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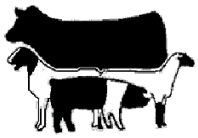
Montgomery County Center

Livestock News

May 2020



Inside This Issue

Thank you farmers!

I wanted to take this opportunity to say a big thank you to our farmers. These are very uncertain times but the one thing I know we can count on is the dedication of farmers. We can rest assured that these people will continue to work hard every day to do everything they can to be sure there is food available for us to eat. I have heard many other groups of people being thanked over the past several weeks, health care workers, delivery drivers, grocery store attendants, but I haven't heard people thanking farmers. So if you are a farmer thank you for all you do for us and if you're not a farmer try to find one and say thank you!

Extension is still here to help!

Even though we may not be in our offices, we are still here to help. You can call (910-576-6011) or email (jdwarner@ncsu.edu) me if you have any questions. I am able to make farm visits as long as we practice social distancing while we are together.

Until further notice the Montgomery County Center will be open to the public Monday-Friday from 9:00 am-4:00 pm.

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.

Contact Us

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Animal Waste Management

Waste Management Updates for Spring

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

Agriculture is essential! What good news! We knew that already.

With the shutdown of major private industry also came a slow-down in Raleigh at the NCDA labs. The Division of Water Resources was able to obtain a 90day waiver on all routine waste samples beginning March 24, 2020. This was done so that the lab could continue to operate with less staff on site. What does the 90day waiver mean to you? Don't send in routine waste samples. If you have an urgent matter- such as sludge removal, you CAN send in that sample. Be sure to label urgent samples as Diagnostic instead of Predictive.

So what sample do you use now?

Since the lab does not want routine samples, the Division of Water Resources developed guidelines for waste samples during this time. You have three options for the next 90 days:

Continue to use your most recent sample.
Go back to March of 2019 and use the sample that was current for that timeframe
Take all of the last 3 years samples and average the N analysis

Soil samples are also order to slow down. Do not submit soil samples to NCDA unless you have a problem.

Other labs for sampling:

If you choose to continue your sampling, you can always use a private lab. There are several in North Carolina to choose from. Below are the two closest to our area.

Waters Ag, Warsaw NC- 910-293-2108 or watersag.com
Waypoint Analytical, Wilson NC- 252-206-1721 or waypointanalytical.com

Annual Report Update

In addition to the sampling waivers, the Division of Water Resources has delayed the deadline for filing the 2019 Annual Report to June 1. The Annual Report is a new requirement for ALL swine farms in NC under the general permit. You received a copy of the Annual Report in the envelope with the new permit that was mailed in September of 2019. If you can't find your copy, contact your Extension Agent.

The Annual Report is not complicated, but it does require some math and record review. In order to fill out the report, you'll need to gather the farm's waste management plan, your soil samples, and your irrigation records from 2019. You will be totaling the irrigation you applied on the crops from the winter of 2018-19 as well as the crops in the summer of 2019. When you are adding up all the PAN applied, but sure to multiply the PAN applied per acre by the number of acres in each field. This will give you the total PAN applied on each field.

If you need assistance with your Annual Report, please contact your Extension office.

Common Mistakes When Planting Annual Forages

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

Annual forages are a great way to build soil, stretch out your grazing season, give your animals a little variety in their diet and potentially increase your average daily gains. They can also be frustrating if you are new to the forage game. Here are some common mistakes that people make when planting annual forages:

Not testing the soil prior to planting-Since annuals have only one season to grow and reproduce, they tend to be a little more tolerant of less than ideal soil conditions than their perennial relatives. That being said, you still want to make the right soil amendments to give them the best chance possible. Having a soil analysis done is the only way to know what's really going on with your soil fertility. You should test your soil ideally 6 months prior to planting. This gives you time to make any long term adjustments such as pH. It can take 4-6 months for lime to make its full adjustment to the soil pH, so giving yourself a little extra time is helpful. Even if you don't get your analysis results until the day before you plant and it comes back with bad news, you will at least be able to manage your expectations of the forage performance for that season and make the needed amendments before the next season. You can also use your analysis results to compare before and after the use of annuals to see if there was any increase in organic matter or change in fertility due to the forages used since it's always helpful to make sure we're moving in the right direction.

