Hey Folks,

Included is the Weekly Pile of Information for the week of February 12th, 2017, 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.
 - provided information is a resource to the citizens of Rockingham & Guilford Counties.
 - provided information does not require extra time or effort to be listed.
 - Listings for Swap Shop will not list pricing details.
 - Please E-mail information to me by Wednesday each Week
 - Please keep ads or events as short as possible with NO FORMATTING,

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.

- The Weekly Pile is not for listings for Commercial type properties or products.

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!

I NEED YOUR FEEDBACK & IDEAS!

Included in The Pile this Week:

- 1. 45th Annual Extension Horse Management

 MONDAY NIGHT 4th in Series
- 2. Horse Industry Promotion Assessment Referendum

 March 8
 - 3. You Asked
 - 4. Keeping Horses on a Budget
- 5. Initial Considerations for Renovation of Pastures and Hayfields
 - 6. Soil Sampling and Fertility

- 7. WEED MANAGEMENT
- 8. Pesticide License Events
- 9. 2017 Piedmont Regional Beef Conference Thursday, March 2
- 10. NC Forage & Grassland Winter Conference Series
 - 11. Other Dates of Interest
 - 12. HAY DIRECTORY
 - 13. Swap Shop
 - 14. Take A Load Off

1. 45th Annual Extension Horse Management Series – 4th in Series

Going On Now,

I Hope YOU will Plan On Attending MONDAY NIGHT!

2017 Horse Management Classes

7pm, Guilford Co Ag Center

located at 3309 Burlington Road in Greensboro

February 20 - Bits & Bitting

Shane Young, Young Quarter Horses, Yadkinville, North Carolina

February 27 - Equine Chiropractic & Acupuncture - Alternative Equine Medicine

Dr. James Meyer, Neuse River Equine Hospital, Wendell, NC

*Horses will be needed February 27 for Dr Meyer, I am waiting for exactly what he would like to have there but if you are willing to bring a Horse,

Please let me know*

March 6 - Fencing & Supplies and Equine Nutrition

Davis Feed & Equine Animal Nutrition, Randleman NC

Horses will be needed March 6 to show different Body Condition Scores, if you are willing to bring a Horse, Please let me know

March 13 - Equine Lameness

Dr R. Scott Pleasant – Virginia Tech Director of Equine Podiatry Service, Department of Large Animal Clinical Sciences, Professor, Equine Field Service and Equine Extension Department of Large Animal Clinical Sciences

March 20 - Question & Answer

Questions Asked by Horse Owners to the Equine Veterinarians

Hosted and Held at Carolina Equine Hospital

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.

2. Horse Industry Promotion Assessment Referendum March 8

The North Carolina Horse Council plans to hold an equine referendum to extend the Horse Industry Promotion Assessment which was first authorized in 1999. The referendum will be conducted in all of North Carolina's 100 counties and the Eastern Band of Cherokee Indians on March 8, 2017.

Polling places will be set up in each county Cooperative Extension office. Horse owners will be able to vote on whether or not to extend, for ten years, a \$4.00 per ton assessment being paid by manufacturers of horse feed sold in North Carolina.

Polling places will be open during regular business hours in each Cooperative Extension Service office. Any horse owner/leassor, over the age of nine, can vote. There will also be an absentee balloting system put in place for owners who are not able to get to the Extension Offices on March 08, 2017.

PLEASE GIVE THIS REFERENDUM SERIOUS CONSIDERATION AND ASK WHAT HAS THE NC HORSE COUNCIL DONE FOR YOU AND THE NC HORSE INDUSTRY?

Voting Details

Date:	Wednesday, March 08, 2017	
Time:	8:30 a.m 5:00 p.m.	
Polling Places:	County Extension Centers	

Eligibility: Any North Carolina resident who has complete or partial ownership or lease of an equine (horse, pony, mule, donkey or hinny). Individuals must sign a statement of ownership/lease at time of voting.

Age: Must have reached 9th birthday as of January 1, 2017.

Ballot Specifics: "Yes" indicates a vote in favor of continuing the assessment. "No" indicates a vote against continuing the assessment.

Absentee Voting:

Since many horse owners work away from home during business hours, a provision has been made for absentee voting. Between the dates of February 20–March 08, horse owners may visit or phone the County Extension Center and request a ballot and absentee registration form. These must be turned in to the Extension office by March 08, and will be counted along with others on March 09.

If the vote is favorable on March 09, the NC Department of Agriculture and Consumer Services will continue to receive the assessment funds from manufacturers and/or distributors of horse feed, and will remit the money to the NC Horse Council.

3. You Asked: I'm planning on acquiring a horse in the next 12-18 months. I've been planning this for several years and have been collecting information from my trainers to insure I'm developing a realistic budget. I'd like to get expectations for regular routine expenses, outside of the purchase cost. Assuming: Will be a light to medium build horse, between 15.2-16.2 Full Boarded and will leave the barn regularly to school/clinic and compete in local and regional events/horse trials/shows. Can you give some comparison or some kind of guide with a breakdown of expenses, including information about insurance cost?

There are some great general resources out there for you to read on the cost of horse ownership. These resources discuss many of the expenses that you'll encounter with your new horse. Here are a few:

http://www.thehorse.com/articles/33421/the-real-cost-of-horse-ownership https://extension.tennessee.edu/publications/Documents/W371-A.pdf https://www.unce.unr.edu/publications/files/ag/other/fs9641.pdf http://www.horsechannel.com/horse-exclusives/horse-expense-calculator.aspx

Board charges to be between \$450 and \$700 per month depending on the amenities. Facilities with indoor arenas may be more per month. Farriers in the area tend to charge between \$40-70 to trim your horses hooves every 6-8 weeks. For 4 shoes, plan

on between \$200-250 every 6-8 weeks. Vet care will vary, so call the local vets in the area and ask them if they have a health plan. Many vets will have an annual plan that includes vaccinations, dental exams, Coggins test, and deworming. Other costs should be considered such as: Grooming supplies, blankets, and tack can also be pricey items and vary too much for me to give you a good estimate. There are great places online like doversaddlery.com, statelinetack.com,

and horseloverz.com that have those types of items. Riding lessons are typically between \$45/hr to \$90/hr depending on the level of instruction or whether they are private or group lessons. If you're paying for trailering, figure at least \$1-2/mile. Show costs vary based on the discipline.

