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Horse Blog
Check out the NC Horse Blog with articles on management, nutrition and forages, health care and diseases, reproduction/breeding/foaling, and other topics every week. The blog can be found at http://nchorse.blogspot.com.

Sludge Clean Out Conference
will be on January 19th at 9am in Clinton. 3 hours of cont ed credit will be given and lunch will be served. Call Patricia Burch at 910-592-7161 to register by January 12th. $5 per person.

NC Forage and Grasslands Council
will host a meeting in Duplin County on January 24th. The program is from 1 to 6 pm. The registration form is included in this newsletter.

Southern Farm Show
will be at the State Fairgrounds in Raleigh on February 1-3.

N.C. Pork Council Conference
will be held in conjunction with the Farm Show this year on the 2nd and 3rd.

N.C. Cattlemen’s Conference
will be in Hickory on February 17 & 18.

Judging in January
will be on Saturday, January 28 at the Beef Educational Unit Raleigh. To find out how to join the livestock judging team, call or email Mandy Harris at 910-321-6862 or mandy_harris@ncsu.edu

Cape Fear Regional Cattle Conference
The third annual Cape Fear Regional Cattle Conference will be held on January 26th at the Farmers Market/Southeastern Ag Center on Highway 74 (1027 US Hwy 74E, Lumberton, NC 28358). There is a $5 charge for the conference. Call your Extension Office to register for the meeting by January 20th. Conference includes a meal and time to visit the vendors.

4:00 pm    Registration and visit with vendors
4:30 pm    Welcome by Michelle Shooter, Extension Agent, Robeson County
4:35 pm    North Carolina Cattlemen’s Association Update
4:45 pm    Predator Management (Coyote and Black Buzzards) by Dr. Chris Moorman, Professor in the Department of Forestry and Environmental Resources and Dr. Chris DePerno, Professor in Fisheries and Wildlife Sciences at NCSU
6:00 pm    Dinner and visit vendors
7:00 pm    Genetic Factors for Cow-Calf Profitability by Dr. Joe P. Cassady, Professor in Animal Science at NCSU and Executive Director of the Beef Improvement Federation

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.
JANUARY
* If winter pasture is limited, feed hay in the pasture or allow cows to graze every other day. The priority for limited pasture is (1) calves by creep grazing, (2) stockers, (3) nursing cows, and (4) dry cows.
* Winter annual pastures that were planted on a prepared seedbed may be severely damaged if animals trample on them during wet periods. Allow calves first priority to these high-quality annual pastures.
* Sample hay and send to NCDA lab for analysis.
* Determine animal feed requirements for the year and outline a 12 month forage plan to meet animal’s needs.

FEBRUARY
* Apply nitrogen to cool-season grasses to stimulate early spring growth.
* Lime fields that will be prepared for spring plants.
* Locate sources of hybrid bermudagrass sprigs for planting next month.
* Burn warm-season grass residues in late February or early March.
* Get herbicide sprayers ready to control weeds in dormant bermudagrass fields.
Late Winter/Early Spring Weed Control in Bermuda
By Randy Wood, County Extension Director and Livestock Agent with N.C. Cooperative Extension in Scotland County

Rarely does anyone give much thought to Weed Control in Bermudagrass this time of year. However, now that the holidays are behind us, it is time to start thinking about what weed control methods you plan to use ahead of the coming growing season. Aside from mechanical weeds control (clipping) or other top surface management methods (controlled burning), there are two types of chemical weed control options that farmers can choose from; Post- and Pre- emergent herbicides. Post-emergent herbicides control green, actively growing weeds, while pre-emergent herbicides control dormant summer weeds and grasses as they start to germinate in February/early March. The trick is determining what weed problems you currently have, what problems you expect to have in the summer, your goals for your forages in the summer, and then weighing the economic trade-offs of any herbicide applications.

