Hey Y’all,

It is hard to believe that we are already into February!

Included is the Weekly Pile of Information for the Week of January 29, 2012, Extension's Equine related educational information & announcements for Rockingham & Guilford Counties. To have something included in the Weekly Pile, please follow these simple guidelines.
- Information included needs to be educational in nature &/or directly related to Rockingham or Guilford Counties.
- Please E-mail information to me by Wednesday each Week.
- Please keep ads or events as short as possible – with NO FORMATTING with NO unnecessary Capitalization’s, and NO ATTACHED DOCUMENTS. (If sent in that way, it may not be included)
- Please include contact information - Phone, Email and alike.
- PLEASE PUT WEEKLY PILE IN SUBJECT LINE when you send into me.
If I forgot to include anything in this email it was probably an oversight on my part, but please let me know!
If you have a question or ideas that you would like covered in the Weekly Pile, please let me know and I will try to include. As Always – I would like to hear your comments about the Weekly Pile or the Extension Horse Program in Rockingham or Guilford Counties!

Included in This Weeks Pile:
1. Winter Horse Health Seminar February 4 - Northern Elementary School
2. 2012 Extension Horse Management Monday Night – Ask A Vet!
3. VERY IMPORTANT: Required Training for Some - Fertilizer Applicators/Users in the Jordan Lake Watershed
4. You Asked
5. **February 14** Winter Feeding/Grazing Management Workshop
6. Equine Limitations of Performance
7. Horse Stable Ventilation
8. Feeding a Horse for Maintenance
9. Cooler Horsemanship Upcoming Events
10. HAY DIRECTORY
11. Take A Load Off

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. **Winter Horse Health Seminar - February 4, Northern Elementary School**

Carolina Equine Hospital is hosting the Winter Horse Health Seminar on February 4, 2012 at Northern Elementary School. Registration starts at 8:30am and the program is from 9am to noon. There will be free breakfast, exhibits, door prizes and great information!

Speakers and topics are: Dr. Julie Settlage from Virginia-Maryland Regional College of Veterinary Medicine on the Advances in Lameness Management. Also speaking is Dr. Mark Crisman from Virginia-Maryland Regional College of Veterinary Medicine on Tick Borne Diseases and Emerging Diseases of the horse. Please RSVP by calling 349-4080.

*We hope that lots of the horse community can join us that day! This is a great opportunity for youth and volunteers to gain some horse knowledge from the experts!*

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

2. **2012 Extension Horse Management MONDAY NIGHT**
   Guilford County Agricultural Center, 3309 Burlington Road Greensboro, NC 27405
   7:00 p.m. – 9:00 p.m.
Monday, February 6 Ask A Vet – Carolina Equine Hospital – Panel of Veterinarians from Carolina Equine to take Questions from participants. Make sure you plan on coming Monday evening with your many questions for these Veterinarians. They may be questions that you were too embarrassed to ask? If you would like to go ahead & send in your questions, send them to me, & I will forward on to them.

Monday, February 13 Horse Tack & Equipment – The How’s & Why’s - Robin Lynn, NCSU Extension Horse Husbandry

Monday, February 20 Mules & Donkeys – Encourage & Educate Horse Management participants about the mule and donkey industry - Shannon Hoffman, The Carolina Mule Association

Monday, February 27 Land Use & Present Use, Building Codes & Laws, Annexation/ETJ’s, Water Regulations & Watershed Rules & other New Laws which is pertinent to NC Horse Owners. NC Farm Bureau, NC Horse Council

Monday, March 5 Endurance Riding – American Endurance Ride Conference, Education Committee

Monday, March 12 Horse Judging – Western & Huntseat - Dr. Mike Yoder, NCSU Extension Horse Husbandry Specialist

Monday, March 19 SWAP SHOP – Bring items to Sell/Trade or come to buy!

Horse Management Committee – Randy Boles, David Dick, Sara Jo Durham, Steva Allgood, Rita Nott, & Georgianne Sims

- Registration Fee: $30 for entire series or $5.00 per session.
- Registration Fee will be waived for 4-H members presenting an official current 4-H Program Membership ID Card.

For additional information, call Ben Chase, Rockingham & Guilford County Extension Livestock Agent, North Carolina Cooperative Extension Service 1-800-666-3625, 342-8235 Email- ben_chase@ncsu.edu.

In case of inclement weather, please call 1-800-666-3625 or 342-8235 for a recorded message.