4. Keeping Horses on a Budget

Sara BhaduriHauck, University of Maryland Extension

Horses are expensive to care for, and the costs can quickly become burdensome unless they are managed carefully. It is possible, however, to reduce horse care costs while providing a high standard of care.

Before you can cut expenses, you must have a good understanding of what your horse-related expenses are. Start by analyzing your financial records of horse care expenses. Receipts, credit card statements, check book registers, veterinary records, and other documents will show your actual costs. If you do not have records, make educated estimates based on as much actual information as possible. For example, if you feed three bags of grain per month, and a 50-pound bag costs \$18, your estimated grain costs are \$54 per month.

Calculate your monthly costs based on a full year's data. Some expenses, like board, are constant from month to month. Similarly, you will incur farrier expenses about every 6 to 8 weeks, depending on your horse's farriery schedule.

Other expenses vary based on time of year or frequency of need. For example, you would only incur expenses for fly spray during the warmer months.

Break out your expenses into categories. If you have multiple horses, examine expenses incurred for each horse. The categories you use for your analysis might vary depending on your situation, but at the very least you should include:

- Board or, if you keep horses on your own property, facility costs like bedding, fence repairs, pasture management costs, fuel for tractors, etc.
- Feed including hay, concentrates, and supplements.
- Farrier, veterinary, and dental care.
- Consumable supplies like fly spray or hoof polish.
- Equipment like halters, blankets, and saddles.
- Training, lessons, and competitions.

Some horses will cost more to maintain depending on differences in feeds, farrier treatments, and other factors. Knowing your highest expense categories (for each horse if you have more than one)

can help you prioritize cost-cutting efforts.

Categorize each expense as a need or a want. Horses need adequate feed, water, and shelter and regular care by a veterinarian, farrier, and dentist. You should consider anything above this basic level of care a "want." In rare cases it is possible to reduce expenses for "needs," but it is generally best to focus on reducing spending for "wants."

Once you have a thorough understanding of your expenses, you can begin to consider ideas for reducing them. Remember to always make management decisions based on the welfare of the horse, using cost as a secondary deciding factor.

Board and housing facilities

- Choose pasture board or keep your horses turned out most of the time. Not every horse requires access to a stall, and pasture board is usually less expensive than stall board. If you care for your horses yourself, more hours of turn out will reduce bedding costs and time spent cleaning stalls. Horses on 24/7 turnout, however, should have access to shelter like a run-in or dense stand of trees in case of inclement weather.
- Choose a boarding facility that fits your budget. Boarding costs are generally higher at facilities with special amenities, like an indoor riding ring. Regardless of the features offered at a boarding stables, be sure that the facility you choose provides quality care for your horse.
- Board closer to home. Fuel and wear and tear on your car can account for significant expense if you must travel some distance to the boarding facility. The 2015 IRS standard mileage reimbursement rate for privately owned vehicles, which is intended to compensate for fuel and wear and tear, is \$0.575 per mile. You can use this value to calculate your current mileage expenses and the potential savings if you board closer to home.
- Help with farm chores in exchange for a reduced boarding rate. Some farms will allow you to
 work off part of your board in exchange for feeding horses, cleaning stalls, or performing
 other farm duties. Not every farm needs help with horse-related chores though, so don't limit
 yourself. If you are willing to pull weeds, fix fences, or spread manure, you may be more
 likely to strike a deal with the farm manager.

Feed

- **Don't overfeed**; don't feed concentrates unless your horse needs them. Concentrated feeds like grain are generally more expensive than forages like hay, and not all horses require concentrates in their diets. Your county Extension agent or the equine nutritionist at your feed store can help you formulate a balanced ration. Compare the cost of this ration to what you are currently feeding. Horses on forage-only diets may require mineral supplementation, and all horses should have access to a salt block.
- Feed pasture to replace as much hay as possible. Although there are costs associated with pasture management, grazing pasture is generally more economical than feeding hay. It also reduces the amount of labor required to store and feed hay. Your county Extension agent or local Soil Conservation District can help you formulate a pasture management plan and determine if your pasture is able to provide adequate nutrition for your horses.
- Evaluate your use of supplements. There is little scientific research to prove the effectiveness of many supplements. Discuss supplement use with your veterinarian to help you determine if the supplements you are feeding are making a difference and whether feeding them is worth the expense.

- Reduce wasted feed, especially hay. Feeding hay on the ground, especially outdoors during inclement weather, increases waste. Invest in a covered round bale feeder, slow-feed hay net, or something similar to reduce waste.
- Buy hay in the summer when supply is high and prices are at their lowest. Buy enough hay to last you through the winter. You will pay a premium for hay in the winter or early spring when it is scarce.
- Feed round bales instead of square bales or bagged hay. On a per pound basis, round bales are usually the least expensive option. Feeding round bales requires equipment to move the bales as well as storage capability. If you don't currently have these, it may be economical in the long run to invest in them.

Farrier care

- Do not price shop for a farrier. Choose a farrier who you feel can deliver the best care possible. The farrier's level of education, certifications achieved, years of apprenticeship, and philosophies on hoof care are factors to consider. You may also rely on recommendations from friends or fellow horse owners. You will save money in the long run by entrusting hoof care to a competent farrier.
- Keep your horse barefoot if possible. Some horses require shoes, but not all. If your farrier agrees that your horse does not need shoes, you will save money by keeping him barefoot.

