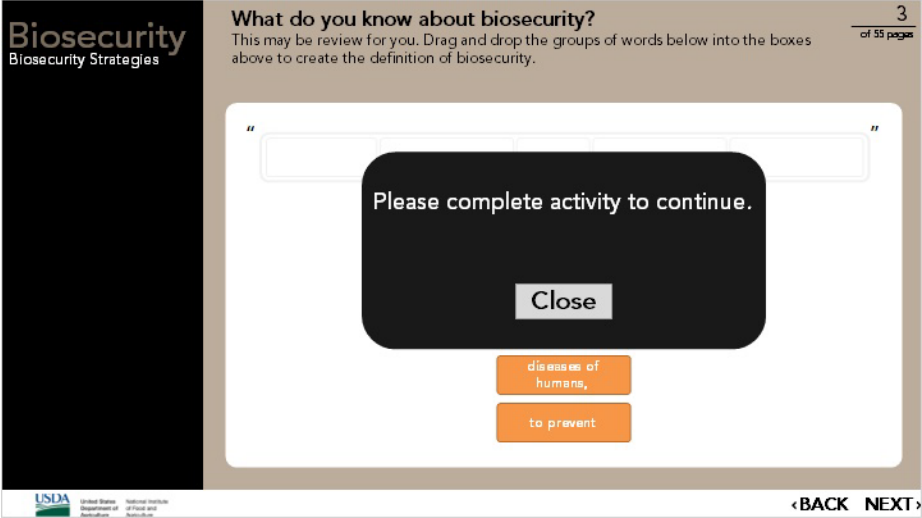
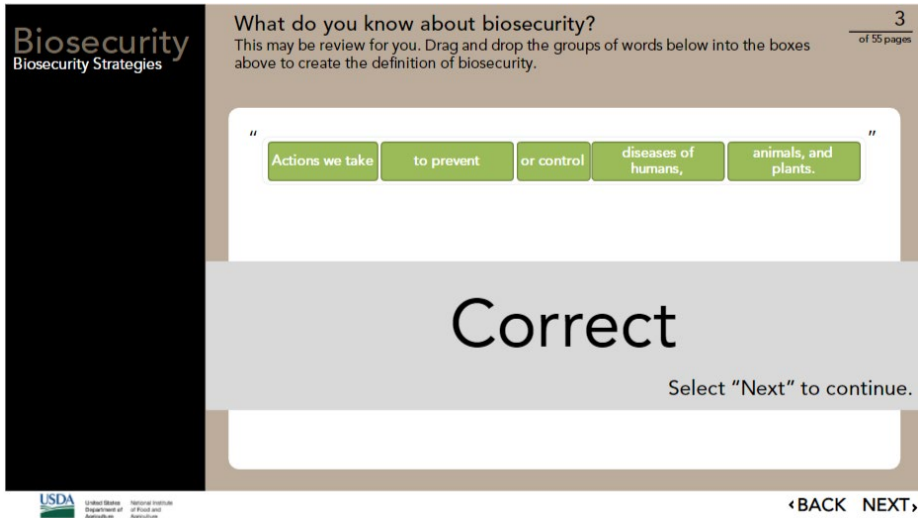
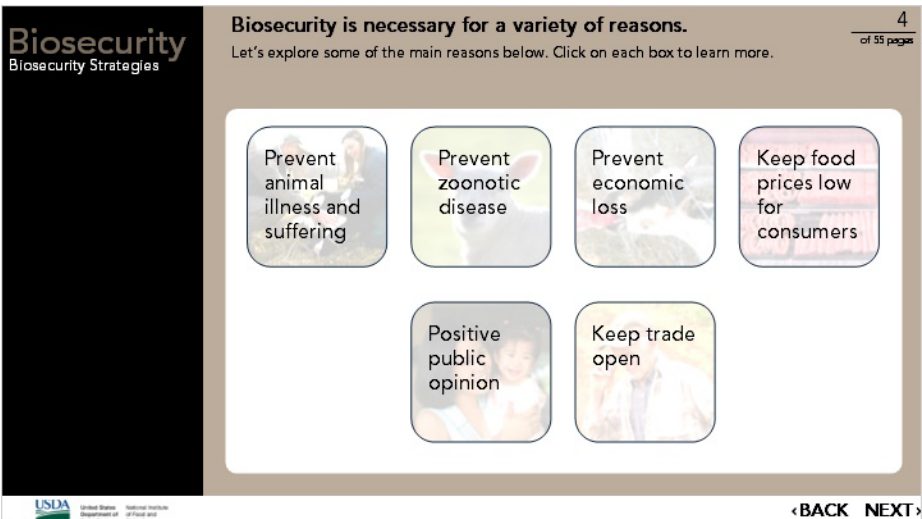


