Cattle Call

Guilford County Extension Beef Newsletter

August 2017

Included in this August 2017 Cattle Call is Extension's Beef Cattle related educational information & announcements for Rockingham & Guilford Counties. Please send me any announcements, or buy and sale items, hay or other that you wish to be included in EACH Cattle Call. (SHORT AS POSSIBLE) THERE ARE NO CONTINUAL RUNNING SPOTS, SO YOU NEED TO SEND THESE TO ME FOR *EACH* Cattle Call.

*****PLEASE PUT IN SUBJECT LINE – ***Cattle Call. *****

If I forgot to include anything in this email it was a total oversight on my part. BUT LET ME KNOW!

******GOT A QUESTION OR WOULD LIKE TO LEARN MORE ABOUT SOMETHING, LET ME KNOW SO IT CAN BE INCLUDED IN THE NEXT CATTLE CALL!******

As Always - I would like to hear your comments!

Included in this

Cattle Call

1. **Guilford County August 15th Cattleman's Program**
2. **Guilford County Jr. Livestock ShowAugust 12th**
3. **Guilford County Cattleman's Program September 19th**
4. **First on Scene Trainings October 6 (for Farmers) &**

October 7th (EMS) What to do if you come to a medical or injury event on a Farm!

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1. Guilford County Cattleman's Program August 15th

On August 15th beginning at 7:00 pm, Guilford County Cattlemen will be gathering at the Guilford County Agricultural Center, (Barn Kitchen) located at 3309 Burlington Road in Greensboro to get back into our regular meeting schedule. At this meeting, area Cattlemen will be getting together for dinner (Dutch) & to hear a program on Fencing, Nutrition & Supplies from Davis Feed Nutrition, Randleman NC.

The cost of your meal at this program will be your responsibility. IF YOU ARE PLANNING TO ATTEND THIS EVENT, PLEASE CALL & RESERVE YOUR PLACE at 342-8235 by NOON, Friday August 11th. This will help us better prepare for this catered event and ensure that there is enough food! If you would like more information call, Ben Chase, Area Livestock Extension Agent with the North Carolina Cooperative Extension Service in Rockingham & Guilford Counties at 342-8235, 1800-666-3625 or Email at ben_chase@ncsu.edu. If you do reserve places to attend this event, you will be held responsible for the cost of ALL the meals that you have reserved.

I Hope that you will plan to come on Tuesday August 15th, starting at 7:00 at the Guilford County Agricultural Center, (Barn Kitchen) located at 3309 Burlington Road in Greensboro. I know it will be a beneficial & educational program and you will enjoy the fellowship of other cattlemen. All Cattlemen are invited! (and anyone else that is interested), so I hope to see you all there!

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2. Guilford County Jr. Livestock ShowAugust 12th

Excitement is in the air about the 5th Annual Guilford County Junior Livestock Show that will be held on August 12th, 2017 at the Guilford County Agricultural Center. The Guilford County Extension Livestock Show Committee and the Guilford County 4H Livestock Club host this event with Farm Bureau being the major Sponsor and Farm Credit Sponsoring the Show Circuit. The show will begin on August 12th at 8:30 am with the Steer Show with Heifer, Goat & Sheep shows to follow. The Guilford County Agricultural Center (Arena & Barn) is located at 3309 Burlington Road in Greensboro.

We would like to invite you to come and be a part of this event!

This show is the beginning of the Fall Livestock Shows which will conclude at the North Carolina State Fair in Raleigh in October. This is a Great opportunity for local youth to participate in this area show to gain show experience. As participants in the livestock projects at these shows, these youth are responsible for raising & training their animals for exhibitions & as part of showmanship they are also responsible for knowledge pertaining to the Management, Business, Herd Health & Marketing of these animals. This show on August 12th is also part of a Multi-County Livestock Show Circuit. These youth that are participating in this Show Circuit earn points at the different shows and then are compiled & recognized at the completion of the Circuit Show Season.

We are very excited to host this event in Greensboro and the youth that show Livestock are very excited about it too. The Guilford County Junior Livestock Show is open to youth 5-19 years old & enrolled in 4H Club or FFA program in their school. Any students or parents with questions pertaining to the livestock

show should contact Ben Chase Extension Livestock Agent inGuilford & Rockingham Counties at 800-666-3625, ben_chase@ncsu.edu or Livestock Show Committee Chair, Rhonda Ingram at 978-5897.

Please make plans to attend the Annual 2017 Guilford County Junior Livestock Show on August 12th starting at 8:30am & held at the Guilford CountyAgricultural Center, located at 3309 Burlington Road in Greensboro. You will have an enjoyable time watching the Youth and the Animals.