Veterinary care

- Treat non-emergencies yourself. You will save the farm call fee and the vet's service fees by treating minor injuries and performing basic procedures, like removing sutures, yourself.
 Remember, however, that part of being a responsible owner is recognizing when you need to call the vet.
- Have a good working relationship with your veterinarian. If you are able to call and discuss non-emergency health concerns, you may save a visit from the vet and the fees that go along with it.
- Budget for emergencies, and set aside money specifically for this purpose. Determine your price limit for emergency care before an urgent situation occurs. Knowing your limit will help prevent you from making emotionally-based decisions in the moment.
- Coordinate farm calls with other boarders or neighbors or haul your horse to the vet. The more people you can split the farm call fee with, the less your expense. If your vet maintains an office close to where your horses live, it may be economical to haul to the vet to eliminate the farm call fee.
- Stop using daily dewormer. Daily dewormer is usually more expensive than paste dewormer. It is also not recommended as daily deworming contributes to resistance of internal parasites more than periodic deworming. To further reduce use of dewormer, have your veterinarian check fecal samples periodically and only deworm horses that need it.
- Give your own vaccines. You will save the farm call fees and vet's service fees. Do not attempt to give your own vaccines, however, until you have been trained how to do so safely. You veterinarian can help you determine what vaccines are necessary for your hoses. And remember that only a licensed veterinarian should give the rabies vaccine.
- Buy vaccines in bulk. You can save money by buying multiple doses over buying single doses.
 If you have only one or a few horses, consider buying in conjunction with other horse owners.
 Be sure to check the expiration date on the vaccines if you won't use them all the same year you buy them.

Supplies

- Price shop and check out online stores. Shop at consignment sales or buy items second-hand. The Internet also makes comparison shopping easy. Some companies charge more for basic farm supplies that they market to horse owners; don't forget to check general farm store prices, too.
- Think critically before making purchases. Limit your spending to replacing supplies that are consumed, broken, or worn out. If you're new to horses, talk to experienced owners about what you really need.
- Wait for sales, and buy things at the end of the season. Plan ahead, and be patient. If your horse's blanket needs to be replaced, buy a new one in the spring when blankets go on clearance.
- Stop feeding treats. Reward your horse instead by hand grazing him for a few minutes or scratching his favorite spot.
- Evaluate the effectiveness of consumable products you use regularly. Products like hoof conditioner and fly spray may not be as effective as claimed. Use your personal experience, recommendations from other horse owners, and advice from your vet and farrier to decide if the perceived benefit to your horse is worth the price.

Other ideas

- Participate in fewer lessons and competitions. Switch from private to group lessons, or take a lesson every other week instead of weekly. Reduce the number of shows you participate in.
- Buy a hardy horse. Some breeds of horses can maintain on less feed and have fewer health and hoof issues than others. If you're looking to buy a horse, consider one that will require the fewest inputs to maintain.
- Rehome horses that cost more than average to maintain. Hobby owners may find it hard to part with beloved pets, but those operating horse businesses should consider this option. Horses that require special feed, routine medical treatments, or other extra care may cost more money to maintain than they bring back to the business in profit.
- Half lease your horse to someone. Leasing is one way to substantially reduce your cost by up to 50% or more, depending on the terms of the lease. If you lease your horse, be sure to have a written lease agreement, and have the lessee sign a hold harmless agreement. These documents will ensure that you and the lessee are on the same page about how the horse is to be used and will help protect you from liability.

Above all, being an educated horse owner will help you make good decisions about horse care. Strive to continually learn new things and improve your body of knowledge and skills. Your local Extension office may offer educational programs and publications for horse owners or can direct you to other local organizations that do.



5. Initial Considerations for Renovation of Pastures and Hayfields

We have a lot of questions recently about pasture renovation due to damage caused last year by the drought in the western and central North Carolina and the flood in eastern North Carolina. The drought caused stand damage on many farms across the western region, and also in the east on pastures that stayed under water for ore than a week.

As the weather warms up you should be able to tell which fields have severe long-term damage, which are weakened, and which are in good shape. As you assess your pastures, keep in mind that you really need to be thinking in terms of how much bare ground there is, how much of the cover is desirable forage species, how much is undesirable species (weeds), and whether legumes are present. Your local advisors including your extension agents and conservationists have training on assessing pasture condition, so make sure you seek their guidance as you approach your pasture evaluation.

Our initial feedback from local advisors and our observations show that in the west some pastures show recovery and adequate stands, while others show a lot of bare ground, few desirable plants and active erosion. In the east, bermudagrass and bahiagrass that stayed under water for a long time is expected to survive, but fescue or other cool season forages that were flooded in many cases were killed.

Some people think that when the originally seeded forage crop starts to thin out, then the fields need to be completely reseeded. This is not necessarily the case as a pasture ecosystem will naturally evolve over time, and even if you seed one type of plant, eventually you will have multiple species. This is not necessarily bad as long as most of the plant population is of desirable species. On the other hand, if the pasture has a high percentage of undesirable plants, has low yield, little or no legume, and/or has a thin stand with a lot of bare areas then some sort of action is probably called for.

The first consideration is what the main purpose of the forage stand is. If you have multipurpose pastures for grazing and making hay for cattle, then you can tolerate more weeds than if you are trying to make high quality hay for sale to horse owners or other top end hay markets. If you have multiple animal species grazing (cattle and sheep or goats) then the "weeds" might actually have some nutritional value and would not necessarily be undesirable. Finally, if these fields are around your house, or if you just like things to look "clean" then there might be aesthetic reasons for doing some kind of pasture renovation.