HFHA Biosecurity Learning Module 4 Screenshots - Biosecurity Strategies

Screenshots of all module layers. Each screen is numbered in the order it appears in the module.
Section 2 (separate document) includes accessibility screenshots for participants using screen readers.






1	 <p>1 of 55 pages</p> <p>NEXT ></p>
2	 <p>2 of 55 pages</p> <p>◀ BACK NEXT ▶</p>
3	 <p>3 of 55 pages</p> <p>◀ BACK NEXT ▶</p>

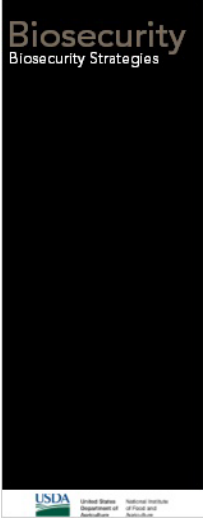

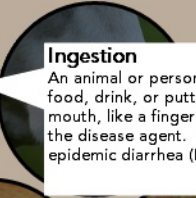
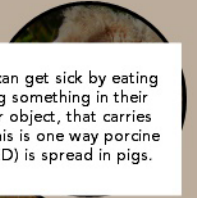

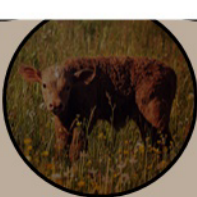
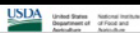
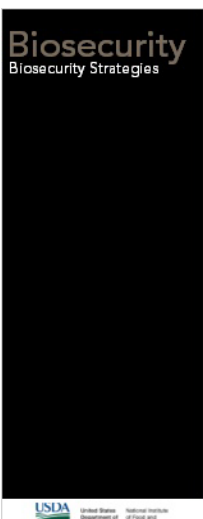

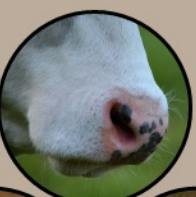

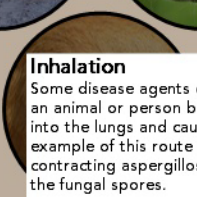
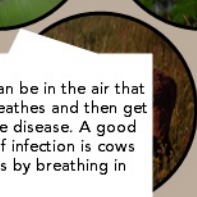

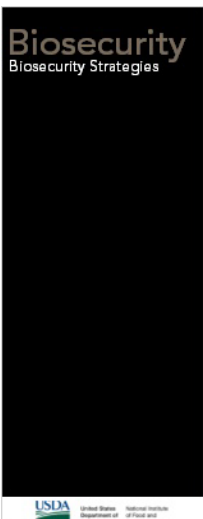
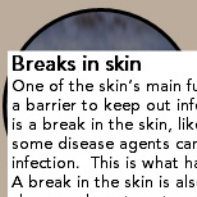
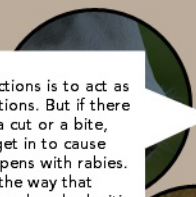

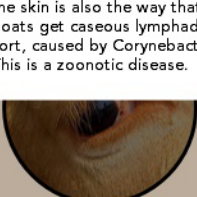
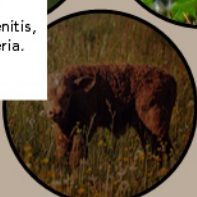