It takes a lot of volunteers to help put on a show such as this. If you would like to volunteer to assist with working at the Show on August 13th, please let me know of your willingness to help.(Show Prep will begin at 7am on the 12th)

2017 4-H Farm Credit Showmanship Circuit

(At this site you will find Entry Forms & Rules for each Show in the Circuit)

https://richmond.ces.ncsu.edu/site-richmond-9/

For Non-Circuit Livestock Show Participants for Guilford County
- Registration Form & GUILFORD County Show Rules can be found on the Guilford County Extension website at **https://guilford.ces.ncsu.edu/**

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3. Guilford County Cattleman's Program September 19th

On September 19th beginning at 7:00 pm, Guilford County Cattlemen will be gathering at the Guilford County Agricultural Center, (Barn Kitchen) located at 3309 Burlington Road in Greensboro to get back into our regular meeting schedule. At this meeting, area Cattlemen will be getting together for dinner (Dutch) & to hear a program on farm gates.

The cost of your meal at this program will be your responsibility. IF YOU ARE PLANNING TO ATTEND THIS EVENT, PLEASE CALL & RESERVE YOUR PLACE at 342-8235 by NOON, Friday September 15th. This will help us better prepare for this catered event and ensure that there is enough food! If you would like more information call, Ben Chase, Area Livestock Extension Agent with the North Carolina Cooperative Extension Service in Rockingham & Guilford Counties at 342-8235, 1800-666-3625 or Email at ben_chase@ncsu.edu. If you do reserve places to attend this event, you will be held responsible for the cost of ALL the meals that you have reserved.

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4. First on Scene Trainings

October 6 (for Farmers) &

October 7th (EMS)

What to do if you come to a medical or injury event on a Farm!

In a typical year, 551 workers die while doing agricultural work in the United States and about 88,000 suffer lost-time injuries. Most of these incidents are preventable. In the last ten years, there have been a numerous farm-related accidents in Guilford County, NC and our surrounding counties. The majority accidents occur during the harvest time and range from severe lacerations and broken bones, to crushed extremities and equipment-related deaths. Farmers receive minimal first aid training, but are often the first to arrive on scene at a medical or injury event on the farm. For this reason, there is a need to provide farmers with basic first aid training in case of an emergency. In rural areas, like in areas in Guilford County, where farms are isolated with difficult access, farmers can experience delays in emergency personnel arriving at a farm-related accident. Because of these problems, Guilford County Agricultural Extension Agents were concerned about the safety of farmers, farm workers, and farm family members.

With these safety issues & concerns, NC Cooperative Extension has teamed up with the folks from the NC Agromedicine Institute to offer **two**training sessions related to providing first aid in the farm setting;

one for EMS and Fire personnel and another for farmers, farm workers, and family members. These trainings are farm-based and identified with the most frequent agricultural injuries and causes of fatalities, and will be discussing proper First on the Scene response, and how to conduct victim assessment. Many types of injuries and illnesses will be described in detail with correct first aid decisions and dealing with unsafe farming practices.

YOUR HELP IS NEEDED WITH THESE TWO TRAININGS, FOR DEMONSTRATION PURPOSES WE NEED,

- ***USED/OLD POWER TAKE OFF SHAFTS***
- ***PIECES OF OLD GRAIN PANELS***
- ***OLD COMBINE HEADS/CHOPPER***

IF YOU HAVE SOME OF THESE OLD PARTS AND ARE WILLING TO DONATE, PLEASE CALL ME 336-342-8235

Day 1*- Friday, October 6th 9am-2pm*

First on Scene Farmer Safety Program

Held at: Guilford County Farm,

7315 Howerton Road, Elon, NC 27244

Registration opens at 8:30am

What to do if you come to a medical or injury event on a Farm!

Day 1 is First Aid information for Farmers, Farm Workers and Farm Family Members. Covers everything from heart attack, traumatic injuries, being first on scene to tractor rollovers.

Program by NC Agromedicine Institute & NC Cooperative Extension

Pre-registration required

Meal will be provided.

This training is FREE to all farmers and farm workers.

RSVP to Deb Fuller at ddfuller@ncsu.edu or leave a message for her at (336) 641-2433. Please include your name, contact information, and number of people attending.

Day 2 – Saturday, October 7th 8am-5pm

EMS First on Scene Responding to Farm Incidents

Held at**:** Guilford County Farm,

7315 Howerton Road, Elon, NC 27244

Registration is from 8am-8:30am

Geared for Emergency Responders - EMS First Responders – First on scene responding to farm incidents.

This training session is **FREE** and limited to the first 40 people that sign up.

All EMS workers are encouraged to bring their own equipment so they can practice with what they will be using on the job. This training session is aimed to help prepare EMS workers for being the first on scene to farm accidents. CE Credits will be given & there will be demonstrations dealing with farm equipment.

In order to sign up, contact Deb Fuller at **ddfuller@ncsu.edu** or leave a message for her at **(336) 641-2433**. Please include your name, contact information, and number of people attending.

A snack and lunch will be served.