Seeding at the wrong dates -Last fall, the million dollar question was "When should I plant my cool season annuals?" It was hot and dry late into the season so choosing a planting date was a crapshoot. Since there is no magic 8 ball for the weather the best you can do is know your window and watch the forecast. For most warm season annuals the window for planting is somewhere between the first of May and the last of June. For most cool season annuals the planting window is late August to the end of October. Again, the dates are a moving target based on the weather. It also depends on what region of the state you are in; Mountains typically has a later beginning date for spring and an earlier cut-off date for fall and Coastal Plains typically has the opposite, an earlier start date in the spring and a later cut-off in the fall. The Piedmont, Tidewater and Sandhills regions fall between the two sets of dates. You will have your best chance of having a successful stand if you keep an eye on the forecast during these windows and get your seed out just before a good, steady, hopefully not-too-hard, rain.

Seeding at the wrong rates-Seeding rates are something that most people don't put much thought into but there are several things to consider when deciding how much seed to put out at planting. The first thing to think about is mode of seeding. Are you going to be drilling or broadcasting your seed? The rate for drilling is always a little less than the broadcast rate. The reason for this is that when you use a drill, you are guaranteeing that your seed is making good seed-to-soil contact which should give you a high germination rate (unless your depth is off or your seed is no good, but that's another topic for another day). When you broadcast your seed, the chances of having the correct amount of seed-to-soil contact decrease, especially if you are seeding into standing stubble or a rolled down previous crop. This means you will need to put out more seed to increase your chances of a good stand. The next thing to consider when choosing a rate is whether you are planting a monoculture or a mix. When planting a mix you will want to decrease the amount of seed for each type of forage a bit from what the individual seeding rate would be. For example if the normal seeding rates for broadcasting sorghum-sudan, pearl millet and cowpea are 30-40, 20-25 and 50 lbs/acre for individually planting then your mix would look something like sorghum-sudan-25lbs, pearl millet-15lbs and cowpea-40lbs. This of course should be adjusted based on your individual production goals or animal needs.

For more information on incorporating annual forages into your pasture system, contact your local Extension agent.

Beef Cattle Nutrition

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

Beef Cattle producers often question the need to feed their cattle. But the bottom line is, adequate nutrition impacts the ultimate performance of a cow's calf and her ability to get rebred, both of which directly impact profitability. Typically the producer has spent a lot of time and money on improving the genetics in their herd and without adequate nutrition those animals will not reach their full genetic potential. When developing a feeding strategy it is important to understand your production system; fall calving, spring calving or year round calving and how that matches up with your pasture availability. Do you have adequate forages available when your cow herd's nutrient requirements are at their highest or are you feeding hay? Cattle need adequate amounts of energy, protein, minerals, vitamins and water. Of course water is the most important, but this article will be focusing on energy and protein and how they affect the beef herd.

Energy is very important since it is required in every stage of production. Total Digestible Nutrients (TDN) is used as a measure of energy in a feed or forage. Third trimester gestation and lactation increase energy requirements since 95% of fetal growth occurs in the least trimester and because it takes a lot of energy to make milk. When feeding energy think about feeding a bucket of energy and each compartment meeting a cow's specific needs. The first thing that must be filled is the maintenance compartment, second comes growth (only first calf heifers have this additional compartment), next is to build up the reserves compartment, then once she has adequate reserves she will put energy towards lactation, and finally only after all the other compartments are full will she reproduce. In short, self-preservation is first and foremost, then preserving the life of the calf she has on the ground and then lastly she will put energy to making a new life. There are many problems that can occur if there is insufficient energy intake in late gestation. Calves will be born small and weak, lacking vigor to stand and nurse, resulting in higher death rates in newborns. Calves that do live, have a higher risk of developing scours and respiratory disease resulting in a decreased overall performance at weaning, at the feedlot, and even affecting carcass grade. Not only does insufficient energy intake in late pregnancy affect the calf but it also affects the cow. She will have lower milk production, an increased postpartum interval (PPI - the number of days after a cow calves that it takes her to get rebred) and poor conception rates which will both cause calves to be born later in the calving season which will decrease profitability of the next calf crop.

