



## Biosecurity for Dairy Farm Workers

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Dairy farm workers provide the first line of defense in keeping dairy cows healthy and content. An important part of those efforts is biosecurity, defined as managing the herd to prevent the introduction and spread of infectious diseases. Biosecurity includes all of the steps taken to prevent infectious diseases from affecting a herd of animals and the people who care for them.

There are four basic goals for any farm's biosecurity program:

- 1) Prevent the spread of disease, both onto the farm and between animals on the farm,
- 2) Improve animal welfare by keeping the animals healthy,
- 3) Identify the disease early if it gets on the farm, and
- 4) Protect the safety of the food supply.

To accomplish these goals you must understand how diseases spread. Diseases spread both directly and indirectly. *Direct* transfer of disease occurs when one animal gives it to another. *Indirect* transfer happens when some type of equipment or other object, contaminated with the disease-causing organism, carries the disease to an animal. Some examples of disease carrying objects include: boots, coveralls, needles, syringes, obstetrical chains, skid steers, tractors, and loaders.



### Your Role ... Prevent the Spread of Disease

Keep all equipment clean to prevent the spread of disease. This means not only the trucks, tractors, veterinary tools, etc. on the farm, but also your own boots and clothes.

Think about the many vehicles that go in and out of dairies daily. They can carry disease from farm-to-farm if not cleaned between deliveries. Help enforce farm rules that restrict access to certain areas to reduce the risk. Farm equipment, such as skid steers and loaders, tracks manure from site-to-site on the farm.

Also sanitize small equipment such as bolus guns, hoof trimming tools, and calving chains between animals. Start by scrubbing all the tools with a brush. Once they are clean of dirt and debris, disinfect them. Residual dirt left on tools makes disinfectants ineffective.

Wear clean clothes to work each day. If you work at more than one farm, make sure you have clean clothes for each farm. When washing your clothes, use the hottest temperature possible. Tumble dry. Make sure there is NO dirt on boots. Disinfect your boots between pens, particularly after working in a "sick" pen. Work with youngest animals first as they are most susceptible to disease. To keep from taking some disease organism off the farm, always wash your boots before you leave the farm. Better yet, leave your boots at the farm and wear other shoes home. Don't use the same boots at home that you wear at work.



Some common disinfectants include Nolvasan solution, household bleach (1 part bleach: 10 parts water), and chlorhexidine. Follow directions from your herd manager or veterinarian when mixing the disinfectant.

To protect yourself and the animals, wash your hands frequently. This means before you start work, before you eat, before treating an animal, and after you finish work. It takes at least 20 seconds to properly wash your hands.

To be effective, hand washing requires six distinct steps: 1) wet the hands, preferably with warm water, 2) apply soap, 3) wash hands for at least 20 seconds paying particular attention to cracks in the skin and nails, 4) rinse thoroughly, 5) dry with a clean towel, and 6) turn off the water with the towel.

Wear gloves during milking or when treating animals to limit the spread of bacteria from cow to cow, cow to equipment to cow, or even from cow to worker. Bare hands provide many cracks and crevices for bacteria to hide. Gloves create a much smoother surface that is easier to clean. Gloved hands can carry bacteria, so they too require frequent washing or changing.

Be aware of visitors. Ask visitors to report to the office or to the owner. If you see someone you don't recognize, TELL the boss,

For security, lock gates and doors as directed. Areas of restricted access include: drug storage rooms/refrigerators, bulk tank area, feed storage, water sources, and hazardous chemicals.

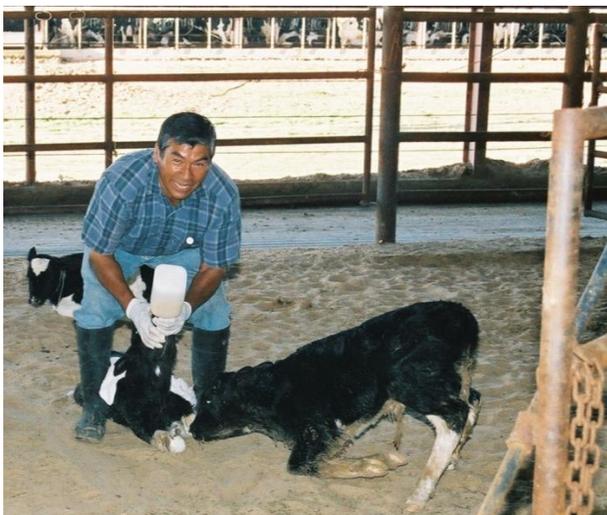
Clean out feed storage areas before unloading new feed. Check the corners and bottom of walls and bins for moldy feed. Clean up spilled feed to help control the rodent population. Destroy rancid and wet feed that could cause animals to become ill.

Always, follow set procedures when cleaning trailers, tractors, etc.