If you decide a pasture or hayfield is in suboptimal condition for its purpose and is in need of attention, the next thing to think about is how it got in that condition in the first place. As I indicated earlier, with good management a pasture can remain productive indefinitely, and there is not necessarily a need to periodically renovate. From time to time inputs are needed (like lime and fertilizer), and doing those things on a timely basis will help keep the pastures healthy for a long time. Of course the poor season we had last year was a challenge for pastures, especially if they were overgrazed, but in many cases these pastures will only need rest and a careful look at the fertility program.

The first thing to consider as you approach renovation is soil fertility status. Many pastures that are in poor condition were already in bad shape before the drought or flood and really just need a good fertility program. Start your fertility management planning by doing soil testing. State labs can get the results back to you fairly quickly, and that information is the most valuable tool you have to improve your pastures. Lime, phosphorus and potassium should be applied based on recommendations, and while phosphorus and potassium can go to work as soon as applied, lime will take months to start increasing soil pH. Nitrogen is obviously also a very important fertility input but without desirable pH, and potassium and phosphorus levels at least in the medium range the response to nitrogen will be less that you want.

The second thing to consider is if the problems were caused by poor grazing or hay cutting management. If pastures are undergrazed or overgrazed, pasture condition problems can result. Even with fairly light stocking, if you continuously graze pastures eventually many of the desirable plants will be killed out and undesirable ones will dominate. If you overgraze pastures, the stand can be thin resulting in a lot of weeds, erosion and loss of yield. That effect is magnified during a drought condition. No matter what you do to renovate the pasture, continuous grazing management will eventually get you back in the same situation, so couple any renovation efforts with an upgrade in how you manage grazing.

In hayfields, waiting too late in the spring to cut can thin the stand resulting in a lot of bare areas, and that can lead to increased weed populations. Cutting on time before the forage gets rank (early May for most cool season forages in the Piedmont) will help maintain a vigorous stand of desirable plants. Cutting too short is another problem for hayfields, and with disk cutters it is very easy to set them too low and remove too much of the base of the plant. Never cut a cool season pasture shorter than 4 inches or a bermudagrass pasture shorter than 2 inches.

There is no one method of pasture renovation that fits every situation. Once you decide you do need to do something, and take steps to correct management problems that caused the forage crops to get into bad shape, you need to decide how intensive your renovation efforts will be.

I have already mentioned fertility improvement, and any renovation effort should start with soil testing and liming/fertilization. Without that, most other actions will not live up to their potential for improvement. Some folks think that when a pasture gets into bad shape it just needs aeration. This is based on work that shows that when cattle graze a pasture soil bulk density increases reducing the ability of the forage roots to grow. Most research has shown that aeration alone may give a short-term response, but that in general aeration by itself is not a very effective renovation tool. Aeration does improve water infiltration and may be of benefit when wastewater is irrigated onto forage crops, and it will also help lime and phosphorus penetrate the lower soil profiles which might help with root growth. If you know compaction is a big issue, you might consider aeration, but in most cases it is not necessary.

If undesirable plants (weeds) are a problem, then frequent clipping or herbicides should be used. Frequent clipping can work against some weeds, and it certainly makes things look better for a while, but tough weed

problems probably call for an herbicide. The problem with herbicides is that without proper timing, they might not get all the weeds that are causing you a problem. They might also cause collateral damage to desirable plants such as clovers. Still, if you have a broadleaf weed problem or a brush problem, the right herbicide applied at the right time can have a big impact.

If the weeds are localized, you might be better to use spot application of herbicides rather than treating the whole pasture. One example of this is the control of multiflora rose by spot spraying or with a granular herbicide that is applied only to the base of the rose bush by hand. The use of herbicides is a complex issue, so I will not give you any specific advice on herbicide use. That is best left up to your personal advisor.

In general, there is not a good way to handle undesirable grasses. If you have a weedy grass like Johnsongrass that is tall, you can use a wick applicator to apply glyphosate. Otherwise, you have to provide optimal management for the desirable grasses present so that they can effectively dominate over the undesirable grasses. One approach is to shift the grass population by changing fertilizer timing.

If warm-season grasses are a problem in cool-season grass pastures, then apply nitrogen only in fall after the warm-season grasses slow their growth, or in the early spring before warm season grasses are growing. If you have pastures that are mostly desirable warm-season species (bermudagrass, dallisgrass, or bahiagrass) don't apply nitrogen in the spring, but rather wait until early summer (June) & you will slowly shift the stand to the warm-season.

One good practice if you have weedy pastures is to add goats or sheep to your farm. They require some extra management, but they do like to eat most weeds over desirable forage crops. If you stock them heavy enough they can make a big difference in the weed populations in your pasture.

Once the weeds are under control, or if you have a good stand of grass with no clover, then you should seriously consider seeding clover or other legumes into the pasture. Clovers can be drilled in the fall or spring as long as the pasture is grazed periodically to allow the seedlings a chance to develop.

You might also have success with surface broadcast seeding of clover in late winter (also known as frost seeding). Clovers will only do well if pH is above 6.0, fertility is right (especially phosphorus), and if pastures are grazed pretty close to allow the seedlings to develop without a lot of competition from grass. As you read this in March it is really too late to frost seed (except at high elevation in the mountains) but keep that practice in mind for next winter to fill in thin stands of grass.

The ultimate in pasture renovation would be to completely establish a new stand. If you decide your pastures are so bad that you need to go to that extent, you need to be aware that this is a costly approach. Based on

our forage budgets it costs close to \$250/acre to totally establish a new pasture. You also have to figure that you lose nearly a full year of production due to the need to allow the plants to establish. Reseeding pastures without reducing animal pressure will in most cases lead to failure to develop a good stand.