Protein is also an important nutrient since it is the building blocks of all tissue, including hormones which are critical for getting bred back. Crude Protein is used as a measure of protein on the feed tag or forage analysis. Protein requirements are the greatest in growing calves to support muscle growth and frame size. Creep feeds or forages for nursing claves should contain at least 15% crude protein. For brood cows, additional protein is often required to properly balance diets for young growing cows and lactating cows. This is especially true when low quality hay make up the majority of the diet. Grains can be used to supplement protein but high quality forages can supply calves and cows with extra protein. Cool season forages contain higher crude protein levels than warm season forages but remember that crude protein levels decrease with increasing forage maturity and decreasing nitrogen fertilizer rates. When feeding grain or hay make sure that it contains at least if not more than 10% crude protein. Problems can arise when there is too much or not enough protein in cattle diets. Excess protein can lead to embryonic loss since high bypass protein leads to higher blood urea nitrogen (BUN) levels. High BUN will lower the pH of the uterine environment making it toxic to the growing embryo. On the other hand, insufficient protein results in calves being born weak. Higher protein intake in the third trimester has shown to result in higher weaning weights in calves. This is known as fetal programming, protein deposition in-utero is going towards the calf's frame size, setting it up for its ability to grow after it hits the ground.

As mentioned earlier, nutrition directly effects a cow's reproductive efficiency. Reproductive efficiency is the most important factor affecting profitability in a beef cattle operation. A cow's gestation is around 280 days and the typical management goal is for cows to calve every year. That leaves 85 days (365 days in a year – 280 day gestation) to get that cow rebred after calving. Feeding adequate energy and protein have both been shown to shorten the post-partum interval. This is especially important in first calf heifers. Remember they have an extra compartment in their energy bucket, growth, which must be filled before even thinking about reproducing. This has an effect on their conception rates, since it takes them 10-20 days longer to recycle and subsequently rebreed.

In conclusion, strive to fill all the energy compartments of your brood cows, program calves to reach their genetic potential through maternal nutrition and determine calf performance through both genetic decisions and maternal nutrition. Improving the genetics of your herd takes time to see the results but increasing the nutrients available to your cattle will give you immediate positive results. Consult your veterinarian or livestock agent to help you develop a nutrition plan for your herd.

Seven Things to Consider Before Purchasing Goats or Sheep

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

In the last few weeks, I have received quite a number of calls from folks that want to start raising meat goats. Meat goats are hardy animals and one of my favorite animals to have on farm. Below I want to share seven things to consider before purchasing goats. These seven things to consider could also apply to raising sheep.

1. Determine the stocking rate. The stocking rate is the amount of goats or sheep and is dependent on the amount of pasture or area for the goats (sheep) to graze. A general rule of thumb is 6-8 goats/acre and 4-6 sheep/acre. Of course this will depend on management strategy and if other animals are present.

2. Fencing. Do you have adequate fencing? Fencing is critical for raising goats. There is an old saying, “If it won’t hold water, it won’t hold a goat.” I can attest to that. Goats are one of the harder animals to keep contained. It takes about 700 volts of electricity to control short-hair breeds of cattle, pigs, and horses. It takes about 2000 volts of electricity for long-haired breeds of cattle, sheep, and goats. There are several fence options. High tensile fencing, woven wire, cable wire, and barbed wire are a few options each with advantages and disadvantages. Woven wire is a commonly used fence option as a permanent fence with 3 strands of electric wire running on the inside to keep goats in. Woven wire usually comes in squares of 6X6 or 6X12. 6X6 can be a problem for horned goats as they sometimes get their horns caught in the smaller squares.

3. Shelter. Goats are pretty hardy animals and most of the time only require shelter during periods of severe weather and during the kidding (lambing) season. Goats will continue to forage during periods of warm, rainy weather. Shelters should be sturdy and dry. There are lots of different options that can be used for shelters; hutches, barns, old poultry houses, etc. Keep in mind that It doesn’t have to be fancy, just functional.

