Important Information

**Goat and Sheep Training, Thursday, May 21, 4 p.m., Powell-Melvin Agriculture Service Center located at 450 Smith Circle Drive in Elizabethtown** – Presented by North Carolina Cooperative Extension (Robeson and Bladen County Center). Light refreshments will be served. Call the Bladen Center at 910-862-4591 by May 19 and reserve your space for the training. The agenda will be:

4 p.m. - *FAMACHA* Certification Training – Cost is $12 per chart (please be prepared to pay). If you are certified, come to the training at 6 p.m.

6 p.m. - Demonstration on performing Fecal Egg Counts

If you are interested in learning more about any information in this newsletter, contact me at the Extension Center at 671-3276 or E-mail me at Michelle_Shooter@ncsu.edu. For accommodations for persons with disabilities, contact me no later than five business days before the event.

Sincerely,

Michelle M. Shooter
Extension Agent
Agriculture – Livestock

**Marketing to Retailers Workshop, Thursday, May 28, 6 - 8:30 p.m., N.C. State Arboretum, Raleigh, N.C.** – Animal Welfare Approved and N.C. Choices are hosting a panel on the ins and outs of marketing meats to retailers, with a focus on group marketing. The panel will include farmers, processors, and retailers describing the challenges and opportunities in group marketing. This will be a great workshop for meat producers and others interested in working more effectively with retailers as well as anyone thinking of starting a marketing cooperative. A brief question and answer session will follow the panel. Light refreshments will be served. Please E-mail Emily@animalwelfareapproved.org to register for the free workshop.

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**Hay Directories**

There are three web site directories for people selling hay or looking for hay to buy. It is free to list your hay for sale.

1. The Robeson County Hay Directory is available online at http://robeson.ces.ncsu.edu/content/Robeson+County+Hay+Directory
2. North Carolina Department of Agriculture’s Hay Alert is at http://www.agr.state.nc.us/hayalert/. Producers can call the Hay Alert at 1-866-506-6222. You can sign up to list your hay on-line.

Call your Extension agent to learn how to include your farm on the list.
Proposed Rules for Monitoring at Animal Operations

The Environmental Management Commission (EMC) received two petitions for rule making seeking a requirement for permitted animal operations to monitor potential water quality impacts. EMC directed DWQ staff to engage additional stakeholders before bringing draft rules back to the EMC as part of the public notice process.

This is information from Keith Larick and Kim H. Colson with the Division of Water Quality. Some proposed conditions of the Surface Water and Groundwater Monitoring are:

- Waste Discharge Sampling - Observations of drains during every application event and post applications - two per year.
- Routine Surface Water Sampling – Three sampling events per year at three locations per farm site. Events will occur 1) January-February, 2) March-May (after land application), and 3) July-September (after land application).
- Parameters - Current proposal includes NH3, NO3, fecal coliform, BOD, and chlorides.
- Implementation on a watershed basis.

Public hearings have been scheduled at the following locations to receive comments on the proposed rules. All public hearings will begin at 7 p.m.

- June 9, Statesville - Iredell County Extension Center
- June 11, Kenansville - James Sprunt Community College, Monk Auditorium
- June 15, Raleigh - Archdale Building, Ground Floor Hearing Room
- June 18, Williamston - Martin Community College

Oral comments may be made during the public hearings. Written comments can be sent to: Keith Larick, DWQ-Aquifer Protection Section, 1636 Mail Service Center, Raleigh, N.C. 27699-1636. The public comment period is from May 15 to July 14. Please do not send comments until the comment period opens on May 15.

The N.C. Farm Bureau estimates that a farmer will have a cost of $90 to $140 per sample analysis or a yearly cost range of $2,430 to $3,780 per farm per year. A private lab will have to analyze the samples. NCDA&CS will not be running the samples. This cost does not include sample collection. Sample collection costs will vary greatly on the farm’s distance 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.

The proposed rules can be found at:

http://h2o.enr.state.nc.us/aps/documents/2T13101311DRAFT080826.pdf

CONTINUING EDUCATION CLASSES

December 1 - Bladen County Center starting at 10 a.m. (6 hours). Call Becky Spearman at 910-862-4591 to register.
December 8 - Robeson County Center starting at 10 a.m. (6 hours). Call Michelle Shooter at 910-671-3276 to register.