If you decide that a cool season pasture must be reseeded completely, you will have to wait until fall to seed if you want your efforts to be successful. The options you have in May are; 1) to get the most you can out of the existing forage present and keep weeds under control, or 2) kill the existing stand and plant a summer annual (generally millet or sorghum-sudan). If you are short of forage for the number of animals you have, then the warm-season annual may be your best choice. Just remember, once you reseed the pasture you will have to do something to reduce the animal grazing pressure for the establishment year.

Seeding can be done either using complete tillage or no-till techniques. If fertility on a site is low, deep tillage after lime and phosphorus application is a good idea. If there are a lot of weeds present in pastures or hayfields, you must be aware that there is also a large viable seed bank present. If you till the soil and plant a forage crop, you will also get a good crop of weeds. If you are going to replant you are well advised to get the weeds under control several years before going to the effort of developing a new stand, or be prepared to spray for weeds that may compete with the new forage plants. In many cases, especially in the mountains notill is your only option due to a very high potential for erosion. If you do reestablish (or if you establish forages on old cropland), make sure that you use the best quality seed available. There are many new forage options for you including non-toxic endophyte infected fescues (MaxQ, MaxQ2, BarOptima, etc) that have great potential, and there also are new orchardgrass varieties (e.g. Persist) that are available where orchardgrass is called for. These new varieties and the many other good forage varieties available can lead to improved pasture and animal performance and should be considered if you go the great effort and expense of establishing new stands. I would not recommend establishing endophyte infected fescue unless you currently have less than 1/3 of your acreage in fescue, or if you are in a heavy use pasture such as a bull lot, horse pasture (for non-reproductive horses) or some other kind of feeding/holding pasture.

We are seeing renewed interest in legumes due to the high cost of nitrogen. If you are a very crop oriented farmer then alfalfa might be a good option if you have soils to which it is adapted. White clover is an excellent pasture plant that fixes a lot of nitrogen, and red clover works very well on hayfields. Unfortunately, most herbicides will kill legumes, so if you have a weed problem you need to get that under control before you work to establish clover. The best time to establish these legumes either in existing stands of cool-season pastures or in conjunction with establishing cool-season grasses is in the fall.

The final word as you approach pasture or hayfield renovation is to use common sense. Poor fertility and overgrazing are often the "root" of the problem, and you need to correct that no matter what you do. Herbicides can help if you make the right choice for the weeds you have and apply them at the right time. Generally, pasture condition problems result from poor pasture management in general and if you don't improve your management in concert with the renovation, you are destined to have problems again in the near future. Usually, a combination of the less aggressive practices, including fertility improvement, use of a selective herbicide to get the problem weeds, reestablishing the legume stand and then improving grazing and

hay cutting management will yield big results. Next month we will discuss in more detail the steps you need to take in Spring and Summer in preparation for an Autumn planting of a cool-season perennial pasture.

6. Soil Sampling and Fertility

Posted by: Zack Taylor - Lee County Extension Agent

When was the last time you took a soil sample in your pasture? If you can't remember, then it is probably time to sample again. It is recommended to sample every 2-3 years on a sandy soil, and every 4 on a clay soil. As of today, sample results will be returned about 2 weeks after arriving at the lab. Remember, there is a \$4.00 per sample fee right now. Samples will be free again after April 1st, and will remain free through the end of November.

Why is soil sampling so important, and why do it every few years? Without soil test reports, you cannot accurately provide the nutrients that your pastures need. Any time an application is made without a soil test, there is a potential that you are throwing money away and potentially even doing harm to your pastures. Remember, the essential nutrients your horse needs are provided through healthy forage, so if the plants don't have the nutrients they need, your horse won't have them either. Over time nutrients are removed through grazing or leach through the soil profile, and soils will return to lower pH and nutrient levels. This happens in all soils, more rapidly on sandy soils, and is why nutrient levels and pH should be monitored through regular soils testing.

Be sure to lime your pastures at the recommended rate. While lime may seem like a large and expensive input up front, especially if it has been a long time since your last application, it is actually one of the cheapest ways to improve your pasture health. Did you know that when soil pH is not in the proper range that many nutrients are not plant available? This means without proper liming, your pasture may not have the nutrients that the plants or your horses need, in spite of proper fertilizer applications.

Nutrients are most available at the pH recommended by your soil test

Source: Crouse, D.A. 2016. Soils and Plant Nutrients, Chpt 1. In: K.A. Moore, and. L.K. Bradley (eds). Extension Gardener Handbook. NC State Extension, Raleigh, NC. https://content.ces.ncsu.edu/extension-gardener-handbook/1-soils-and-plant-nutrients

Right now is a great time to apply lime since it does take time and moisture to activate in the soil. Lime can be applied while horses are grazing with no rest period.

The time to apply nutrients is fast approaching as well, since they need to be applied when the forage is actively growing. Nitrogen will always be recommended on a grass pasture, and should be applied when grasses are actively growing. Phosphorus and potassium have the potential to build up in soils depending on soil type, so an application may or may not be needed. Remember to rotate horses to another pasture when applying fertilizer, and keep them off fertilized pastures until adequate rainfall has washed the fertilizer into the soil. Micronutrients are supplied in many blends, so if they are recommended, be sure to check the label of the product you buy and supply them appropriately. Never use a fertilizer intended for a home lawn on pastures. Homeowner fertilizers often contain herbicides which may not be safe on pastures, and may use slow release nitrogen sources which will persist after rainfall and can be harmful to horses.

When you take a soil sample, once your results return, you have in your hands powerful information which will help you build a healthy pasture and a healthy horse. Be sure to follow recommendations and make applications at the right time. Contact your local extension agent if you have questions soil testing, reading the report, or choosing which fertilizer source is right for you.

7. WEED MANAGEMENT

by: William M. Lewis and James T. Green, Jr.

