With the recent warm temperatures, I’m sure many of you have started to encounter some of the same aggravation I have...from those pesky, buzzing flies that irritate our animals and us! Its not too soon to begin planning for fly season, since we will be dealing with it for several months to come. With that in mind, I’d like to start with an overview of which flies give us the most trouble, then review recommended control measures and products used.

For cattle herds, and often other species of livestock, the predominant fly issues are with regard to stable flies and pasture flies, which include face flies and horn flies. The stable fly feeds on the animal’s blood, usually seen biting them on the lower legs. Stable flies are often seen in large numbers around round bale feeders, which seem to be an ideal breeding area for them. Because of this it is a good idea to move these or other types of feeders at least every 2-3 weeks, to help interrupt their life cycle and breeding area. The life cycle of the stable fly is 21 days, and the economic threshold level (amount of flies to be concerned about health and economic losses in the herd) is at 10 flies per animal for the stable fly.

Again, pasture flies include the face fly and horn fly. Face flies, as their name implies, are seen on the face, most often around the eyes. Face flies feed on tears and excretions of the face, and are a major transmitter of pink eye in cattle. Face flies do not bite the animal; instead they spread bacteria and disease from animal to animal. They reproduce in the manure of cattle and have a 14-21 day life cycle. The economic threshold of face flies is 10 flies/face. Horn flies on the other hand do bite. They take approximately 10-12 blood meals a day and can cause the loss of 30 ML of blood per day per animal! Horn flies have a 10-14 day life cycle, with their population declining in the fall and beginning in the spring (April-May timeframe). The threshold of horn flies is 200/animal, which sounds like a lot, but in reality many animals deal with hundreds more if not treated. Horn flies are most often seen on the shoulders, back, and belly of animals. One interesting note of horn flies is that the female fly stays on the belly of
cattle, waiting for manure to land. Once this happens, she lays her eggs in the dung to be hatched. Horn flies also tend to be more of a problem in British breeds of cattle than in exotic breeds.

Methods of controlling flies:
There are many options to assist with controlling the various flies that aggravate cattle. On natural control method is through friendly insects. Insect control by the predator wasp is one choice, however limited to barn situations and not as helpful in the pasture. The predator wasp actually feeds on the larval stage of house and stable flies, keeping the eggs from ever hatching. However, most cattle producers are more interested in what can help with pasture fly control. An insect control method that helps in the pasture is with regard to the dung beetle. Yes, believe it or not, there are good insects found living in manure! The dung beetle helps to break down the dung pat and actually competes with flies for the manure, essentially removing the location for flies to breed. Dung beetles live up to 10-12 inches in the soil and also help recycle and improve nutrients into the land. They improve grass growth as well through the same process.

Chemical control methods are another widely used and successful method for fly control in herds. Insecticides can be applied as a rub with oilers and dusters, through ear tags, pour-ons, and even through the feed. What is important to remember with each of these chemical methods is that there are seven chemical classes: the pyrethroids, the organophosphates, the carbamates, the insect growth regulators (IGR), the neonicotinoids, the organics, and the endectocides. These are big words that I will always have trouble remembering, but the important thing is to realize that the seven classes exist and to rotate between them. Rotating will minimize resistance to the chemicals, which unfortunately happens quite often if a particular chemical or class of chemicals is over-used. Too often cattle producers find a product that works, is economical, easy to use, or a combination of these, and decide to use the same product year after year. Eventually, the product will lose its effectiveness in the herd. Dr. Wes Watson, NCSU Extension Entomologist recommends rotating throughout the fly season and from year to year. For example, a producer could use a class 7 pour-on in June, a class 2 ear tag in July-September, then a class 7 pour-on again in October. With this rotation, and anytime ear tags are used, it is recommended to apply the tags after horn fly numbers reach 200 flies per animal, and remove the tags prior to the October chemical treatment. Low levels of the chemical left in the ear tags will cause resistance problems to occur, so removal is critical to success.

This is just a brief introduction to the choices and options for fly control in cattle. For your own copy of a more detailed list of the seven treatment classes, product names and formulations, and rotation schedule recommendations, contact your extension agent.

Be Your Own Environmentalist
Eve H. Honeycutt, Lenoir and Greene Counties

Over the past 20 years, few industries have been more scrutinized than the hog industry in Eastern NC. Granted, there have been a few issues and mishaps caused by mismanagement and natural disasters. However, as a hog farmer, you need to prove that one bad apple doesn’t spoil the bunch.

Now, more than ever, the hog industry is facing challenges from non-profit groups, humane treatment organizations, and environmentalists. These forces aim to bring down the entire swine industry, or “factory farms” as they call it, because they think you purposefully pollute the state waters and mistreat your animals in the name of profit. I have personally been to most of the farms in Lenoir and Greene Counties and I can proudly say that I know this former statement is false. Farmers are the original environmentalists. Farmers know the environment on their farm better than anyone else. Farmers do not want to pollute the waters
Be Your Own Environmentalist Continued...