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5. Programming Ideas

The fall and winter Extension Educational Programs are now being planned, these ideas come from you by means of the cattle committee, surveys and ideas that you send in. So if you have any program topics or any locations for hosting programs, please send to me.

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6. North Carolina BEEF System Field Day

On October 28, 2016 the Upper Piedmont Research Station will be hosting the annual North Carolina Beef System Field Day. The NC BEEF System Team, including support staff from NCDA&CS and Agents and Specialists from North Carolina Cooperative Extension Service will work together to deliver this field day on October 28th – Details are still coming together for this even, right now Educational Topics that are being looked at are: Calving management demonstration using the new cow and calf models, · Feed Efficiency work that use the Calan Gates, · Stockpiled Fescue and other fescue related topics including genetic tolerance, conversion to non-toxic fescue and how toxic fescue impacts dung beetle ecology, · Soil Health, · Sorghum Silage, · Reseeding/management of Winter Feeding Areas, Reproduction & synchronization programs. Custom turnkey solutions offered by industry, · Euthanasia and Beef handling/cooking. A BQA certification be also be offered following the event. A new feature that will be added to this event this year is possibly having a heifer sale from those produced in the Research Station System. One another feature being discussed is being apply to receive Waste and Pesticide credits for attending. MORE INFORMATION TO COME!

Registration is free and begins at 8:00 a.m. For more information give me a call at 336-342-8235. This should be an excellent Field Day,

LUNCH PROVIDED Plan to attend if ya can!

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7. Damage on Hay?

Hay that has been cut and then rained on can lose quality in four ways. These include: 1) leaching of soluble carbohydrates, vitamins and minerals, 2) increased and prolonged plant respiration, 3) leaf shattering, and 4) microbial breakdown of plant tissue. Leaching of carbohydrates, vitamins and minerals is usually at its highest when the hay has dried somewhat and we then have a prolonged rain. Rainfall right after cutting usually results in less leaching of nutrients and a quick splash-and-dash shower normally doesn't result in large losses of these nutrients on freshly cut hay.

Increased or prolonged respiration occurs when hay is not allowed to dry sufficiently to stop the plant's metabolic processes. Hay must reach moisture content of less than 30 percent for respiration to be reduced to acceptable levels. Hay that is rained on when relatively green will continue to respire for longer periods of time, resulting in the loss of forage nutrients and dry matter yield.

Likewise, partially dried hay that is rained on can continue to respire for longer periods resulting in lower quality and yield of hay.

Increased leaf shatter is another problem associated with hay that has been rained on. Wet hay usually means more mechanical handling of the hay in order to dry it. Since leaves tend to dry quicker than stems, any increased raking or tedding tends to shatter leaves from stems. Since more of the soluble nutrients are in the leaf tissue, the loss of leaf blades while raking and baling can reduce hay quality substantially. Loss of leaf blades can also result in reduction of dry matter yields.

Microbial breakdown of plant tissue occurs when fungi, molds and other microorganisms begin to feed on the downed hay. These organisms develop rapidly in warm-moist conditions and feed on the dead plant material. Hay that is lying on the ground and remains wet for long time periods becomes a perfect environment for these organisms to live and breed. They can quickly consume plant nutrients and destroy plant cell structure resulting in loss of dry matter yield, nutrient content and given time, will completely rot the hay.

What are the consequences of hay being rained on? Research conducted at the University of Kentucky by Michael Collins indicated that we can lose up to 5 percent of the dry matter per inch of rain on cut hay. Digestibility can be reduced by 10 percent or more due to leaching of nutrients and leaf shatter. A similar study done at Iowa State University reported protein loses of 3 percent and total digestible nutrient reduction of 4.6 percent.

One fact seems to hold true, you still cannot tell what the actual quality of the hay is until you have it tested. Testing it is your best strategy for determining the nutrient quality you will get from the hay. Sampling rained-on hay will give you the information you need to design a supplementation program that will keep your animals in good shape during the winter feeding period.

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8. Cull or Keep?

That is the Question Facing Cattle Producers

John Cothren, JoAnne Gryder & University of Arkansas Cooperative Extension

Deciding which cows to cull and which cows to keep in the breeding herd impacts future herd performance and profitability. There are many factors to

consider when choosing which cows to put on the cull list. Production and market conditions can influence the priority that is placed on different culling criteria. It is often easy to recognize “red flags” that make cows obvious culls (e.g., cows with poor rebreeding performance or severe cancer eye), but there are other reasons to cull cows. The challenge in selecting cull cows is identifying the cows that are making the operation money and the cows that are losing the operation money.

Recognition and assessment of poor animal performance or other factors that might call for animal culling require organized data collection and record keeping. The keys to an effective record keeping system are: 1) decide what production and financial information is useful and practical to collect, 2) collect accurate information in a timely manner, 3) manage that information in a usable form and 4) use the information. Record keeping can be as simple as handwritten notes in a pocket sized record book or as advanced as data entry into a computerized record keeping system.