4. Feed. Feed is usually the largest expense. Goats are browsers and prefer to eat above their head, unlike sheep that like to graze close to the ground. Goats need lots of roughage in their diet as they are ruminant animals. Concentrate feed should be supplemented when forage or hay that animals are eating does not provide the correct amount of nutrients for the goat. Producers may have to supplemental feed during gestation and lactation to keep the doe in ideal body condition. Hay may also need to be fed during the winter when not much is growing. Both cool and warm season annuals can be planted to extend the grazing season.

5. Minerals. Minerals should be kept dry and available at all times for goats to free choice all year round. Producers can also provide trace mineralized salt blocks year round. If you have both goats and sheep on farm be careful to feed a sheep mineral as copper in goat mineral can be toxic to sheep. You can provide additional copper to goats, but needs to be kept up high to prevent sheep from getting it.

6. Water. The forgotten nutrient. It is essential for goats to have fresh water at all times. Water is the cheapest feed ingredient. Water needs will vary across the herd and during different weather seasons.

7. Parasite management. Meat goats (primarily Boer breed) are susceptible to Haemonchus Contortus worms, also called Barber Pole worms. Southeastern USA has warm, humid weather, the ideal conditions to help the Barber Pole worm complete its life cycle and thrive. If you are purchasing Boer goats, think about cross breeding to Kiko or St. Croix to breed some resistance into the herd. FAMACHA is a tool that can be used to selectively deworm to decrease worm resistance. Dewormers should be kept on hand to use when needed.

If you have any questions, please feel free to contact your local livestock agent.

Horse Diseases

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

Diseases are the most talked about issue right now and I want to carry that over into the horse world. Horses are susceptible to many different types of diseases, some being very deadly, while others are treatable and have full recovery rates. It's important for horse owners to be well-informed on horse diseases, it is also very important to have a good relationship with a vet, they are a key part in the treatment and recovery process of a horse that contracts a disease.

The first disease that I'm going to high light is the Equine Coronavirus, ECoV. This strand of Coronavirus is not contagious to humans but it is spread from horse to horse by contaminated feces or oral contact to surfaces. Incubation time is 2-4 days and ECoV is a mild disease, but mortality does happen in severe cases. Symptoms of the ECoV range from a fever up to 105^{o} F, lack of appetite, depression, colic, laying down constantly, low white blood cell count, and occasionally diarrhea. Calling a vet out to submit samples for PCR (polymerase chain reaction) tests of a fecal sample is how ECoV is diagnosed. Treatment consist of treating the symptoms and making the horse comfortable. Prognosis is good and mortality is low. There is no preventive vaccine for Equine Coronavirus but being aware of symptoms can help with a diagnosed case.

One of the most common equine disease is Equine Influenza, EIV. EIV is not transmittable to humans but is highly contagious between horses. Equine Influenza is spread by coughing, contaminated feeders, water buckets, grooming tools, and clothing. Horses ranging from ages 1-5 years old are most susceptible to EIV. Symptoms of EIV include fever, dry cough, nasal discharge, lethargic, loss of appetite, weakness, and muscle pain. These symptoms can clear up with in 7-14 days in an uncomplicated case. There is a vaccine for EIV and talking with a vet about a shot schedule is the best way to help prevent EIV.

A disease that has a 90% mortality rate is Eastern Equine Encephalitis, EEE. This is a scary disease that humans and horses are susceptible to. EEE is spread by mosquito bites. Once a horse or human contract EEE, they can not spread it on to another host. Incubation period in horses is 3-7 days after being bit by an infected mosquito. Symptoms are fever, stiffness, hypersensitivity to touch, aggression, excitability, head pressing, wandering, constant chewing, and death. EEE can be detected with a blood test and can be prevented with a vaccine given by a vet. Eastern Equine Encephalitis is most common in warm climates like the South Eastern part of the US but can be found anywhere mosquitos inhabit.

West Nile Virus, WNV is another common disease in horses and humans that is transmitted by mosquitos. Like EEE, once a horse has contracted WNV it can not spread it to another host. In horses that fall ill to WNV, the virus infects the central nervous system. Symptoms of WNV include circling, hind limb weakness, inability to stand, multiple limb paralysis, muscle twitching, altered mental state, impaired vison, lip droop, inability to swallow, and hyper excitability. Blood work needs to be done to confirm a positive WNV case. There is a vaccine that can be given by a vet to prevent the West Nile Virus and is recommended.

