

Inside this issue:

Artificial Insemination: Is it for Your Ranch?	2,4
Limit the Breeding Season and Reap the Benefits of Shorter Calving Season	3-4
Biosecurity: Protecting Your Beef Cattle Operation	5
Upcoming Events	6



This newsletter is provided as a public service to producers and others in beef industry related fields. If you do not have an interest in receiving the Cattlemen's Corner Beef Newsletter in the future, please contact the Extension Office and we will remove your name from our mailing list. Likewise, if you know of someone who would like to receive the newsletter, please let us know.

<http://www.extension.uidaho.edu/owyhee>
208-896-4104

Watch Those Vaccines . . .

K. Scott Jensen
UI Extension Educator, Owyhee County

Springtime has rolled around again which means branding time for many of you. How do you handle vaccines at branding? Who is assigned to administer them? Does it really matter?

I recently heard of a couple of spring branding vaccine wrecks. The first involved a mix-up with Nasalgen (intranasal administration) and another vaccine (subcutaneous administration). Both vaccines were similar in appearance and the person giving the vaccines mixed them up at some point in time when refilling syringes. Hard to know for sure how many were administered incorrectly. At this same branding, little care was taken to keep syringes and vaccines out of direct sunlight.



Another incident involved the use of a multi-dose syringe. The correct dosage of the vaccine was 5 cc. Somewhere along the way, in the hands of an inexperienced helper, the dosage rate on the syringe was bumped to 2 cc. No telling how many cows received the incorrect dosage. The problem wasn't discovered until a more seasoned hand administered an injection. On the very first cow, the "feel" of the syringe alerted him that something wasn't right.

Oftentimes the job of administering vaccines is given to the least experienced person on the crew with little thought given to training them. After all, they have probably watched the

process many times. I recommend that managers/crew bosses take time before each branding to review proper vaccine handling practices with their help. This can help ensure that this important job is done correctly, thus providing the best chance of protection against disease for the cattle.

The following are some recommendations that should be reviewed:

1. Read and follow the label for each vaccine. Administer according to label instructions. The label is the law.
2. Keep vaccines cool and out of direct sunlight, even during branding time.
3. Use a subcutaneous injection if allowed by label.
4. Administer vaccines in the recommended injection triangle in the neck.
5. Label syringes to avoid mix-ups when refilling.
6. Mix modified live vaccines as needed, one bottle at a time. Never mix more than can be used in 1 hour as the efficacy will begin to decline. Throw away any leftover modified live vaccine.
7. Use a transfer needle when mixing modified live vaccines.

. . . continued on page 4

Artificial Insemination: Is it for Your Ranch?

Ron Torell
Long-Standing Educator and Advocate of Agriculture

Technology should not be oversold. A successful artificial insemination (A.I.) program takes time, labor, the facilities to properly process cattle multiple times, livestock handling skills and cows in adequate body condition and postpartum interval. It is imperative to have an understanding of the estrous cycle and heat synchronization protocol. Time and effort is required for accurate heat detection. Unless you want 30% of your cows to be open you will still need a cleanup bull or a second round of heat detection and A.I. Following the process through diligently from the beginning when the decision to A.I. is first made to the end when the last cow is bred will yield the greatest success.

When considering artificial insemination it is important to have at least a basic knowledge of the reproductive cycle of a beef cow. The lactating mature cows in an A.I. program should have a minimum body condition score of 5 with a postpartum interval of 50 days or more. Cattle need to be on good feed and on the gain with long-term access to a quality mineral package. Lactating young, thin, second-conception and short-postpartum interval cows are all poor candidates for an A.I. program. Artificial insemination will not improve an already poor, natural-breeding program. As a rule any less than 3% of cows cycling daily at the onset of breeding indicates a low cyclicity rate of the herd.

Approximately 80% of the nation's commercial cow herds calve in February, March, April and May with corresponding breeding dates of May, June, July and August. During this same time period cattlemen are busy with branding, fertilizing meadows, repairing fence and farm work. Fitting an A.I. program in to this time frame is challenging. During this labor-intensive breeding period, cattle are generally on pasture and away from facilities required for heat detection and A.I. It is not surprising that less than 6% of the nation's mature cows are bred by A.I.

Few commercial cattlemen utilize heat synchronization and A.I. on their yearling replacement heifers with only 16% of the nation's heifers bred artificially. High accuracy A.I. calving-ease

sires can be selected for heifers versus a wider selection of high accuracy growth bulls for mature cows. In comparison to lactating cows, yearling heifers do not have a calf at their side which simplifies synchronization and the A.I. process. Yearling heifers often graze in pastures in close proximity to facilities capable of incorporating a synchronized, timed, or heat detection A.I. breeding program.