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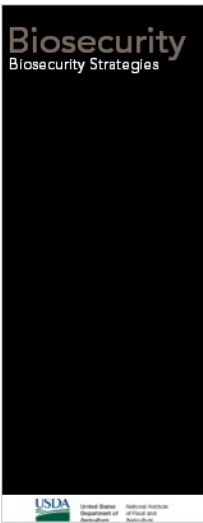
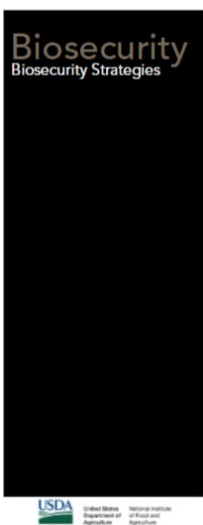
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4	<div> <div> <div>  United States Department of Agriculture </div> <div> National Institute of Food and Agriculture </div> </div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> </div> <div> <h4>Biosecurity is necessary for a variety of reasons.</h4> <p>Let's explore some of the main reasons below. Click on each box to learn more.</p> <div> <div> <div>Prevent animal illness and suffering</div> <div>  <p>*Last week I noticed my lamb had a sore on its mouth. I opened its mouth and saw it had sores inside, too. Before I had a chance to tell my mom or dad, the school bus came and I had to run to catch it. This week, some of my classmates and I have painful sores on our fingers.*</p> </div> <div> <div>Positive public opinion</div> <div>Keep trade open</div> </div> <div> <div>Close this layer</div> <div> <div><BACK</div> <div>NEXT></div> </div> </div> </div> </div> </div></div>
4	<div> <div> <div>  United States Department of Agriculture </div> <div> National Institute of Food and Agriculture </div> </div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> </div> <div> <h4>Biosecurity is necessary for a variety of reasons.</h4> <p>Let's explore some of the main reasons below. Click on each box to learn more.</p> <div> <div> <p>*For added income, my family and I hoped to buy a herd of high-quality registered dairy goats to produce breeding stock and dairy products for sale. We selected the best animals we could find, including a buck with a great pedigree. However, the buck became sick recently and was diagnosed with Scrapie. Now we can't use any of our goat products for human food or have sheep or goats on our farm for many years.*</p> </div> <div> <div>  <div>Keep food prices low for consumers</div> </div> <div> <div>public opinion</div> <div>Keep trade open</div> </div> <div> <div>Close this layer</div> <div> <div><BACK</div> <div>NEXT></div> </div> </div> </div> </div> </div></div>






4	<div> <div> <div>  United States Department of Agriculture </div> <div> National Institute of Food and Agriculture </div> </div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> </div> <div> <h4>Biosecurity is necessary for a variety of reasons.</h4> <p>Let's explore some of the main reasons below. Click on each box to learn more.</p> <div> <div>Prevent animal illness and suffering</div> <div> <p>'Avian Influenza and the Porcine Epidemic Diarrhea virus struck important poultry and pork-producing states in recent years. As an economist, I calculated that pork prices increased 13%, and egg prices rose about 25%. I predict these increases will affect American consumers for the next several years.'</p>  </div> <div>Positive public opinion</div> <div>Keep trade open</div> </div> <div>Close this layer</div> <div> <div>BACK</div> <div>NEXT</div> </div> </div> </div>
4	<div> <div> <div>  United States Department of Agriculture </div> <div> National Institute of Food and Agriculture </div> </div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> </div> <div> <h4>Biosecurity is necessary for a variety of reasons.</h4> <p>Let's explore some of the main reasons below. Click on each box to learn more.</p> <div> <div>Prevent animal illness and suffering</div> <div>Prevent zoonotic disease</div> <div>Prevent economic loss</div> <div>Keep food prices low for consumers</div> </div> <div>  <p>'I can't tell any of these animal diseases apart: BSE; FMD; Avian Influenza; E. coli; listeria? I know some of them can make people seriously sick, and I have to protect my family, so I may just quit buying meat altogether.'</p> </div> <div>Close this layer</div> <div> <div>BACK</div> <div>NEXT</div> </div> </div> </div>
4	<div> <div> <div>  United States Department of Agriculture </div> <div> National Institute of Food and Agriculture </div> </div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> </div> <div> <h4>Biosecurity is necessary for a variety of reasons.</h4> <p>Let's explore some of the main reasons below. Click on each box to learn more.</p> <div> <div>Prevent animal illness and suffering</div> <div>Prevent zoonotic disease</div> <div>Prevent economic loss</div> <div>Keep food prices low for consumers</div> </div> <div> <p>'Hi. My business is selling day-old chicks internationally. Now that highly-pathogenic Avian Influenza has been found on a poultry farm in my state, I can't ship my chicks into my usual markets of Europe or Canada. Because more are hatching every day, and I don't have a way to shelter and feed them, I may have to euthanize them. I sure hope we can contain this outbreak and open up the borders for trade again soon.'</p>  </div> <div>Close this layer</div> <div> <div>BACK</div> <div>NEXT</div> </div> </div> </div>