Post-emergent herbicides have been around for a while and can be an effective and relatively low-cost management tool for certain situations. The most commonly used post-emergent herbicides used this time of year are Glyphosate, Gramoxone, and occasionally the more traditional broadleaf herbicides such as Cimarron or Forefront. The non-selective (i.e. they kill most anything green) herbicide options, Glyphosate and Gramoxone, are normally a little cheaper to apply per acre and will get most of the early problem weeds, such as henbit, chickweed, little barley, etc… One questionable weed to jump into this category is Italian ryegrass. Italian Ryegrass is a very odd weed that causes some farms major problems and other farms may never see this grass at all. Depending on the year, this grassy weed may be a problem as early as January, and other years it may wait until March/April to show itself. The later it waits to grow the less likely you will be much luck controlling it. The other oddity about this weed is that some farmers will report good success controlling it, and other farmers will see poor results with the same chemicals. If you do have a significant stand of Italian Ryegrass though, you very well may have to either try to spray it out or even mow and bale it to avoid it significantly slowing your Bermuda in the spring. Recommendations for controlling Italian ryegrass include Pastora in the fall before dormancy or in spring when bermuda is beginning to break dormancy or spraying Pastora, Panoramic or Roundup in dormant bermuda. The Pastora label says when ryegrass is greater than 2” or heavy populations, apply at 1 ounce per acre and follow with a second 1 ounce application 3 - 4 weeks later.

The other winter/spring weed of note I want to address is wild garlic (wild onion). This weed is a thorn in about everyone’s side. Almost all Bermuda hayfields will have some degree of wild garlic in the late winter. The question you need to ask yourself is do you need to control it? Rarely does the stand get thick enough to ever impact early Bermuda growth due to sunlight competition. About the only real problem this weed will cause is by impacting the color and smell of your first hay cutting. If you are not interested in getting a top quality first cutting of hay in May/early June, then it almost makes no sense to try to control this weed in the spring. If your goal is a top quality early harvest though, Cimarron (along with a high rate of surfactant) usually gives pretty good results. Normally significantly better than what you will see with Glyphosate.

Forage grasses, unlike turf grasses, have few pre-emergent options available to them. One notable exception is Prowl H2O. Prowl H2O is a reformulation of the older Prowl product that has been labeled in row crops for several years. Prowl H2O gives farmers some new pre-emergent options on troublesome grassy weeds. Crabgrass and Goosegrass, which in spotty stands of Bermuda and on heavier/wetter lands, are normally difficult to control with post-emergent products. Prowl H2O will give good control of Crab and Goose Grass when applied in January/early-February. The product will work better if it is applied ahead of a rainfall or irrigation. Also, Prowl H2O will give fair results for controlling Sandspurs. While fair is a pretty vague word, those farmers who are cursed with Sandspurs will usually take any help they can get.

Every farm has to look at their own individual situation, the weed pressure they have on their farms, their own farm goals, before deciding what, if any, type of weed control they want to use as we start to get out of the winter into the summer.

Ironically, according to the calendar, the day this article was written was the first day of winter. It is in the mid-seventies outside and I am wearing a short-sleeved shirt. At this point, I wonder if this article is moot and if we should start getting our hay equipment ready instead of discussing the winter at all.
As I decided what to write this month, I looked back at my notes from several cattle meetings that I have attended this year. One of the things discussed was crossbreeding. Most everyone knows the benefits of crossbreeding, but many producers are not using this tool. It is a management tool that can increase productivity and profitability when used correctly. Recent trends are that commercial producers are using predominately Angus bulls leading to many straightbred animals in herds. These bulls have been used due to selection for improved carcass quality without regard to other segments of the industry.

Crossbred animals have heterosis or hybrid vigor which combines the strengths of the parent breeds. Heterosis is the combination of genes from different breeds so inferior recessive genes are concealed. Heterosis levels can be grouped into four areas (see Table 1) based on their heritability %. Generally speaking, the lower heritable traits show high levels of heterosis. For the cow-calf producer, reproduction, growth and lower maintenance costs (maternal) traits are important factors. So using crossbreeding can improve the herd.

Producers should use breeds that complement each other. The more diverse genetic backgrounds the animals have, the higher level of heterosis. For example, crossing a Bos indicus (such as a Brahma) with a Bos Taurus either a Continental breed (Simmental, Gelbvieh, Charolais) or a British breed (Angus, Hereford, Shorthorn) will result in higher levels of hybrid vigor than using two Bos taurus cattle as a cross. A Continental cross with a British animal shows a higher level of hybrid vigor than using two British animals or two Continental animals. See table 2.

