



Photo by Joy Hendrix.

## Steps to halt zoonotic disease transmission

Aaron M. Yoder for *Progressive Cattle*

### AT A GLANCE

Some simple safety practices can help prevent the spread of zoonotic disease to feedlot workers.

Zoonotic diseases – also known as zoonoses – are caused by germs that spread between animals and people. No matter where people come into contact with animals, harmful germs are sometimes carried by animals.

The germs may be in the form of viruses, bacteria, parasites and fungi. They can cause many different types of illness in both animals and people. Even animals

that appear to be healthy may harbor these germs. The resulting illness may be mild or serious, and in some cases leads to death.

In the U.S. and around the world, zoonotic diseases are very common. Scientists estimate that more than six of every 10 known infectious diseases in people can be spread from animals. Additionally, three of every four new or emerging infectious diseases in people come from animals.

#### Protecting feedyard workers

Understanding how these diseases are transmitted and taking simple steps to avoid transmission will greatly benefit feedyard workers.

Farmers, ranchers, veterinarians and anyone coming into contact

with animals is susceptible to zoonotic disease. Those diseases include brucellosis, leptospirosis, listeria, Q fever and toxoplasmosis. They can be transmitted in various ways, including close contact with an infected animal or by touching an area or surface that was touched by an infected animal.

#### Just like the flu

Symptoms of zoonotic disease may mimic flu-like symptoms, making the disease difficult to detect and diagnose. For instance, brucellosis symptoms may include fever, back pain, joint pain, poor appetite and weight loss. Leptospirosis may present as high fever, headache, chills, muscle aches, vomiting, jaundice, abdominal pain



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and diarrhea. Most people infected with *Toxoplasma gondii* don't have symptoms; some may exhibit flu-like symptoms.

#### Transmission and prevention

Animals can transmit these diseases through fluids or tissue. Transmission may also occur through contact with a person's damaged skin, an abrasion or a wound.

One primary preventive step

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**Educating and training workers about potential zoonotic diseases and making sure they understand and practice the steps to reduce exposure will help keep people and animals safe in the feedyard.**

is the use of proper personal protective equipment (PPE) when working with animals. This includes goggles, gloves, aprons, footwear and respirators in dusty conditions.

An additional and key precaution is proper handwashing.

Handwashing is critically important to help prevent the spread of many diseases. Anytime a person blows their nose, coughs or sneezes into their hands, germs are deposited. Unwashed hands after contact with ill animals can transmit disease when you touch your face or your eyes, your nose or your mouth, or eat while your hands are dirty.

According to the Centers for Disease Control and Prevention (CDC), keeping hands clean can prevent one in three diarrheal illnesses and one in five respiratory infections such as colds or flu.

The most effective way to wash hands is with the use of soap and water. Wet your hands with clean, running water (either warm or cold), turn off the tap and apply soap. Lather the hands by rubbing them together with the soap. Lather the back of the hands, between fingers and under fingernails. Scrub for at least 20 seconds. Rinse your hands under

clean, running water, then dry using a clean towel or air dryer.

If soap isn't available, alcohol-based hand sanitizer will work. Check the product label to determine if the sanitizer contains at least 60% alcohol.

Sanitizers can reduce the number of germs on hands in many circumstances, but they don't get rid of all types of germs. They may not be as effective when hands are visibly dirty or greasy. Hand sanitizers may not remove harmful chemicals like pesticides from hands.

When using a hand sanitizer, apply the product to the palm of one hand and cover all the surfaces of the hands. Rub hands and fingers together until they're dry (about 20 seconds).

Direct contact is the primary way zoonotic diseases can be contracted from animals. That includes contact with contaminated bedding or materials, oral ingestion or inhalation of aerosolized fluids. The following practices can help protect from disease transmission:

- Handle animals safely to avoid kicks, goring, trampling and crush injuries.
- Don't eat, drink, apply cosmetics or use tobacco products while

handling animals or in animal housing areas.

- Wear gloves when handling ill animals, animal tissues, body fluids and waste. Wash hands after contact with these substances.

- Use dedicated protective clothing (coat or coveralls, shoe covers, boots) when handling animals. These items should be laundered separately from personal clothes, ideally at the animal facility.

- Whenever appropriate, wear respiratory protection.

- Keep animal areas clean and disinfect equipment after using it on animals or in animal areas.

- Be familiar with the animals you work with and be aware of potential zoonotic diseases associated with them.

If a feedlot animal is known to carry an infectious disease, use of a hospital pen to isolate them and keeping the pen area clean and disinfected can help reduce spread of the disease.

Sound management, health protocols and maintaining the facility can help reduce the spread of infectious disease. Affected animals should be isolated and treated as quickly as possible. The hospital pen should be designed for easy cleaning, and all organic material should be removed on a regular basis, followed by disinfectant treatment.

All equipment in the hospital area should be regularly cleaned, including the chute area. Dehorers, hoof knives and

clippers should be disinfected after each use. Clean and disinfect any equipment used on sick animals prior to use on healthy animals. Verify scale accuracy to ensure treatments of an animal are accurate.


A hospital pen should be more comfortable than the home pen. Give the animal plenty of pen and bunk space, keep bedding as clean as possible, and provide shade when possible.

Pen riders, managers, the feedyard veterinarian and hospital crews should utilize an effective communication plan to keep everyone informed of the animal's status.

Make training hospital crews a priority to ensure they understand and practice sound animal-handling practices. If possible, consider providing on-site laundry facilities for employees. Insist that workers wash their hands before and after working with sick animals and wear disposable protective plastic or rubber gloves when dealing with animal fluids or tissues.

Other precautions include keeping visitor and service vehicles from driving over feed delivery or manure-handling routes. Use only clean, well-bedded trucks to move livestock to avoid introducing diseases and avoid injuries during transport. Thoroughly wash and disinfect the inside, outside and tires of livestock hauling trucks or other implements.

Educating and training workers about potential zoonotic diseases and making sure they understand and practice the steps to reduce exposure will help keep people and animals safe in the feedyard.



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