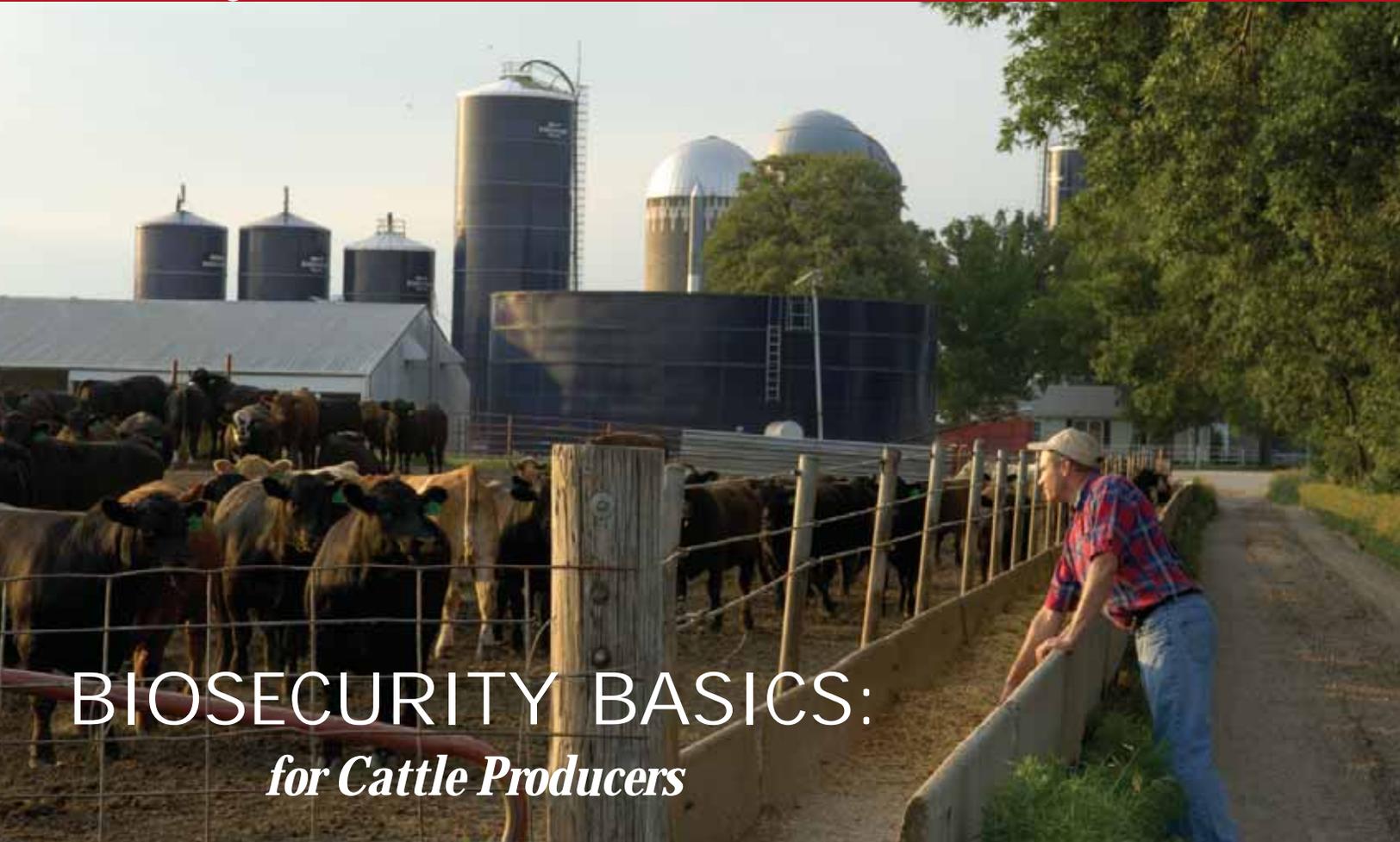


**BEEF**

Biosecurity

• • • A Publication from the Iowa Beef Industry Council • • •



BIOSECURITY BASICS: *for Cattle Producers*

The possibility of agroterrorism attacks on the U.S. livestock industry, including the introduction of a foreign animal disease, is real. Iowa's beef producers need to keep informed about agroterrorism and how to implement biosecurity measures into their operations to prevent the spread of disease. These same measures will also protect the livestock on farms from more common animal diseases that cost producers dearly each year.

Biosecurity is defined as an infectious disease control program that will prevent or limit the introduction of new diseases on the farm, as well as limit or prevent the spread of disease within the farming opera-

tion. Biosecurity encompasses many different on-the-farm components. Cattle health, visitors, vehicle traffic, receiving replacement cattle, feedstuffs, animal identification and rendering practices all have a role in a biosecurity plan.