A lot of research is done at the USDA Meat Animal Research Center (MARC) in Clay Center, Nebraska. The findings are in table 2 and other findings are:

- Crossbreed cows increase longevity by over a year.
- Heterosis results in increased lifetime productivity of approximately one calf and 600 pounds of calf weaning weight over the lifetime of the cow.

### Table 1. Expression of heritability and heterosis in traits

<table>
<thead>
<tr>
<th>Trait</th>
<th>Heritability %</th>
<th>Heterosis %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproduction</td>
<td>Low (5-12%)</td>
<td>20</td>
</tr>
<tr>
<td>Maternal</td>
<td>Low to Moderate (&gt;20%)</td>
<td>15</td>
</tr>
<tr>
<td>Growth</td>
<td>Moderate (20-40)</td>
<td>5-12</td>
</tr>
<tr>
<td>Product</td>
<td>High (40-50)</td>
<td>NIL*</td>
</tr>
</tbody>
</table>

*insignificant

There are various crossbreeding systems out there. Each system has advantages and disadvantages and one system may not be the best choice for each farm. Careful consideration and research is needed on deciding which system to use. Crossbreeding does not replace low quality genetics. You should evaluate your bull and cow herd to produce quality animals. Two articles that explain different systems - [Crossbreeding Systems in Beef Cattle](http://bladen.ces.ncsu.edu/index.php?page=animalagriculture) or [Crossbreeding for Commercial Beef Production](http://bladen.ces.ncsu.edu/index.php?page=animalagriculture) are on the Bladen website.

Recently, there has been an increase in composite or hybrid bulls on the market such as Balancer or SimAngus. Composites are a planned mating system to combine the desirable traits of two or more breeds into one package to retain heterosis. The thought behind composites is that they may be easier to manage for smaller commercial producers than traditional crossbreeding rotations. The disadvantages are that it may be harder to find good quality composite bulls and there is not a lot of performance data to compare individual animals.

It is said that there is no free lunch, but several Extension Beef Specialists in the US consider crossbreeding a free lunch. Crossbreeding can improve a farm’s weaning weights and overall herd productivity, however the farm must plan their breeding program and establish goals.
Forage is the basis for feeding programs for all classes of horses. Forage contains many nutrients, and the fiber provided by forage is essential for the maintenance of the horse’s gastrointestinal health. Hay and pasture are the typical forage sources for horses, but when growing or harvesting conditions limit their availability, horse owners have to consider alternative forage sources.

Forage cubes are gaining popularity as an alternative to feeding long-stem hay. The cubes available may be 100% alfalfa, a mixture of alfalfa and grass, or a more recent product which is a mixture of alfalfa and whole corn plant. Availability of the different products will vary with local suppliers. For most horse owners, 100% alfalfa cubes is the product most readily available. As with any feedstuff, there are advantages and disadvantages that must be considered when making your decision to use alfalfa cubes in feeding programs for your horses.

Advantages include:
(1) Cubes are not wasted to the same extent as long-stem hay even if fed on the ground. Horses fed long-stem hay can separate the leaves from the stems and consume the parts they prefer; this does not happen with cubes.
(2) It is easier for the horse owner to monitor and regulate the daily intake of cubed forage than long-stem hay.
(3) The nutrient levels found in cubes tend to be more consistent than hay. Alfalfa cubes are sold with a guaranteed minimum nutrient content.
(4) Cubes have little dust and are therefore a good alternative to hay for horses with certain respiratory problems.
(5) Cubes can be mechanically handled in bulk.
(6) Cubes are denser than hay and therefore require less storage space.
(7) Cubes are denser than hay and allow trucks to be loaded to their full legal capacity. This is not always possible with hay. Shipping costs for cubes can be reduced, assuming the shipping distance is the same.
(8) Alfalfa cubes take up less space in the trailer and may be easier for horse owners to take to shows or on trail rides.