Identifying individual animals in the herd is an important first step in developing a recordkeeping system. Ear tags should be permanently marked and easy to read. Since cattle lose ear tags, it is useful to have a more permanent method of identification, such as ear tattoos. Calves should be tagged and tattooed at birth and matched with their dams. Calf birth date and sex should also be recorded.

One of the greatest determinants of profitability in a cow/calf operation is reproductive rate. Open (nonpregnant) cows are a drain on resources. They consume feed, forage and other resources without producing a marketable calf to contribute to expense payments. A productive cow is expected to produce a calf at least once a year. Cows that are open at the end of the breeding season should be at the top of the cull list. Cows that calve outside of a controlled calving season are also potential culls, particularly when feed and forage supplies are running short. Late calving cows should be scrutinized as well, because they have less opportunity to breed back to stay within a controlled breeding season.

Poor calf performance is usually the result of inferior genetics, poor dam milk production, calf sickness or a combination of these factors. Cows transmitting inferior genetics to their calves for economically important performance traits and cows with unacceptably low milk production are potential culls. If poor calf performance is due in large part to calf sickness and not associated with the dam, then the dam may still have a productive future in the herd. The age of the dam should also be considered when culling for low performance as first and second calf heifers should not be expected to perform at the same level as older cows.

The productive lifetime of a beef cow is variable. As long as teeth, udders, feet and legs are sound, many older cows are still able to perform well. Breed and production environment can play a role in longevity.

Cattle with unacceptable dispositions are dangerous, and culling them reduces the risk of injury to both cattle and people. Very excitable cattle not only are more difficult to handle, but research has indicated that calves with disagreeable dispositions do not gain as well as calmer calves.

Cow culling strategies impact both calf quantity and quality and, when designed and implemented effectively, can greatly enhance the profitability of a cow/calf operation. Making informed culling decisions helps maintain a high level of herd performance. Herd genetic improvement involves not only proper bull and replacement heifer selection, but also proper selection and timely removal of cull cows from the herd. Even favorite cows should be subject to a systematic culling process to improve cow herd profitability.

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9. HINTS FOR FLY CONTROL

One of the biggest problems I encounter on most farms is the method in which surface-applied insecticides are used to control house flies. There are two mistakes that are usually made: 1) placing the spray where it is not effective; and 2) using the least effective formulation. These mistakes may result in the failure of the treatment to control flies. Inappropriate surface treatments can even make the fly problem worse. There are numerous benefits to correcting these kinds of application mistakes. Application of the correct kind of surface spray to the correct target can reduce labor, reduce the costs applying pesticides, and minimize risks to the environment.

Regarding insecticide formulations, most of us don't think much about the formulation we apply to a surface for fly control. It does make a difference, depending on how porous the treated surface might be. Where surfaces are porous (unpainted cement block and

wood for example), a wettable powder formulation is generally the best choice. Once dry, wettable powders leave a more uniform residue on these rough, porous surfaces. Emulsifiable concentrates, on the other hand, are absorbed into porous materials and may

not be as well distributed over the surface of porous building materials. Emulsifiable concentrates are equally effective on less porous surfaces such as painted blocks, metal and vinyl. Even though wettable powders are as effective in this case, they may be less

desirable because they are harder to mix and require constant agitation.

There is one other point to be made about formulations and the type of surface treated. Remember that no matter which formulation is used, rough, porous surfaces will need significantly more spray for thorough coverage than smooth, impervious surfaces. For example, cyfluthrin formulations used for fly and beetle control call for 1 gallon of spray (water) for each thousand square feet of painted plywood surface. Compare that with the recommendation of 2.7 gallons for a thousand square feet of unpainted plywood. Where painted cement block is to be treated, cyfluthrin labels still call for 3.2 gallons of spray per thousand square feet. Treatment of unpainted cement block calls for 36 gallons of spray for each thousand square feet!

Fly sprays also need to be targeted where they'll do the most good. All too often I see surface sprays for fly control applied to every available surface in poultry houses and other livestock buildings. This practice is wasteful and can be dangerous to non-target organisms. Surface sprays in broiler breeder or layer houses, for example, are most successful when treatments aimed at adult flies are kept away from the manure under slats or cages. Indiscriminate treatment of slats and other surfaces where spray drift and runoff covers large areas of manure surface with insecticide should be avoided. Failure to do so makes it certain that the parasites and predators that destroy fly eggs, larvae and pupae will also be killed. A more selective approach to the application of fly sprays significantly reduces this risk and saves both labor and insecticide.

The house fly is the biggest pest around most animal operations, and fortunately, they exhibit a behavior that makes it a relatively simple task to apply surface sprays for control. House flies tend to migrate upward at night. A large percentage will spend the evening resting on rafters and other overhead surfaces. That is the place to direct surface sprays. It is not necessary to spray the entire building from top to bottom, and inside and out. Similarly, treatment under eaves and on the southern or eastern exposures of exterior walls will often yield good results. Southern and eastern-facing walls are particularly good treatment areas when evening temperatures are cool. Large numbers of flies gravitate to these exposures to warm themselves in the morning.

