

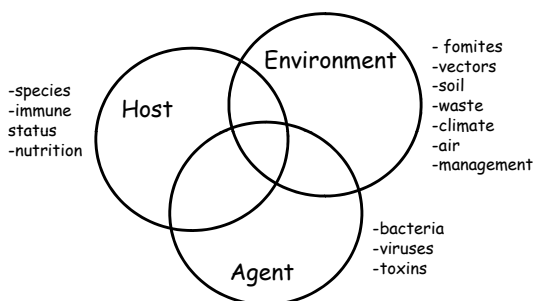
Cattle Biosecurity Programs

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Cattle Industry Biosecurity

- Rules and procedures implemented by a cattle operation to control potential vectors of disease transmission.
 - isolation
 - disease status - monitor, vaccinate
 - pest control
 - controlled access
 - feed source control
 - dead animal disposal

Germes don't cause disease: Disease is the result of complex interactions



Therefore, we can intervene at many points

What is Biosecurity?

A program designed to stop the transmission of disease-causing agents

How do disease agents spread from farm to farm?

- Diseased cattle or healthy cattle incubating disease
- Healthy cattle introduced to carrier cattle
- Vehicles, clothing, shoes of visitors or employees
- Carcasses of dead animals not disposed of properly
- Contaminated feedstuffs
- Impure water
- Manure handling or aerosolized manure and dust
- Non-livestock (horses, dogs, cats, wildlife, birds, insects, rodents)

There is no standardized biosecurity plan in the beef industry today!



If a plan exists for an operation, it is typically unique for that operation.

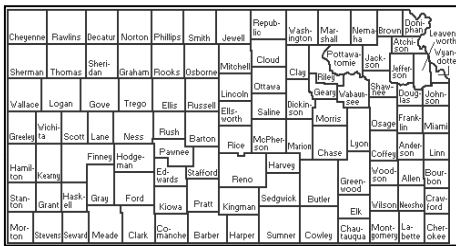
Risk

Combination of the probability of something happening and the consequences should it happen



Outbreak in UK in 2001 over \$ 20 billion

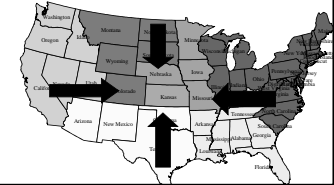
Kansas has a herd at risk!!!



Our beef producers engage in management practices that increase the risk of introducing disease.

Factors increasing risk

- ◆ Import cattle from all over United States
- ◆ Failure to quarantine imported cattle
- ◆ Semi-Communal grazing



How can we reduce risk?

- Increasing vaccination frequency and diversity
- Animal quarantine
- Testing of new animals
- Periodic resident herd monitoring
- Educational programs
- Development of biosecurity plans



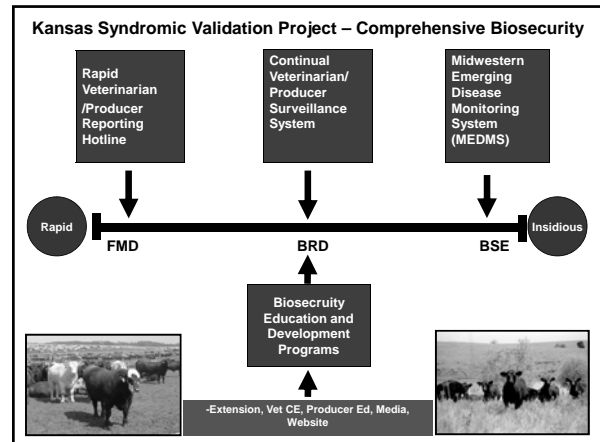
A good biosecurity plan is the cheapest, most effective means of disease control available

- ◆ no amount of vaccines or medicines can compensate for it
- ◆ Allows a producer to pinpoint the cause
- ◆ Can take immediate corrective action
- ◆ Minimize economic losses to the operation



Benefits of a state-wide biosecurity plan

- Booster consumer confidence in meat and meat products
- Maintain export markets
- Decrease economic losses associated with an epizootic disease outbreak



Unique aspects of monitoring disease in livestock

- 2 levels of medical intervention:
 - primary = producer
 - secondary = veterinarian
- Risk varies with time on feed (feedlot)
- Ancillary diagnostics not routine
- Morbidity is described at the group (not individual animal) level
- Often cattle are raised on consignment - owners don't want to "publicize" disease outbreaks
- Variable levels of health monitoring / recording systems already in place

Two-tiered approach to monitoring cattle disease

- **Producer level**
 - underlying rates and variability of disease symptoms
 - "real time" reporting of disease occurrence
- **Veterinarian level**
 - monitoring of disease syndromes
 - unusual syndromes, morbidity / mortality not responsive to usual protocols