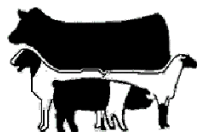


Scotland County Center

Livestock News

May 2021



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Hay Directory

North Carolina Department of Agriculture's Hay Alert is at <http://www.ncagr.gov/HayAlert/>. It lists people selling hay or looking for hay to buy. It is free to list your hay.

For any meeting listed, persons with disabilities may request accommodations to participate by contacting the Extension Office where the meeting will be held by phone, email, or in person at least 7 days prior to the event.

Disclaimer - The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University nor discrimination against similar products or services not mentioned.

Animal Waste Management—Pumping Considerations

By: Becky Spearman, Livestock Extension Agent with N.C. Cooperative Extension in Bladen County

Check your hours: go.ncsu.edu/oichours You can scroll down and find your name and see number hours on file, number hours needed and date hours are needed by.

Pumping Considerations

I talked with some DEQ inspectors about issues they have seen this year. One of the main issues is failure to walk lagoons and failure to walk spray fields before, during and after waste application. Most of the violations could have been prevented if the Operator in Charge (OIC) would pay attention to what's going on by walking the ENTIRE lagoon and going out in spray fields after spray events.

In addition, if the OIC is not directly pumping and has an employee doing the pumping, they as an OIC are responsible for inspection of the spray site within 24 hours. As the OIC, you are responsible for the entire farm even if your employees are doing the pumping, etc. It is the OIC's job to educate their employees and make sure what they should be looking for while pumping. Inspection shall include but not be limited to visual observation of application equipment, land application area, subsurface drain outlets, ditches, and drainage ways for any discharge of waste.

Your permit also has that you will inspect the system while pumping at least every 120 minutes during the application of waste. A record of each inspection shall be recorded on IRR forms or other approved forms and includes the date, time, land application area used, and name of the operator for each inspection.

Excessive Ponding means any area of the application field where visible liquid waste is ponded on the surface of the land application site more than four (4) hours following the application of waste. Excessive ponding also means any areas where the ponding of waste has resulted in crop failure.

Record keeping forms. You can use an IRR1 and IRR 2 form OR you can use the combined IRR form. All these forms can be downloaded as an Excel spreadsheet, so you can use the formulas to do the math for you. The inspection column includes initials of person inspecting the application site and the time(s) they inspected (at least every 120 minutes/2 hours). Below is an example combined IRR-2 form filled out. You can download many DEQ forms at go.ncsu.edu/deqforms

FORM IRR-2Lagoon Liquid Irrigation Fields Record
One Form for Each Field per Crop Cycle

Field Size (wetted acres) = (A)	Zone #	B	Facility Number	9	-	2017
Farm Owner	Becky Spearman		Irrigation Operator	Same		
Owner's Address	1234 Hog Way, Hogtown, NC 28337		Irrigation Operator's Address			
Owner's Phone #	910-876-3623		Operator's Phone #			
Crop Type	bermuda hay		From Waste Utilization Plan Recommended PAN Loading (lb/acre)	250		

Lagoon ID	Date (mm/dd/yr)	Irrigation							Waste Analysis PAN* (lb/1000 gal)	PAN Applied (lb/acre) (8) x (9) 1000	Nitrogen Balance** (lb/acre)	Weather Code	Inspections (Initials)
		Start Time	End Time	Total Minutes (3) - (2)	# of Sprinklers Operating	Flow Rate (gal/min)	Total Volume (gallons) (6) x (5) x (4)	Volume per Acre (gal/acre) (7) / (A)					
1	4/12/21	2:00 PM	6:00 PM	240	1	230	55200	9200	1.6	14.72	235.28	c	4pm BS, 6pm BS

Fly Control Options

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

The days are getting longer and warmer which means fly season will soon be upon us! We have learned that we will never be able to completely eliminate flies on farms, but we can use a multipronged approach to help keep the population to a tolerable level. There are three main flies of concern and several control options.

