



Are they ready?

Evaluating bulls before breeding season pays big dividends

*Sandy Johnson
NW Area livestock specialist*

The past months have had us focused on cows and the calving season. As the breeding season approaches it is important to remember the importance the bull plays in a successful calf crop. Since each bull will breed many females, a bull fertility problem can have widespread effects. In preparation for the upcoming breeding season, plan to ensure that bulls are in appropriate body condition, in good physical shape and that each bull has passed a breeding soundness exam (BSE) 30 to 60 days before turn out.

According to the 1997 NAHMS survey on use of reproductive technologies, 40 percent of producers use a BSE to evaluate bulls prior to turn out; the other 60 percent must like to gamble. Estimates from Colorado and Texas indicate that 1 of 5 bulls receive a score of questionable or unsatisfactory in the BSE. Lower than normal temperatures this past winter may have increased the incidence of frostbite to the scrotum. The resulting damage may be temporary, or in more

severe cases, cause permanent sterility. Since the outlook for calf prices is strong for this next calf crop, a BSE is an excellent investment. A breeding soundness exam consists of a physical examination, an exam of the reproductive organs, a scrotal circumference measurement, and semen evaluation. Checking feet and legs, body condition score, eyes and teeth assesses the bull's physical condition. Anything that would reduce a bull's ability to find cows in heat and successfully service them should be noted. The reproductive tract is thoroughly examined internally and externally for injuries or abnormalities. Scrotal size is measured because it is highly correlated with daily sperm production. A sample of semen is also collected, and the concentration, motility and morphology of the sperm cells are evaluated. Each portion of the BSE is important, and attention to detail at each step will ensure that subfertile bulls are identified.

The BSE does not test the bull's libido or willingness to breed and — contrary to *continued on page 3*

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Relationship between severity of frostbite and semen quality of affected bulls

Breeding Soundness Score	Severity of Frostbite		
	Mild	Moderate	Severe
Satisfactory (%)	89.5	48.0	2.1
Questionable (%)	9.5	25.3	9.2
Unsatisfactory (%)	1.0	26.7	88.7

Common sense, on-farm strategies help prevent FMD

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As of this writing, Canada, the United States and Mexico are free of foot-and-mouth disease (FMD). This unique status is shared with Australia and New Zealand in the Southern Hemisphere. Several other countries in the world are also free of FMD. However, many Asian countries, several in South America, Africa, and most recently the United Kingdom, the Netherlands, and France are experiencing outbreaks of the disease.

This article describes management strategies to prevent the introduction of disease to a farm with particular reference to foot-and-mouth disease. Although this piece refers specifically to cattle, these general strategies are applicable to other farm livestock.

On-farm Control

Kansas livestock producers prevent the introduction of FMD and other foreign animal diseases by common sense and practical on-farm strategies. FMD virus is easily killed by cleaning or washing clothes with bleach or washing soda or by dry cleaning. People may harbor the FMD virus in their nasal cavity for up to two days. Knowledge confirms that persons who have been working with FMD animals must stay away from healthy animals for at least five days.

To prevent the introduction of foreign animal diseases from infected animals on farms in countries with the diseases, Kansas producers should follow these guidelines:

New Arrivals

- Maintain a closed herd. The first method is not to purchase cattle. A truly closed herd does not allow the introduction of outside animals. For practical reasons, there are few truly closed herds in Kansas. In the case of an FMD outbreak

owners should maintain closed status until the outbreak is contained.

- Do not allow the introduction of outside animals to the herd.
- Prevent fence-line contacts of stock with other cattle.
- Use artificial insemination for breeding, and do not bring in bulls.
- Do not exhibit at shows.
- Restrict visitors.
- Know the source of incoming animals.
- Require health certification on all incoming animals.
- Receive incoming animals during daylight, and inspect all animals as they are taken off the truck.

Farm Traffic

Minimize traffic between farms, ranches, and feedlot operations to prevent the spread of diseases. Farm visitors wearing boots or clothing freshly contaminated with infectious agents can spread cattle diseases among farms. Birds, rodents, pets, people, equipment, and vehicles contaminated with manure (or other bodily excretions) should be considered potential disease carriers. Specifically, control birds, rats and mice. Pigeons, sparrows, starlings, and rats and mice may act as carriers of infectious agents on their feet and within their digestive systems.