Directions to The Guilford County Agricultural Center, Located at 3309 Burlington Road 375-5876 and can be found at http://www.ces.ncsu.edu/guilford/directions.shtml

++++++++++++++++++++++
3. **Attention – VERY IMPORTANT:**

**Fertilizer Applicators/Users in the Jordan Lake Watershed**

Attend REQUIRED but FREE Nutrient Management Training:

**In Guilford County - February 7, 1-3 pm**
Guilford County Cooperative Extension Center
(Snow date – March 13).
3309 Burlington Road
Greensboro NC 27405
For more information, call **336-375-5876**.

**In Rockingham County - February 16 1-3pm**
Rockingham County Cooperative Extension Center
525 Highway 65
Reidsville NC 27320
For more information call **342-8230**

**Nutrient Management Rules in Jordan Lake Watershed Program**

In 2009, The NC Environmental Management Commission adopted a set of nutrient control rules aimed at restoring the water quality in B. Everett Jordan Reservoir, which is degraded by excess levels of nitrogen and phosphorus. These rules are administered by the NC Division of Water Quality. One of the rules, the Fertilizer Management Rule, requires most fertilizer applicators in the Jordan watershed (excluding homeowners) to either take a fertilizer training class or apply fertilizer pursuant to an approved plan by August 11, 2012.

If you apply fertilizer or organic materials to:

- Commercial cropland, including pastureland, regardless of acreage – your farming activities are conducted primarily for financial profit.
- Commercial ornamental, floriculture, or greenhouse operations, regardless of acreage – your green industry activities are conducted primarily for financial profit.
- Golf courses, public recreational lands, road or utility rights-of-way, or other commercial or institutional lands that total at least five acres.
- Or you are a hired applicator who applies fertilizer to a combined total of at least five acres per year.
- Horse owners that own or board horses for commercial purposes and apply fertilizer/manure to the grazing pastureland are required to either take the fertilizer training or apply the fertilizer/manure via an approved nutrient management plan (regardless of the acreage).
- Horse owners that own horses as pets (not for commercial purposes) are not required to take the training or to apply via an approved plan.

To verify that you are within the Lake Jordan Watershed, go to [http://portal.ncdenr.org/web/jordanlake/map](http://portal.ncdenr.org/web/jordanlake/map) and put in your address in (make sure you look at all the places you do business). The training must occur by August 26, 2012.
You can attend a nutrient management class offered by NC Cooperative Extension. To verify that you are within the Lake Jordan Watershed, go to http://portal.ncdenr.org/web/jordanlake/map and put in your address (make sure you look at all the places you do business). The training must occur by August 26, 2012.

• The rule requires that application of nutrients is to be done by an applicator who has either taken the course, or pursuant to an approved nutrient plan. The rule also requires persons who hire applicators (with the exception of homeowners) to ensure that the applicator they hire has either attended the class and received a certification, or applies pursuant to an approved plan.

The rule states that person who fail to comply with the Rule are “subject to enforcement measures authorized in G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).”

(Animal waste application in compliance with a permitted waste utilization plan is deemed compliant with the requirements, and those applicators wouldn’t need to take the class. DWQ has confirmed this, Certified Waste Applicators DO NOT NEED to take the nutrient training, even if they’re applying commercial fertilizer that’s not included in their animal waste permit due to their previous 10 hour Certification training.)

You can attend FREE nutrient management training:
In Guilford County - February 7, 1-3 pm
Guilford County Cooperative Extension Center
(Snow date – March 13).
3309 Burlington Road
Greensboro NC 27405
For more information, call 336-375-5876.

In Rockingham County - Thursday - February 16 1-3pm
Rockingham County Cooperative Extension Center
525 Highway 65
Reidsville NC 27320
For more information call 342-8230.

If you choose to take the training offered by the NC Cooperative Extension Service, These classes are free OR you may take training on-line at your convenience, athttp://go.ncsu.edu/JordanLakeTraining at a cost of $10.

To view a map of the Jordan watershed and determine whether you are subject to the requirements of the Fertilizer Management Rule, or to learn more about the Rule go to: www.JordanLake.org You may also contact Water Quality staff at 919-807-6439 or your local Cooperative Extension office for more information: Rockingham County - (336) 342-8230, Guilford County - (336) 375-5876, Alamance County - (336) 570-6740, Caswell County - (336) 694-4158, Orange County - (919) 245-2050, Chatham County - (919) 542-8202, Durham County - (919) 560-0525, Wake County - (919) 250-1100.