The three main flies of concern are horn, face, and stable flies. Horn and stable flies are both blood feeders with horn flies taking around 30 blood meals per day per animal. Horn flies are usually found on the backs, sides, poll, and bellies of cattle with stable flies spending most of their time on the cattle's legs. Stable fly bites are very painful and usually cause cattle to stomp their legs when bit. Face flies feed on animal secretions, nectar, and dung liquids are best known for spreading the bacteria that causes pinkeye. Face flies will often congregate around eyes and the corner of the cattle's mouths and are an extreme annoyance for the animals.

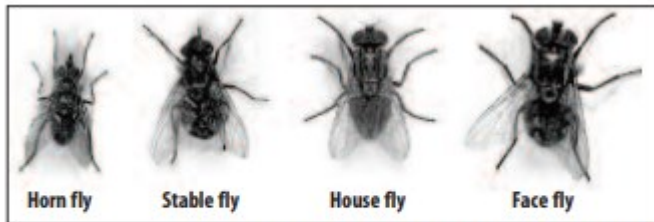


Photo: John B. Campbell, University of Nebraska-Lincoln

Figure 2. Comparison of the horn fly to the stable fly, house fly, and face fly.

There are biological, cultural, and chemical control options for combating fly populations. Predatory wasps are an example of a biological control method but are usually unrealistic for animals that live out on pasture. Removing manure, old hay, and spoiled feed are all cultural control methods that will help reduce where the three flies mentioned above lay their eggs.

Most beef cattle producers will also use chemical control methods. Keep in mind that insecticides are grouped based on how they work against insects. Continued use of products from the same group will lead to the insects developing resistance causing the chemicals to no longer be effective. Because of this, it is important to rotate among the groups. The most commonly used chemical control methods include feeding a larvicide or insect growth regulator (IGR), using fly tags impregnated with insecticide, dust bags/cattle rubs, and sprays.

Feed-Through Larvicides/Insect Growth Regulators (IGR)

These products can be fed to the cattle through minerals and feed and is carried through to the manure. When the horn fly eggs hatch in the manure, the larvae will be prevented from developing into adults. These products should start to be fed 30 days before flies tend to emerge until 30 days after a killing frost. Feed-through larvicides work best if your farm is isolated from other livestock or if your neighbors have livestock they are also feeding the products. These products can impact beneficial insects, such as dung

beetles.

Fly Tags with Insecticides

Typically, ear tags provide excellent, long-term control of horn flies and some brands also reduce face fly numbers. They release small amounts of an insecticide distributed over the animal during grooming or rubbing. Be sure to pay attention to the insecticide group and do not use the same group in consecutive years. Read the label to know how many tags are needed. Often times adult cattle will require two tags while calves will require only one. Do not put the ear tags in until you can count at least 200 flies per cow. Putting them in too early will decrease their efficacy. It is also important to take the tags out after three to five months to help prevent resistance. You can often couple putting in ear tags with deworming. Most pour-on deworming products also provide external parasite control. However, you do not want to rely on dewormers as a primary external parasite control method because of the chance of the internal parasites developing resistance to the product.

Pyrethroid Group 3	Organophosphate Group 1B
Permethrin - Atroban Extra, Apollo, Deckem, Ectiban, Ear Force, Expar Extra, Gard Star Plus, New Z Permethrin, Permethrin Insecticide Ear Tags, Super Deckem II (10%) 2 tags	15% coumaphos + 35% diazinon Corathon 2 tags
10% Cyfluthrin - Cutter Gold 2 tags	Coumaphos + Diazinon - Co-Ral Plus 1 tag for horn fly, 2 tags for face fly suppression
beta-Cyfluthrin CyLence Ultra (8%) CyGuard 15% 2 tags	20% fenthion Cutter Blue 2 tags
10% z-Cypermethrin - Pythion, Pythion MagnuM, ZetaGard 1 tag	pirimifos methyl Dominator 2 tags
10% I-cyhalothrin - Saber Extra/Excalibur 2 tags	New Z Diazinon (18%) Insecticide Ear Tag + Synergist
	20% diazinon OPTIMIZER / X-Terminator
Combination Tags P + OP Groups 1B + 3	40% diazinon Patriot 2 to suppress face flies
6.8 % I-Cyhalothrin + 14% Pirimiphos methyl - Double Barrel VP 2 tags	30% diazinon + 10% chlorpyrifos Warrior / Diaphos Rx 2 tags
7% Cypermethrin + 5% Chlorpyrifos - Max-Con 2 tags	
Group 21	Abamectin Group 6
15% Tolfenpyrad - Tolfenpro 1 or 2 tags	18% Abamectin XP820 2 tags