Using Parasitoids for house and stable flies does work if it is part of a IPM program. There needs to be

1) sanitation, regular clean up of spilled feed, manure and soiled bedding.
2) Trapping, using fly baits when possible, pheromone traps, sticky ribbons etc.

3) biological control, releasing parasitoids at a rate that will effectively clean up the fly pupae missed in the sanitation effort, Muscidifurax raptor or M. raptorellus work well, also Spalangia nigorenea for Stable flies

4) chemical control is used when absolutely necessary. (Extreme care if method 3 is used)

Parasitoids do not work in pastures very well and are not very good for horn fly or face fly.

Control of many of these type pest require a THOROUGH clean up of the barn area (source removal), followed by THOROUGH application of any type of insecticide that is effective and safe to use around animals (e. g., Tempo [cyfluthrin], Annihilator [deltamethrin], or permethrin; malathion may also be used to good effect). A spray applied at 75 - 100 psi will do a much better job of application than a hand pump sprayer that provides, at best, around 20 psi. The high pressure will do a better job of forcing material into cracks and crevices in and along walls and overhead areas. Equip the sprayer with one or more coarse spray flat fan nozzles. The pressure spray will also knock down the spider webs. If there is any attic space or overhead hay storage in the barn it should be treated as well. A second application of material may be necessary 7-14 days following cleanup and the first treatment. This will help insure that insects in the egg stage during the first treatment will have hatched and be killed by the second treatment before they have a chance to reproduce.

The same treatment approach should be used for the hay storage area when practical. Clean out hay/straw debris first. Treat with MALATHION in this case. There's a 7 day withdrawal period for fodder treated with malathion, but it's perfectly safe for the animals after that interval.

Cyfluthrin (Tempo) is a good broad spectrum material for general pest control around barns. It also has an excellent residual life on interior surfaces. Mix it at the label rate (8 ml of Tempo SC Ultra or 8 g of Tempo WP per 11 qts of water per 1,000 sq. ft. of treated surface). Horses and other animals should be removed from the treatment area before spraying. Animals can be returned as soon as surfaces have dried. Cover all surfaces thoroughly, making sure the material penetrates into as many cracks and crevices as possible. Apply at 30-40 psi. I would say use higher pressure to push it into cracks and crevices, but the label now pretty much prohibits application as a high-pressure spray. Tempo at the same rate may also be used as a wall void treatment. Just spray the studs and facing wall before the void is closed up.

Tempo treatments have only kill some insects on treated surfaces when first applied. This provides some control for a few days, but insects may emerge from hiding. Many may not be killed immediately upon contact with the Tempo.

Fly Predators

Here are two insectaries that have a good reputation, (I am sure there are more) IPM Labs in Lock NY and Beneficial Insectary, in California. Spalding Labs has a really good directory on how to use fly predators to control insects on the farm. It is well worth the contact just to get the instruction book.

http://www.spalding-labs.com/

http://www.insectary.com/
http://www.ipmlabs.com/

Fly Control for Dairy Cattle
http://yadkin.ces.ncsu.edu/content/FlyControlforDairyCattle&source=caldwell <http://yadkin.ces.ncsu.edu/content/FlyControlforDairyCattle&source=caldwell>

STABLE FLIES
http://www.ces.ncsu.edu/depts/ent/notes/Urban/storm/st-stablefly.htm

INSECTS FOUND IN FORAGE AND PASTURE- Pests on Livestock -
http://www.ces.ncsu.edu/depts/ent/notes/forage/past&for/past&for.html <http://www.ces.ncsu.edu/depts/ent/notes/forage/past&for/past&for.html

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10. Avoiding Dicamba Drift

A number of dicamba drift situations, primarily tobacco and soybean, have been observed in recent days. Crop sensitivity to dicamba varies, but all broadleaf crops are sensitive. Tobacco, soybeans, other beans and peas, sweetpotato, and grapes are extremely sensitive. Cotton, peanuts, and vegetable crops, including peppers, tomato, watermelon, cucumber, cantaloupe, and squash, are somewhat less sensitive, but still highly sensitive. Minute amounts of drift can cause significant injury.

The impact of dicamba drift onto soybeans depends upon the dosage and the growth stage at time of drift. Soybeans hit during the vegetative stage can recover somewhat from dicamba drift; in some cases, yield may not be impacted. Drift occurring during reproductive stages will likely reduce yield.

Any dicamba drift onto tobacco results in a complete crop loss. Tobacco purchasers have consistently stated that tobacco exhibiting symptoms of injury from any non-registered pesticide is not marketable and must be destroyed; that is a significant liability and/or economic impact for growers. Visual injury, even in the absence of detectable residues, is grounds for contracting companies to require crop destruction. A similar situation may exist for vegetables grown under contract.