H1N1 Influenza Update

By: Becky Spearman

The North Carolina Pork Council (NCPC) reminds pork producers to follow strict biosecurity practices to prevent the introduction of this new strain of influenza virus, type H1N1, into our N.C. operations. Producers should make sure their biosecurity practices place emphasis on protecting our industry’s workforce and our animals by monitoring all persons having access to our operations. The influenza subtype isolated from these cases is unique. It has not been found in U.S. pigs and has not been previously recognized in people. According to the U.S. Center for Disease Control, “This virus is different, very different from that found in pigs.”

NCPC stresses the following points. According to the U.S. Centers for Disease Control and Prevention (CDC), swine influenza viruses are not transmitted by food and you cannot get swine influenza from eating pork or pork products. Eating properly handled and cooked pork and pork products is safe.
What is a Weed?
A weed is a plant growing in an area you do not want it to grow. For example, if you are trying to sell bermudagrass hay, anything in your field besides bermudagrass is a weed. Weeds in pastures and hayfields can reduce forage yield, forage quality, and have the potential to cause injury or death to the animal in the form of a toxic plant. Besides reducing yield and quality, weeds can interfere with hay drying.

Weeds compete with your desired forage and can cause a weakened stand of your grass. A potential problem is ryegrass in a bermudagrass field. The ryegrass is still growing while the bermuda is coming out of dormancy. If you do not get the ryegrass off the field, it can outcompete the bermuda and has been known to weaken and kill bermuda stands.

Identify your Weeds
The first step in weed control is identifying the weed or weeds you are trying to get rid of. You should scout your pastures looking for weeds and identify them. Keep a record of which weeds you have in each field and when you start seeing them. This will help determine if your control program is working. Some weeds may take a few years to get under control.

Prevention
Prevention is any activity that keeps weeds from getting into your pasture. Many weeds are spread by seed. The seeds are spread by hay, grass seeds, cattle movements, mowing equipment, wind, water, and wildlife. Weed seeds can be introduced by planting grass seeds that are contaminated with weed seeds. Always know that you are getting what you pay for. Certified seeds are recommended.

Control
Cultural control increases the competitiveness of the forage. Monitoring soil pH, fertility, and management practices keeps the grass competitive and does not allow weeds to come in.

Mechanical control usually involves mowing to control weeds. Mowing is usually more effective on broadleaf weeds than grass weeds. Mowing does have negatives such as cost of fuel, may not help with large weeds, and can spread seeds around encouraging more weed growth. If there is no chemical control labeled for a particular weed, mowing may be your only choice to decrease competitiveness.

Biological control involves the use of biotic agents such as plants, herbivores, insects, and nematodes to suppress weeds. Biological control is a relatively new area, but progress is being made. Control is usually not complete and may take several years.

Chemical control includes the use of herbicides. Herbicides kill by inhibiting the plant growth process. Select an herbicide based on desired forage species, weed species present, cost, and ease of application. It is very important to apply herbicides at the correct time and amount. Always read and follow label directions and pay attention to any grazing and haying restrictions.

Best Time to Control
Cool-Season Weeds - The best time to control is October through December. Weeds are young, germinating, and actively growing. A good time to control is February through April. Do not wait too late.

Warm-Season Weeds - The best time to control is April through mid-July for most species. The weeds are young, have germinated, are actively growing, and have not produced seedheads.

Outrider Herbicide
By: Becky Spearman

There is an herbicide that now has a supplemental label for the control of johnsongrass, purple and yellow nutsedge, and green kyllinga in bermudagrass and bahiagrass pastures. The new herbicide is Outrider by Monsanto. The active ingredient is Sulfosulfuron.

The label says that Outrider may be used in early spring through fall to control or partially control the above-mentioned weeds in well-established pastures. Apply 2 ounces per acre. A second application can be made 40 days after the first application. Do not exceed 2 applications of the product per year. You need to add a nonionic surfactant at 0.25 percent by volume. Grass can be grazed immediately after application. Do not harvest for hay within 14 days of application. Always read the label before using a chemical.
As the weather is getting warmer, it is time for cattle producers to give some thought to controlling flies in their herds this summer. Horn fly and face fly populations will start building rapidly in the 80+ degree weather we’ve been having lately, and farmers need to decide how they wish to manage these pests.