<https://entomology.ca.uky.edu/ent11>

Dust Bags and Cattle Rubs

Dust bags and cattle rubs are can be very effective for face and horn flies. The key to success with these control methods is proper placement and keeping them charged with insecticides. These devices are best placed in forced-use areas such as near mineral feeders, feed troughs, and watering sites. These can become labor-intensive as they need to be recharged with insecticide every week or so.

Fly control requires multiple approaches. These are some tools that can help control the fly population at your farm. Contact your local Extension agent if you have any questions.

Forages for Summer Grazing

By: Paul Gonzalez, Livestock Extension Agent with N.C. Cooperative Extension in Sampson County

Livestock producers and horse owners who use summer annuals for grazing and/or haying should be thinking about what to plant this year. Though it may seem early, planning now will mean success later this summer. Some seed may be hard to locate or even unavailable, which will mean choosing a second option. Most producers will probably choose the old standards, pearl millet or sorghum-sudan hybrids. Some producers are now relying on crabgrass as well. Others may even be trying "unique" forages such as lespedeza. Let's discuss each a little and you can decide what you would like to try.

Pearl millet is probably the annual of choice by most livestock producers. It is leafier than sorghum-sudan hybrids and doesn't present the risk of prussic acid poisoning. Millet grows 3 to 8 feet tall with peak production during the months of June, July, and August. It is excellent quality forage containing 14 to 18% crude protein and 60 to 65% digestibility. Once allowed to head, millet is less palatable and animals consume mainly leaves. The dwarf varieties are easier to manage for grazing as there is less stem with the same number of leaves as the taller types.

The sorghum-sudan hybrids and sudangrass usually yield more than pearl millet on heavier soils. The hybrids grow 4 to 8 feet tall. Sudangrass is shorter with finer stems. Again, peak production is June, July, and August. Forage quality is good, usually 15% protein and about 60% digestibility, with high dry matter intake. Varieties out now known as brown midribbed, or BMR, seem to offer the best forage quality. The potential for prussic acid poisoning does exist from all varieties of sorghum-sudan hybrids and sudangrass. Avoid grazing young seedlings, young regrowth shoots, stunted growth, and frosted plants. There is no danger of prussic acid from feeding hay or silage from these plants.

Getting the most use from these forages can sometimes be a difficult proposition. They need to be grazed from 14 to 24 inches tall down to around 6 or 8 inches. Intensive grazing will help keep them at the proper height, as will mowing and splitting nitrogen applications. Mowing of stalks after grazing may be needed too. If cut for hay, they should be cut when growth is 30 to 40 inches tall. If bermudagrass is available, producers should consider grazing the annual and cutting the bermudagrass for hay.

More producers are testing crabgrass as summer forage. Others have made it their forage of choice. The two varieties that are available are Red River and Quick-N-Big. While it won't tolerate wet feet, crabgrass is well adapted to most soils, is drought tolerant, and responds to moisture quicker than most other summer annuals. It produces good growth from June to September with yields ranging from 3 to 5 tons per acre. It is highly palatable and usually higher quality than bermudagrass. Digestibility ranges from 62 to 72% and protein from 7 to 18% depending on stage of growth and nitrogen fertilization.