(Continued from page 2)

around their farms, homes, and recreational lands. However this is not the story that the media wishes to tell. You, as a farmer, need to tell your story and be your own environmentalist.

In January, there was a conference in New Bern, called the “Pure Farms, Pure Water Summit” which gathered to “discuss both legal and non-legal advocacy strategies for fighting pollution from Confined Animal Feeding Operations”. This summit was put on by the Waterkeeper Alliance, which is a very well funded organization whose number one goal is to dissolve the hog industry. Below is a statement taken from the Waterkeeper Alliance website:

Since 1999, Waterkeeper Alliance has fought the environmental and social devastation caused by large factory farms. By cramming thousands of animals into warehouse style buildings, these facilities produce mountains of waste that end up in our nation’s waterways. In many rural communities livestock produce more waste than humans. And while human waste is treated and cleansed before its release into the environment, manure is often dumped raw onto fields that are out-of-use, frozen or saturated. Instead of fertilizing real farm land, much of the animal waste produced in this country washes into local creeks, streams and rivers causing algae blooms, fish kills, and polluting our drinking water.

As you can see from the statement above, this organization is misleading the public to believe these untrue statements as fact. You need to be prepared to defend your industry, your farm, and your livelihood. These groups have lots and lots of money that is mostly donated by the public. New legislation and new regulations are created because of the influence of these groups. At their conference in January that was held in New Bern, they gave helicopter tours of area hog farms. They claim that, “Arial monitoring is important because there is very little publicly available information about CAFO sites and their operating practices, and vital information can be collected from the air regarding waste “lagoons” and spraying practices”.

This is your chance to prove the media wrong and tell the facts. Take every opportunity to tell the public that you are doing your part to responsibly manage the waste on your farm and treat your animals humanely. Tell the story that the media does not:

- In a given year, 98% of inspections on hog farms show no direct discharges to waters of the state.
- 94% showed no evidence of over-application on sprayfields

Information from NC Pork Council, http://ncpork.org

Continue to do your part to protect the environment on your farm and to improve the reputation of hog farmers. If you don’t speak for yourself, who will?

Are You Still Paying Taxes on Electricity?

Excerpt from an article in the NC Pork Report, Winter 2009
Submitted by Eve H. Honeycutt, Lenoir and Greene Counties

The General Assembly passed legislation in 2007 that phases out the sales tax paid on electricity by farmers. The phase out schedule is as follows:

- Effective Oct 1 2007, reduced the rate from 2.6 percent to 1.8 percent
- Effective July 1, 2008, reduced the rate from 1.8 percent to 1.4 percent
- Effective July 1, 2009, reduces the rate from 1.4 percent to 0.8 percent
- Effective July 1, 2010, repeals the tax

The sales tax break applies to power being used for farming purposes only. You must have a device dedicated to that farming complex (and not,
Are You Still Paying Taxes on Electricity? Continued...

(Continued from page 3)

for example, also powering your residence). That device has to be separately metered. You are not eligible if the same power line supplies your home and your barns.

Look at your electricity bill. If you are not currently receiving the tax rate of 1.4 percent, you must act to take advantage of this tax cut. You must first apply for an exemption number for qualified purchases by completing the E595EA form with the NC Department of Revenue. (Most farmers should already have this exemption number.)

Then, to receive the tax cut, you must fill out the E595E form and give it to your electric provider. Once accepted, you will receive the new tax rate with the subsequent decreases. If you are applying for the tax break now, you have OVERPAID. According to the NC Department of Revenue, your electric provider must give you a refund. The electric provider is able to report that refund to NCDOR and then claim a credit with the state to recoup that money.

Also passed in 2007 was a phase out of the tax imposed on piped natural gas received by a farmer to be used for any farming purpose, other than preparing food, heating dwellings and other household purposes. If you need more detailed information on these topics, you can direct your questions to the Taxpayer Assistance Division at 1-877-252-3052 (toll free) or in writing to the Taxpayer Assistance Division, North Carolina Department of Revenue, P O Box 25000, Raleigh, NC 27640-0001.

Vaccines Anyone?
Emily Herring, Pender County


It is recommended if you own goats and/or sheep, that you vaccinate them against potential problems like overeating disease and tetanus. Listed below are suggested vaccines for goats and sheep.

