

For News Release
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Panola County
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BEEF & FORAGE PRODUCTION NEWS:

Watch For Cold Stress in Cattle

By: Lee Dudley – CEA Ag & NR Panola County AgriLife Extension

Transitioning to November here in Texas, we see an increase in cold fronts, with our first killing frost normally accruing later this month. As the temperatures start to drop, the colder weather brings many challenges for beef cattle producers. In this article, let's explore some of the potential causes creating stress during the winter are cold, wind, snow, ice, rain, and mud. With the primary factor affecting beef cattle stress levels being temperature. All these factors, however, alter the maintenance energy requirement and intake of beef cattle. Maintenance requirements can be defined simple as the nutrients required so that an animal's body condition is neither gained nor lost rather maintained. Research and producers' experiences tell us more feed is consumed during winter months and especially when we experience extreme cold and or wet conditions.

Just as important as feed, water is often another very important nutrient overlooked. If water is not supplied, cattle will reduce feed intake which will compound body condition loss. Daily dry matter intake of beef cows with respect to temperature intakes during extreme cold or during blizzards and storms may be temporarily depressed. The metabolic response to the stimulus of cold involves practically all the systems of the body. The striated muscles shiver, the heart beats faster, breathing becomes deeper, urine flow is increased, and the sympathetic and pituitary-controlled systems are activated to elevate biological oxidations (energy expenditure or heat production) in all tissues. The result is an increase in the cow's requirements for energy. There is a range of temperatures where cattle are neither too hot nor too cold and their performance is optimal (approximately 32 to 77 degrees F). This temperature range is called the thermo-neutral zone. It is within this range where the fewest nutrients are needed to maintain bodily functions.

During cold weather events, snow is preferred to a cold rain, for the simple reason that when cattle get wet, "air insulation" is lost versus those that are out in the snow. The air pockets between hair fibers are a source of insulation. This insulation is matted down in a cold rain, and thus the air insulation is lost. Numerous studies have shown that for every degree below the critical temperature, a cow's energy requirement (TDN) increases 1%. It is also estimated that for every ten degrees below the critical temperature, the digestibility of the ration decreases by 1%. This means that when the temperature drops below the critical temperature, the cattle need additional supplementation. It may be that more or higher-quality hay needs to be provided.

Besides cold weather affecting cattle performance, producers have another thing to consider during winter – mud. It is less clear what effect mud has on a cow's energy requirements, but it is estimated that it can increase the maintenance requirement from 7% to 30%. If cattle must deal with mud, then their ration should also be improved. Another tool producers must help determine

if what they are feeding is adequate, besides forage testing, is body condition scoring. In the last trimester of pregnancy, a cow should have a score of 5, 6 or 7 on a 1-9 scale. If a cow is going down in BCS, then the ration is inadequate and should be improved

Another concern for producers over the winter period is for newborn calves. Many producers schedule calving in the late winter months, so it is very important the newborn calves don't get chilled, or they could die. Move chilled calves out of the weather, rub the animals down with a towel to stimulate circulation and use a heat lamp, if necessary, to help the calves recover. For more information about cattle production, contact your Panola County AgriLife Extension Office at (903)693-033 Ext 161

PANOLA 4-H

Panola 4-H Shooting Sports Aiming for Success

By: Lee Dudley – CEA Ag & NR Panola County AgriLife Extension

If you enjoy the outdoors and hunting, you'll love the shooting sports project! This project covers firearm safety and teaches responsible handling and use. Get ready because this project is hands on. You'll learn about a variety of firearms – including rifles, shotguns, and even archery! Some groups focus on competitive events, and others practice basic shooting programs. Contact your Panola 4-H Shooting Sports club to see what's available in your area.

The Panola 4-H Shooting Sports club is open to all youth ages 8 to 18. Did you know that each year nationally, 4-H volunteers teaches shooting sport to about 500,000 boys and girls. Shooting sports can be gratifying for youngsters, especially those who aren't athletes. The program provides a supportive environment in which young people can experience hands-on, fun learning experiences.

In the shooting sports project, you'll learn how to load and shoot a variety of firearms, proper maintenance of your firearms, parts, and accessories, proper safety procedures in handling and shooting, about shooting sports competitions and how to participate, hunting procedures, laws and ethics related to shooting, hunting, and firearms use and about careers related to firearms and shooting sports!

Volunteers are needed to coordinate county programs and to work at the local level. Individuals who are interested in shooting sports and are willing to learn about them can become involved in an existing program or club by simply contacting one of the already existing shooting sports volunteers or the Panola County AgriLife Extension Office at (903)693-0300 Ext. 160. All instructors are trained by state instructors certified to teach courses. Adult volunteers receive training in shooting sports at state and regional workshops to become qualified instructors. 4-H teen leaders may wish to assist with instruction. Shooting sports leaders act as role models and must impart the 4-H philosophy and youth development objectives to 4-H members.

The Panola 4-H Shooting Sports Club meet the fourth Monday of each month 6 pm at the Panola Expo Building. There are so many ways to become involved or to support 4-H Shooting Sports. For more information on the 4-H Shooting Sports program, contact your local AgriLife Extension Office at (903)693-0300 Ext. 160 or one of our great shooting sports club managers.

DATES OF UPCOMING EVENTS:

- 11/8: Fairplay 4-H Club Meeting*
- 11/12: Panola Master Gardeners Lunchtime Learning*
- 11/13 – 11/14: East Texas Show Star Series*
- 11/15: Gary 4-H Club Meeting*
- 11/15: Stillwaters 4-H Club Meeting*
- 11/19: East Texas Beef and Forage Conference*
- 11/22: Shooting Sports 4-H Club Meeting*
- 11/29: Beckville 4-H Club Meeting*
- 11/30: Carthage 4-H Club Meeting*