Applicators must follow all label directions. In the case of the dicamba products registered for Xtend soybeans and XtendFlex cotton, that means following the supplemental labels, the North Carolina Special Local Need labels, and the web sites referred to on the supplemental labels. **Remember, avoiding drift is the responsibility of the applicator.**

Label Requirements and Stewardship Practices

1. **APPROVED PRODUCTS**. Engenia and XtendiMax are the only currently available dicamba-containing products registered for use on Xtend soybean or XtendFlex cotton. Although not completely non-volatile, these formulations are less volatile than non-approved brands. These are the only brands that should be applied to Xtend soybean or XtendFlex cotton.

2. **NOZZLES, PRESSURE, VOLUME**. These three factors determine droplet size and the percentage of droplets that fall in the "driftable fines" category.

- Use only approved nozzles when applying Engenia or XtendiMax. Refer to the following web sites for approved nozzles:

  - For Engenia: www.engeniatankmix.com - For Xtendimax: xtendimaxapplicationrequirements.com

Pressure affects droplet size. Operate within the recommended pressure ranges specified on the web sites.

- Use a minimum spray volume of 10 GPA; 15 GPA is preferred.

3. **BOOM HEIGHT**. Greater boom heights result in greater drift potential. Keep boom as low as possible and no more than 24 inches above the target.

4. **WIND SPEED**. Drift potential increases with increasing wind speed. North Carolina Special Local Need labels for Engenia and XtendiMax specify a maximum wind speed of 10 MPH.

5. **INVERSIONS**. Thermal inversions are common during early morning hours & late afternoon. Application during an inversion can result in long-distance drift. Very calm winds may indicate an inversion, hence the requirement for a minimum 3 MPH wind during Engenia or Xtendimax application. It is best to apply dicamba between the hours of 9 AM and 4 PM.

6. **WIND DIRECTION**. This is one of the greatest factors affecting off-target deposition. Do not spray if the wind is blowing toward a sensitive crop (if you can't afford to buy that crop, don't spray). Even if the wind is not toward a sensitive crop, use some common sense and do not spray adjacent to a sensitive crop. Remember that wind direction can & does change often during the day. Check wind direction frequently, especially if sensitive crops are nearby.

7. **TRAVEL SPEED**. Greater travel speeds cause turbulence behind the sprayer, and that can lead to more drift. Engenia and XtendiMax labels specify a maximum travel speed of 15 MPH; 10 MPH or slower is preferred.

8. **TANK MIXING**. Tank-mix partners may affect physical properties of the spray solution, leading to a reduction in droplet size. Each tank-mix partner must be tested for its effect on droplet size before it is approved. Use only approved tank mixes as listed on the web sites.

9. **DRIFT REDUCTION AGENTS**. Drift reduction agents (DRA) work by reducing fine droplets. For some tank mixes, a DRA is required; see web sites. If a DRA is not required, it is still wise to use if sensitive crops are nearby.

10. **ADJUVANTS**. Other than DRA's, a number of adjuvants are approved for use with Engenia and XtendiMax; see web sites for approved products. If mixing Engenia or XtendiMax with an approved glyphosate product, additional adjuvants are of questionable value. Do not use AMS or any adjuvant containing AMS; that increases volatility of the dicamba products.

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11. What Crop Traits are Genetically Engineered (or GMO)?

Joe Lawrence, Cornell University

There continues to be a great deal of discussion on potential market opportunities for "GMO free" crops and products, such as milk, from animals fed these crops. GMO is the commonly used term that stands for genetically modified organism and is really being misused in this context. In reality many things in agriculture are genetically modified compared to their ancestors. Humans have used selection criteria to propagate crops that better fit their needs for thousands of years. In the last century this has been accelerated by what are now commonly referred to as conventional plant breeding techniques.

When we hear the term “GMO free” in reference to a food production it is actually referring to products that are not genetically engineered (GE) or contain GE derived ingredients. The definition of genetic engineering is “the deliberate modification of the characteristics of an organism by manipulating its genetic material”. The primary examples of this in row crops are herbicide tolerant crops and crops with traits that protect them from certain insect pest, notably the Bacillus thuringiensis (Bt) trait.

It is important to recognize the extensive tract record of safety and approval of GE crops and that they represent a valuable “tool in the toolbox” for crop production; however, it is also clear that producers struggling with low margins are giving these potential markets serious consideration. As producers are asked to consider shifting production to “GMO Free” and the potential price incentives attached to that shift there are a number of questions surrounding what it means to be “GMO Free”. Here we will address a few areas of question.

What traits are derived from genetic engineering?

Table 1 provides a list of crop traits, which ones are derived from genetic engineering and which ones are derived from natural breeding.