Disadvantages include:
(1) Cubes must be fed in a controlled manner to avoid overweight horses and, more importantly, to avoid serious digestive upsets.
(2) Alfalfa cubes require a storage area that provides protection from the weather to prevent spoilage caused by excessive moisture.
(3) Processing adds to the cost of the feed, and there may be additional costs associated with shipping, depending on the distance from point of production to point of sale. The major sources for cubed alfalfa are in the western United States, western Canada, and Ontario.

Alfalfa cubes can be used effectively as the sole source of roughage for all classes of horses. Because of the high nutrient values for energy, protein, calcium, and vitamins, alfalfa cubes are very effective in feeding programs for broodmares and young growing horses. In addition, alfalfa cubes may be used for horses with certain respiratory problems as horse owners try to reduce the horses’ exposure to dust and mold. With all horses, and especially the mature horse at maintenance, controlling the daily intake of alfalfa cubes is a must to prevent overfeeding.

Please contact the Cooperative Extension for more information on options on feeding your horse or stop by your local feed stores such to discuss products available to feed your horse.
### Goats and Sheep - The Last Month

**By: Mandy Harris, Extension Livestock Agent with N.C. Cooperative Extension in Cumberland County. adapted from an article written by Susan Schoenian, Extension Sheep and Goat Specialist, University of Maryland**

Seventy percent of fetal growth occurs during the last trimester of pregnancy in sheep and goats. During this time, the female’s udder tissue is developing and her rumen capacity is decreasing, therefore the last month of pregnancy for a doe or a ewe is usually the most important. In order to have a successful pregnancy, extra nutrition will be required.

**Nutrition -** Energy (TDN) will likely be deficient during the last month of pregnancy. Most of the time, high-producing females cannot consume enough forage to meet their late gestation nutritional requirements; therefore some grain will be required since grain is the most concentrated source of energy. The amount of energy needed for each individual will depend on their age, size, breed (sometimes), and expected level of production (expected number of offspring).

Ewes and does not getting enough nutrition can result in pregnancy toxemia, small and weak babies, higher neonatal mortality, reduced quality and quantity of colostrum, poor milk yield, and reduced fiber production in the offspring. On the other hand, ewes and does getting too much to eat can also result in some problems: pregnancy toxemia, vaginal prolapse, and oversized offspring.

Late gestation causes the female’s calcium requirement to almost double. Not getting enough calcium or getting too much can result in milk fever (hypocalcemia). Grains are usually low in calcium and legume hays are usually high in calcium. Limestone is a good supplement of calcium. Milk fever and pregnancy toxemia both present high in calcium. Limestone is a good supplement of calcium. The amount of energy needed for each individual will depend on their age, size, breed (sometimes), and expected level of production (expected number of offspring).

Milk fever and pregnancy toxemia both present high in calcium. Limestone is a good supplement of calcium. The amount of energy needed for each individual will depend on their age, size, breed (sometimes), and expected level of production (expected number of offspring).

An inadequate intake of selenium and/or vitamin E can cause poor reproductive performance, retained placentas, and white muscle disease in kids and lambs. A mineral mix that contains the legal limit of selenium should be fed to ewes and does during this last month of gestation.

**Vaccinations & Internal Parasites -** Ewes and does need to be vaccinated for *clostridium perfringins* type C and D and tetanus one month prior to parturition. If this is done, newborns will attain passive immunity when they drink the colostrum.

Ewes and does should be monitored, especially during the late stages of gestation, for internal parasites by using FAMACHA and/or body condition scoring. Selective deworming decisions should be made prior to parturition. All anthelmintics are safe for use in pregnant females, except for Valbazen, which should not be administered during the first 30 days of pregnancy. Also, extra protein in the ewe’s or doe’s ration can decrease the rise of eggs after lambing or kidding.

It is recommended to feed a coccidiostat to ewes and does during the last month of gestation. This reduces the number of coccidia in the lambing and kidding environment and helps the newborns gain immunity to coccidia without being sick.

**Abortions -** Antibiotics can be fed to ewes during the last month of gestation if there is a history or high risk in your flock or herd of abortions. Chlorotetracycline has been FDA-approved for prevention of abortions in sheep that are caused by Chlmyidia sp and Campylobacter sp. Veterinary approval is required for the use of this antibiotic in goats.

