ELECTRIC FENCING
Written by: Gerald Fitch OSU Extension Sheep Specialist

The basic principles of fence construction, grounding, and current flow must be understood to ensure correct fence design with minimal maintenance and maximum current flow.

Fence Chargers and Grounding
The major mistake that is made in electric fencing is the use of poor quality, “cheaper” fence chargers and the improper grounding of the fence. The fence charger is the most important purchase in construction of the electric fence. Voltage must be maintained at all times if an electric fence is to be effective. The new high voltage energizers produce a very short, .003 second, high-energy pulse. The high-energy pulse charges even a long length of heavily weeded fence with a shock that livestock respect. The short pulse limits the overall energy, so posts are not burned and the wires are safe, though painful to touch. The short pulse also removes the chances of fire when grass contacts the wire. The most important component of electric fence construction is the proper grounding or earthing of the system. With a poor ground, the electric pulse could not complete its circuit, and the fence would be completely ineffective. Improper grounding is the number one reason for electric fence failure and the main reason for producer’s in the United States reluctance to use electric fencing. More than 80 percent of the electric fence systems in the U.S. are inadequately grounded. Three or four ground rods, six feet long, should be used for proper grounding. These rods should be placed in parallel approximately six feet apart. Most fences are constructed with only one ground rod (this is adequate only when the ground is extremely wet) and will not be sufficient to ensure proper current flow.

Permanent Electric Fencing
Permanent fencing can be constructed with high-tensile wire and various types of creosote pressure treated posts or fiberglass posts for about one-half of the material and labor cost of an equivalent woven wire fence. Experience has shown that a seven or eight wire fence that is approximately 48 inches high is ideal for sheep and cattle. This fence will not only keep livestock in, but will also work well for keeping predators out. The wires used in these fences should be smooth 12½ gauge or 14 gauge wires. If building a permanent fence, the 12½ gauge would be a much better choice. The 12½ gauge wire is much stronger and will carry the necessary voltage better than the lighter 14 gauge wire. This makes it possible on level ground to put fence posts 40 to 50 feet apart. By doing this and using high-tensile smooth wire, it is possible to build a fence for much less than the cost of a woven wire fence, and the fence is a much better deterrent to the movement of dogs and coyotes than a woven wire fence.

Temporary Electric Fencing
Recent interest in pasture management involving intensive or controlled grazing systems has created a need for semi—permanent or temporary sub-division fence systems. These allow forage growth, quick grazing, internal parasite reduction, and regrowth of forage for future grazing. A two or three wire temporary fence around a wheat pasture or for controlled grazing in any kind of pasture will normally be sufficient. Most producers using temporary fencing feel that all wires should be charged and no ground wires are necessary. The new polywire or polytape system has made temporary fencing for
controlled and intensive grazing a very feasible alternative. With the use of portable reels and quick setup features, the temporary fences can be moved quickly and are also very efficient in keeping livestock in.

For the complete Publication go to http://lubbock-tx.tamu.edu select Publications followed by Small Acreage Landowner Info.

MANAGEMENT TIPS FOR INTERNAL PARASITE CONTROL IN SHEEP AND GOATS
Written by: Extension Livestock Specialists Frank Craddock, Rick Machen, and Tom Craig

The primary control strategy for internal parasites in sheep and goats has been the use of anthelmintics. One result of the apparent overuse of anthelmintics has been the development of resistant strains of gastrointestinal nematodes. The following management tips can be used by producers to help control internal parasites and prevent resistance from occurring.

1. Treat during mid-winter (December, January, February) before parturition to destroy hypobiotic (dormant stage) larvae in the host. Use anthelmintics (ivermectin, fenbendazole, albendazole, and oxfendazole) that are effective against hypobiotic larvae. This will greatly reduce pasture contamination in the spring.

2. Use fecal egg counts to determine if treatment is needed. After treatment, 7 to 10 days, use fecal egg counts to determine if drug was effective. There should be a 95 percent reduction in fecal egg count in order to consider the drug effective. Treat animals when warranted. Treat every animal.

3. Always rotate to uncontaminated or clean pastures if possible. The use of cultivated land is recommended to break life cycle of parasite. The longer native pasture can be rested the better.

4. Do not underdose. Sort animals according to size and determine dose according to weight of heaviest animal in the group, not an average body weight. Regularly check that dosing equipment is functioning properly to insure proper dosage. A slight overdose on smaller animals is generally not harmful due to the large margin of safety of most wormers.

5. Wait a minimum of 48 hours after treatment before turning animals onto an uncontaminated pasture.

6. Rotate dewormers on an annual basis or when a resistance develops.

7. Regardless of time of year, routinely treat new animals that are introduced into the flock.

8. When using dewormers, always follow labeled directions. Regardless of product choice, oral dosing is the recommended route of administration. Anthelmintics approved for use in sheep and/or goats are limited to ivermectin, levamisole and thiabendazole. Extra-label use of other dewormers can be utilized if prescribed by a veterinarian.