**Goats**

1. Vaccinate with Clostridium Perfringens Types C and D +Tetanus Toxoid in one vaccine, against overeating disease and tetanus. Always read the instructions provided on the label. Dosage for (Bar-Vac CD/T; Fermicon CD/T) would be give 2ml per animal regardless of the age and weight. For bucks vaccinate once a year. For breeding females vaccinate once a year: 4 to 6 weeks before kidding, or twice a year: 4 to 6 weeks before kidding and 6 months later (4 to 6 weeks before breeding if breeding does once a year). Depending on if the breeding females have been vaccinated before kidding, vaccinate kids at week 8 of age, then booster at 12 weeks of age. If breeding females have not been vaccinated before kidding and there’s a problem, vaccinate kids at 2 weeks of age, then give a booster at 6 weeks of age. If the animal becomes wounded you should give a subcutaneous injection of Tetanus Toxoid for long term protection (one year). Tetanus antitoxin can also be given to protect goats when a wound occurs, but this only protects for approximately 30 days. It is advisable to vaccinate your goats against tetanus before disbudding and castration, whether using banding, cutting or using a burdizzo. Tetanus Toxoid vaccines are available. The vaccines can be given either subcutaneous or intramuscular, but subcutaneous injections are favored because of the decreased chance of tissue damage.

2. Multivalent clostridial vaccine (8-way vaccine). One example of a multiway clostridial vaccine, labeled for sheep, is Covexin8. Covexin8 is more reactive and may cause a higher incidence of adverse reaction at the injection site. Covexin8 may preferably be used in herds which have had problems with blackleg and malignant edema (gas gangrene). Although blackleg and malignant edema are common and costly infections in
sheep and cattle, they are very uncommon in goats. The dosage of Covexin8 would be 5ml per animal, regardless of weight and age. Kids would get 5 ml initially, then a 2 ml booster 6 weeks later. For bucks this would be given once a year as well as breeding females at 2-6 weeks before kidding. If breeding females have been vaccinated before kidding, vaccinate kids at week 10-12 of age, then give a booster at week 16-18 of age. If breeding females have not been vaccinated before kidding and there’s a problem, vaccinate kids at 4 weeks of age, then give a booster at 10 weeks of age. There is a 21 day waiting period between vaccination and slaughter for both vaccines.

**Sheep**

1. Vaccinate with costridium perfringens Type C & D (overeating disease) and tetanus. Vaccinate with an initial series of two injections administered 30 days apart. After that booster ewes annually at 4 weeks before lamming. For the dosage and method of injection follow the labeled instructions. For lambs vaccinate with an initial series of two injections given at 4 weeks of age and 1 week before weaning. After that, give booster vaccinations 1 week before any major changes in their diet.

2. Vibrisis and EAE (Enzootic Abortion of Ewes) vaccine will need to be given with an initial series of two injections followed by an annual booster. Follow the products label for the dosage and method of administration relative to the breeding season.

3. Contagious ecthyma (soremouth) is not recommended to be given to a flock unless it has been diagnosed on the farm. If soremouth has been diagnosed, then all new additions should be vaccinated from the disease.

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**Annuals Give A Boost to Summer Forage**

Emily Adams Walton, Onslow County

If you want to add some additional forage options into your summer grazing program, consider using summer annuals. They can offer great alternatives to our typical summer perennial grasses like bermudagrass, while also meeting the nutritional needs of your livestock. The most common summer annuals seen in our area are crabgrass, pearl millet, and sorghum-sudan hybrids. Planting is best done in early to mid-May but it’s still possible to establish these grasses into early June.

Crabgrass does well in many types of soils and is very drought tolerant. It can respond to moisture much quicker than other summer grasses but does not do well in extremely wet areas. Most of the growth is produced between the months of June to September, with an estimated yield of 3-5 tons per acre. Crabgrass is actually very nutritious and can often produce a higher quality grass than bermudagrass. In order for the grass to reseed itself, allow the stand to produce seedheads during the summer season. This can be accomplished most easily by using the crabgrass in a rotational grazing system.

Pearl millet may be a good choice if your soil is medium to well-drained but not an exceptionally sandy type of soil. It grows very quickly and produces forage between May and September, with the most production seen in the months of June through August. Pearl millet is known to produce 3 to 4 tons per acre. The forage is usually very digestible with protein levels between 14-18% if grazed when the millet is 12 to 24 inches tall. When it gets taller, the growth becomes more stemmy and the nutritional level declines. It’s a good idea to use millet in a rotational grazing system and remove the animals from the paddock once the millet is grazed down to a height of 6 to 8 inches. Keep in mind though that pearl millet is considered a “nitrate accumulator” which means that excess nitrogen application, drought, or other type of plant stress, the plants may be high in nitrates.