To Control or Not?
This is almost a nonissue in our part of the world, as all non-Brahman derived herds of cattle will be swarmed daily with several hundred if not thousands of flies that are quite literally sucking away your profits. Once horn fly populations build to the level of 150-200 flies per cow, the blood loss and time spent trying to get relief from the flies will reduce weaning weights in calves by 15-40 pounds. Not only does this cut directly into your profits but as caretakers of these animals, we have the humane responsibility to relieve them of their suffering. Even “eared” cattle, which are much more resistant to all types of parasites than their European cousins, are still affected by flies and will require some help in dealing with them as the summer progresses.

What Management Options Are Available?
Fly control methods are varied and all have pros and cons.

Topical Sprays/Pour-On Products
Sprays and pour-on products are the quickest methods available to us to knock down fly populations. There are dozens of products and chemicals that are labeled for use in beef cattle, and most of them do their job very well. Unfortunately, they also offer the shortest residual control of the methods we will discuss. Often, they only last until the first rainfall. Rarely do sprays and over-the-back products work as the main method for controlling flies, but they are widely used as a secondary method for early and/or late-season control. Also, included in this mix are pour-on dewormers. Pour-on dewormers offer two to three weeks of effective fly control, and if timed correctly (such as a spring deworming in late May), can be a very effective tool in this category.

Back-Rubs
Back-rubs have been used for a long time for controlling flies. Other than the insecticides that are available and labeled for use changing over time, not much is different to manage back-rubs now than it was 30 years ago. Back-rubs will work very well if managed correctly. First, they need to be set up in an area where cattle pass through regularly (a gate between pastures, in front of a water trough or a mineral feeder, etc.). Second, you must rotate the charging chemicals from year to year. Finally, they must be charged regularly throughout the summer to maintain their effectiveness.

Insecticide Ear Tags
By far, the most popular fly control method on most cattle farms are insecticide ear tags. Fly tags are the easiest, least labor intensive, and most long-acting method of controlling flies available (if you are going to use an insecticide of some type). There are dozens of brand names (and the main chemical ingredient) at a wide-variety of prices available on the market. All of these are broken down under three chemical classes: pyrethroids, organophosphates, and endectocides. The first two classes (pyrethroids and organophosphates) have been around for a long time. Endectocides are a relatively new chemical class available to cattle farmers and were available as fly tags last year. Regardless of which fly tag you use, there are several steps you must take to ensure they will work for you.

• Wait for the fly populations to build up (mid to late June) before you put them in. Fly tags have a limited life span, and the clock starts ticking as soon as you put them in.
• Always rotate between chemical classes each year. Please realize that there are several different chemicals within the same class, so simply switching the brand of fly tags may not necessarily get you into a different class. There has been much documented resistance of flies to fly tags over the years, especially with the pyrethroids, but rotating between chemical classes every year will spread out this resistance greatly.
• At the end of the fly season, remove and discard of the fly tags. This will also cut down on future resistance issues.
IGR Minerals
IGR Minerals (Insect Growth Regulator) and similar products have been in use for 20+ years and are very effective for some farms. They work by reducing the number of fly eggs that hatch in the manure and hay piles on your farm. For an operation that does a good job with their mineral program and is either isolated or surrounded by cooperating farms, this system works well. The down side of feed-through products is that they work by controlling the fly population in a very specific area. So if you are in an area with several other cowherds where an IGR product is used, you cannot control the area population effectively.

Walk-Through Fly Traps
This idea has actually been around for a long time but has made a comeback thanks to so many farms producing organic or all-natural beef as well as an increased use on dairy farms. There are several designs, but basically, they all look like a large headgate and work by brushing the flies off their backs as they pass through it. At the top of the trap is a box made of transparent material (such as plexiglass) that traps the flies as they naturally fly up to try to get out. This device has several advantages. It does not use any chemicals, so it will work for all types of organic applications. Because it is not reliant on insecticides, there will not be any built-up resistance in your fly populations. It will work equally well all season long. The biggest disadvantage is price and availability. Most of the lower-end models will cost several hundred dollars initially and will require regular upkeep. Also, as with back-rubs, cattle must pass through for them to be effective. Over the last few years, various models have been offered commercially, some successful and some not. There are also plans available for a home built model.

Putting it Altogether
No matter what system you use, rarely does one method give you complete control. Most farms that do a good job controlling flies will use a combination of at least two of the methods mentioned. The trick is to see what works for your operation considering time, money, and how you manage your cattle.

Forage Management Tips
From Production of Pastures and Forages in North Carolina

May
• Plant summer annuals at 2-week intervals to stagger the forage availability.
• Fertilize warm-season grasses with nitrogen after each cutting or every 4 to 6 weeks on pastures.
• Spray pasture weeds while they are small (3 inches) for most effective control.
• Do not apply nitrogen to fescue pastures from April until August.