9. If possible, select livestock that show resistance to parasitism.

For the complete Publication go to http://lubbock-tx.tamu.edu select Links followed by Livestock then Goat.

SOUTH PLAINS AGRICULTURE, WIND AND WILDLIFE CONFERENCE

With the wind energy industry continuing to grow on the on the South Plains, landowners and producers have many questions. We will be holding the South Plains Agriculture, Wind and Wildlife Conference February 13, 2009 at the American Wind Power Center and Museum in Lubbock. Topics will include:

- The Way the Wind Blows: History and Current State of Wind Energy
- The Past, Present, and Future of Wind Energy in the South Plains
- Anatomy of a Wind Turbine and Construction of Wind Turbines
- Wind and Wildlife: What We Know and Don’t Know
- Wind and Lesser Prairie-Chickens: The Role of a Candidate Species
- Wind Development and Wildlife Associated with Playa Wetlands
- Catered Lunch—Legislative Presentation
- CREZ and Transmission
- Land Appraisals and Real Estate Impacts
- Community Wind – Small Tract Landowners and Wildlife Concerns
- Wind Development and South Plains Land uses: Are They Environmentally & Economically Compatible?
- TPWD Voluntary Wind Guidelines and Federal Wind Guidelines
- Landowner Panel-Multiple Perspectives
- What Does the Future Hold?
- Optional-Wind Power Center Tour

Location: American Wind Power Center and Museum
February 13, 2009 Lubbock, Texas
Directions: The Center is located at 1701 Canyon Lake Dr. approximately 3/4 miles east of I-27 off of 19th St. From I-27, take Exit #3 (Crosbyton / Floydada -Hwy 62/82—E.19th St.)
Registration Fee: Includes catered lunch.
Pre-registration: before January 16: $35
Late-registration: $50
After February 3, please register at the door.
Registration 7:30-8:00 AM
DISTRICT 2 4-H/FFA QUALITY COUNTS TRAINING

December 13, 2008
Location: Texas A&M Research and Extension Center, Lubbock

District 2 4H and FFA Quality Counts Beef, Lamb, Goat & Swine training is intended to provide an educational opportunity for new or experienced families (4-H and FFA) participating in a livestock project. The main purpose is to teach the basic principles of livestock management as they relate to facility maintenance, selection, nutrition, animal health, handling, showmanship and transportation.

“Quality Assurance” programs are discussed to ensure the safe and legal use of drugs or medications to facilitate the ethical care, development and exhibition of livestock.

Parents and leaders are encouraged to remember that livestock projects (regardless of specie) are to be used as tools in the process of youth development. These youth are learning skills that will impact their entire life and ultimately everyone around them.

For more information go to http://lubbock-tx.tamu.edu click on D2 4-H and FFA Quality Counts

TIME TO WINTERIZE YOUR COWHERD
Written by: Dr. Joe Paschal Extension Livestock Specialist

Cooler weather is on its way, and just as ranchers check the antifreeze levels in trucks and tractors, they should begin preparing cowherds for the effects of winter. "Winterizing the cowherd" is a set of simple steps to improve management during this season of change, said Dr. Joe Paschal, livestock specialist with Texas AgriLIFE Extension.

"The first thing you need to do when you wean your calves this fall is palpate all the cows and bred heifers in your herd," he said.

"Open cows should be sold, but consider the spring market if you have enough forage to overwinter them. The spring market is usually about 5 cents higher than the fall market due to fewer numbers of cows marketed at that time.

"You might also consider selling late-breeding cows that will calve outside your calving season. These calves will weigh less at weaning time and will have lower body condition scores prior to breeding in the spring due to their recent calving," Paschal said.

While the cows are gathered, ranchers should check them for "broken" mouths, popcorn teeth, bad or cancerous eyes and sell those that have problems. "Cattle that can't eat or see can't produce calves as cheaply as those that can," he said. "Usually a good hard freeze takes care of these external parasites. It is a good time to tip horns if necessary and clip hair from ear tags. Producers might want to re-tag cows that are missing ear tags and/or brand cattle with the ranch brand of ownership or and numbers for easy reading. Cows and heifers that are pregnant or those that are going to be kept until spring should be re-vaccinated for blackleg, leptospirosis, and the IBR-P13-BRSV-BVD complex. Ranchers usually don't re-vaccinate their cows for the clostridial diseases or for the shipping fever complex, but vaccination at this time boosts the immunity provided by the cow to her calf through the colostrum, Paschal said.