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++


4. You Asked:  When fertilizing a pasture, what kind of fertilizer should be used and how often?

I have a small farm & the pastures are a mix with clover. Is there an all-purpose liquid fertilizer product(s) that you would recommend that will not break the bank? And how often do I need to fertilize?

The best way to find out how much fertilizer your pastures need is to take a soil test. Your grasses, just like your horses, need certain nutrients (such as nitrogen, phosphorus and potassium) to keep them healthy and the only way to know what may be missing in your soil is to get it tested. It is a simple and inexpensive process which may actually save money that might have been spent on unnecessary fertilizer.

How long do I need to keep horses off of a newly-fertilized pasture? Horses should be removed from pastures when nitrogen based fertilizers are being applied and should not be returned to the pastures until adequate rainfall has removed the fertilizer from plant tissues and leached all nitrogen from the soil surface into the ground. Generally, approximately ½ inch of rainfall is sufficient to dissolve granular nitrogen; less is needed when the fertilizer is in liquid form. Under ideal circumstances, it is best to leave the horses off of the pastures for at least 2 - 3 weeks after fertilizing the grasses to allow time for the grass to regrow.

Nitrogen (N) fertilizer is toxic and horses should not be allowed to graze pastures until rain has completely removed all of the fertilizer from the leaf surfaces and carried it into the soil. Ammonium-based nitrogen fertilizers bind to soil particles but are quickly (within 2-3 days) converted to nitrate nitrogen when the soil is warmer than 50 degrees. Nitrate nitrogen is quickly leached from soil. As said before, generally it takes about ½ inch of rainfall to dissolve the fertilizer. Therefore, as a general rule of thumb, horses should be removed from fertilized pastures and not returned until at least ½ inch of rainfall has occurred and the fertilizer is no longer visible on the soil surface. Best management practices dictate that after fertilizing pastures, horses should not be returned to the pastures for 2-3 weeks in order to provide ample time for the pasture grasses to grow and recover from grazing.

Sources of nitrogen fertilizer - Pastures should receive an application of 50 lbs. of nitrogen per acre in spring and fall. There are many different chemical and physical forms of nitrogen fertilizer. The nitrogen in urea (46-0-0) is completely water soluble and is readily available to plants upon application to the soil. If ½ inch of rain does not fall after application, significant loss of nitrogen will occur from volatilization. Therefore, urea should be used only if rainfall is imminent.

Other sources of nitrogen, including ammonium nitrate and ammonium sulfate as well as complete fertilizers such as 10-10-10 or triple 15 are not subject to volatilization and will remain on the soil surface until rainfall leaches the fertilizer into the ground.
A note of caution: Turf-type fertilizers should not be used for horse pastures since the nitrogen is specially formulated so that it is released very slowly. Slow release fertilizers can exist on the soil surface for several weeks.

The major disadvantage when comparing liquid fertilizers to dry formulations is that they are generally higher in price and usually have a lower analysis. Remember that when making calculations of liquid fertilizer, the analysis is given on a weight percentage, NOT on a volume or "per-gallon" basis. Most fluids weigh between 10 and 12 pounds per gallon. As an example, if you choose a liquid fertilizer with a 10-34-0 analysis that weighs 11.4 pounds per gallon, the gallon will contain only 1.14 pounds of nitrogen (11.4 x .10) and 3.87 pounds of phosphorus (11.4 x .34). Approximately 48 gallons of this liquid fertilizer would be needed per acre to supply the 50 pounds of nitrogen that is recommended for spring applications to pasture grasses. Depending on the productivity of your pastures and your grass species, additional nitrogen applications should be considered in early and late summer.

Conducting a soil test will allow you to determine if you need to add lime to maintain proper pH conditions or add any potassium or phosphorus to your pastures.

Is lawn fertilizer safe for horses?

Lawn fertilizers are frequently time-released products. The nitrogen is often encapsulated to allow a slow release of fertilizer. Slow release nitrogen fertilizers can remain in the soil for many weeks. Nitrogen is toxic and horses should not graze in areas that have received fertilizers marketed for lawns.

Lawn weed control products cannot be used on grasses that are being grazed if it is not labeled that way on the weed control product. It will state grazing restrictions on the label if it can be grazed and how long animals need to be kept off of it after product is used. The products have not been subjected to the rigorous testing that is required when the products are used for pastures.

If you truly need to graze your lawn, then you should manage it as a pasture and only use agricultural fertilizers and herbicides that are labeled for pasture use.