New technologies and estrous synchronization protocols reported by the Beef Reproductive task force (<http://beefrepro.unl.edu/resources.html>) have revolutionized artificial insemination. Many of these new technologies have made it possible for A.I. to be more widely used by commercial cattlemen nationwide. Artificial insemination conception rates and the costs associated with it are now within reach.

Synchronization resets the estrous clock on all females. Cattle not settling the first cycle have the opportunity to natural breed in 18 to 21 days. The end result is a large percentage of cattle calving in the first 35 days of the calving season. In a 35-day breeding period all cattle have had the opportunity to breed twice. Because of the resulting longer postpartum interval (and less dystocia with heifers) there is better breed back the following year with the next conception.

First-service conception rates on the average range from 40 - 60% with synchronization and scheduled/timed artificial insemination. A 60 - 80% first-service conception rate is attainable with synchronization, heat detection and A.I. Success is dependent upon how well you've followed through with the entire process. There are no short-cuts to success.

The potential to improve the ge-

Limit the Breeding Season and Reap the Benefits of Shorter Calving Season

J. Benton Glaze, Jr., Ph.D., Extension Beef Cattle Specialist
Animal & Veterinary Science Department, University of Idaho

The breeding season sets the stage for the yearly management activities in a beef cattle herd. Most notably calving, along with pregnancy checking, branding, vaccinating, dehorning, castrating, implanting, and weaning are some of the activities whose timing is dependent upon the schedule of the breeding season.

Results of the 2007 USDA National Animal Health Monitoring System (NAHMS) survey showed that 54.5% of beef cattle producers had no set breeding season. The operations with no set breeding season represented 34.1% of the cows, indicating it was primarily smaller beef cattle operations that did not manage the breeding season. However, operations of all sizes should strive to get a high percentage of heifers and cows pregnant within the first 21 days of the breeding season, and get 100% of them pregnant in a short 60-90 day breeding season. By doing so, producers can reap various benefits. These benefits include calves with greater and more uniform weights, decreased cost of production and increased income.

In many instances, beef producers market their calves at weaning. For operations to achieve the greatest returns, calves must gain as much weight as possible prior to marketing. The factor that has the greatest influence on calf weaning weight is the age at which the calf is weaned. Calves are only able to gain so much each day, given the milk supplied by the cow and the nutrients acquired from available forage. As a result, calves born early in the calving season are heavier at weaning than those calves born later in the calving season. Several studies have documented the effects of varying lengths of the breeding and resulting calving season. In a Utah study, where calving seasons and weaning weights were monitored over a ten year period, it was found that steer calves born in the first 21 days of the calving season were 43 pounds heavier at weaning than those born in the second 21-day period and 74 pounds heavier than those born in the third 21-day period. Steer calves born beyond 65 days of the start of the calving season were at least 100


pounds lighter than those born at the beginning of the calving season.

Another point to consider regarding weaning weights and marketing is uniformity. Long breeding seasons, and the resulting long calving seasons, result in a wide range in age of calves at weaning. This wide range in age results in a wide range of weaning weights. In most marketing circles, buyers prefer trailer load lots of calves that are of uniform age and grouped within a 50 to 100-pound weight spread. Groups of animals that represent wide ranges in ages and weights (long breeding and calving seasons) may be less acceptable, during the marketing phase, than those animals of similar ages and weights (short breeding and calving seasons).

Recently, a study was conducted in Arkansas to assist beef producers in reducing their herds' calving season and document some production and economic impacts. Six cow herds with long calving seasons were transitioned to short calving seasons. The average length of the calving season was reduced from 273 days (benchmark year) to 85 days (final year of study). This transition took approximately four years. With the small number of cooperating producers, there were no statistically significant differences for herd break-evens or specified costs. However, when comparing the mean values for the herds in the benchmark and final years, there were some encouraging trends. Herd break-evens decreased 30% from \$0.12/pound to \$0.09/pound from the benchmark year to the final year. Specified costs per animal unit decreased forty percent from \$209.00 to \$126.00 from the benchmark year to the final year. Income

Limit Breeding Season . . . continued from page 3


over specified costs also improved due to the change in calving season. Income increased 100% going from \$95.00 in the benchmark year to \$190.00 in the final year of the study.

In an attempt to improve production efficiency in beef cattle herds, producers should consider tightening the breeding season which would result in a shorter calving season. This would lead to improvements in overall herd weaning weights and uniformity and set the stage for decreasing costs and increasing income. 


I recommend that managers/crew bosses take time before each branding to review proper vaccine handling practices with their help. This can help ensure that this important job is done correctly, thus providing the best chance of protection against disease for the cattle.