Crabgrass can be seeded into a prepared seedbed immediately after the last spring frost. Disking or other tillage during the dormant season seems to be necessary for produc-

tive reseeding. Nitrogen is most efficiently used in split applications at 50 to 75 pounds per acre two or three times during the growing season. An initial pre-emergence nitrogen application is very beneficial to stand development and productivity. Graze when grass is 4 inches tall. If natural reseeding is desired, the stand must be allowed to produce seed sometime during the summer. This works best with rotational grazing.

Annual lespedeza is adapted to most North Carolina soils with the exceptions of deep, dry sands. It tolerates low pH and fertility but will respond to fertilization. However, too much fertilizer will cause the lespedeza to be crowded out by more vigorous, higher yielding plants in the stand. The general growth period is May to October. Peak growth occurs in June, July, and August. It is high in quality with protein levels of 14 to 18% and 60 to 65% digestibility. In fact, early cut hay may be equal to alfalfa hay. Annual lespedeza is readily grazed and has relatively high levels of phosphorus, calcium, and magnesium. Even better, it can be grazed without worrying about bloat problems. On the down side, yields are relatively low at 1.5 to 2 tons per acre in pure stands and 2 to 3 tons when mixed with grasses.

There are two main types, Kobe and Korean. Kobe type does better in the coastal plain. Both perform well in the piedmont. Marion has been the most popular variety but a new variety, called Legend, is out now that seems to be performing well in tests. In some tests, the Legend has out yielded Marion by almost double. Ideally seeds should be planted in February but can be sown February thru April. Seeding rate is 20 to 30 pounds per acre and should be broadcast or put out with a seeder. Drills generally put the seed too deep as they should be no more than on half inch in the ground, one-quarter inch or less being preferred. Grazing should be done in a rotational manner. If cut for hay, lespedeza should be cut in the early bloom stage. One note of caution, annual lespedeza can and will naturally reseed so it could become somewhat of a pest under certain conditions. But don't plan on natural reseeding for the next years grazing!

One last note, don't confuse the annual lespedeza with perennial Sericea lespedeza. It too tolerates low fertility and acid soils but is not nearly as high in quality. It is a perennial. It will spread. It can become a nuisance. Also, if allowed to get over about 18 inches tall, it will become hard, stemmy, woody, unpalatable, quality drops rapidly, tannin levels increase, and livestock will not eat it, except goats. Goats love Sericea. As a bonus, the high tannin levels have been shown to work as a natural dewormer in the goats. If very tall, they will only eat the top out and you'll need to mow the tougher stems that are left. If grazed when 6 to 8 inches tall, it is eaten well by livestock. Sericea should be cut for hay when 12 inches tall and, whether grazed or mowed, should be taken no lower than 3 inches. Lime and fertilizer improve palatability. Seedling vigor is poor and it cannot be used the first year. Sericea is not typically recommended for planting but can be utilized if already on the farm.

Are You Using the Correct Dewormer?

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

Spring has sprung which means the dreaded “P” word is in the back of all small ruminant producers’ minds; not pollen, but parasites! If you know anything about sheep and goats, you will know that intestinal parasites are one of the biggest challenges in small ruminant production. We have some good tools in our parasite management toolbox, such as FAMACHA scoring, fecal egg counts, conscientious grazing as well as the use of chemical dewormers. We should be using all of the tools together in an integrated parasite management program but often times I see producers relying primarily on dewormers to get their parasite problem under control. So how do you know which dewormer to use?

First you need to identify which type of parasite you are treating. This requires a fecal egg count. You should always work with your veterinarian when making any major herd health decisions, but depending on what county you are in, your livestock extension agent may be able to train you on how to do your own fecal egg counts. There are numerous intestinal parasites that affect small ruminants, but for deworming purposes, they can generally be clumped into three main groups; Coccidia, which is a protozoan not a worm, strongyles aka roundworms, which includes parasites like the barber pole worm, trichostrongylus, and thread worms to name a few, and tapeworms, which are a type of flat worm. (There is a third group of true worms called flukes but they are a much less common issue in small ruminants and can be controlled by the same dewormers as tapeworms.) The fecal egg count will help you not only identify the group(s) you are battling, but help give you an idea if the use of dewormer is necessary.