No fertilizers or weed control products that are labeled for lawn use should be used on grasses that are used for grazing unless it says so on the label. If they are not labeled for pasture use, then it is illegal to use these products on pastures or lawns that are used for grazing.
5. **2012 Winter Feeding Management Workshop**

**February 14th - Bernie and Cheryl Pryor’s Farm, Rockingham Co. (1:00-3:00pm)**

Ben Chase at [Ben_Chase@ncsu.edu](mailto:Ben_Chase@ncsu.edu) 336-342-8235

Workshop will include:
- Winter Feeding Management
- Grazing Stockpiled Fescue and other Winter Grazing Options
- Winter Feed Supply Planning
- Improving Hay Management
- Hands On: How to set up and keep a high charge on temporary fences
- How to Body Condition Score Your Cattle
- **YES, THIS IS GEARED FOR CATTLE PRODUCERS BUT THE GRAZING CONCEPTS ARE THE SAME! ALL LIVESTOCK & HORSE OWNERS ARE WELCOME!**

Directions: From Highway 87 South of Reidsville (adjacent to Highway 29 – By Reidsville Golf ball on a Tee shaped water tower) take Holiday Loop Road. Turn onto Grooms Road, go ~3miles & turn right onto Massey Road. Go to end on Massey & turn right onto Scott Road Look for Extension Signs.

+----------------------------------------------------------------------------------------------------------------------------------+

6. **Equine Limitations of Performance** - *Craig Wood, University of Kentucky*

During **anaerobic exercise**, lactate production is the most limiting factor of performance. Low oxidative muscle fibers do not contain a great concentration of lactate dehydrogenase, the enzyme that converts lactate to a
usable form. Muscle is unable to continue working in the presence of a high level of lactic acid and, therefore, fatigue occurs.

**Lactate** decreases the pH of the muscle (acidosis), resulting in a decreased ability to use carbohydrates for ATP production. It has been postulated that the decrease in muscle pH due to lactate accumulation also decreases the muscle’s ability to uptake calcium for contraction.

Heat is a by-product of the metabolism of fuels and is also a cause of fatigue in the equine athlete. As muscle temperature rises, certain enzymes that are used in the metabolism of fuels are unable to function correctly. High muscle temperature, along with decreased muscle pH, has also been related to the decreased ability of the muscle to uptake calcium for contraction.

**Environmental conditions** play an important role in the performance of a horse. It has a large effect on the ability of a horse to dissipate heat produced during exercise. Loss of heat by convection and radiation depend on a temperature difference between the skin and the air. When environmental temperature is low (10°C), convection and radiation are able to dissipate a large amount of heat produced; however, when environmental temperature increases (36°C), convection and radiation are ineffective, and the horse must rely on sweat as its primary method of heat loss. **Humidity** also limits the amount of heat that can be dissipated from the body. High humidity decreases the **ability of a horse to sweat** because the water vapor content in the air is high. In conditions of high heat and humidity, horses are severely limited in their ability to dissipate heat, and precautions must be taken to prevent dangerous elevations in body temperature.

**Muscle glycogen** depletion is not a factor in fatigue of horses working at high intensities, but it can affect horses working at prolonged, low intensities. During submaximal exercise, free fatty acids and glycogen are the major fuels for energy. When glycogen is depleted from the liver and working muscles, ATP production decreases and fatigue sets in. Although fat stores are not depleted, they cannot be metabolized without carbohydrates.

7. **Horse Stable Ventilation**

We all know that the stable should smell like fresh forage and clean horses rather than manure or ammonia. Yet, failure to provide adequate
ventilation is the most common mistake made in construction and management of modern horse facilities.

Below is a link to an article that covers common questions about ventilation, recommendations for providing effective natural ventilation and designs for improving ventilation in horse stalls.

Horse Stable Ventilation -

8. Feeding a Horse for Maintenance -
Craig Wood, University of Kentucky

*Maintenance is a component of all physiological states, defined as no net gain or loss of any nutrients. The nutrients required for maintenance are utilized for daily body functions, such as: metabolism during rest (heart function, breathing, digestion, nervous tissue function), activity for maintenance (walking to food/water, grazing), and temperature regulation.*

*Horses at maintenance include those kept in pasture and those occasionally used for work for short periods of time. The energy requirement for maintenance is low and can often be met with good-quality forage.*

*Typically, grain supplementation is not needed. Supplementation with salt or trace minerals may be necessary based on the nutritional value of the forages. Mature grass forages may also lack adequate protein, so a protein supplement may be added to the daily ration.*

