

How Diseases Can Invade an Animal Barn

Equipment

- Glo Germ Powder – <https://www.brevis.com/glitterbug/supplies>
- UV Light– <https://www.brevis.com/glitterbug/supplies>
- Foam animals (any species is fine)
- Animal equipment (any combination of the below and others that you think of)
 - Toy sand shovel, small brush, small broom, plastic cup (feed scoop)
- Tape (masking or duct)
- Paper lunch sack and/or small plastic bucket with lid (used as a feed storage container)

Set-up

1. Decide on the animal species that will be used in the activity. This could be more than 1 species.
2. Use tape to set up the barn. This could be drawing the outline of the barn on the floor with tape, or using chairs or other objects to set up boundaries of the barn off the ground.
 - a. Be sure to include pens or stalls for the animals and other rooms with doors (feed, tack, etc.).
Doors need to be such that youth are able to touch some part of them to simulate opening them.
3. Place the animals in their pen/stall and then place the equipment. “Infect” an animal and/or a piece of equipment with the Glo Germ Powder. Be sure to remember what was originally infected for later.
 - a. This activity can be done multiple times with different original infections. Consider having the barn visitor be the one that brings in the original infection.

Activities

1. Assign youth to a foam animal (number that can play depends on number of foam animals that you have).
2. Have the students simulate everyday activities that they would do with their animals in a barn.
 - a. Feeding
 - b. Exercising
 - c. Cleaning animals and pens/stalls
 - d. Use of equipment (shovels, brooms, feed scoops, brushes, halters, working facilities, etc.)
 - e. Visitors to the barn (veterinarian, feed salesperson, friend, 4-H leader, etc.)
3. After an appropriate amount of time (5-10 minutes), stop the activity and ask the youth to discuss what they have done and where the areas are that they may have potentially spread disease.
4. Use the UV light to see where all the germs have been spread (works best with lights out).
5. Point out what was originally infected and ask the youth to try to determine how it spread.



Reflect

1. What was the original source of disease and how did it spread within your barn?
2. Why did it spread?
3. How easy was it to see the spread of the disease in your barn? Do you see places where the risk of spreading the disease could have been reduced?
4. What do you need to think about to prevent the spread of disease after you bring your animals home from a show or sale?

Apply

1. Why do we need to think about biosecurity with animals?
2. How can we be proactive to reduce the risk of bringing home disease either by animals or people?
3. How does biosecurity relate outside of just animal agriculture?
4. How is animal biosecurity related to human health?