5	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> </div> <div> <div>Below are some basic concepts of biosecurity. Click on each graphic for a refresher.</div> <div>5 of 55 pages</div> </div> </div> <div> <div> <div>Disease Factors</div> <div> <div>Agent</div> <div>Host</div> <div>Environment</div> </div> </div> <div> <div>Routes of Infection</div> <div> <div>1. Ingestion</div> <div>2. Inhalation</div> <div>3. Breaks in Skin</div> <div>4. In utero</div> <div>5. Mucous Membranes</div> </div> </div> <div> <div>Means of Transmission</div> <div> <div>Direct Contact</div> <div>Indirect Contact</div> </div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> <div> <div>◀BACK</div> <div>NEXT▶</div> </div> </div>
5	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> </div> <div> <div>Below are some basic concepts of biosecurity. Click on each graphic for a refresher.</div> <div>5 of 55 pages</div> </div> </div> <div> <div> <div>Disease Factors</div> <div> <div>Agent</div> <div>Host</div> <div>Environment</div> </div> </div> <div> <div>Routes of Infection</div> <div> <div>2. Inhalation</div> <div>3. Breaks in Skin</div> <div>4. In utero</div> </div> </div> <div> <div>Means of Transmission</div> <div> <div>Direct Contact</div> <div>Indirect Contact</div> </div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> <div> <div>◀BACK</div> <div>NEXT▶</div> </div> </div>
5	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> </div> <div> <div>Disease Factors</div> <div>For disease to happen, we need three factors:</div> <div> <div>Agent</div> <div>Environment</div> <div>Host</div> </div> </div> </div> <div> <div>To find out what happens when these interact with each other, drag and drop the circles so they overlap.</div> <div> <div></div> <div></div> <div></div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> <div> <div>NEXT▶</div> </div> </div>





5	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div> <div>Disease Factors</div> <div>For disease to happen, we need three factors:</div> <div>5 of 55 pages</div> </div> </div> <div> <div>To find out what happens when these interact with each other, drag and drop the circles so they overlap.</div> <div> <div>A disease agent</div> <div> <div>Agent</div> <div>Disease</div> <div>Host</div> <div>Environment</div> </div> <div>A susceptible host</div> </div> <div>The right environment that brings the agent and the host together</div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> <div>NEXT></div> </div> </div>
5	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div> <div>Below are some basic concepts of biosecurity. Click on each graphic for a refresher.</div> <div>5 of 55 pages</div> </div> </div> <div> <div> <div>Disease Factors</div> <div> <div>Agent</div> <div>Disease</div> <div>Host</div> <div>Environment</div> </div> </div> <div> <div>Routes of Infection</div> <div> <div>1. Ingestion</div> <div>2. Inhalation</div> <div>3. Breaks in Skin</div> <div>4. In utero</div> <div>5. Mucous Membranes</div> </div> </div> <div> <div>Means of Transmission</div> <div> <div>Direct Contact</div> <div>Indirect Contact</div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> <div><BACK NEXT></div> </div> </div>
5	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div> <div>Explore the 5 Routes of Infection</div> <div>5 of 55 pages</div> </div> </div> <div> <div>      </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> <div>NEXT</div> </div> </div>