- Start cleaning by removing loose dirt, hay, manure, etc.
- When possible, remove mats as they trap debris
- Start at the front ceiling and work to the back
  - Work your way down from the top to the bottom
  - Pay particular attention to wheel wells and under carriage.
- Don't forget the gates in trailers and tail gates in pick-ups
- Leave disinfectant on for 20-30 minutes before rinsing
- In trucks, clean and disinfect pedals and mats as well
- After cleaning allow the vehicle to dry and put away supplies

Repair fences immediately. This helps keep wildlife and other people's animals out. Both are a source of disease causing organisms.

Remember, report sick animals to your supervisor immediately. Also tell them about suspicious activity or people and any unusual events.



## **Your Job ... Improve Animal Welfare**

Although specific procedures for providing the best animal care vary for different areas of the dairy, always provide a clean, low stress environment. Stress reduces an animal's ability to fight disease. Although vaccination programs differ, they help keep animals healthy. Whether you are moving animals to and from the parlor or caring for baby calves, always handle animals gently and calmly.

If you are responsible for caring for newborn calves: 1) provide clean, dry housing for the calf, 2)

keep calves separated from older animals, and 3) work with them before older animals.

Feed every newborn calf colostrum within four hours of birth. The antibodies in colostrum protect the calf from disease. Dip the navel in iodine to prevent disease causing organisms from entering the calf.

Vaccination programs prevent certain diseases caused by viruses and bacteria. Follow herd owner and veterinarian guidelines for when to give each vaccine. To insure success, handle vaccines properly. Note the expiration date. If it has passed, don't use the vaccine. Store the vaccine according to the directions. Freezing can inactivate some vaccines. Too high a temperature also inactivates them. Don't ever leave vaccine on the dash of a truck. Even in the winter it gets too hot or can freeze at night.

Administer the vaccine correctly. That includes giving the right amount or dose, by the correct route (intramuscular or subcutaneous) in the correct location. Once opened vaccines need to be used immediately. When done, dispose of the needles and discard unused vaccine at end of day. Put needles in a puncture-proof container.

### **Your Job... Identify Disease Early**

Although you may not be on the dairy's "health" team, observe the animal's where you work. If you spot abnormal behavior or sick animals, report them to the herdsman, manager or veterinarian immediately.

Most of the time the herdsman, veterinarian or owner will recognize the problem. When the symptoms aren't typical, they may need to call in outside experts.

International travel increases the potential to bring in foreign animal diseases. Early detection of these diseases can prevent their spread and minimize the impact on the individual herd as well as on other cattle in the country.

One example of a foreign animal disease is Foot and Mouth Disease. It was last reported in the United States in 1929, Canada in 1952 and Mexico in 1954. It is still found in South America and parts of Asia, Europe, and Africa.

Foot and Mouth Disease impacts cows, sheep, pigs, deer and other cloven footed animals. It is a very contagious virus that causes fever and blister-like lesions on teats, tongue, lips and between hooves. Cows produce less milk as well.

When working, look at the udder and teats. Does a cow have mastitis? Are there unusual lesions on the teats or on the feet? Are the cows walking "funny"?

Foot and Mouth Disease can be confused with other diseases that we do have in this country such as vesicular stomatitis, bovine viral diarrhea, foot rot or blue tongue. Do NOT panic if you don't recognize something; tell the owner, manager, or veterinarian so they can diagnose the problem.

Everyone in agriculture as well as our border security must work together to prevent the reintroduction of Foot and Mouth Disease. Always look for signs of disease in our animals. Early identification is the key to preventing the spread of any disease.

### **Your Job ... Protect the Food Supply**

Dairy farm workers harvest food. Keeping cows healthy helps insure that an abundant supply is produced. But when cows get sick, dairy workers must take steps to insure the quality and safety of the food supply.

Record diseases and treatments for each cow. At a minimum, include the date, cow identification, diagnosis, any treatment, and withdrawal times on the farm record.

The records you create help:

- identify new problems



- assist the herd owner determine what may be the cause of an illness or disorder
- can be used to evaluate whether treatments are working
- track cows that need to be rechecked

When antibiotics are used in treatments, mark the cow, follow discard protocols for milk, and note meat withdrawal time in the record.

Again, if you see something unusual – report it! Whether it is be a lesion, suspicious activity, unknown visitor, or abnormal animal behavior doesn't matter.

When you leave work remember to protect your animal's at home from disease as well. Change your clothes before working with your animals. And keep a separate pair of boots for when you work at home.

If you travel out of the U.S., realize you may need to stay off farms when you return for a period of time. Protecting the food supply means you don't bring something to work from your travels. For current animal disease concerns when traveling call 1-866-SAFGUARD.

### **Practicing Biosecurity Is Your Responsibility!**

By practicing basic biosecurity steps, you can help keep the animals on the farm where you work healthy. You also reduce the risk of taking diseases home to your animals. You minimize the chance that you or your family get sick. And finally you help keep the dairy producer in business so you can keep your job!

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