The last disease I'm going to mention is Equine Rabies. Although Rabies is rare it is a lethal disease that attacks the nervous system. Rabies is transmitted by saliva from an infected animal bite. Symptoms range from strange behavior, lameness, neurological deficits, self-mutilation, fear, aggressiveness, and depression. These symptoms progress till finally the disease takes the life of the infected animal. There is no before death test that can be done to confirm a positive case of Rabies. After death evaluation of the brain can positively identify rabies in an animal. There is no effective treatment for Rabies in horses but you can vaccinate for Rabies through a vet.

These are just a few of many common horse diseases. It is important to have a good relationship with your vet and have your horse on a regular vaccine schedule. If you have further questions about these disease or other equine diseases contact your local vet.

COVID-19 and the Meat Supply

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

There is a lot of misleading information floating around about livestock systems and a "meat shortage". There are a few things that consumers should understand before spreading misinformation and feeding into the unknown and fear caused by the current COVID-19 pandemic.

First, there is *currently* no shortage of meat. The United States is self-sufficient when it comes to providing fresh protein for the nation as a whole and we are not producing less animals now due to the coronavirus. COVID-19 is, however, causing difficulties and disruptions in our meat supply chain. The main issue is having an alternate place to send market-ready animals when there is an outbreak of COVID-19 in a processing plant, and they have to shut down. This has been the case with the Smithfield Foods processing plant in South Dakota. It is a matter of trying to reroute animals to plants that are still operational, while still abiding by the strict regulations and biosecurity measures (keeping animals and humans safe and not spreading disease) and not overloading other processing plants that are still operational. With schools and dining rooms closed at restaurants, there is plenty of product that would normally be going to these facilities, but they're having to be rerouted to grocery stores, which can take some time. It is a balancing act that the food chain supply companies are doing their best to work out.

What does all this mean for the farmers? Farming is not an easy way of life. It requires dedication, hard work, and loyalty to the land and livestock. Farmers are now having to hold animals on their farms longer, which means spending more money on feed, housing, and labor for animals that should already have been transported to processing plants. Farmers can't receive new animals on the farm until the finished (ready for processing) animals have been transported off the farm, and this is causing a backup in the animal ag production system. Again, this backup does not mean there is a currently a meat shortage; it just means that fresh protein is taking longer than normal to get to your local grocery stores.

With that being said, there could be a shortage of meat in the next few weeks - 18 months, due to many variables including processing plants having to take more time to sanitize and disinfect and spread workers further apart to maintain social distancing standards, as well as trying to get fresh meat distributed to retail outlets. That doesn't mean you should go to the grocery store and purchase more meat than your family needs, but it is suggested that you purchase quantities of meat your family will consume on a regular basis when you can find it readily available at your grocery store. Families can also purchase meat and freeze it for future use.

Things that you can do to help animal ag production systems with the current COVID-19 situation are buying only what your family needs, spreading factual information, and supporting agriculture at every opportunity (for example, local strawberry farms have an excellent crop this year). Farmers are doing their best to continue supplying American families with fresh, safe, and quality products. You should also be aware there is no threat of contracting COVID-19 from eating meat. Here is some information on proper food handling and safety:

It is not recommended to wash poultry before cooking it. Research from the U.K. Food Standards Agency shows that bacteria from chicken can travel up to three feet from where it was washed. This means when you wash raw poultry, you're more prone to spread germs rather than eliminate them. The safest way to remove bacteria is by cooking the chicken to the correct temperature, which is 165° Fahrenheit.

Buying meat in bulk and freezing in meal sized portions is a great way to save money and meal plan. If using a freezer bag, make sure to get as much air out as possible. From a food safety standpoint, meats can be cooked frozen or thawed. In preparation for mealtime, pull meat from the freezer and set in the refrigerator for one to two days before cooking. Or thaw your meat under cool running water. Be sure to cook meat to the proper temperature before consumption.