Since Coccidia is a protozoan and not a true worm, there is a specific drug that is used for the treatment of coccidiosis. Corid, drug name Amprolium, is an over-the-counter treatment for coccidia, however, it is not labeled for sheep or goats, so the use of it in small ruminants requires a prescription and guidance from a veterinarian. A vet can also prescribe sulfa drugs, such as Albon or Sulmet. These drugs are all specific to only coccidia and will not treat any of the other intestinal parasites that your animals may have.

For the true worms, we use what is referred to as Anthelmintics. In small ruminants, there are three

general classes of these dewormers: benzimidazoles, imidazothiazoles and macrolides.

All of these will help kill intestinal parasites but have different modes of action; think knife vs gun vs lead pipe, they all can do the job, but in different ways. This is an important thing to understand, because as we are seeing more and more parasites resistant to dewormers, you want to make sure you are changing classes, not just brand name or drug name, if recommended from your veterinarian or extension agent to do so.

The more commonly used benzimidazole dewormers are fenbendazole (Safeguard, Panacur) and albendazole (Valbazen); imidazothiazole dewormers are levamisole (Levisol, Tramisol) and morantel tartrate (Rumatel); and macrolide dewormers are ivermectin (Ivomec) and moxidectin (Cydectin). Of these, only fenbendazole, albendazole and morantel tartrate are currently approved for use in goats. All others would be used as extra-label, which requires a prescription and guidance from a veterinarian.

All three classes of dewormers are labeled for some strongyles, but it varies from class to class and drug to drug as to which strongyles it will kill and how effectively it will do so.

Only the benzimidazole class, or “white dewormers” are labeled for treatment of tapeworms. *Note-Valbazen has a restriction on giving to pregnant animals in the first 30 days of gestation.*

The last part to making sure that you are giving the correct dewormer is administering the correct dosage. Since most of the dewormers that we use are not labeled for small ruminants, especially lacking for goats, you will need to consult with your veterinarian or livestock extension agent for the recommended dosage. Underdosing is one of the biggest contributing factors to dewormer resistance, so getting your dose right is key to combatting dewormer resistance on your farm.

Working closely with your veterinarian and livestock extension agent can help assure you make it through parasite season with living animals and dead worms!

Summer Insects and Horses

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

As we look ahead to the summer days of increasing temperature and humidity, insects start to become more prevalent and a nuisance to animals and humans alike. It's important to keep the insects under control in order to protect horses and the people on the farm.

Many of these flying insects carry diseases, so it's key for horse owners to know what bugs may be around and how to prevent them. Flies are probably the most common insect we see around our barns. Not all of them bite but those that do can severely irritate our horses. The horses may stomp, kick, and swish their tails to get rid of the pesky bugs. Vigorous stamping can actually cause cracks in hooves from the repetitive force (according to the University of Kentucky). There are many types of flies (house and horse are probably the ones you're familiar with) and they can all carry diseases that affect both horses and people. Stable flies have a painful bite and usually attack the flank or below the knee of animals. There is no silver bullet for fly control but reducing the number of breeding sites can significantly decrease the population. Clean barns and paddocks once a week and spread the manure in a thin layer or compost if possible. Flies like to lay their eggs in decaying organic material, soiled bedding, and moist material so the less opportunity you give the flies, the better your chances are. Fly traps and sticky tape are also useful to have around the barn.

Ticks are another common problem this time of year, again for both horses and humans. Ticks are often found in woody areas, brush and overgrown grass. Eliminating these spots or restricting your animal's access to these areas can decrease their exposure. Mice are important hosts for ticks, so making sure your mice population doesn't sky rocket is key. Check the lower body, mane and tail of your horse regularly for ticks and remove as soon as possible. If you've taken your horse out on a trail ride, definitely check your horse and yourself!