Mineral deficiencies can also cause abortions. Sheep are very sensitive to copper, so goats housed with sheep and are being fed sheep feed and mineral mixes may require copper supplementation. Copper toxicity in sheep and copper deficiency in goats are both complicated and a problem you don’t want to have.

**Shearing -** It is recommended that fiber producing animals should be shorn one month prior to parturition if the proper shelter is available and a higher amount of nutrients are being fed. There are large advantages to this: sheared sheep take up less room around feeders and in the barn, lambs can nurse easier and the fleeces will be cleaner. If the proper shelter and nutrition is not available, crutching is an option. Crutching is shearing the wool around the vulva and udder.

**Facilities -** In the last month of gestation, sheep and goats should be moved to where they will kid. Groups of females unfamiliar with each other should not be put together. The females should not be stressed in any way. Lambs can nurse easier and the fleeces will be cleaner. If the proper shelter and nutrition is not available, crutching is an option. Crutching is shearing the wool around the vulva and udder.

Supplies for lambing and kidding should be gathered before parturition. These include: colostrum, lamb/kid milk replacer, towels and rags, heat lamps, gentle iodine, and feeding tube to name a few.

Putting all of these things into practice during the last month of gestation should lead you to an easier, more successful lambing or kidding season.
The 4-H Farm Credit Showmanship Circuit is co-sponsored by Carolina Farm Credit and Cape Fear Farm Credit. Participants age 5-19 years get an opportunity to show at several local county shows and the points add up towards an overall Division Champion. The Showmanship Circuit is judged based on the youth’s showmanship ability and not the quality of the animal. The goal is to make the animal look its best. This allows for a fair judging process, because if the youth work with their animals’ everyday, they will be successful. The kids worked hard at feeding their animals, breaking and training them, and learning everything they possibly could about them. Not only did they learn about livestock, they also enhanced their responsibility, self-esteem, and record keeping skills. Because of everything they learned and how hard they worked, they are all considered winners! Participating in livestock shows takes a lot of time and dedication on the part of these 4-H members and a lot of patience on the part of their parents. We appreciate our sponsors, all the 4-H members, family, and community supporters for all of their help and assistance throughout the season! The youth celebrated their successes with a grand finale banquet in Moore County. The youth each received a t-shirt and winners were awarded belt buckles, banners, and ribbons. We even had a bluegrass band with several 4-H members playing and singing for our entertainment! If you would like to learn more about youth livestock opportunities, please call your local Extension office today! You can also check out more pictures from the banquet at http://hoke.ces.ncsu.edu/index.php?page=youth4h.

Participating Cumberland County 4-H members included: Benjamin Herndon, intermediate goat and lamb, Mary Vorder Bruegge, junior heifer, Eugenie Vorder Bruegge, intermediate heifer, and Kana Hayashi, senior heifer. Benjamin Herndon won grand champion lamb and most improved lamb, Mary and Eugenie Vorder Bruegge placed 3rd.

Participating Harnett County 4-H member includes Mason Blinson, intermediate heifer.

Participating Hoke County 4-H members included: Dixie Acorn, senior goat, and Morgan Rockwell, senior goat and heifer. Dixie Acorn won Grand Champion and Morgan Rockwell won third place in goats and heifers.

Participating Moore County 4-H members included: Chloe Garner, junior heifer, Madison McInnis, Eli Maske, Olivia Meacham, and Will Meacham, cloverbud goat; Abigail Hamilton, Savannah Chappell, DeLani Reep, Coleman Berry, and Faith Thompson, junior goat; Kayla Butler, Zac Gerald, Jordan Carroll, Madelyn Chappell, Brianna Hamilton, Michaela McInnis, Alana McQueen, Peggyann Kennedy, and Kristi Reep, intermediate goat; Nathan Ezzell, Grayson McQueen, and Santiago Acuña Robinson, senior goat. Abigail Hamilton won Grand Champion in her division, Savannah Chappell placed 2nd, DeLani Reep placed 3rd, Faith Thompson placed 4th, Coleman Berry placed 5th, Jordan Carroll won Grand Champion, Michaela McInnis won Reserve Champion, Brianna Hamilton placed 3rd, Madelyn Chappell placed 4th, Alana McQueen placed 5th, Santiago Acuña Robinson won Reserve Champion and most improved goat, Nathan Ezzell placed 4th, and Sarah Maske placed 5th.