At this time the CDC and the USDA are not aware of any reports that COVID-19 can be transmitted by food or food packaging. The virus needs a living host to grow in and cannot grow in food. There are no significant findings regarding the spread of the virus on produce or packaging. It is recommended to wash produce with cool water before consumption. Do not use disinfectants, cleaning wipes, or soap on produce. Following proper hygiene practices such as: washing hands and surfaces, separating raw meat from other foods, cooking to the right temperature, and promptly refrigerating foods is as important as always.

When shopping for food, use hand sanitizer and cart wipes, shop alone, go with a plan, maintain social distancing and only touch what you will buy. Handling of food packaging and produce can be followed with handwashing and/or using hand sanitizer. More information on food safety can be found here: go.ncsu.edu/covid-19 If you have any food safety questions, feel free to contact Sarah Ware at Sarah_Ware@ncsu.edu. If you have any questions on livestock or poultry and the current meat supply, please contact Katie Carter at Katie_Carter@ncsu.edu or Margaret Ross at Margaret_Ross@ncsu.edu.

Beef Cattle Breed Classifications

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

Have you ever wondered why beef cattle are classified into different groups? There are two main groups and one emerging group where beef cattle fall into, Bos taurus, Bos indicus, and composite breeds. We will discuss the breeds that belong to each group and their characteristics along with the similarities and differences among the breeds.

Let's start out by discussing cattle classified as Bos taurus. The cattle breeds classified as Bos taurus originated in Europe and are what most farms in North Carolina raise. Cattle in this classification are considered humpless and are further broken down into British and Continental breeds. British breeds were developed in the Britsh Isles and brought to the United States in the 1700s and 1800s. These breeds include Black and Red Angus, horned and polled Hereford, and Shorthorn. Continental breeds are from countries on the European continent and are relatively new to the United States with these breeds mainly being brought here in the 1960s and 1970s. Another name for Continental breeds is Exotic breeds and includes Charolais, Chianina, Gelbvieh, Limousin, Maine Anjou, Salers, and Simmental.

British breeds tend to have a smaller mature size as compared to Continental breeds and reach their mature weight at a younger age which leads to less growth potential and a carcass that yields a lower percent of saleable product. British breeds excel in fertility and calving ease and generally get higher quality grades than Continental breeds. Continental breeds are larger at their mature size and reach their mature size at an older age. They also produce a carcass with less fat that tend to get lower quality grades but yield a higher percentage of saleable product. If a Continental breed bull is bred with a British breed cow, calving difficulties can be expected.

Bos indicus cattle have Zebu influence from southern Asia and are easily distinguished from Bos taurus cattle due to the presence of a musculo-fatty hump, pendulous dewlap, pendulous prepuce in males, and a short sleek coat. Breeds in this group tend to be much more heat tolerant and include Brahman and Santa Gertrudis. These breeds are also sometimes referred to as American because they were developed in America. Bos indicus cattle mature more slowly than Bos taurus but can have a longer productive life. They are able to gain and retain fat even when eating a diet of low-quality forages but have to be managed when on feed to make sure they don't fatten too quickly.

Over the years several breeds have been developed that are a mix of British and Continental breeds along with mixes of Bos taurus and Bos indicus breeds which are referred to as composite breeds. Composite breeds are made up of at least two component breeds with the goal of retaining heterosis in future generations without crossbreeding and can be maintained as purebred. Brangus, Brahman and Angus, and Bradford, Hereford and Angus, are two of these breeds. Beefmaster is another of the composite breeds. Beefmaster cattle were developed at the Lasater Ranch in Texas and have Brahman, Hereford, and Shorthorn genetics. One benefit of composite breeds is that once mating occurs among cattle with a similar breed makeup, the resulting heterosis should stay constant. Heterosis happens when animals from different breeds are crossed and results in the offspring inheriting the good traits from both parents. The offspring will generally out-perform the parents. One downside to using composite breeds is a potential lack of performance data to compare individuals and choose quality genetics.

So why is it important to know all of this? Knowing the different characteristics of the categories and breeds of cattle can help during youth livestock competitions when working through various scenarios that may be included in the competition. It can also help determine which breed to select to show based on the goals you have for your project. If you have any questions about the information in this article or are interested in getting involved in youth livestock activities contact your county's livestock Extension agent.