Electric fences are probably one of the most common used fences and usually one of the least expensive to install. The biggest thing to consider for electric fencing is adequate power source. Polywire is a form of temporary electric fencing that is made of fine woven wires. Polywire is used to train animals when implementing controlled grazing methods.

One of the biggest things to consider when choosing fencing is the livestock species. Fencing requirements are different for cattle, sheep and goat, swine, and horses. Size and age play a big factor in fence type and position. Most types of fence will work with cattle, but fence height should be at least 54 inches. Sheep and goat fencing does not need to be as high as cattle fencing, but producers should consider predator control. Woven wire and electric fences work well with sheep and goat. Barbed fencing usually becomes covered in wool from the sheep. Board fences are ideal for horses because it is easily visible for the horses. Electric fencing can also be used. Fencing for swine should be built close to the ground to keep pigs from rooting underneath the fence. Barbed wire also discourages rooting.

If you have any questions about fencing placement, type, please contact your local extension agent.

High-Tensile Wire Fence

Completing Your Poultry Waste Plan

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

The poultry industry is growing again in North Carolina and poultry producers are needing waste plans completed. For producers in need of a waste plan, here is the information I will need to complete the cover sheet of your plan: name of farm, land owner's name, mailing address, county, phone number, type of poultry, integrator name, and the one-time placement number of birds.

If you are using a 3rd party applicator to remove your litter, there is a form both the farm owner and the 3rd party applicator will need to agree upon, sign and date. If you are applying the waste yourself, please bring the maps provided by the county Farm Service Agency office of where you plan to apply the litter. These maps need to show field location, crop acreage, and be labeled to identify crops and spreading rates for each field. Nitrogen requirements will also be needed from the North Carolina Nutrient Management Program, where RYE (Realistic Yield Expectation) data is found online. I will determine the dominant soil type of each field and be able to complete the plan with this information.

Soil samples are currently required every three years from all fields that receive litter and must be processed by an approved lab, but you are welcome to test more often than this. You can have your samples processed in Raleigh at the North Carolina Department of Agriculture agronomic division laboratory. These records must be kept for three years, or if you are participating in a funding program with NRCS (National Resources Conservation Service) you must keep your records for five years. There are fees associated with soil testing during peak seasons for the laboratory, so be sure to check the rates before sending your samples.

Waste analyses are required within 60 days before or after a litter application (120-day window) and must also be kept three years or five years if participating in funding from NRCS. The maximum spread rate and nitrogen balance can be determined by using the PAN (Plant Available Nitrogen) numbers. Both the soil test results and the waste analysis results are now only available online unless you request a hard copy.

The last part of the plan are the spreading records forms (Dry 1, 2, and 3). These forms can be found at your local Cooperative Extension office, or you can request an electronic copy. There is also an Excel computer spreadsheet version that will do calculations automatically to ensure no errors. You will need the following information to complete these forms: date and amount of litter removed, date and location of spreading, date, fields and amount spread, as well as the nitrogen balance. Make sure you keep these forms updated on a regular basis and that everyone who applies the litter is filling out the correct forms.

What does your waste plan do for you and your farm? It gives you the necessary information to properly apply litter at agronomic rates on your fields. This way you are sure you are not over applying nutrients and the plants are able to completely use the litter as fertilizer. Making sure your waste plan is complete and accurate is the first step in making sure you are properly spreading litter from your poultry operation.

If you need a waste plan completed, you can contact Margaret Ross at Margaret_Ross@ncsu.edu or by phone at 252.670.8254.