9. Cooler Horsemanship Upcoming Events
Finishing the Foundation Demonstration -
Saturday, February 18th 1:00 - 3:00pm
Join us and watch as James demonstrates how the Cooler Horsemanship Program progresses
and finishes a young horse in the Foundation Level.
Demonstration Fee - $10.00
Freedom Clinic - February 24-26, 2012*
"Find the Freedom in playing off line with your horse"
Friday evening overview/demo - 6:00 - 7:30 pm
Saturday and Sunday Clinic - 8:00 am - 5:00 pm
Clinic Participants - $300 for weekend
Auditors welcome - Friday - $5 , $15/Day or $25 for entire clinic (includes Friday demo, Saturday and Sunday audit).
*Winter Clinic Special*
Sign up 2 friends and you receive ½ price ($150.00) on your clinic sign up fee
www.CoolerHorsemanship.com
kate@coolerhorsemanship.com
843-304-3407
Fiore Farms
7600 Millbrook Road
Summerfield, NC 27358

10. HAY DIRECTORY - A Hay Directory is maintained by the North Carolina Cooperative Extension Service for the Rockingham County and Guilford County area. This directory is intended as a service to both hay producers and buyers in the area. If you are in need of hay or would like to be added (or removed) from this list please call me at 1-800-666-3625 or 342-8235 and let me know your name, address & phone #, type of hay, number of bales, (square or round bales) and weight per bale.
Quality Hay is in short supply, this Extension hay list was compiled in the fall and much of the hay is now gone. If you are running short on hay, DON’T WAIT FOR THE LAST MINUTE to try to line some up. Please go ahead & get your hay source lined up.
I get many calls from folks saying that “We are Out Of Hay and need some like Now” When you wait until your hay is gone, you do not allow time for your horses digestive system to get acclimated to the “new” hay which can cause problems.

11. Take A Load Off - ANOTHER Senior Moment
Thanks for this send in...Please send me your clean jokes!
Several days ago as I left a meeting at our church, I desperately gave myself a personal TSA pat down. I was looking for my keys. They were not in my pockets. A quick search in the meeting room revealed nothing. Suddenly I realized, I must have left them in the car. Frantically I headed for the parking lot. My wife, Diane, has scolded me many times for leaving the keys in the ignition. My theory is the ignition is the best place not to lose them. Her theory is that the car will be stolen. As I burst through the doors of the church, I came to a terrifying conclusion. Her theory was right. The parking lot was empty. I immediately call the police. I gave them my location, confessed that I had left my keys in the car, and that it had been stolen.

Then I made the most difficult call of all, “Honey,” I stammered. I always call her “honey” in times like these. “I left my keys in the car, and it has been stolen.”

There was a period of silence. I thought the call had been dropped, but then I heard Diane’s voice, “Ken,” she barked, “I dropped you off!”

Now it was my time to be silent. Embarrassed, I said, “Well, come and get me.”

Diane retorted, “I will, as soon as I convince this policeman I have not stolen your car!”

I always want to know what you think of the Weekly Pile, good or bad, Especially if it has had ANY IMPACT on you. Let me hear from you!

*****I NEED YOUR IDEAS FOR ARTICLES In FUTURE Newsletters!*****
I WANT TO HEAR FROM YOU!!!!!!!!!!!!!!!!!

*Please remember our Troops who are serving our Country (and there families) those who have come home with wounds and the families that paid the ultimate sacrifice. We owe everything to those who are and have served!
Thank You!
I hope that you all have a Great Safe Weekend!
Ben

North Carolina State University and North Carolina A&T State University is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, creed, national origin, religion, gender, age, or disability. Moreover, North Carolina State University and North Carolina A&T State University is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students. North Carolina State University and North Carolina A&T State University regards discrimination on the basis of sexual orientation to be inconsistent with its goal of providing a welcoming environment in which all its students, faculty, and staff may learn and work up to their full potential. The Universities values the benefits of cultural diversity and pluralism in the academic community and welcomes all men and women of good will without regard to sexual orientation.

The use of brand names or any listing or mention of products or services does not imply endorsement by the NC Cooperative Extension Service nor discrimination against similar products or services not mentioned.

--

Ben Chase
Rockingham and Guilford County Extension Agent
Agriculture & Livestock
North Carolina State University
North Carolina Cooperative Extension,
525 NC 65, Suite 200, Reidsville, NC 27320
(336) 342-8235  800-666-3625  Fax:  336-342-8242
Email: ben_chase@ncsu.edu
http://rockingham.ces.ncsu.edu/index.php?page=animalagriculture