Forage crops, like all other crops, must compete with weeds. Weed control is essential to successful production. The aspects of forage quality (and, therefore, any weeds in forage) that affect animal performance are (1) digestibility and nutritive content, (2) consumption (amount and rate), and (3) toxic factors. Although some research indicates that many weeds are highly nutritious and digestible (50 to 75%), animals may not eat them voluntarily. However, strict rotational grazing with high stock density increases consumption of many weeds. Weeds may adversely affect forage quality because certain ones are toxic or poisonous to livestock; others are unpalatable and limit consumption; some cause an undesirable flavor in milk and meat, and others cause irritations that may contribute to pinkeye.

Certain weedy plants have sharp thorns, awns, or spines that cause internal injury or prick the mouth and eyes of grazing livestock, causing infections or irritations. Plants that cause these problems include horsenettle, mullen, multiflora rose, sandbur, spanish needles, spiny amaranth, and thistles. Intestinal obstructions may occur if animals eat plant parts such as the mature seed heads of crimson clover.

Plants that produce a disagreeable taste or odor in the milk and meat of grazing animals include bitter sneezeweed, buttercup, chicory, dock, dogfennel, horsetails, mustards, ox-eye daisy, ragweeds, sorrel, spurges, St. John's wort, wild garlic, and yarrow. Toxic weeds are described in "Plants Poisonous to Livestock and Pets in North Carolina."

Weeds' requirements for growth are somewhat similar to those of many forage crops. Depending on weather and soil conditions about one pound less forage is produced for each pound of weed growth.

Competition for soil moisture is often severe when shallow rooted forage plants are competing with weeds. Many summer annually weeds also have high water requirements and extensive root systems for extracting soil moisture. Others use water remarkably efficiently. Clovers, bluegrass, and lespedeza cannot effectively compete with most weeds if there is not enough moisture in the soil. Legumes use nearly three times as much water as efficient plants. For example, ragweed uses three times as much water as corn per pound of dry matter produced.

Weeds' nutrients requirements for growth are also somewhat like those of many forage plants. They are strong competitors on infertile and acid soils and seem to be able to grow and reproduce much easier than forages on such soils. Lime and phosphate fertilizer doubled the ground coverage of desirable forage and reduced weed coverage by nearly 20% in mountain pasture tests. Weeds are heavy users of phosphate and potash compared to grass and red clover. For examples, weeds contain more than twice the potash and 30% more phosphate than clover. Since grasses also take up lots of potash, legumes growing in mixtures are at a tremendous disadvantage when grown on soils low in potash.

Many weeds are highly digestible and contain high protein and energy values. A few examples are curly dock, crabgrass, lambsquarters, redroot pigweed, and tall morningglory. If animals will eat the weeds, control is not as critical as it is for weeds that animals will not eat.

Methods Of Weed Control

Mowing may control tall-growing annual broadleaf weeds and reduce seed production if completed just after the first flower appears. However, mowing will not control weeds that form rosettes or mats that grow close to the ground. In fact, mowing may help those weeds by reducing the competition form the desired forage plants. In most instances, weeds have done their damage (in terms of yield reduction) by the time they can be controlled with a mower. Mowing of perennial, hard-to-kill broadleaf weeds shortens them but rarely gives satisfactory control. Mowing to control crabgrass, foxtail, and similar annual grass weeds is essentially hopeless.

Cultural Grazing. Management practices that produce a vigorous, dense stand of forage combined with judicious grazing management are excellent for reducing pasture weeds. Methods of successfully competing with pasture weeds include (1) following soil tests' guides for lime and fertilizer, (2) planting weed-free seeds of persistent varieties adapted to specific management systems and soil environments, (3) rotating crops when feasible to interrupt the life cycle of certain weeds and (4) using frequent rotations of high stock density to force grazing animals to eat or trample weeds. Mixing goats with cattle in the appropriate proportion has been effective in controlling certain weeds, such as blackberry, privet, honeysuckle, kudzu, multiflora rose, and a multitude of woody seedlings and saplings.

Herbicides. Chemical control of pasture weeds is effective and often economical. However, herbicides are only one aspect of a weed management program and should be used in combination with fertilization, liming, and grazing and harvesting management.

Weed Management With Herbicides

The success of using herbicides to control weeds in pasture and hay crops depends on plant growth factors, environmental conditions, and herbicide selection. All these factors can interact to affect the performance of foliar-applied herbicides.

Plant Growth Factors. Annual pasture weeds are easiest to kill when they are young and actively growing (3 to 8 inches tall) or in the rosette stage. Biennial plants require two years to complete their life cycle, and they are usually most easily

controlled in the rosette stage, before stem elongation and flowering. Bull, musk, and yellow thistles are biennial weeds. Perennial plants live for several years. They may reproduce by seed and/or rhizome, roots, bulbs, or tubers. Early spring growth depends largely on stored food reserves. Foliar-applied herbicides may be ineffective because the herbicide is not translocated into the roots and rhizomes in sufficient amounts to prevent regrowth. Once the plant has ceased to depend on stored food reserves and begins to transport food into storage organs, control can be achieved more readily since the herbicide is transported downward with the food.

Spraying at early growth gives best control of weeds and reduces the potential loss of forage. Herbicide rates may need to be increased when weeds approach the flowering stage. More difficult to control perennial weeds may require a second spraying when regrowth appears. Foliage sprays for woody plant control should be applied after full leaf development in the spring.

Environmental Conditions. Favorable soil moisture and mild temperatures contribute to actively growing weeds. Desirable forages are usually more tolerant to herbicide application under these conditions. Herbicides are less effective when stressful conditions such as drought are present, because herbicide absorption and translocation are reduced in stressed plants.

Temperature may inhibit or enhance the effectiveness of foliar-applied herbicides.