Participating Richmond County 4-H members included: Braxton Butler, Kane Butler, Alex Chappell, Taylor Chappell, Tyler Gerald, Madison McInnis, Eli Maske, Olivia Meacham, and Will Meacham, cloverbud goat; Abigail Hamilton, Savannah Chappell, DeLani Reep, Coleman Berry, and Faith Thompson, junior goat; Kayla Butler, Zac Gerald, Jordan Carroll, Madelyn Chappell, Brianna Hamilton, Michaela McInnis, Alana McQueen, Peggyann Kennedy, and Kristi Reep, intermediate goat; Nathan Ezzell, Grayson McQueen, and Santiago Acuña Robinson, senior goat. Abigail Hamilton won Grand Champion in her division, Savannah Chappell placed 2nd, DeLani Reep placed 3rd, Faith Thompson placed 4th, Coleman Berry placed 5th, Jordan Carroll won Grand Champion, Michaela McInnis won Reserve Champion, Brianna Hamilton placed 3rd, Madelyn Chappell placed 4th, Alana McQueen placed 5th, Santiago Acuña Robinson won Reserve Champion and most improved goat, Nathan Ezzell placed 4th, and Sarah Maske placed 5th.

Congratulations to all our winners! We look forward to a successful 2012 show season!
Turkey Production
By: James Parsons, Area Poultry Extension Agent with N.C. Cooperative Extension

The following article was published in the November 25, 2011, issue of Poultry Times. I thought you might be interested in this article, especially since North Carolina ranks second nationally in turkey production, and our local companies (Butterball, Prestage Farms, and Nash Johnson & Sons) produce the majority of these birds.

U.S. turkey meat production in third-quarter 2011 was 1.4 billion pounds, up less than 1 percent from a year earlier, according to a report from USDA’s Economic Research Service.

As with broiler production, third-quarter 2011 turkey production saw a reduction in the number of birds being slaughtered and an increase in their average weight. In the case of turkeys, the number of birds slaughtered in the third quarter was 61.9 million, down 1 percent from the previous year. Offsetting this was a 2-percent increase in average live weights to 28.9 pounds.

Turkey meat production in fourth-quarter 2011 is forecast at 1.5 billion pounds, which would again be a small increase from a year earlier. Growth in turkey production in the second half of 2011 is expected to be quite different from the first half, which showed strong increases in turkey meat production.

Turkey production in 2012 is forecast at 5.85 billion pounds, which would be an increase of just less than 1 percent from 2011. Even though turkey prices have remained strong through all of 2011, turkey producers will be faced with the impact of high grain prices and a relatively sluggish domestic economy.

Although production was up only slightly in third-quarter 2011, cold storage holdings of turkey totaled 515 million pounds at the end of September, up 8.8 percent from a year earlier. The growth in overall stocks hides a wide gap in the direction of stocks levels for whole birds as opposed to those for turkey products. Stocks of turkey products totaled 234 million pounds at the end of the third quarter, an increase of 25 percent from the previous year. This stock increase has come even as exports of turkey products have been strong, up 23 percent year-over-year through September. Stocks of whole birds have been moving in the opposite direction. At the end of September, stocks of whole birds were estimated at 281 million pounds, down 2 percent from the same period in 2010. With lower stock levels, wholesale prices of whole birds have remained above their year-earlier levels.

Overall turkey cold storage holdings at the end of 2011 are forecast at 215 million pounds, about 12 percent higher than the previous year. As with third quarter 2011, almost all the increase will be from higher holdings of turkey products, with little or no increase in stocks of whole birds expected.

With lower stocks of whole birds, there has been considerable upward pressure on whole turkey prices. Prices for whole frozen hen turkeys at the wholesale level averaged $1.06 per pound in third-quarter 2011, up 6.5 cents per pound from the second quarter and 8.6 percent higher than the previous year. Whole turkey prices are expected to average $1.08-$1.12 per pound in fourth-quarter 2011, around 6 percent higher than a year earlier.