

## Cattle Biosecurity

The purpose of “biosecurity” is to establish a prevention barrier to disease. Essentially it is like being a bodyguard to prevent disease from entering/crossing the fence. The only reason for establishing increasing levels of biosecurity is to control disease. Each increase in biosecurity level requires an equivalent increase in management decisions and activities.

If you already have a disease that you want to eliminate from your herd, you will have to go to a greater level of biosecurity for a longer period of time. Once you have achieved that level of biosecurity, then you would have to undergo a testing and eradication scheme within your herd.

If you want to keep a disease out, you have to go to the level of biosecurity that will prevent the disease from gaining possible entry into/onto your farm.

Example 1: Shipping fever	Should be at least level 1
Example 2: Johnes	Should be at least level 2C
Example 3: Salmonella/Mycoplasma	Should be at least level 4
Example 4: Foot and Mouth	Should be at least level 5

In general, to achieve a higher level of biosecurity, you will have to adopt the restrictions and precautions of the lesser (preceding) levels as you progress to the next level, even if it is for a temporary time period.

### Levels of Biosecurity

0) No precautions or restrictions. Animals and people free to move and have contact with other livestock.

- A) Vaccination program instituted (for Brucellosis, Black Leg, Lepto, etc.).
- B) Establish a sick isolation pen physically separate from rest of herd.
  - 1) Separation barrier with quarantine facilities. Complete identification of each animal on farm. Establish a quarantine facility where any purchases, additions, animals returning from livestock shows are kept for two to three weeks before adding to rest of herd. Retesting for unwanted/undesirable diseases. Quarantine facility should be physically separated from the rest of the livestock and the sick pen by a fenced barrier strip so that there is no physical contact with drainage of water or waste. An individual that either does not have access to the rest of the livestock or as the last activity before retiring for the day should provide care in the quarantine facility. No equipment used on quarantine animals should have contact with other animals without cleaning and disinfecting. Necropsy all unknown causes of death. Bury dead animals so that there is no physical contact with fluids or excretions. Clean and disinfect equipment used for burial prior to other use.
  - 2) Semi-closed herd established with all replacements added only from herds of equal or preferably higher health status into a quarantine facility for two to three weeks (or longer) before contact with the herd. Institute testing for any specific diseases to be excluded/eliminated. All livestock transportation vehicles cleaned and disinfected prior to and after each use. Identification and record system of health status that identifies offspring to at least the mother. Double fence property to prevent contact with neighbors.
    - 2A) Additions by whole herd purchasing of animal of equal or greater health status.

- 2B) Only bulls purchased from herds of equal or greater health status.
- 2C) Manure/litter disposal should follow a management plan to prevent contact with pregnant animals and babies. Management restrictions to control contact of animals of different ages and reproductive status. Restrictions on usage and source of colostrums. Maintain same minimum health requirements for all embryo donors/recipients. Remove all known infected animals. Institute fly/insect control.
- 3) Closed herd maintained, with replacements raised on the farm. Only allow semen for artificial insemination from reputable sources with equivalent of higher health status.
  - 3A) Address wildlife access issues by appropriate fencing.
- 4) Strict access control to farm. No one on the farm without disinfected rubber boots or disposable boots, clean coveralls (provided by farm) or disposable coveralls. All instruments, or other material brought on to farm, must be washed or disinfected. Recommend a logbook to record every entry and visitor to farm with date, time on, time off and purpose of visit. Strict control of feed sources and delivery. All incoming vehicles should be restricted from areas where they might have contact with livestock. No contact/access of meter readers and postal/parcel deliveries with herd. Feed bins covered. Bird, rodent and pest controls implemented.
- 5) Total restriction of farm access. Restrict the number of family and employees with access to animals to the minimum required to feed and care for animals; only those individuals can have access to the animals at any time. No outside visits by owner, employees or members of their families to any other farms or areas where livestock might be. Total control of feed sources.