5	<div> <div>  </div> <div> <p>Explore the 5 Routes of Infection</p> <p>5 of 55 pages</p> <div>      </div> <div> <p>Ingestion</p> <p>An animal or person can get sick by eating food, drink, or putting something in their mouth, like a finger or object, that carries the disease agent. This is one way porcine epidemic diarrhea (PED) is spread in pigs.</p> </div> <p>There are 5 ways animals can contract a disease. We call this the "5 Routes of Infection". Select each one to explore more. You must explore all 5 before moving forward in the module.</p> <div>  <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>NEXT ></p> </div> </div> </div>
5	<div> <div>  </div> <div> <p>Explore the 5 Routes of Infection</p> <p>5 of 55 pages</p> <div>      </div> <div> <p>Inhalation</p> <p>Some disease agents can be in the air that an animal or person breathes and then get into the lungs and cause disease. A good example of this route of infection is cows contracting aspergillosis by breathing in the fungal spores.</p> </div> <p>There are 5 ways animals can contract a disease. We call this the "5 Routes of Infection". Select each one to explore more. You must explore all 5 before moving forward in the module.</p> <div>  <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>NEXT ></p> </div> </div> </div>
5	<div> <div>  </div> <div> <p>Explore the 5 Routes of Infection</p> <p>5 of 55 pages</p> <div>      </div> <div> <p>Breaks in skin</p> <p>One of the skin's main functions is to act as a barrier to keep out infections. But if there is a break in the skin, like a cut or a bite, some disease agents can get in to cause infection. This is what happens with rabies. A break in the skin is also the way that sheep and goats get caseous lymphadenitis, or CL for short, caused by Corynebacteria. Be careful! This is a zoonotic disease.</p> </div> <p>There are 5 ways animals can contract a disease. We call this the "5 Routes of Infection". Select each one to explore more. You must explore all 5 before moving forward in the module.</p> <div>  <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>NEXT ></p> </div> </div> </div>

5	<div>  <p>Explore the 5 Routes of Infection</p> <p>5 of 55 pages</p> <div> <p>In utero Disease agents can infect a fetus while it is in its mother's uterus before being born. Bovine viral diarrhea, or BVD, can infect a fetus through the bloodstream.</p> </div> <p>There are 5 ways animals can contract a disease. We call this the "5 Routes of Infection". Select each one to explore more. You must explore all 5 before moving forward in the module.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>NEXT ></p> </div>
5	<div>  <p>Explore the 5 Routes of Infection</p> <p>5 of 55 pages</p> <div> <p>Mucous membranes Mucous membranes are moist membranes that line our eyes and all body cavities open to the exterior, such as respiratory, digestive, urinary and reproductive tracts. Disease agents can get absorbed by the mucous membrane to cause infections. For example, the mucous membrane of the eye is the main route of infection for pink eye.</p> </div> <p>There are 5 ways animals can contract a disease. We call this the "5 Routes of Infection". Select each one to explore more. You must explore all 5 before moving forward in the module.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>NEXT ></p> </div>
5	<div>  <p>Below are some basic concepts of biosecurity. Click on each graphic for a refresher.</p> <p>5 of 55 pages</p> <div> <p>Disease Factors</p> <p>Agent, Host, Disease, Environment</p> <p>Means of Transmission</p> <p>Direct Contact, Indirect Contact</p> <p>Routes of Infection</p> <p>1. Ingestion, 2. Inhalation, 3. Breaks in Skin, 4. In utero, 5. Mucous Membranes</p> </div> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p><BACK NEXT></p> </div>

