Biosecurity Basics: Vehicles and Equipment

Biosecurity on your operation is essential to keeping your animals healthy and starts with a few key steps. This presentation will address one of these biosecurity basics for small-scale producers – the handling of vehicles and equipment.

Animal diseases can be spread by contaminated vehicles, equipment, or machinery. To protect your animals, it is important to determine the movement risks for your operation, and establish biosecurity actions to minimize these risk. This includes actions such as limiting access to animal areas, establishing a line of separation, and cleaning and disinfection. A printable PDF containing the tips presented here is available for free download on the CFSPH website.

Raising animals requires the movement of vehicles and equipment on and off your property. However, animal diseases can be spread by these actions when precautions are not taken.

One of the first steps to reduce the risk of disease entry or spread on your operation from vehicle and equipment movement, is to review the movement of vehicles and equipment onto, off of, or within your operation. To help you with your assessment of movement risks for your operation, a checklist is available at cfsph.iastate.edu/biosecurity.

It is important consider the vehicles transporting animals or animal products, including dead animal removal, as well as deliveries to the farm, people – including employees or visitors, and other movements such as trash pickup.

Identifying these movement risks can help you determine biosecurity measures needed.

Consider not only the type of vehicle or movement, but also how often it occurs. For example, movements that happen daily or weekly pose a greater risk than movements that happen on a yearly basis. Changing movements, such as deliveries, so they occur less often is one way to reduce risk.

Also consider if vehicles or equipment have been at other locations before coming on to your property. Those that have been to other animal operations or elsewhere, can bring disease when they enter your property.

Some examples include:

Animal delivery trucks or trailers

Milk trucks or egg transport vehicles

Dead animal or manure removal trucks

Feed, bedding, fuel, or propane delivery trucks

Mail or package delivery, drug and supply delivery, school buses

Vehicles that belong to workers, family, friends, or other visitors

Trash or recycling pick up

Groundskeeping items such as skid loaders, mowers, tractors, etc.

A helpful biosecurity action to control and manage the movement of vehicles or equipment on your farm is by setting up a Line of Separation (LOS) – sometimes referred to as a clean-dirty line – as shown by the red line. This line helps to determine the on-farm area – those inside the LOS - from the off-farm risks.

The LOS might include the entire operation (as shown here), or it may just surround the animal housing areas, or it may be something in between. All equipment within the LOS should remain inside the LOS.

Items outside the LOS, such as off-farm vehicles or equipment, should be considered “dirty” or contaminated, and should either not be allowed to cross the LOS or is allowed, must be cleaned and disinfected before crossing the LOS.

You can learn more about setting up an LOS in the Protecting Your Herd or Flock Biosecurity Tip Sheet at cfsph.iastate.edu/biosecurity.

To further protect your livestock from disease risks by vehicles or equipment,

Prevent or limit vehicle access, especially to animal areas, whenever possible.

Provide a designated parking area for personnel and visitors. The parking area should be located outside the LOS and away from animal areas.

Clearly mark allowed points of entry with signs

Plan drive paths so that off-farm vehicles or equipment do not enter into animal areas.

Limit the entry of vehicles used for the removal of dead animals , manure, litter, and compost. These vehicles likely visit other farms and could carry disease. Make every effort to use these services outside the LOS.

Pick up of animals – live or carcasses – should occur away from animal areas, and when possible at the LOS boundary, to provide easy to access, without crossing the LOS.

When access is necessary, such as feed or animal delivery, limit access to only those vehicles or equipment that are essential. Also limit areas where these vehicles or equipment are allowed to go on your farm.

Any vehicles or equipment that have been on other operations before yours, should be cleaned and disinfect before allowing access your operation.

Manure or litter spreaders and other items kept on farm should be stored away from animal areas.

Farm-dedicated equipment and machinery is ideal. Limit the entry of items that are shared with other sites. Any shared items should be cleaned and disinfected before crossing the LOS.

Heavy machinery such as tractors or skid loaders used in animal areas get dirty. When moved, they can spread germs on farm and to other farms. Clean and disinfect before moving to other animal areas.

Limit the sharing of animal transport vehicles (e.g., trailers) and other equipment. If shared, clean and disinfect them between uses.

Using the following checklist, determine areas where you are doing well and others that need to improve.

Can you limit entry of people and vehicles to your farm or ranch?

Are signs posted at the entry points with biosecurity information?

Do you have a parking area for vehicles that is away from animal areas?

Can you limit entry of shared vehicles, machinery and equipment if they are dirty?

If equipment is shared with other animal operations, is it cleaned and disinfected before entering your property?

After answering, pick one or two “No” answers and make an improvement plan.

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