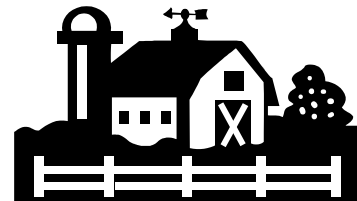




Kingfisher County Agricultural Newsletter

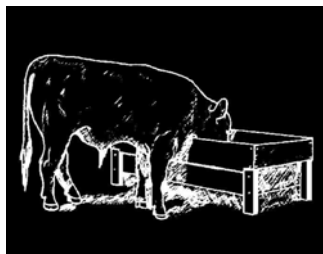


OKLAHOMA COOPERATIVE EXTENSION SERVICE * DIVISION OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES * OKLAHOMA STATE UNIVERSITY

August, 2005

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Wheatland Stocker Conference

Cherokee Strip Conference Center, Enid August 26, 2005 8:30-3:00

9:00 am Facing the Stocker Health Challenge: Not with Magic Bullets JUST Good Science: Speakers –Dr. Dan Thomson, Dr. Mike Apley, Dr. Brad White, all of from the College of Veterinary Medicine, Kansas State University

Topics that will be covered are:

Trucking Factors That Impact Health

Vaccination–What To Give and When To Give

Beef Quality Assurance-Importance of Doing Things Right

Records-What, When, Where, Who, Why

Respiratory Disease–Causes and Effects

Process Verification-Health and Management History

Sick Pen Management-Helping Sick Calves Go Home

Antibiotic Treatment-How To Use Antibiotics Effectively

Persistently Infected BVD-Preventing Your Next Wreck

Keeping Your Stocker Enterprise Profitable-Jay O'Brien, JA Cattle Company

Cattle Price Outlook and Issues Impacting the Beef Industry-Dr. Derrell Peel, OSU Livestock Marketing Specialist

Wheat Pasture Research Update-Dr. Gerald Horn

Pre-register by calling the Kingfisher County Extension Office at 375-3822 or Greg Highfill at 580-237-7677

Landscape Maintenance Schedule

- August is a good month to start your fall vegetables. Bush beans, cucumbers, and summer squash can be replanted for another crop. Beets, broccoli, carrots, potatoes, lettuce, and other cool season crops can also be planted at this time.
- Towards the end of the month, divide and replant spring-blooming perennials like iris, peonies, and daylilies if needed.
- Watch for high populations of worms, aphids, spider mites, thrips, scale and other insects on plants in the garden and landscape and treat as needed.
- Water all plants thoroughly unless rainfall has been adequate. It is better to water more in depth, less often and early in the morning.
- Discontinue deadheading roses by mid August to help initiate winter hardiness.
- If you had problems with spring dead spot in your bermuda lawn, this should be your last application of fertilizer for the year.

OK Steer Feedout

The entry deadline for the Fall-born test of the OK Steer Feedout is August 10 with steers delivered to Oklahoma Feeders on August 17.

The Spring-born test will begin November 2 with a weaning deadline of September 17. It is important that the spring steers are weaned properly. This deadline is prior to the normal weaning timetable. It has been our

(Continued on page 2)

observation that participating producers decide well in advance to enter steers because of the early weaning date. Here is the web site with Feedout rules and the entry form.
<http://www.ansi.okstate.edu/exten/oksteer/>

Nitrates can be higher after “heat-breaking” rain shower

Oklahoma summers often bring “high pressure domes” that cause 100+ degree days and no rain. The resulting heat stress can cause nitrate accumulation in summer annual forage crops. Producers are very cautious about cutting or grazing the drought-stressed forages and for good reason. However, when the first drought-ending thunderstorm comes along, cattlemen are anxious to cut the forage or turn in the cattle on the field that was just received rain.

This practice can lead to a potentially dangerous situation. As the plant starts to grow and turn green once again, the nitrate uptake is accelerated. Plant enzymes (such as nitrate reductase) are still not present in great enough quantities or active enough to convert the nitrate to plant proteins. Therefore the plant nitrate concentrations become even greater in the first few days after the first rain.

Producers should exercise caution and test forages before cutting or grazing shortly after a drought-ending shower. Some of the greatest concentrations of nitrate in forages will be recorded at this time. Usually by 7 – 10 days after the rain, plant metabolism returns to normal and nitrate accumulations begin to decrease. Be sure to test the forage before cutting and storing a large quantity of potentially poisonous hay.

The Impact of Hot Weather on Bull Fertility

Several research trials have been conducted throughout the years looking at the effect of high temperatures on bull fertility. Certainly that research has importance to many midwestern cattlemen in this summer. As far back as 1963, re-

searchers exposed bulls to temperatures of 104 degrees F. and 54% humidity for an 8 period and then allowed the temperature to drop to 82 degrees F with 72% humidity for the remainder of the 24 hour period. This temperature regimen was continued for 7 days and was designed to resemble natural conditions in the subtropics. They found the high temperatures resulted in major detrimental effects on initial sperm motility, sperm concentration and total numbers of sperm per ejaculate.