June
• Soil sample fields to be overseeded or planted in the fall.
• Apply limestone as far in advance of planting as possible.
• Consider a late planting of summer annuals.
• Cross fence to help manage feed quality.
• Graze bermudagrass close (1- to 2-inch stubble) and harvest any growth not grazed every 4 to 6 weeks.
• Control summer weeds before they get too mature.

July
• Continue a 4- to 6-week schedule of nitrogen applications on summer grasses. Do not delay application because of dry weather unless it has not rained at all since the previous application.
• Maintain harvesting frequency for quality hay.
• Hot, dry weather can result in nitrate and prussic acid poisoning of animals grazing stunted, highly fertilized summer annuals.
• Sample soils and apply lime on fields to be planted in the autumn months.
• Decide which fescue pastures to stockpile. Around September 1, apply nitrogen (60 to 80 pounds/acre).

Recommendations for the use of agricultural chemicals are included in this newsletter as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services does not imply endorsement by North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use agricultural chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical.

For assistance, contact your county Cooperative Extension agent.
First Aid Kit

Having a good first aid kit where and when it is needed is a good idea. The first aid kit should be:

• complete enough to be useful in a common emergency situation
• compact enough to be easily taken to the horse
• stored so the contents are intact, clean, and ready to use
• checked often enough so that supplies are not out of date.

A basic first aid kit should contain:

1. Bandage material (including antiseptic wound ointment)
2. 4X4 gauze squares (to clean and cover wounds and keep medication in place)
3. 4-inch wide roll gauze and roll cotton (to keep the gauze in place and pad the leg)
4. Flexible self-adhering leg wrap
5. 2-inch wide adhesive tape to hold everything together
6. Duct tape (or other waterproof covering)
7. Bandage scissors
8. Medications such as mild soap for cleaning the wound and a mild antiseptic for killing bacteria. (Keep medicines checked to ensure they are in date)
9. Twitch
10. Rubber gloves
11. Bucket with plastic bags
12. List of emergency phone numbers, including the veterinarian or emergency veterinary clinic
13. Pen and pad of paper to take notes
14. Thermometer

A foal kit should be maintained in addition to the basic first aid kit and should contain towels, tail wraps, a mild navel disinfectant, liquid soap, obstetrical sleeves, a hair dryer, phosphate enemas, and tetanus antitoxin (kept in the refrigerator).

First Aid for Common Horse Emergencies

Wounds that penetrate the skin, are deep and wide, and show significant bleeding need first aid. Bleeding in spurts means an artery is cut, which is serious and should be treated as soon as possible. Check for the amount of blood loss by looking at the gum color and measuring capillary refill time. In cases of arterial bleeding, put pressure on the wound using several gauze squares to stop or slow the bleeding. Hold the gauze squares in place with roll gauze wrapped snugly around the injured area. Cover with a thick layer of roll cotton and then apply roll gauze tighter. Hold everything in place with adhesive tape. If the original bandage becomes soaked with blood, do not remove it and add another, just put more bandages on top of the soaked one. If arterial bleeding is not present, clean the wound with mild soap and water, removing any debris present. Rinse the wound with water and dry the area. Always keep a copy of your horses’ records close, so you can know the date of the last tetanus shot administered.

Some wounds can be sutured; this decision is based on the wound’s location, how dirty the wound is, the length and depth of the wound, how long ago the accident occurred, the horse’s temperament, the facilities available, and the willingness of the owner to provide aftercare for the horse. You should contact your veterinarian immediately if the wound occurs over a joint or in the pastern region. Wounds into the joint or tendon sheath can introduce bacteria that can cause a severe infection.

Abdominal pain from any source is referred to as colic. Most colic is due to some type of intestinal problem. Horses will act uncomfortable, may perspire, tread their feet, assume abnormal postures, paw the ground, and lie down. Horses exhibiting these signs should be examined for shock by checking the gum color, capillary refill time, and dehydration. Remove the horse from all feed sources and away from obstructions. Call your veterinarian for information about walking the horse and administering pain-relieving drugs.