How do conventional varieties/hybrids compare in yield and production cost? It is difficult to find clear data on this question. The yield potential of conventional varieties and hybrids is on par with their genetically engineered counterparts; however, the cost, management considerations and potential risk for problems during the growing season can vary widely and produce scenarios that can favor either convention or GE crops.

What is “GMO contamination”?

In crop production “GMO contamination” is a term used to refer to the fact that there is cross pollination of plants and in some cases a GE plant will pollinate a conventional plant resulting in a small amount of GE material in the DNA makeup of the conventional plants seed. In addition to the GE material showing up in conventional plants in a production field, it can also occur in crops grown for seed and thus be present in conventional seed purchased for planting. Much like the term “GMO Free” this term is used in an ambiguous way; however, it needs to be recognized that these are the terms commonly being used and it is important to understand their actual meaning.

Milk is a natural product with no genetic modification; however, the term “GMO free” milk has surfaced in marketing campaigns and refers to the total diet fed to the dairy herd and if any of the feed ingredients are derived from GE sources. In this case the producer needs to account for potential comingling of all feed ingredients from homegrown forages to purchased grains and other additives.

The producer assumes a great deal of risk in assuring the final product remains under defined thresholds for presence of GE inputs. When purchasing seed for planting or feed ingredients it will be important to verify with the supplier if they have tested their products for the presence and percentage of GE material in the seed or feed.

Table 1: Crops Relevant to Row Crop, Dairy and Livestock Production

Genetically Engineered	Conventional
Corn	
• *Herbicide Tolerance* o *Glyphosate tolerance* ♣ *Roundup Ready (RR)* ♣ *Glyphosate Tolerant (GT)* o *Glufosinate tolerance* *check with seed supplier* ♣ *Liberty Link (LL)* o *2,4-D tolerance*	• *Brown Mid Rib (BMR)* • *Floury Starch Silage Hybrids* • *Disease Tolerance* • *Drought Tolerance* o *SOMETIMES,*

♣ *Enlist*

o Dicamba tolerance

♣ *Roundup Ready Plus Extend*

• Bt Insect Protection

o Corn Rootworm o Lepidoptera (Moths & Butterflies)

• Drought Tolerance

o SOMETIMES, check with seed supplier

Soybeans

Genetically Engineered

• Herbicide Tolerance

o Glyphosate tolerance

♣ Roundup Ready (RR or RR2)

♣ Glyphosate Tolerant (GT)

o Glufosinate tolerance

♣ Liberty Link (LL)

o 2,4-D tolerance

♣ Enlist

o Dicamba tolerance

♣ Roundup Ready Plus Extend

• High Oleic

o SOMETIMES, check with seed supplier

Conventional

• Disease Tolerance

Alfalfa

Genetically Engineered

• Herbicide Tolerance

o Glyphosate tolerance

♣ *Roundup Ready (RR)*

• Low Lignin

o HarvXtra

Conventional

• High Quality (HQ)

• Low Lignin (other than HarvXtra)

• Hybrid

• Multifoliate

• Potato Leafhopper Tolerance

• Alfalfa Snout Beetle Tolerance

• Disease Tolerance

• Branch Rooted

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12. The Ag Tax Issues Short Course – One being held in Guilford County Nov 3

The Ag Tax Issues short course is a day long class in which tax issues relative to production agriculture and agri-business are discussed. Attendees generally are professional tax preparers though farmers (or the farm's bookkeeper/accountant) are most welcome. A working knowledge of taxation is needed to understand discussion topics. Topics in the past have covered income and deduction reporting, Special issues such as Christmas trees income reporting and renewable energy taxation have also been discussed.

Attendees receive a text which is the basis of the course framework. The short course is not a straight "lecture" course as questions and topics of interest are brought to the session by attendees. A goal of the course is to provide a suggested 8 hours of continuing education for professional income tax preparers.

Though the "farming community" is not the primary target audience, farmers are welcome to attend. This is a fee based program.

To register for this or other Tax Short Courses go to:

https://www.ncsu.edu/mckimmon/cpe/brochures/pdf/taxSchools.pdf

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13. Forage Management & Grazing Tips:

To maximize use of grass, utilize cross fencing. This will stretch out your forage and decrease wastage. *A late planting of summer annuals may be made to extend forage supply *Take soil samples for fall plantings. *Come by and pick up your free soil sample boxes and sheets.* *Finish grazing cool season grasses before grazing warm season. *Apply

nitrogen to warm-season grasses after each cutting (or 4 to 6 weeks) *Graze bermudagrass to a 2-4 inch stubble and harvest excess every 4-6 weeks. *Control weeds *Be aware of potential of Nitrate & Prussic Acid poisoning from animals if grazing stunted, highly fertilized summer annuals, *In August, prepare for fall plantings and fertilizer applications. *Keep good forage records. *Drag pastures to spread manure *Be cautious of combustion - Hay Fires - Hay in round bales should not contain no more than 18% moisture and square bales no more than 20%.