More recently (1978), Oklahoma scientists (Meyerhoeffer, et al.) placed bulls in controlled environments of 95 degrees F. for 8 hours and 87 degrees for the remaining 16 hours while similar bulls were placed in environments of 73 degrees constantly. These treatments were applied to the bulls for 8 weeks and then all bulls were allowed to be in the 73 degree environment for another 8 weeks. During the treatment the heat stressed bulls had rectal temperatures of 101.7 degrees F and non-stressed bulls had rectal temperatures of 100.8 degrees F. The percentage of motile sperm cells decreased significantly in the stressed bulls by 2 weeks of heat stress. Sperm motility did NOT return to normal values until 8 weeks after the end of the heat stress. This explains some of the reduction in fertility that is often associated with summer and early fall breedings. One cannot escape the conclusion that high ambient temperatures can cause reduced fertility by effects on both the cow and the bull.

Are Birth Weights Affected by Calving Season?

Occasionally coffee shop wisdom can lead a cow/calf producer to a wrong conclusion. Such is the case with the situation of birth weights that can be expected of fall calving

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cows. The spring calving cows that have lost condition throughout the winter are nearly always thinner in February and March, than their counterparts that calve in September and October. Some producers may think that because the fall calving cows are in excellent body condition, that they will automatically have larger birth-weight calves than similar cows calving in the spring. Oklahoma State University researchers used five years of data from the North Lake Carl Blackwell range to answer the question of birth weight differences by seasons. Records of 414 gestations and live births (242 spring and 172 fall) from cows of five crossbred cow groups were analyzed for differences in gestation length and birth weight. The cows ranged in age from 4 to 7 years old. All cows were bred artificially to using semen from the same set of Salers or Limousin bulls. Birth weights were taken within 24 hours of birth. Fall calving cows delivered smaller birth weight calves (77.7 pounds) than did spring calving cows (82.2 pounds). As producers select replacements, especially potential herd sires, they want to take into account the influence that season of the year may have on average birth weights. Fortunately, some breed associations adjust birth weights according to the season of the year that the calf was born. This should equalize the calves, so that when the EPD's for birth weight or calving ease are calculated, they will not be biased by the seasonal affect on birth weight. The reason that fall calving cows have lighter birth weights is generally attributed to the fact that the cows are gestating in hot weather. Blood flow patterns of cattle during periods of high temperatures change in an effort to dissipate heat from the body. Blood (and the nutrients that it carries) is shunted to the outer extremities during hot weather to dissipate heat. Therefore less blood flow is sent to the

inner core of the cow where the fetus is gestating. This subtle change in blood flow is commonly thought to be reason that lighter birth weights occur to cattle that are in late pregnancy in June, July, and August. The small amount of difference noted in Oklahoma cattle has not caused a loss of viability of calves born in September and October. Source: Selk and Buchanan, 1990 OSU Animal Science Research Report

Water Quantity Needed for Cow Calf Herds

Water for livestock is often taken for granted. However, when hot weather causes greater needs for livestock water, knowing the approximate amount of water consumed by cattle is a useful set of facts.

Water requirements for the non-lactating beef animal will run from 0.75 to 1.5 gallons per 100 pounds body weight or 6 to 12 % of their body weight. Cows that have calved this spring and are nursing calves may consume 18% of their body weight. Some estimates for different categories of cattle (in very hot weather) are: 500 pound calves may need 7.5 gallons per day; 850 pound replacement heifers need 12.75 gallons per day; 1200 pound non-lactating cows could drink 18 gallons per day; 1200 pound lactating cows could consume 27 gallons per day; and a 2000 pound bull could drink 30 gallons per day. Again, emphasize that these water consumption estimates are for those very hot, summer days. Normal weather will result in lower average amounts. Water consumption is dependent on climatic conditions, feed types, production level and salt intake. Water is an important nutrient! Decreased intake can adversely affect health, production and growth.

Eye Lesions in Cattle

Kansas State University veterinarians conducted a cross-sectional evaluation of 100 cattle from a Kansas sale barn. Their goal was to determine the incidence of eye problems in cattle brought to auctions. The reasons for the cattle being sold were unknown to the

examiners. All cattle were judged to be in good health. They found that 47% of the cattle had some type of eye lesion. In cattle 6 years of age or older, the prevalence was quite high, with 69% being affected. Younger cattle (less than 6 years of age) were much less likely to have an eye lesion. Still 24% of those less than 6 years of age were identified to have an eye lesion. The most commonly reported problem was corneal scars, found in 26% of the cattle, and squamous cell carcinoma in 14% of the cattle. Cataracts were found in 7% and lesions on the optic nerve were noted in 11 of the 100 cattle examined. Five animals were completely blind in one eye, but none were blind in both eyes. The very high incidence of eye lesions that can eventually lead to "cancer eye" is reason enough to closely examine the eyes and eyelids of cows at working time. Watch for cows with small, pinkish tumors on the eyeball or in any of the eyelids. Cows with heavy infestations of warts above or below the eye may be prone to be cancerous. Plan to cull cows with potentially cancerous lesions before severe eye disfigurement results in loss of productivity and extreme loss in animal value. Source: Davidson, et al. 1999 Cattleman's Day. Kansas State University.

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