If conditions have been dry or a freeze is expected, it is a good idea to give a vitamin A (or A-D-E) injection. Vitamin A can be stored in the liver for long periods of time and is an essential vitamin for cattle, he said. Ranchers should always consult local veterinarian for specific recommendations.

Begin supplemental feeding when pasture, cattle or weather conditions indicate. Cows dropping from a body condition score 5 to 4 will need to gain 8 percent of their original body weight to return to a BCS 5 prior to breeding. Since this requires about 1,000 pounds of feed for a medium-sized cow, it is cheaper to reduce stocking rate or begin supplemental feeding before this occurs. "Heifers should calve in a BCS of at least 6. Also, as temperature decreases, the cow's energy requirements increase," he said.

Protein supplementation (1/2-1 pound of protein) will stimulate the animal's appetite (10 percent to 15 percent) and increase the digestibility (6 percent to 12 percent) of poor quality forages. This will allow for a good maintenance ration of most bred cows (BCS 5 or better) until they calve and/or grass gets really short. Good protein sources include (but are not limited to) cottonseed meal, whole cottonseed, other oilseeds, range cubes or blocks, he said. Liquid feed supplements can be a good source of protein (or nitrogen for making protein if they contain urea), but not always a supply of long-term energy. The cattle must be on a good energy source to supply the minimum requirements.

"Check feeders daily and refill before they run dry. And make sure that cattle have access to good, dependable water. Never put shrunk, hungry or stressed cattle directly on liquid feed; fill them up with hay first," Paschal said. Energy supplementation (1-2 pounds) will slightly stimulate digestibility (1 percent to 3 percent) and intake (5 percent to10 percent) of poor quality forages. If the levels of energy supplementation increase above 10 percent to 12 percent (2-3 pounds), then forage digestibility will be depressed causing a substitution rather than a supplementary effect. "Still, a pound of grain contains more energy than a pound of forage or hay, but it will require more grain than forage to make much improvement," he said. In some emergency feeding situations where forage is scarce, grain will usually be a more economical source of supplementary energy than forage. Remember that travel by the cow requires ½ pound of energy (about 1 pound of good quality hay) for every mile she travels to feed and water during the day. So be sure to include
some extra energy (but not protein) for travel costs. Paschal recommended keeping and maintaining throughout the year a good 12 percent calcium:12 percent phosphorus mineral that cattle will consume (2-3 ounces/day).

"Place these in areas away from watering sources, preferably in poorly-grazed areas to balance grazing pressures and encourage consumption of ungrazed forages," he said. Cattle will require a dependable supply of good water that contains less than 3,000 ppm in total dissolved salts. Since cows can drink up to 20 gallons of water or more a day, actual consumption will depend on the taste of the water, the air temperature and humidity, the cow's physiological stage, the type of forage eaten and the distance traveled to water. Water sources should be checked daily.

**SOIL SAMPLING—WHY SHOULD WE DO IT?**

Once again, we are entering into the winter season—leaves are falling and lawns are going dormant. What does this mean? Well, for most of us, it means no more mowing or fertilizing until spring. With that being said, it’s a perfect time to take advantage of a very important part of turf management—taking a soil sample!

Unfortunately, most people in Texas have never taken a soil sample. It's a very easy task and the information obtained from the analysis is vital in creating an environmentally safe nutrient management program for your turfgrass. Without an analysis of your soil, you could be applying nitrates, phosphates, and other constituents into your soil that are not required. Furthermore, you could be damaging both the turf and the environment if you use inorganic or organic fertilizers inappropriately.

For the Soil Sampling instructions go to [http://lubbock-tx.tamu.edu Small Acreage Landowner Info](http://lubbock-tx.tamu.edu) followed by Procedure for taking Soil Samples

**PREPARING FOR WINTER STORMS**

Being familiar with terminology used by the Weather Service will help you know what to expect when weather warnings are issued. The following terms are used frequently in winter weather releases:

**Freezing rain** occurs when temperatures are below 32F and rain freezes on impact. This causes an ice coating on all exposed surfaces.

**Ice storm** Freezing rain or drizzle is called an ice storm when a substantial glaze layer accumulates.

**Sleet** is frozen rain drops (ice pellets) which bounce on surface Temp. Wind impact. Sleet does not stick to 15 mph 30 mph 40 mph objects, but sufficient accumulation can cause dangerous driving conditions.

**Travelers' advisory** means that falling snow and/or drifting snow, strong winds, freezing rain or drizzle will make driving hazardous.

**Heavy snow warnings** are issued when 4 or more inches are expected during a 12-hour period, or when 6 inches or more are expected during a 24-hour period.

**Wind chill factor** is the combined effect of wind and cold. A very strong wind combined with a temperature below freezing can have the same chilling effect as a temperature almost 50 degrees lower with no wind.