

# The Beef Breeding Herd

## *A Guide to Biosecurity in Beef Production*

Certain management practices in cow-calf production increase the risk of spreading infectious diseases. Animals that are pastured with other herds, or along fencelines permit direct contact between animals. Also, movement of livestock within and between states has greatly increased over the past few decades with expanded marketing opportunities and modern transportation. Animals are purchased, sold, and

hauled to fairs and livestock shows where they are in contact with other animals and returned to their herd of origin with minimal regard for potential disease transmission.



In the past, diseases such as brucellosis and bovine tuberculosis were identified as serious, widespread disease problems that required eradication for public health and production purposes. Non-infected herds were rare, but through a national cooperative effort between the government and livestock producers there has been a great reduction in tuberculosis and virtual elimination of brucellosis. These programs dramatically increased awareness of infectious diseases, the cost of disease to our herds and society, and the importance of disease prevention and control.

Responsible herd owners and managers need to be **proactive** in understanding and managing the risk to livestock from infectious diseases in order to minimize the potential consequences that could result to their individual operations as well as our food supply. It is equally important for veterinarians and livestock specialists to provide information and assistance to cow-calf producers that wish to improve farm and ranch biosecurity programs by managing the areas of risk that permit entry of disease into a herd.



These practices must be developed at a level the producer feels is reasonable, effective, and can be implemented into daily activities.

Utilize this material to identify risks to your herd, develop management practices that will reduce or eliminate the disease risks, and evaluate the effectiveness of the disease prevention program for your herd.

## Beef Herd Risk Factor Checklist

### Herd Demographics

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Do you produce seedstock for other producers?		
Do you background calves or run a yearling operation?		
Is your operation on multiple sites?		
Do employees live on your farm or ranch?		
Do employees have routine contact with cattle outside of your herd?		
Do you purchase replacement heifers, bulls, and/or cows?		

### Cattle Contacts

Do you purchase, show, exhibit, or haul livestock that will be returned to the ranch after being in contact with other animals?		
Do your animals mix with other cattle on pasture or have direct nose to nose contact with cattle in adjacent pastures or pens?		

### Other Contacts

Do you purchase feed or feed supplements for your operation?		
Do cattle have access to feed that has been contaminated in storage?		
Do livestock trucks, trailers, or other vehicles (visitors) come into direct contact with your livestock, pens, or pastures?		
Do you have streams or run-off water from other farms or ranches that flow to your livestock raising areas?		
Do you haul or raise other domestic or exotic species that are in contact with your cattle?		
What other animals (pets, wildlife, birds, or pests) have access to your cattle or feed storage?		

### Herd Records and Monitoring

Do you keep herd production records on individual animals?		
Do you keep financial records on an enterprise or profit center basis?		
Do you routinely monitor disease treatments, or other animal health activities in your herd?		

### Routine Herd Health Practices

Do you isolate or separate new animals or those returning to your herd?		
Do you isolate, segregate, and restrict movement of sick animals in your herd?		
Do you routinely clean and sanitize equipment, calving, and treatment areas?		
Do you treat animals for internal and external parasites?		
Are purchased animals tested or vaccinated before entering your herd?		
Do you check the herd health practices of those supplying animals for entry into your herd?		
Do you necropsy animals in order to determine the exact cause of death?		

### Indicate Additional Routine Management / Health Practices Utilized

Is the entire herd pregnancy tested each year?		
Are yearly breeding soundness evaluations conducted on all herd bulls?		
Are herd bulls tested for trichomoniasis?		
Do you use artificial insemination or embryo transfer in your herd?		
Do you monitor cattle weights and body condition on a routine basis?		
Are purchases of feed, vaccines, and other veterinary supplies recorded?		
Do you utilize colostrum, serum, or other biological supplies from outside herds?		

## Designing, Implementing, and Evaluating Your Herd Biosecurity Plan

Carefully consider the possible areas that create a potential avenue for the entry of infectious disease into your herd. Define each risk that you think should be addressed and outline points of intervention that can be developed to control or reduce the risk. Other approaches to developing your plan could be made by considering specific diseases and the measures required to prevent them or you may want to start the process by looking at the daily activities and routine management procedures that can be altered to reduce the risk of disease transmission. Finally, include methods to review and document the effectiveness of your herd biosecurity plan and make necessary adjustments that will improve its implementation.

### Incorporating Biosecurity Into Your Production Management Activities

#### 1. Develop a personal workable plan for your herd

- Determine what will or will not fit the daily routine.
- Implement a few important things first, add more later

#### 2. Provide family and/or employee training and discussion sessions

- Understanding disease transmission, disinfection, sanitation
- Discuss zoonotic diseases and risks to family members
- Discuss animal isolation, why, how and how long
- Train everyone to detect health problems in livestock (signs, performance, etc.), and explain major disease concerns
- Discuss and evaluate animal movement and contacts within the herd and how contaminated feeds can contribute to disease
- Encourage employee communication of potential problems and provide time for good observation and reporting
- Watch for new disease opportunities and implement barriers to prevent them
- Control visitor activity, outside vehicle traffic, and follow sound rules for your vehicles for transporting animals
- Watch over low control areas (pastures, water, roadside pens, fencelines, etc.)



#### 3. Health surveillance and good herd records

- Keep performance and health data (gain, condition score, carcass data, sickness, deaths)
- Track animal movements (ages, classes, pastures, lots, groups)
- Maintain a visitor log if needed (large operations, seedstock, etc.)

**Sample Herd Immunization Schedule**

<u>Class of Animal</u>	<u>Disease</u>	<u>Vaccine</u>	<u>Route</u>	<u>Time/Age</u>	<u>Booster</u>
eg – Calves	Clostridial	7-way	SQ	Branding	Weaning
Heifers					
Cows					
Bulls					

#### 4. Maintain a herd immunization schedule (see example on right)

#### 5. Evaluation of plan, document failures, and future planning

- Re-evaluate biosecurity program at least annually, more often if possible
- Discuss problem areas where actions, procedures, or precautions failed
- Review vaccination schedule, disease occurrence and external/internal parasite program
- Current use of products, updated recommendations, new information



**Farm/Ranch Name:** \_\_\_\_\_

**Disease Concerns** \_\_\_\_\_

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**Risk Factors** \_\_\_\_\_

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**Management Actions** \_\_\_\_\_

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**Monitoring Results** \_\_\_\_\_

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Supported by the USDA-CSREES-Higher Education Grant 2002-38411-12089

Veterinarian: \_\_\_\_\_