Control people and pets. People spread contaminated material directly on footwear, hands, and clothing. To decrease the spread of contaminants:

- Inform herd workers, visitors, and truckers of your farm protection methods and insist upon cooperation from these individuals.
- Keep visiting vehicles out of areas accessible to livestock.
- Insist visitors wash/disinfect their boots before entering and leaving.
- Supply rubber boots and clean coveralls for visitors.
- Provide a footbath containing an effective disinfectant.

- Control the movement of dogs and cats between farms.
- Wash farm clothing with detergents and bleach or washing soda.
- Ask foreign visitors about their visits to farms in their country of origin.
- Restrict visitors from the farm if the visitor has been on a farm with a contagious animal disease within the previous five days.

Equipment

Disease can spread from farm-to-farm indirectly by small and large equipment. To reduce this spread:

- Use your own equipment, halters, nose tongs, clippers etc., rather than borrowing them.
- Thoroughly wash and disinfect the inside, outside, and tires of equipment shared with neighbors.

Use disinfectants

Information about disinfectants is available on the product label or from farm supply dealers, veterinarians, the United States Department of Agriculture, and the product manufacturers. For best results disinfectants should be applied to cleaned surfaces.

Monitoring and Reporting

Provide training to employees on recognition of signs of FMD. Monitor livestock and promptly report any symptoms of FMD to your local veterinarian. FMD may cause high fevers, blisters around the mouth or on the feet, reduced appetite, and lameness. FMD can be confused with several other, but less harmful, diseases such as vesicular stomatitis or swine vesicular disease. Failure to promptly report a case of FMD will endanger your neighbors and the entire United States livestock industry.

READY, from page 1

popular belief — there does not seem to be any good visual indicator of bull fertility or libido. Serving capacity or libido tests can be performed, although few breeders use them because of the time and expense the test requires.

If you purchased a yearling bull to use this season, keep in mind that these bulls are still growing and should be on a diet that will allow them to continue to gain weight but not become too fat. A highly fit or conditioned bull should gradually have the amount of concentrate in the ration reduced. This change should occur gradually since dramatic changes in nutrition can affect semen production.

It is common for young bulls to lose more than 100 pounds during the breeding season, so they should have some energy stores going into the season. A 12 percent CP ration consisting of 80 percent hay and 20 percent concentrate (about 6 to 10 pounds of grain) should allow young bulls to grow but not become over conditioned. Promote exercise by placing bulls in a sizeable pen, and place water and feed at opposite ends.

Two-year-old bulls should also gain weight prior to the breeding season to ensure adequate energy reserves. For older bulls, the target energy level will depend on their body condition. If bulls have wintered in good body condition, 5 to 7 pounds of grain may be adequate to build the desired energy reserve. When feeding a group of bulls, adequate bunk space is essential.

Vitamin A is necessary for optimum semen production and — given the lack of green forage in some parts of the state in the past 12 months — individual animal stores may be rather low. An injection of Vitamin A is inexpensive and would ensure that stores are replenished. Vitamin A can be delivered in minerals or supplements, but with the depletion that may have occurred with the drought, that method may be too slow.

A fertile, active bull is critical in getting a majority of cows bred early in the breeding season. Make sure to take the time to have a BSE performed and to get bulls in proper condition before breeding season.

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Kansas Feedlot Performance and Feed Cost Summary*

Gerry Kuhl, Feedlot Specialist, Kansas State University

February 2001 Closeout Information**

Sex/No.	Final Weight	Avg. Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Avg. Cost of Gain/Cwt.	Projected Cost of March-Placed Cattle
Steers/12,177	1,224	139	3.34	6.05	.97	\$46.97	\$45.71
		(125-152)	(2.83-3.78)	(5.46-6.41)		(40.38-48.59)	(42.50-48.00)
Heifers/17,721	1,148	141	3.02	6.48	1.04	\$50.42	\$47.50
		(118-177)	(2.59-3.33)	(5.98-7.15)		(44.72-54.10)	(44.50-50.00)

Current Feed Inventory Costs: Mid March Avg. Prices

	Range	No. Yards
Corn	\$ 2.08-2.35	7
Ground Alfalfa Hay	\$75.00-115.00	7

*Appreciation is expressed to these Kansas feedyards: Brookover Ranch Feed Yard, Decatur County Feed Yard, Fairleigh Feed Yard, Hy-Plains Feed Yard, Kearny County Feeders, Pawnee Valley Feeders, and Supreme Cattle Feeders.

**Closeout figures are the means of individual feed yard monthly averages and include feed, yardage, processing, medication, death loss and usually sold FOB the feedlot with a 4% pencil shrink. Interest charges normally are not included.

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