Within the range of 40 to 85°F, foliar penetration usually increases with temperature. However, volatility also increases. At temperatures above 85°F, Banvel and low volatile ester forms of 2, 4-D and Crossbow may be lost to volatility. Such losses reduce weed control and may damage nearby crops and plants.

Rainfall received shortly after spraying may adversely affect the performance of the foliar-applied herbicide because the rain washes the herbicide off before it is absorbed. A rain-free period of 4 to 6 hours after application of postemergence herbicides is best for performance.

Herbicide Selection. Herbicide selection begins with properly identifying the weeds to be controlled, because various weeds respond differently to different herbicides.

***Always consult the North Carolina Agricultural Chemicals Manual for chemicals that can be used in North Carolina as well as crop with specifies want to be controlled, Herbicides and Formulations, amounts of Formulations per acre, ponds

active ingredient per acre and precaution and remarks (know the withdrawal times or waiting period required before treated forage can be used). Herbicide labels provide specifies information on rates, grass tolerance, grazing restrictions and other pertinent safety details.

8. Pesticide License Events

Pesticide "V" Training – Monday February 20th,
9-11am Guilford County Ag Center

BEE AWARE & PASTURE WEED MANAGEMENT

Auxin Pesticide Training – Thursday March 9, 9am Preregister by calling Deb Fuller at 336-641-2433 located at the Guilford County Ag Center, Mandatory Training for those planning to use Dicamba over the next season on the LibertyLink System

Guilford County Farmers Organization – Tuesday March 14 – Wes Everman, Resistance & How to Handle. 6:30-8:30pm Guilford County Ag Center

Aquatic Weed Identification & Control Class, Friday March 24th 8:30-4pm. Preregister by calling Deb Fuller at 336-641-2433 located at the Guilford County Ag Center. "SPACE IS LIMITED"

Get the Manuals and Start Studying!!!

NCDA Pesticide Exams

Rockingham County Cooperative Extension Service, Rockingham County Agricultural Center, 525 NC 65, Reidsville, NC 27320

(Old Wentworth School Building)

When: April 19, 2017

Time: 1:00 pm Exam

For more information contact Kathryn Holmes, Horticulture Agent 336-342-8230.

Study Manuals order form is at http://ipm.ncsu.edu/pesticidesafety/orderform.PDF

Call NCDA & CS / Pesticide Section (919)733-3556 to confirm what licensing category is needed.

On-line Exam Registration form can be found at http://www.ncagr.gov/SPCAP/pesticides/index.htm

9. 2017 Piedmont Regional Beef Conference

Thursday, March 2, 2017

Join us for the 5th Annual Piedmont Regional Beef Conference on Thursday, March 2, 2017 this year being held at the *NEW* Chatham County Agriculture & Conference Center located at 1192 US Hwy 64W Business, Pittsboro, NC! Registration and trade show open at 9:30 am, followed by the program from 10:30 am- 4:30 pm, with an optional BQA guidelines and certification session at 4:30 pm.

Pre-registration (Before February 16th) is \$15 per person or \$20 per person at the door.

Topics & Speakers Include: "Utilizing Breeds for Improved Herd Performance and Productivity" Jason Duggin, University of Georgia Beef Extension - "Feeding to Increase the Quality, Consistency, and Competitiveness from Market Cows" Part I- Market Cow Evaluation Dr. Dale Woerner, Colorado State University - "What Works for Us" - Producer Panel on Various Topics - "Feeding to Increase the Quality, Consistency, and Competitiveness from Market Cows" Part II – Beef Cutting Demo Dr. Dale Woerner, Colorado State University - "Understanding Humane Euthanasia of Cattle" Dr. Harrison Dudley, NC State University - Beef Quality Assurance Guidelines & Certification (Optional) Cost: \$15 for current NCCA members, \$40 for nonmembers *Payment due on-site (check to NCCA)

This conference is put together by Cooperative Extension Agents in Alamance, Guilford, Rockingham, Caswell, Person, Forsyth, Stokes, Davidson, Person, Orange, Chatham, and Randolph counties. This will be an outstanding day of activities and learning opportunities for area cattle producers. We hope that you will plan on participating!

Speakers for the 2017 Piedmont Regional Beef Conference

Jason Duggin, University of Georgia Beef Extension Jason serves UGA and the Department of Animal and Dairy Sciences as the Beef Extension Specialist in Calhoun, GA where he supervises the Calhoun Bull Evaluation and Calhoun Heifer Evaluation & Reproductive Development programs. Jason also provides beef cattle programming support to Extension agents across the state along with fellow UGA Beef Team members. Jason received his Bachelor's in Livestock Production and Master's in Meat Science from Oklahoma State University where he was a member of the 2000 Livestock Judging Team.

Dr. Dale Woerner, Colorado State University Dr. Dale R. Woerner is an Associate Professor in the Department of Animal Sciences at Colorado State University. Dr. Woerner's research experience and expertise is in fresh meat quality, fresh meat shelf-life, meat flavor chemistry, pre-harvest management for quality meat production, meat cookery, instrument assessment of meat products, and innovative carcass fabrication. Dr. Woerner serves as a member of the National Cattlemen's Beef Association's Beef Innovations Group. He has been recognized as a top 10 industry leader by Cattle Business Weekly, a Hall of Fame Young Alumni inductee at Texas Tech University, as a one of "40 under the age of 40" recognized by Vance Publishing in their inaugural for their contributions to food security, and, in 2015, received the American Meat Science Association's Achievement Award.