Agroterrorism needs to be taken seriously by Iowa's beef producers. Agroterrorism is not about killing animals, it's about crippling an economy. For example, the beef industry has a significant impact on Iowa's economy with 2005 sales of cattle and calves totaling \$2.13 billion. Cattle are raised in each of Iowa's 99 counties and approximately 40,000 jobs and \$5.1 billion of total economic activity is generated by Iowa's beef

industry. The thought of losing this industry to an agroterrorism event should provide enough incentive for every beef producer across the state to implement a biosecurity plan on their operation.

Agroterrorism can be any threat directed anywhere in the food chain. It could involve livestock, crops or food products. In other words, anywhere from farm to fork could be targeted. Intentionally introducing a foreign animal disease could cripple the economy, induce fear and panic among consumers, close export markets, or cause disease and death in animals and humans.



Funded by the Beef Checkoff

Intentionally introducing a foreign animal disease into the U.S. would not be terribly difficult, according to officials at the Department of Homeland Security. It's therefore very important for producers, veterinarians and others involved in the field of agriculture to become familiar with the issues surrounding agroterrorism. The next step is to then develop and implement a biosecurity plan on the farm. Heightened awareness of agroterrorism and biosecurity within the livestock industry, particularly at the producer level, will benefit the beef industry by protecting the health of the beef herd.

Biosecurity management practices are designed to prevent the spread and movement of infectious diseases onto the operation. The goal of a biosecurity plan is to minimize the movement of biologic organisms and their vectors (dogs, cats, rodents, birds, etc) onto and within your cattle operation. While developing and implementing biosecurity is difficult, it is the cheapest,

most effective means of disease control available, and no disease prevention program will work without it.

Infectious diseases can be spread between operations by:

- ▽ The introduction of diseased cattle or healthy cattle incubating the disease.
- ▽ The introduction of healthy cattle that have recovered from disease but are now carriers.
- ▽ Vehicles, equipment, clothing and shoes

of visitors or employees who move between herds.

- ▽ Contact with inanimate objects contaminated with disease organisms.
- ▽ Carcasses of dead cattle that have not been disposed of properly.
- ▽ Feedstuffs, especially high risk feedstuffs, which could be contaminated with feces.
- ▽ Manure handling equipment.
- ▽ Exposure to horses, dogs, cats, wildlife,



Biosecurity Practices/Herd Health Program Protocol for Controlling Disease

- ⊗ Vaccinate the herd against all endemic diseases.
- ⊗ Use low stress management practices during movement and processing.
- ⊗ Isolate all sick animals- designate a hospital pen.
- ⊗ Work from younger or healthier animals to older higher risk animals.
- ⊗ Maintain a closed herd, if possible.
- ⊗ Know the health history of incoming animals.
- ⊗ Purchase feed from reputable sources.
- ⊗ Minimize fence line contact with neighboring animals.
- ⊗ Do not place cattle of different ages in the same pen.
- ⊗ Keep records of all disease occurrences and treatments.
- ⊗ Limit access to your farm.
- ⊗ Maintain fences to keep your animals in and others out.
- ⊗ Minimize visitors and traffic on your farm.
- ⊗ Post signs at the farm entrance to inform visitors of procedures to follow.
- ⊗ Educate yourself and employees to recognize and report diseases.
- ⊗ Maintain a written biosecurity plan and update it regularly.
- ⊗ Prevent off-farm vehicles from driving in areas where animals travel.
- ⊗ Individually identify every animal.
- ⊗ Monitor and inspect animals daily for signs of illness.
- ⊗ Clean equipment, boots and change clothing between animal groups with different health status.
- ⊗ Promptly euthanize animals that are not going to recover.
- ⊗ Have your vet necropsy animals that die from unknown causes.
- ⊗ Promptly remove dead animals from your operation.
- ⊗ Place animal delivery and load-out facilities on the perimeter of your farm.



Have a biosecurity

Plan

A biosecurity plan has three major components. They are isolation, traffic control and sanitation. When effectively managed, these components meet the principle biosecurity objectives of preventing or minimizing cross contamination of body fluids (feces and urine) between animals, animals to feed and animals to equipment.

Isolation prevents contact between animals within a controlled environment. The most important step in disease control is to minimize commingling and movement of cattle. This includes isolation of new purchases for

at least three weeks as well as commingling between established groups of cattle.

Always isolate sick cattle and return them to their original group when they've recovered. Clean and disinfect facilities appropriately between groups. It also means isolating

higher risk cattle, like purchased feedlot cattle, from lower risk cattle, like the breeding herd and young calves. Contact can occur through the fence, same handling facilities, or drainage from the feedlot through the pasture.

Traffic control includes traffic and visitors onto your operation and traffic patterns within your operation. It is important to understand that traffic includes more than vehicles. All animals including dogs, cats, wildlife, horses, birds, rodents, and people must be considered. People spread contami-

nated material directly by boots, shoes, hands and clothing. Disease can be spread indirectly by truck tires, farm machinery, hair clippers and other equipment passing between farms.