Watch Those vaccines . . . continued from page 1

8. Never combine different vaccines.

While it is generally much more exciting and fun to be on the roping end at a branding, vaccine handling and administration is too important to leave entirely to a rookie. Take the time to provide proper training and oversight. A review of these simple practices can help to avoid a wreck at branding. 

**Artificial Insemination . . . continued from page 2**

netic foundation of a brood cow herd utilizing a high accuracy A.I. sire compared to a low accuracy \$4000 bull is without equal. The risks that are associated with owning a bull such as infertility, injury, maintenance costs, infection from a reproductive disease or death are non-existent with A.I. Nevertheless, artificial insemination is not an inexpensive undertaking. Single service semen costs for an A.I. sire range from \$15 - \$30/unit with an additional expense of \$10 - \$25/head for synchronization, heat detection aids and labor. With the economy of size these costs can be substantially reduced. 



Biosecurity: Protecting Your Beef Cattle Operation

Kara Kraich
Idaho BQA Coordinator

Recent news of the Schmallenberg virus outbreak in Europe and the confirmed atypical case of Bovine Spongiform Encephalopathy (BSE) in California are good reminders to review your own biosecurity practices. Combining common sense practices and sound science, we have put together some helpful tips and advice about biosecurity to help protect your operation.

Managing risk and protecting your operation is a daily concern in beef cattle production. Protection and risk management comes in various forms; futures market, forward contracts, disaster insurance, vaccination programs, etc. All of these forms of insurance carry a price tag...some larger than others! In a bottom line driven industry, it is a top priority to look at implementing minimal cost protection of your herd. One price tag that is smaller than the rest, yet still provides essential protection is a biosecurity plan. Now who says cheap insurance doesn't exist?

Biosecurity is the management practice that protects animals from exposure to infectious agents that can adversely affect the productivity and profitability of ranch enterprises. Disease can easily be spread by animals, inanimate objects (i.e. feeding equipment), and vectors (insects and wildlife). Another means of spreading disease that is commonly overlooked are the visitors we allow on our operations.



Biosecurity consists of those activities that reduce the opportunities for infectious agents to gain access to and move or spread within the herd. These activities include properly maintained and cleaned equipment and facilities, pasture rotation, herd health programs, purchase of known source animals, proper waste disposal, personnel training (people management), perimeter control (fencing, access), record keeping and individual animal identification. Biosecurity, to varying degrees, is currently practiced by most operators.

Listed below are ways to implement biosecurity on your beef cattle operation:

Protect Against Infection	Reduce Disease Exposure	Reduce Contamination	Keep it Clean
<ul style="list-style-type: none"> • Vaccination • Know your herd status • Keep good records <ul style="list-style-type: none"> ◊ Animal identification ◊ Veterinary records 	<ul style="list-style-type: none"> • Add animals of known status • Isolate new animals • Quarantine sick animals • Perimeter control • Restrict visitors 	<ul style="list-style-type: none"> • Pasture management • Waste management • Proper disposal of dead animals 	<ul style="list-style-type: none"> • Individuals on your operation • Equipment • Animal handling areas and facilities • Feed bunks and water tanks • Control birds, rodents, and insects that can carry and spread disease

A well-defined and documented biosecurity plan will be a significant factor in assuring a cattle producer's food product—beef—is safe, wholesome, and profitable. Keep in mind, the benefits of utilizing a sound biosecurity program far outweighs the cost of treating or managing diseases once they occur! Disease outbreaks are not only detrimental to your operation, but the entire industry.



University of Idaho
Extension

Owyhee County

238 8th Ave. W., P.O. Box 400

Marsing, ID 83639

(208) 896-4104 FAX (208) 896-4105

Owyhee@uidaho.edu

NONPROFIT ORGANIZATION

U.S. POSTAGE PAID

MARSING, IDAHO

PERMIT NO. 11

To enrich education through diversity the University of Idaho is an equal opportunity/affirmative action employer and educational institution.

ADDRESS SERVICE REQUESTED

Upcoming Events

June 12-15, 2012

Lost Rivers Grazing Academy II

Eagle Valley Ranch, Salmon

For livestock producers who have previously attended the Lost Rivers Grazing Academy or similar training; or, professionals working in livestock-related industries with a knowledge of Management Intensive Grazing. In this four-day, hands on program, we will revisit goal creation and how pasture evaluation and feed budgeting pertain, so you will be able to use this information to meet your personal grazing objectives. Visit our web site or contact the Extension Office for more information.

July 28, 2012

**Owyhee Cattlemen's
Association Summer Meeting**
Silver City



August 6-11, 2012

Owyhee County Fair & Rodeo
Homedale

September 11-14, 2012

Lost Rivers Grazing Academy
Eagle Valley Ranch, Salmon

An introduction to Management Intensive Grazing with a combination of presentations and practical field exercises to prepare pasture managers to harvest the sun's energy more effectively.