Dystocia, or difficult births, are a true emergency. The average amount of time a mare starts to strain until she finishes is 11 minutes. Mares who strain more than 30 minutes without delivering should be considered in trouble. Immediately call your veterinarian. Keep the mare walking until the veterinarian arrives to keep her from pushing. If your veterinarian instructs you to do a vaginal exam on the mare, be sure to get the mare’s tail out of the way, and wash and dry the rear of the mare thoroughly before examining the birth canal. Use an arm-length plastic sleeve and lots of lubricant.

Emergency medical situations are a part of owning a horse. Prevention is always the best method. Being prepared, calm, having a readily available first aid kit, and knowing how to use it should reduce the likelihood that the problem will get worse or the healing will take longer.
Plants Poisonous to Goats
By: Tiffanee Conrad-Acuña, Livestock Agent, N.C. Cooperative Extension, Richmond County Center

Have your goats ever gotten sick and you thought it might have been from something they ate? Maybe you thought it was a poisonous plant from your pasture or woods. There are many conditions that can make goats sick, and it’s important to eliminate all others before looking to the pasture. Prevention is key with poisonous plants, so it’s a good idea to be able to identify them in your pasture so that you can eliminate them or fence animals out of them.

Plant poisonings in goats are actually very rare. This is because once a goat gets a little taste of something poisonous, they remember it for the next time and will usually eat around poisonous plants. Problems come in when a goat is particularly curious, is starving, or is missing an important vitamin or mineral from the diet. Some plants may not be toxic at the stage or time that it was eaten. The goats might be immune to the toxin, because they are used to eating a certain plant or being around it. They might not be poisoned sometimes, because they ate a part of the plant that is not toxic. The effect of the toxin might be diluted with feed, or the way the forage is harvested might decrease the toxin.

Many forages and feeds can become toxic to goats during certain conditions, which are normally safe for them to eat. Weather, overapplication of fertilizers, or storage conditions may cause problems such as fungus on fescue, nitrate poisoning in grasses, or aflatoxin in corn. Signs of plant poisonings may vary depending on the individual animal and how much was actually consumed. Some signs might be sickness, death, skin irritation, weight loss, open-mouthed breathing, blue or brown membranes, rapid heart rates, tremors, staggering, abortions, reduced appetite, scours, eye discharge, infertility, aggressiveness, and reduced milk production. Animals that are stressed out are also more susceptible to poisonous plants. Some possible stresses can be sickness, hunger, lactation, or pregnancy.

Goats can get nitrate poisoning from hay or nitrate-accumulating pasture plants such as sorghum, johnsongrass, pigweed, or jimson weed. They can also get nitrate poisoning from eating fertilizer or drinking high-nitrate water. There are some stresses that can cause plants to accumulate more nitrates such as drought, frost, low temperatures, cloudy weather, and being in the immature stage.

Cyanide toxicity is also possible with such plants as sorghum, cherry, apple, and johnsongrass. This toxicity usually occurs from plants being damaged in some way. It could be from weather conditions such as frost or from wilted plants. It usually occurs in the early fall and oftentimes happens in young, rapidly growing plants and seeds. This condition can be diagnosed with a bright cherry red venous blood and a bitter almond odor in the breath.

Dallisgrass can cause staggerers sometimes in the late summer. It occurs from a fungus that can grow on the plant. Also, fungus that sometimes grows on clovers can cause animals to slobber and get dehydrated. Many kinds of houseplants or bushes around houses are poisonous to goats such as azaleas, hydrangea, and rhododendrons. It’s a good rule of thumb to never feed goats plants that you keep in or around the house.

Some common poisonous plants or plant parts include buckeyes, Japanese yews, milkweed, Chinaberry trees, crotalaria, holly bushes or trees, horse nettle, nightshade, oleander, cowbane, staggerweed, pokeweed, and oak leaves that are in the fresh new stage.

Since prevention is key, you always want to fertilize pastures at the proper rate. Dilute problem plants with feed, and never put hungry goats on high-nitrate forage. It’s always a good idea to get your hay and water tested so that you can make good management decisions. If you suspect your goats have been poisoned, you want to remove them from the suspected source immediately!

If your goat does get poisoned, there are several extra label treatments available to help the goat get back where it needs to be and sometimes save a dying animal. Please work with your veterinarian on these extra label treatments. If you need help identifying plants in your pasture, please call your local Extension agent.
Hot weather will be here soon and you need to have your poultry houses ready. Dr. Michael Czarick from the University of Georgia provided the following checklist for poultry house ventilation systems.