Dr. Harrison Dudley, NC State University Dr. Harrison Dudley grew up in Nash County, North Carolina. Dr. Dudley graduated from NC State University with a Bachelor of Science degree in Animal Science. He also attended NC State University for veterinary school, where he earned his DVM in 2012. After graduation, he practiced for 2 years out of Siler City with Carolina Equine and Food Animal Mobile Vet Services prior to accepting position at NC State University College of Vet Med. Currently, Dr. Dudley spends 40% of his time teaching beef cattle production medicine to all 4 years of veterinary students, 30% in extension – beef cow specialty, and 20% clinical service for state research herds and limited private clients.

10. NC Forage & Grassland Winter Conference Series

March 7- Greenville, NC March 8- Wilkesboro, NC March 9- Canton, NC

Schedule:

http://files.constantcontact.com/7153091e001/44cfc2fe-9db1-4c4e-9592-57b74b95583b.pdf

Topics include:

Capturing the Benefits of Productive Pastures

11. Other Dates of Interest

March 15th, 2017

Ag Day at the Legislature

Raleigh, NC

(Farm Bureau)

**

May 19th - 21st, 2017

Got To Be NC Festival

NC State Fairgrounds

Raleigh, NC

http://www.gottobencfestival.com/geninfo.htm

12. HAY DIRECTORY

A Hay Directory is maintained by the North Carolina Cooperative Extension Service for the Rockingham County & 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. MANAGE YOUR PASTURES & If you have hay to

sell, hay is in short supply, especially quality hay, so please let me know & I will put you on the list!

13. Swap Shop

Top Quality Hay for Sale

Alfalfa - 2nd & 3rd Cutting out of Colorado

If Interested call Michael - 336-908-6142

FIORE FARMS

Premiere Equestrian Facility
is FOR SALE

~117 Ac total. Min available purchase ~92 Ac.

Private treaty

Please contact: seahorseriders7719@yahoo.com

14. Take A Load Off

A FLY KILLERS PICKLE (Readers Digest)

My three-year-old daughter stuck out her hand and said, "Look at the fly I killed, Mommy." Since she was eating a juicy pickle at the time, I thrust her contaminated hands under the faucet and washed them with antibacterial soap.

After sitting her down to finish her pickle, I asked, with a touch of awe, "How did you kill that fly all by yourself?"

Between bites, she said, "I hit it with my pickle."

What Not To Say In A Job Interview (Readers Digest)

My boss and I took a job applicant to lunch, where we tried, with little success, to get him to open up

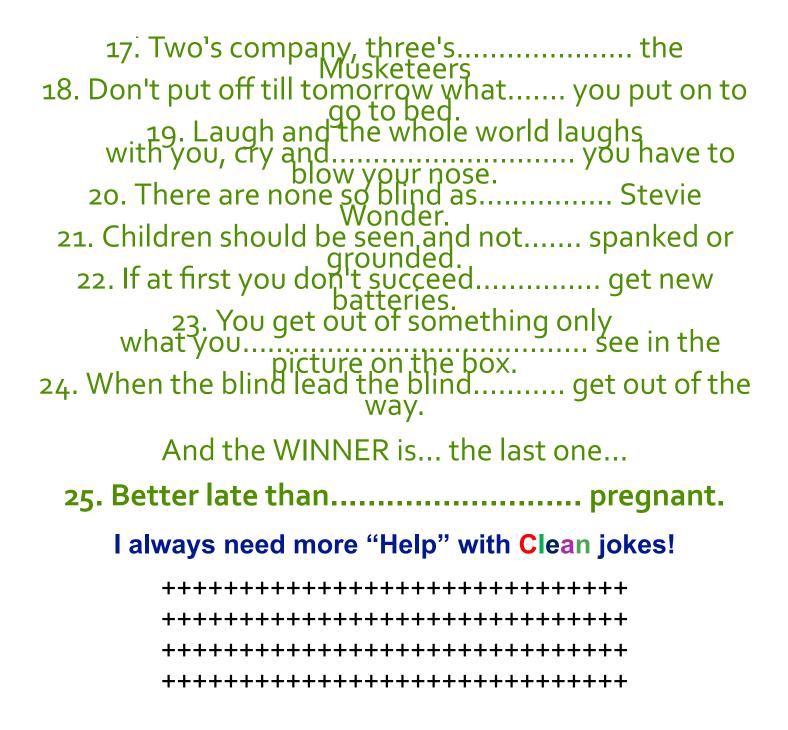
about his experience and qualifications.

Frustrated, my boss set his salad aside and proposed a specific and complex situation to the young man, then asked, "What would you do?"

The applicant hesitated, then, looking my boss straight in the eye, said, "Are you going to eat all those tomatoes?"

1st grader answers (taken from Inspire 21.com)

A first grade teacher had twenty- Clarkston, MI class. She presented class the first half of a well known them to come up with the remain It's hard to believe these were act graders. Their insight may surpris keep in mind that these are just 6 the last one is classic although s	five students in her d each child in her proverb and asked der of the proverb. ually done by first e you. While reading, year-olds, because ad to see it said!
1. Don't change horses	until they
1. Don't change horses	bug is close. Daylight
4. Never underestimate the po	wer of termites.
6. Don't bite the hand that	looks dirty.
8. A miss is as good as a	Mister.
10. If you lie down with dogs, yo	ou'll stink in the
morning. 11. Love all, trust	the the best way
to relax. 14. Where there's smoke there 15. Happy the bride who presents. 16. A penny saved is	'spollution. gets all the
16. A penny saved is	not much.



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!

PLEASE SEND TO ME YOUR IDEAS FOR ARTICLES IN FUTURE NEWSLETTERS!

I WANT TO HEAR FROM YOU!!!!!

Please remember our Troops who are serving our Country (and their families), those who have come home with wounds, and the families that paid the ultimate sacrifice.

Have A SAFE GREAT Weekend!

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

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Email: ben_chase@ncsu.edu

http://rockingham.ces.ncsu.edu/index.php?page=animalagriculture