5	<div> <div> <div> Biosecurity Biosecurity Strategies </div> <div> Means of transmission <div>5 of 55 pages</div> </div> </div> <div> Routes of infection are the ways diseases get into the body. But how are diseases spread among animals and between animals and people?  <p>We call this "means of transmission."</p> <div>  <small>United States Department of Agriculture</small> <small>National Institute of Food and Agriculture</small> </div> <div>NEXT ></div> </div> </div>
5	<div> <div> <div> Biosecurity Routes of Infection Means of Transmission </div> <div> Means of transmission <div>5 of 55 pages</div> </div> </div> <div> How are diseases spread? By means of transmission. Here is one way of categorizing the means of transmission and a few of the terms used to describe them. <div> <div>Direct Contact</div> <div>Indirect Contact</div> </div> <div>     </div> <div> Animal - Animal Animal - Human Fomite Vector </div> <div>  <small>United States Department of Agriculture</small> <small>National Institute of Food and Agriculture</small> </div> <div>< BACK</div> </div> </div>
5	<div> <div> <div> Biosecurity Routes of Infection Means of Transmission </div> <div> Means of transmission <div>5 of 55 pages</div> </div> </div> <div> How are diseases spread? By means of transmission. Here is one way of categorizing the means of transmission and a few of the terms used to describe them. <div> <div>Direct Contact</div> <div>Indirect Contact</div> </div> <div>    </div> <div> Animal - Animal Animal - Human Fomite Vector </div> <div>  <small>United States Department of Agriculture</small> <small>National Institute of Food and Agriculture</small> </div> <div>< BACK NEXT ></div> </div> <div> <div>roll over each picture to find out more</div> <div> Diseases can be transmitted through direct contact when an animal (or human) comes in close contact with an infected animal. </div> </div> </div>

5	<div> <p>Biosecurity Routes of Infection Means of Transmission</p> <p><i>roll over each picture to find but more</i></p>  </div> <div> <p>Means of transmission 5 of 55 pages</p> <p>How are diseases spread? By means of transmission. Here is one way of categorizing the means of transmission and a few of the terms used to describe them.</p> <div> <p>Direct Contact Indirect Contact</p> </div> <div>     </div> <div> <p>Animal - Animal Animal - Human Fomite Vector</p> </div> <p>Animals can also spread diseases to humans through indirect contact. Diseases passed from animals to humans (directly or indirectly) are called zoonoses.</p> <p>Non-living objects like clothing, grooming equipment, or vehicles can carry infectious agents from one animal to another and are called fomites. Other sources of indirect exposure such as human hands, feed, or water, are referred to as vehicles of infectious disease transmission.</p> <p>⏪ BACK NEXT ⏩</p> </div>
5	<div> <p>Biosecurity Routes of Infection Means of Transmission</p> <p><i>roll over each picture to find but more</i></p>  </div> <div> <p>Means of transmission 5 of 55 pages</p> <p>How are diseases spread? By means of transmission. Here is one way of categorizing the means of transmission and a few of the terms used to describe them.</p> <div> <p>Direct Contact Indirect Contact</p> </div> <div>    </div> <div> <p>Animal - Animal Animal - Human Fomite Vector</p> </div> <p>Animals can also spread diseases to humans through indirect contact. Diseases passed from animals to humans (directly or indirectly) are called zoonoses.</p> <p>Non-living objects like clothing, grooming equipment, or vehicles can carry infectious agents from one animal to another and are called fomites. Other sources of indirect exposure such as human hands, feed, or water, are referred to as vehicles of infectious disease transmission.</p> <p>⏪ BACK NEXT ⏩</p> </div>
5	<div> <p>Biosecurity Routes of Infection Means of Transmission</p> <p><i>roll over each picture to find but more</i></p>  </div> <div> <p>Means of transmission 5 of 55 pages</p> <p>How are diseases spread? By means of transmission. Here is one way of categorizing the means of transmission and a few of the terms used to describe them.</p> <div> <p>Direct Contact Indirect Contact</p> </div> <div>     </div> <div> <p>Animal - Animal Animal - Human Fomite Vector</p> </div> <p>Animals can also spread diseases to humans through indirect contact. Diseases passed from animals to humans (directly or indirectly) are called zoonoses.</p> <p>Insects that carry disease agents are also called vectors. An insect vector may pick up an infectious agent when it bites one animal and pass it on to another one it bites.</p> <p>⏪ BACK NEXT ⏩</p> </div>

