



CATTLEMAN'S CORNER



Division of Agriculture Sciences and Natural Resources * Oklahoma State University

MAY/JUNE 2014

More hay storage tips to save more hay

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Last week's Cow Calf Corner Newsletter discussed some of the potential losses to large round bales due to differing storage methods. Continuing with the train of thought of preserving as much harvested hay as possible, other important storage concepts can be used as the hay is being harvested this spring and summer.

The storage site is an important consideration in reducing bale losses. Select a site that is not shaded and is open to breezes to enhance drying conditions. The site should also be well-drained to minimize moisture absorption into the underside of the bales. As much as 12 inches of the bottom of a bale can be lost through moisture absorption resulting from the wicking action. Ground contact can account for over half of the total dry matter losses. Where practical, keep bales off the ground using low cost, surplus materials such as discarded pallets, racks, fence posts, railroad ties, and used tires. Another alternative is to use a layer of crushed rock about six inches deep to ensure good drainage within and around the storage site.



Bales should be stored in rows, buffed end-to-end, and oriented in a north/south direction. The combination of the north/south orientation and at least three feet between rows will provide for good sunlight penetration and air flow, which will allow the area to dry faster after a rain. Vegetation between rows should be mowed. Research has shown that orientation is a minor consideration if the bales are used before early spring because the losses are relatively small until that time. If stored into the summer, bales oriented in an east-west direction can experience severe deterioration on the north-facing surface.

The source of these and other ideas about hay storage can be found in Dr. Ray Huhnke's Oklahoma Cooperative Extension Fact Sheet "[Round Bale Storage](#)" BAE-1716.

Economic Advantages to Implanting Nursing Calves

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Many new technologies have been made available to the beef industry over the last 75 years. Few have the potential return on investment as do growth promoting implants for nursing calves. The term implant is used to refer to a group of products used in the cattle industry that increase rate of growth. Each type or brand of implant has its own specific applicator, which is used to properly administer the implant. Implants contain natural or synthetic anabolic compounds that produce physiological responses similar to hormones that are already produced in varying quantities in the body. **Calves intended for "natural" or "organic" markets can not be implanted.**

Implants cleared for use in nursing calves contain a lower dose of the active ingredient compared to products cleared for use with older cattle. These "calf" implants are typically administered when calves are between 2 and 4 months of age. Research summaries have shown that implants given during the suckling phase will increase average daily gain of steer calves by 0.1 pound per day. The response in heifer calves is slightly higher

at 0.12 to 0.14 pound per day. Over 150 days of the remaining nursing period, this additional gain can amount to 15 pounds in improved weaning weights in steers and 18 to 21 pounds in weaned heifer calves.

The value of this additional weight gain is difficult to accurately predict. Heavier calves often are priced slightly less per pound than lighter calves. In today's 2014 market, an estimate of \$1.30 per pound of added gain should be appropriate to evaluate the efficacy of implanting. Assuming a cost of \$1.00 to \$1.50 per implant, a \$13 to \$27 return on each implant dollar invested can be expected.

Producers often raise the question, "Is it safe to implant replacement heifers?" Research has shown that heifer calves implanted one time at about 2 months of age had very little, if any impact on subsequent conception rates. However, heifers that were implanted at birth, after weaning, or multiple times had lower reproductive rates than non-implanted heifers. Heifers that are known at birth, or at calf-working time, to be replacement females should not be implanted. There is nothing to gain. Bull calves that may remain as bulls to become herd sires should not be implanted. Once again, the key is to follow label directions precisely. (Source: [Selk, G. E., 1997. Implants for Suckling Steer and Heifer Calves and Potential Replacement Heifers. Symposium: Impact of Implants on Performance and Carcass Value of Beef Cattle. P-957. Oklahoma Agricultural Experiment Station.](#))

Cow Disposition Affects Pregnancy Rate

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Now we have another good excuse to cull cows due to bad temperament. Producers that routinely breed cows artificially realize that cows that are unruly and nervous are less likely to conceive to artificial insemination. Presumably the lowered conception rates were because they have been stressed as they are passed through the working facilities and restrained while being synchronized and inseminated. Now it seems that, even in the serenity of a natural breeding pasture, cows with bad dispositions are less likely to conceive when mated with bulls.

University of Florida animal scientists recorded disposition scores over two years on 160 Braford and 235 Brahman x British crossbred cows. They wanted to evaluate the effects of cow temperament and energy status on the probability to become pregnant during a 90-day natural breeding season. Cows were scored as 1= calm, no movement to 5= violent and continuous struggling while in the working chute. Also a pen score assessment was assigned as 1= unalarmed and unexcited to 5 = very excited and aggressive toward technician. An exit velocity speed score was measured as the cows exited the working chute as 1= slowest and 5 = fastest. An overall temperament index score was calculated by averaging the chute score, pen score and exit velocity score. Blood samples were analyzed for cortisol concentrations. Cortisol is a hormone released when mammals are stressed or excited. Increased cow temperament score and elevated plasma cortisol concentrations both were associated with decreased probability of pregnancy. These results suggest that excitable temperament and the consequent elevated cortisol concentrations are detrimental to reproductive function of cows. These authors concluded that management strategies that improve cow disposition, enhance their immune status, and maintain the cow herd, at adequate levels of nutrition are required for optimal reproductive performance. Source: [Cooke and co-workers. 2009 Florida Beef Research Report.](#)