There are some less common insects you may want to consider controlling this summer. Carpenter bees do not sting often, but their loud buzzing and aggressive behavior can certainly annoy hu-

mans and horses. They frequently make nests in eaves and window trim, so check these spots out first. Spiders are another one we are used to seeing in horse barns but not thinking about controlling. All spiders can bite if disturbed, according to entomologist Lee Townsend from the University of Kentucky. While not all spider bites are poisonous, they do inflict a wound that can easily become infected. Of course, black widows and brown recluses are a totally different story! Blister beetles are something we usually think about in hay. These beetles contain a chemical that is toxic to horses, and even touching them can poison your horse. Consuming too many can cause death, so this is something you need to be aware of. Oftentimes horses are exposed to these beetles when they are crushed in the hay making process; they are most often found in alfalfa hay, usually in later cuttings of hay. Your horse would have blisters in their mouth and GI tract if they consume these insects, reduced eating, and colic like symptoms. Contact your vet immediately if your horse consumes alfalfa hay and starts exhibiting these symptoms.



Blister beetle: Photo: Clemson University/USDA Cooperative Extension

There are other insects to be concerned with on your farm, in your barns and your pastures, but I've just highlighted a few here.

Youth Livestock Contests—No Critter Required!

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

For kids that love livestock critters there is no shortage of opportunities for them to show their animals. Having a calf, hog, or other project animal at home is always a learning experience. Luckily, there are plenty of other ways for critter loving kids to learn about them- and no critter is required to participate!

Contests for kids 8-18 years old:

4-H Skill-a-thon

The youth livestock skill-a-thon is a contest that challenges youth individually and also as a team. The contest is divided into feed ID, breed ID, tool ID, meat cut ID, and a written test. The written test can cover anything related livestock production, management, and the industry. Species covered are beef cattle, sheep, goats, and hogs. Participants can prepare for these contests on their own, with others, or with their Extension Agent.

4-H Livestock Quiz-bowl

As with most quiz bowl contests, there are two teams of 4 members each. Questions are asked in rounds and relate to production and management of beef cattle, hogs, sheep, and goats.

4-H Livestock Judging

Participants work as a team or individually on judging and selecting cattle, sheep, goats, and hogs. In addition to ranking 4 animals in a class, the youth must defend their placings by giving oral reasons to a judge. The reasons should be no longer than 2 minutes and should summarize the characteristics of the animals in the class.

For more information on 4-H livestock contests:

<https://youthlivestock.ces.ncsu.edu>

4-H Poultry judging

Poultry judging is just like livestock judging except with our feathered critters! Youth work individually and as a team to learn more about selecting live birds, as well as judging meat and eggs. Oral reasons are given for this contest as well.

4-H Avian Bowl

Avian Bowl is just like our livestock quiz bowl, except the topics cover all things poultry. Teams of 4 members use a buzzer system to compete for the win.

For more information on poultry contests:

<https://poultry4hyouth.ces.ncsu.edu>

4-H Presentations/Congress

A 4-H presentation is simply a way for 4-Hers to present information that they have learned. Presentations can be on any topic (including livestock and poultry) and are a great way to work on public speaking skills. There is even a category for outdoor cookery! Young grillers can delight the judges by cooking their favorite meats and telling the judges all about how to prepare them.

For more information: <https://nc4h.ces.ncsu.edu>

To be eligible, growers must contribute land, capital, equipment, labor and/ or management to a farming operation or be an heir of such producer. The attached map shows the eligible counties and year or years producers are eligible to apply for loss assistance. If a producer has eligible losses related to more than one tax identification number, they will have to fill out a separate application for each tax id. Stay tuned for further information and alerts when the official application window opens. NC Cooperative Extension will be assisting with providing information to producers as well as verifying losses in conjunction with the FSA, and other agriculture agencies to help facilitate the grant program.