Sorghum-sudan hybrids are a good choice for most medium to well drained soils. They usually yield more than pearl millet on soils with a heavier texture but yield less on soils that are more fine and sandy. Sorghum-sudan grows very similarly to pearl millet and can reach a height of 4 to 8 feet. The growth period is from May to September with the most production seen during the months of June and August. The grass is very good quality with an average of 15% crude protein. It’s im-
important to note that sorghum-sudan hybrids can carry a risk of prussic or hydrocyanic acid poisoning. This can occur in periods of stress, such as drought or killing frost, or after periods of early growth. To avoid this risk, avoid grazing the plants until they are at least 15 inches tall or wait until several days after the drought. Remove the animals from the grass if a killing frost is predicted and then keep them off for 3-4 days afterwards before allowing them to graze again. These grasses are not recommended for horse pastures, as they can cause cystitis. Sorghum-sudan hybrids, like pearl millet, are nitrate accumulators.

Public Hearings for Hog Farmers

We have just receive information regarding proposed mandatory water monitoring requirements for hog operations. This monitoring is being proposed by the state’s NC Environmental Management Commission, and public hearings are being set up across the state for the proposed rules. These rules would require dairy, swine and waste poultry farmers to take samples of surface water in three places on their farms three times per year.

The three samples would have to be collected at each of three locations on the farm three times per year, for a total of 27 samples annually. The farmer will have to pay a private lab to analyze the 27 samples, and probably pay to have the sampling done as well. The environmentalists that asked the Environmental Management Commission to write these rules have estimated a cost of $90 to $140 per sample analysis cost. Multiplied by 27, this equals a cost range of $2,430 to $3,780 per farm per year. This does not include any cost for sample collection, only for sample analysis. Sample collection cost will vary greatly depending on how far the farm is from the lab, the distance between sampling sites, whether the sample collector has more than one client in the area and can combine trips, etc. These sample collection and analyses are not and will not be available from NCDA&CS.

You can view the proposed rules at: http://h2o.envr.state.nc.us/aps/documents/2T13101311DRAFT080826.pdf

The proposed rules will be published in the NC Register on May 15. The 60-day written comment period on will begin on May 15 and end on July 14. Comments will be taken on the rules and also on the fiscal note (cost and benefits estimates.)

The Division of Water Quality contact is Mr. Keith Larick, 1636 Mail Service Center, Raleigh NC 27699-1636. His phone number is 919-715-6697. The public comment period is scheduled to open on May 15, 2009 and close on July 14, 2009. Please refrain from sending written comments until the comment period opens on May 15th, 2009.

The Division of Water Quality plans to have a website set up with information for interested parties, and we will pass the address on to you when we have it. DWQ plans to have the proposed rules, the slides from the presentation that was given to the EMC in November, the fiscal note, and other information on the proposal on the website.

In our area, a hearing has been scheduled for James Sprunt Community College on Thursday, June 11, at 6:30 pm. Other hearings will be held in Statesville, Raleigh, and Williamston.

The Junior Livestock Show and Sale Committee would like to express their sincere appreciation to the many volunteers, supporters, and buyers that made the annual Junior Livestock Show and Sale so successful.

Thank You!
Calendar of Events

- **May 5th at 7 pm - Weed Identification and Management in Spray fields** Pender Cooperative Extension Office in Burgaw (910) 259-1235
  1 hour continuing education credit
- **May 15th at 3:00 pm - Wayne County Cattlemen’s Association Spring Meeting and Workshop** Growing warm season forages to feed your beef herd. Cherry Research Farm Service Building, Goldsboro NC
- **August 6th & 7th - Type A Animal Waste Certification Training** Duplin County Cooperative Extension, Kenansville (910) 296-2143.

For more information about any of these events, please call Kim Davis at 731-1520

Forage Management Tips

**May**

- Plant warm-season perennial grasses such as common or seeded bermudagrass.
- Plant summer annuals such as pearl millet by May 15.
- Fertilize warm-season grasses with nitrogen after each cutting or every four to six weeks on pastures.
- If irrigation is available, hybrid bermudagrass sprigs may be planted, but weed control will be essential.
- Spray pasture weeds while they are small (3 inches or smaller) for most effective control.

**June**

- Take soil samples from fields which will be overseeded or planted during the fall.
- Apply lime as far in advance of planting as possible.
- A late planting of summer annuals may be made to extend forage supply.
- To stimulate yield of warm-season grass such as bermuda, apply nitrogen after each cutting or every four to six weeks.
- Graze bermudagrass close (1 to 2 inch stubble) and harvest any growth that has not been grazed every four to six weeks.
- Control summer pasture weeds before they get too tall and mature.

Fencelines is a bimonthly newsletter written by a team of Southeast District Agricultural Agents for livestock producers of Southeastern North Carolina. For more information on material and events presented in this newsletter, contact your local agent and Cooperative Extension office at:

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484 copies of this public document were printed at a cost of $.02 per page