The Old Agronomist Soapbox

C.K. Rice

Hay! Hopefully you fertilized your bermuda hay meadow and are taking advantage of the rainfall we have been getting. Putting up high quality hay is both a science and an art. Remember, the hay you put up now is the feed that will keep your cows in good physical condition this winter so that they can re-breed next spring, and that is where your profit comes from. Quality of hay is affected by two major components, the first and most important is the age of the forage when it is harvested. Bermuda grass that has been growing for 4 to 5 weeks can have protein contents of 10-12 % crude protein and TDN (energy) in the high 50's range. Hay in these ranges can provide most of a cow's nutritional need with very little, to no added supplementation from bagged feed. Conversely, 8 week old Bermuda grass hay will have proteins ranging from 6 to 8 %, and TDN's in the 45 to 50 range. Supplementation of this hay with feed grains will be needed to cover the cow's nutritional needs and add a lot of expense to keeping a cow in good shape over the winter. Allowing Bermuda grass to grow for 2 months before harvesting may result in more bales, but this is false economy, since the added cost of more grain supplementation takes away any advantage to producing an extra bale of hay per acre. The second major component to hay quality is fertility. While not as important to hay quality as age, it does make a big difference in hay quality. A study conducted in Indianola, Oklahoma in 2005, showed an unfertilized Bermuda grass protein content of 8 % and a TDN of 58. This compared to plot that was fertilized with 100 lb./acre on nitrogen that had a protein content of 11% and a TDN of 60. Fertilizing hay can result in higher quality feed while at the same time increasing yield of the hay meadow. If your baling hay to feed your own cow herd, it doesn't take a rocket scientist to figure out that cutting fertilized Bermuda grass when its young will result in higher quality feed and more of it than waiting 2 months to harvest a low yielding low quality hay .

Invasion of the pasture snatchers: June is brush control month when utilizing a broadcast application of herbicide to control invasive brush species. This is when the leaves on the woody species are fully expanded and at the same time, are not hardened off from extremely warm July temperatures. Most pastures in S.E. Oklahoma, want to go back to brush, and if some kind of maintenance program to keep woody species at bay are not practiced, it will slowly, over time revert back to brush. Check with your local County Extension Educator for the most effective herbicide for the brush species you intend to target.

June is also sericea lespedeza control month. June is when it reaches full flower and my best control has come at this time of year. Several products do a good job of controlling this species including but not limited to, Remedy, Pasture Gard, and Cimarron Max.

If you think you might still be in line for some moisture and have some grazed out wheat or ryegrass fields, there are several summer annuals that can easily produce 2 tons of forage by summer's end. Some of the more commonly used annuals for summer forage are; crabgrass, Teff grass, sudangrass, forage cowpeas, forage soybeans, foxtail millet and pearl millet. Each has its advantages and disadvantages, so do your research before committing to planting any of them. Fertility, seedbed preparation, and rain will all be big determining factors of success or failure when attempting to plant warm season annuals this late in the growing season.

Got Hoppers? It won't be long now before the first nymph stages of the grasshoppers will emerge and begin feeding on your precious grass. They are pretty easy to control when they are small, but by the time they

become adults and are beginning to be more noticeable in August they become very difficult to control. Keep an eye out for them now and in the next month and if the populations begin to get big enough to threaten your forage, do some control measures before they get too big to control.

OQBN Vac-45 Program Adds Value to Beef Cattle

Successful cow-calf producers strive to receive the highest possible value for their calves at sale date. The Oklahoma Quality Beef Network (OQBN) is a program, which began in 2001, and is a joint effort by Oklahoma Cooperative Extension Service and the Oklahoma Cattleman's Association. In the beginning the OQBN was designed to be a process verification and certification program for preconditioned calves. Today, the OQBN is the "complete" value-added program as it offers participation in value-added markets such as health management verification, source verification, age verification, production system verification, and genetic verification.

The OQBN Vac-45 is an example of a health management verification option for beef producers to participate in a value added-market. In addition to healthier, heavier calves when sold, sellers may earn higher prices per/cwt. Research has found buyers paid \$3-6/cwt more for preconditioned calves in recognition of buying healthier, high performing calves in a stocker or feedlot program.

There are several benefits to participate in the OQBN Vac-45 program. Benefits include reduced cattle stress and shrink, improved immune system, increased sale weight of cattle, increased market demands, brand-neutral (you and your veterinarian select the products to be used and the timing of vaccinations), and OQBN cattle can be dual certified in other health management verification programs. *See attachment for a list of vaccines.*



The *Cattleman's Corner* newsletter is distributed bi-monthly by the following:

*Oklahoma Cooperative Extension Service
707 West Electric Avenue
McAlester, Oklahoma 74501
918/423-4120
www.oces.okstate.edu/pittsburg*

This Newsletter is one way of communicating cattle information to those interested.

David Cantrell
Extension Educator, Agriculture, CED
david.cantrell@okstate.edu

Prepared By:

Stephanie Wilson,
stephanie.wilson12@okstate.edu

The Oklahoma Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, sex, age disability or status as a veteran and is an equal opportunity employer.