6	<div> <p>Biosecurity Biosecurity Strategies</p>  </div> <div> <p>There are many places on a farm where disease transmission can occur.</p> <p>A useful way to think about sources of transmission is to sort them into four categories. Click on each picture to see what the categories are.</p> </div> <div>  </div> <div> <p>«BACK NEXT»</p> </div>				
6	<div> <p>Biosecurity Biosecurity Strategies</p>  </div> <div> <p>There are many places on a farm where disease transmission can occur.</p> <p>A useful way to think about sources of transmission is to sort them into four categories. Click on each picture to see what the categories are.</p> </div> <div> <p>Please complete activity to continue.</p> <p>Close</p> </div> <div>  </div> <div> <p>«BACK NEXT»</p> </div>				
6	<div> <p>Biosecurity Biosecurity Strategies</p>  </div> <div> <p>There are many places on a farm where disease transmission can occur.</p> <p>A useful way to think about sources of transmission is to sort them into four categories. Click on each picture to see what the categories are.</p> </div> <div> <table border="1"> <tr> <td>  <p>Animal-Animal (between animals)</p> </td> <td>  <p>People on the Farm</p> </td> </tr> <tr> <td>  <p>Contaminated Feed and Water</p> </td> <td>  <p>Equipment, Vehicles, & Facilities</p> </td> </tr> </table> </div> <div> <p>«BACK NEXT»</p> </div>	 <p>Animal-Animal (between animals)</p>	 <p>People on the Farm</p>	 <p>Contaminated Feed and Water</p>	 <p>Equipment, Vehicles, & Facilities</p>
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Biosecurity





Biosecurity Strategies

We use biosecurity strategies to prevent disease transmission.

Listen to the following situations and think of some changes you could make to prevent disease transmission.

Come up with ideas for each scenario, then compare them with our suggestions.

7 of 55 pages

Photos with Audio Stories (click on images to hear audio)	What strategies could you use to address the concern?	Feedback
Animal-Animal 	type the strategy you would use here <div>Compare</div>	
People on the Farm 	type the strategy you would use here <div>Compare</div>	
Contaminated Food/Water 	type the strategy you would use here <div>Compare</div>	
Equipment, Vehicles, & Facilities 	type the strategy you would use here <div>Compare</div>	

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Biosecurity





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Contaminated Food/Water 		<div>Compare</div>
Equipment, Vehicles, & Facilities 		type the strategy you would use here <div>Compare</div>

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



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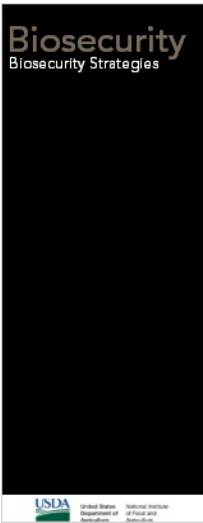













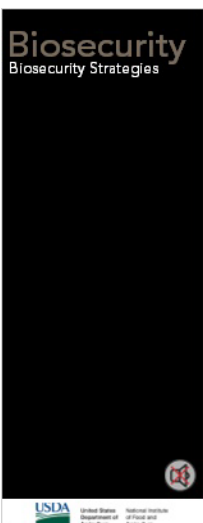













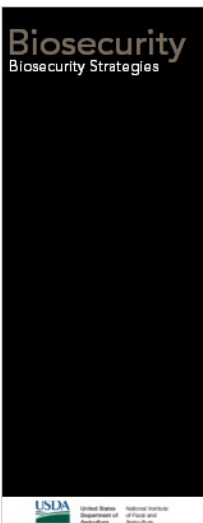













Photos with Audio Stories (click on images to hear audio)	What strategies could you use to address the concern?	Feedback
"I want to buy a new dairy heifer, but I'm worried about bringing diseases home." 	type the strategy you would use here <div>Compare</div>	
People on the Farm 	type the strategy you would use here <div>Compare</div>	
Contaminated Food/Water 	type the strategy you would use here <div>Compare</div>	
Equipment, Vehicles, & Facilities 	type the strategy you would use here <div>Compare</div>	