Manage Pastures & Hay Supplies Now!

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14. CATTLE REMINDERS: *- All Cattle* *Check Cattle regularly *Maintain Body Condition of cows and heifers * Provide (and check) clean fresh water & complete mineral mix *Watch for bloat *Make marketing & culling decisions *Keep good health and forage records *CONTROL Flies & TREAT when cattle average 100 flies per side. *Clip pastures to prevent pinkeye *Creep grazing calves on highest quality forage and allow cows to clean up excess forage *Drag Pastures to break up manure piles. *Make repairs on working pens and weaning pasture prior to August working. *Check mineral feeders

Fall Calving *Make replacement selections *Maintain body condition on cows and heifers *Pregnancy check and cull open females.

Spring Calving *End breeding season for cows in June *Sell stockers *In July, for purebred herds, separate bull and heifer calves *In August implant calves, if going to do so, and pregnancy check and cull open females.

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15. 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!

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16. Swap Shop

For Sale - ALEXANDER FAMILY FARMS HERD OFFERING - *All cows are 100% grass fed, no antibiotics, current on immunizations* - Registered Belted Galloway Bull - $1,650

Born July ’14, First breeding cycle 100% of open cows (3)

Heifer 1 – Hereford - $1,000

Born ~May ’14 – One breeding cycle – no issues

Most likely currently bred (TBD)

1st Calf – Galloway cross Heifer $500

Born July ’16

Heifer 2 – Hereford - $1,100

Born ~ May ’14 – One breeding cycle – no issues

Most likely currently bred (TBD)

1st Calf – Galloway cross Bull $450

Born Oct ’16

8-9 year old Hereford - $850

2 breeding cycles with us – Apr ’15 one live bull; Jul ’16 still born twins

Most likely currently bred (TBD)

Steer – Born April ’15 $850

Penny – 3 year old female donkey - $200

If Interested or need more information call - Joe Alexander 419-606-2794

For Sale: Two Nubian bottle bucks born July 8 $50/each
One Nubian doe who is bred and one Nubian Billy, they need to be bought as a pair
$400

50+ chickens ranging in age from five weeks old to two years old including barred rock, buff Orpington, Rhode Island red, California whites, Easter Eggars, and black australorp .
27 ducks including Rouen , Peking, and khaki Campbell. $15/each
Six Embden geese 1 Male and five females $150/group or female $35/each
10 white coturnix quail (2 mating sets which include one male and 4 female $40/set)
Contact - Shannon Huffman, 828-234-0693 cell

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17. Take A Load Off

You Want Me to Stay?

A wife got so mad at her husband she packed his bags and told him to get out.

As he walked to the door she yelled, "I hope you die a long, slow, painful death."

He turned around and said, "So, you want me to stay?"

Traffic Warning

A traffic Policeman recently stopped a woman for exceeding the posted speed limit. He asked the driver her name.

She said, "I'm Mrs. Ladislav Abdulkhashim Zybkcicraznovskaya from the Republic of Uzbekistan."

The cop put away his summons book and pen, and said, "Well... OK... but don't let me catch you speeding again."

Readers Digest:

A Mystery Kitchen Utensil

My collection of vintage kitchen utensils includes one whose intended purpose was always a mystery. It looks like a cross between a metal slotted spoon and a spatula, so I use it as both. When not in use, it is prominently displayed in a decorative ceramic utensil caddy in my kitchen.

The mystery of the spoon/spatula was recently solved when I found one in its original packaging at a rummage sale.

It's a pooper-scooper.

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A Real Gut-Buster

A woman noticed her husband standing on the bathroom scale, sucking in his stomach. "Ha! That's not going to help," she said.

"Sure, it does," he said. "It's the only way I can see the numbers."

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Hammering the Point Home

A judge tells the defendant, “You’re charged with attacking your boss with a hammer.”

“You jerk!” yells a voice from the back of the courtroom.

“You’re also charged with attacking a bartender with a hammer,” says the judge.

“Jerrrrkkkk!” bellows the same man.

“Sir,” says the judge, “one more outburst, and I’ll charge you with contempt.”

“I’m sorry, Your Honor,” says the man. “But I’ve been this jerk’s neighbor for ten years, and every time I asked to borrow a hammer, he said he didn’t have one.”

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Why does a chicken coop only have 2 doors?

If it had 4, it would be a sedan.

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Suzi goes into a pizza place and orders a pizza. The server asks if she wants it cut into 6 pieces or 12 pieces .

She replied “Cut into 6 pieces please. I could never eat 12.”

I *always* need more “Help” with Clean jokes!

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I always want to know what you think of the **CATTLE CALL**, good or bad,

especially if it has had ANY IMPACT on you. Let me hear from you!

I NEED YOUR IDEAS FOR FUTURE **CATTLE CALLS**!

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.

--

Ben Chase

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