Sanitation is the third component of a biosecurity plan. Beware of using instruments and equipment on healthy animals following their use on sick or infected animals. Avoid using common syringes and needles for vaccinating, blood testing or administering animal health products.

Isolate sick animals, especially animals with unfamiliar symptoms or those that don't get better with the usual treatment.

Improving an animal's disease resistance is at the heart of disease prevention and herd health programs and must be considered in the standard operating pro-

cedures of all livestock production management. However, improving disease resistance is not possible for many of the diseases that can affect livestock health and production. Therefore an understanding of biosecurity basics is essential for a properly designed disease resistance health program.

A commitment to a biosecurity plan is a vital step toward control of infectious disease. Keeping pathogens out of a herd improves production efficiency, lowers costs and reduces risks to family and employees.

Why is biosecurity Important?

A biosecurity program is like an insurance policy for the health and productivity of the herd. It will not be free. Producers must make decisions about their "risk tolerance level" based on the chances of a disease occurring and the expected economic losses from the disease. Based on this, producers can implement the appropriate level of risk management.

Though there is no "one size fits all" program for biosecurity, there are tools available to control many of the infectious diseases jeopardizing cattle operations. These tools can be adapted to the individual objectives for each herd and can be implemented successfully. However, there must be planning, commitment and education of all personnel throughout the operation to attain the goals set for an effective infectious disease control (biosecurity) program. With the stakes so high, biosecurity should be a very high priority in day-to-day management decisions.

Producer-directed and consumer-focused, the Iowa Beef Industry Council is funded by the \$1-per-head beef checkoff.

For information contact:
Brian Waddingham

Iowa Beef Industry Council
Director of Industry Relations
P.O. Box 451

Ames, IA 50010

Phone: 515-296-2305

Fax: 515-296-4873

E-mail: brian@iabeef.org

www.iabeef.org



Funded by the Beef Checkoff



Score the biosecurity importance of each item below using a 1 to 5 point scale. (With 1 being never implemented or never being practiced on your farm, to 5 being fully implemented or always being practiced on your farm).

FARM PERIMETER

1. ____ Work to minimize visitors and traffic on the farm.
2. ____ Limit contact between your animals and others that may present a risk of disease.
3. ____ Posted signs at the farm entrance to inform visitors to stay off your farm.
4. ____ Animal load-out and delivery facilities located at the perimeter of the farm.
5. ____ The sharing of equipment and vehicles between farms is restricted.
6. ____ Access to cattle pens, feed mixing and storage area and treatment area are limited to employees only.
2. ____ Cattle are purchased from limited sources with known and trusted herd health programs.
3. ____ Copies of vaccination and treatment records are requested for all purchased animals.
4. ____ After treating a sick animal, the equipment is cleaned and disinfected before treating the next animal.
5. ____ Animals that are not going to recover are promptly euthanized.
6. ____ All animals that die are examined by a veterinarian.
7. ____ Dead animals are promptly removed and disposed of. (e.g. render, bury, compost, burn, etc.) according to local and state laws.
8. ____ Dead animal pickup area is located off the farm.
4. ____ Feedstuffs are stored in a separate building from farm chemicals.
5. ____ Facilities prevent cross contamination of water, manure, feed or equipment between groups.



RECORD KEEPING

1. ____ Thorough and accurate records of animal movement are maintained.
2. ____ Vaccination and treatment protocols are reviewed with the veterinarian at least twice per year.
3. ____ Some form of a cattle identification system is in place.
4. ____ Meet all Beef Quality Assurance Good Management Practices & Guidelines.
5. ____ A biosecurity plan has been developed with input from the veterinarian.

ANIMAL HEALTH

1. ____ Livestock that have recently been acquired or have returned to the farm are quarantined for a minimum of 21 days.

WILDLIFE/OTHER ANIMALS

1. ____ Livestock are prevented from having contact with free roaming animals (e.g. dogs, cats, wildlife, etc.)
2. ____ A rodent control program is maintained.

HANDLING OF FEEDSTUFFS

1. ____ Feed deliveries are monitored to prevent the inclusion of ruminant animal proteins into cattle rations.
2. ____ Equipment is dedicated to only the handling of feedstuffs and not the handling of manure.
3. ____ Feedstuffs are used at a rate to minimize spoilage.

Score Yourself

How does your biosecurity plan rate? Add up all the points to find out your score and corresponding grade for your overall farm biosecurity preparedness.

130-120 points

A...Congratulations. You have a plan in place.

119-110 points

B...You've started thinking about biosecurity, now it's time to act.

109-95 points

C...Implement some new biosecurity measures to raise your grade.

94-80 points

D...Time to reevaluate your biosecurity protocol.

79 points and below

F...Call your vet and ask for help on developing a biosecurity plan.