1. Replace worn fan belts. Fan belts do not stretch. A fan belt rides in the motor and prop pulleys on its sides. Over time, the sides of the belt wear, and as a result, it becomes thinner. The thinner a belt becomes; the lower it will ride in the motor and prop pulleys and the slower the fan blades will rotate. The slower the fan spins; the lower amount of air the fan will move. It is not uncommon for a worn belt to result in a loss of fan capacity of 25 percent. Since the relationship between air speed and wind chill is exponential, a 25 percent loss of wind speed can reduce wind chill of possibly 50 percent! Keep in mind that though automatic belt tensioners reduce belt slippage and, therefore, increase belt life, they do not eliminate the need to replace belts on a regular basis. At a minimum, fan belts should be replaced once a year to ensure maximum air moving capacity and, therefore, bird cooling.

2. Replace worn pulleys. If a producer does not replace loose belts, the slipping of the belt over the motor pulley will cause excessive wear on the pulley. As a result, the motor pulley becomes more “U” shaped rather than “V” shaped. When this happens, even a new belt will not ride in the pulleys properly, resulting in reduced air-moving capacity. This problem can only be solved by replacing the motor pulley.

3. Conduct a static pressure test. In houses with evaporative cooling pads, it is essential that all the air enters the house through the evaporative cooling pads and not through cracks in the sidewall and ceiling. With one 48” fan operating and the tunnel curtain closed, measure the static pressure. Ideally, the pressure will be above a 0.10” pressure. The lower the pressure; the more air you have entering through the cracks in the house and not the pads. A static pressure of 0.04” or lower indicates that at least 1, possibly 2 fans are pulling air through the cracks in the house and not the pads. In a study conducted a couple of years ago, this amount of leakage was found to increase the temperature of the air at the fan end of the house by as much as 5 degrees.

4. Patch holes in dropped ceilings. The temperature of the air in the attic of a dropped ceiling house during the summer can exceed 130 degrees Fahrenheit. If this hot air is allowed to enter a house through holes and gaps in the ceiling vapor barrier, the temperature difference between the fan and pad end of a house will rise. Keep in mind that it is 3 to 4 times easier for air to enter through a hole in the ceiling vapor barrier than through the evaporative cooling pad.

5. Check the speed of the air entering evaporative cooling pads. To maximize cooling, it is very important that evaporative cooling pads are kept clean. Clogged pads can result in large temperature differences between the pad and fan ends of a house, reduced wind chill effect, as well as increased electricity usage. An inexpensive air velocity meter is one of the best methods of evaluating the cleanliness of evaporative cooling pads. Standing inside the poultry house, place the air velocity meter 1 to 2 inches from the center of the evaporative cooling pad. For a 6-inch pad, you should find that the air is moving through the pad at a speed of approximately 350 to 400 ft/min (2-inch and 4-inch pads, the air velocity should be approximately 250 and 325 ft/min respectively). The lower the air speed, the lower the amount of air entering the house. For instance, for a six-inch pad, if the air is only moving through the pad at a speed of 300 ft/min instead of 400 ft/min, it indicates that you are bringing in 25 percent less air than you should be. It is very important that the fans are cleaned, belts/pulley replaced, and the house made tight before this test is conducted, because low air speeds through evaporative cooling pads can also be caused by poorly maintained fans or excessive air leakage.

6. Clean evaporative cooling pad distribution system. Make sure the holes in the water distribution pipe are clean to ensure that maximum water flow over the surface of the pad can be achieved. Water flowing over the surface of the pad helps to keep the pad clean, eliminates streaking, minimizes mineral buildup, and, therefore, maximizes cooling. Keep in mind that water flowing over the surface of a pad has a negligible effect on static pressure and, therefore, does not affect the air-moving capacity of your fans.

7. Clean evaporative cooling pad sumps. Dirt in the bottom of evaporative cooling pad sumps provides food for algae and, therefore, encourages its growth. To minimize algae, growth sumps should be dumped weekly.

8. Clean fan shutters. Dirty shutters make it harder for the fans to move air and can decrease their air-moving capacity by 20 percent or more.

9. Check temperature of breakers with an infrared thermometer when tunnel fans are operating. Generally, the temperature of a circuit breaker should not exceed 140 degrees Fahrenheit. If it does, it means the circuit breaker is in danger of “tripping out” due to overloading or maintenance related problems.

10. Make sure that you have spare fan belts, motors, fogging nozzles, PVC pipe fittings, water filters, and circuit breakers.

If you would like more information about poultry production feel free to contact James Parsons at 910-296-2143.