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7	<div>  </div> <div> <p>We use biosecurity strategies to prevent disease transmission. 7 of 55 pages</p> <p>Listen to the following situations and think of some changes you could make to prevent disease transmission.</p> <p>Come up with ideas for each scenario, then compare them with our suggestions.</p> </div> <table border="1"> <thead> <tr> <th>Photos with Audio Stories (click on images to hear audio)</th> <th>What strategies could you use to address the concern?</th> <th>Feedback</th> </tr> </thead> <tbody> <tr> <td>Animal-Animal </td> <td>type the strategy you would use here Compare</td> <td> <ul style="list-style-type: none"> Buy healthy, test-negative animals. Quarantine the animal for 2-4 weeks to make sure she's not spreading disease. </td> </tr> <tr> <td>People on the Farm </td> <td>type the strategy you would use here Compare</td> <td></td> </tr> <tr> <td>Contaminated Food/Water </td> <td>type the strategy you would use here Compare</td> <td></td> </tr> <tr> <td>Equipment, Vehicles, & Facilities </td> <td>type the strategy you would use here Compare</td> <td></td> </tr> </tbody> </table> <div>  United States Department of Agriculture Healthy Farms Healthy People </div> <div> «BACK NEXT» </div>	Photos with Audio Stories (click on images to hear audio)	What strategies could you use to address the concern?	Feedback	Animal-Animal 	type the strategy you would use here Compare	<ul style="list-style-type: none"> Buy healthy, test-negative animals. Quarantine the animal for 2-4 weeks to make sure she's not spreading disease. 	People on the Farm 	type the strategy you would use here Compare		Contaminated Food/Water 	type the strategy you would use here Compare		Equipment, Vehicles, & Facilities 	type the strategy you would use here Compare	
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

Biosecurity

Biosecurity Strategies

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<div>People on the Farm</div> 	<div>type the strategy you would use here</div> <div>Compare</div>	
<div> <p>"Several of my sheep have aborted recently. The vet says it was due to toxoplasmosis, which is spread by cat feces in livestock feed."</p> </div> 	<div>type the strategy you would use here</div> <div>Compare</div>	
<div>Equipment, Vehicles, & Facilities</div> 	<div>type the strategy you would use here</div> <div>Compare</div>	

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


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<div>Contaminated Food/Water</div> 	<div>type the strategy you would use here</div> <div>Compare</div>	<ul style="list-style-type: none"> Keep cats and other stray animals away from the herd and the feed and water.
<div>Equipment, Vehicles, & Facilities</div> 	<div>type the strategy you would use here</div> <div>Compare</div>	

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
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<div>Contaminated Food/Water</div> 	<div>type the strategy you would use here</div> <div>Compare</div>	
<div> <p>"Ever since I borrowed some clippers from my neighbor to clip some goats going to a show, we've had contagious abscesses in our goat herd."</p> </div> 	<div>type the strategy you would use here</div> <div>Compare</div>	

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Biosecurity

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Contaminated Food/Water 	type the strategy you would use here Compare	
Equipment, Vehicles, & Facilities 	type the strategy you would use here Compare	<ul style="list-style-type: none"> Clean and disinfect all tools before grooming goats. Don't borrow equipment.

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8

Biosecurity

Biosecurity Strategies

What strategies can we use to reduce disease transmission risk?

In this activity you will create a list of strategies that are recommended to address common biosecurity risks. It's a rather long list, but you will be using it to complete upcoming activities. So hang in there! Each category of means of disease transmission has its own bulletin board. Can you pin each of the 25 strategies that pop up on the left to right bulletin board?

Strategies	Animal-Animal	Contaminated Food/Water	People on the Farm	Equipment, Vehicles, & Facilities
Control flies, birds, wildlife, and other species				

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8

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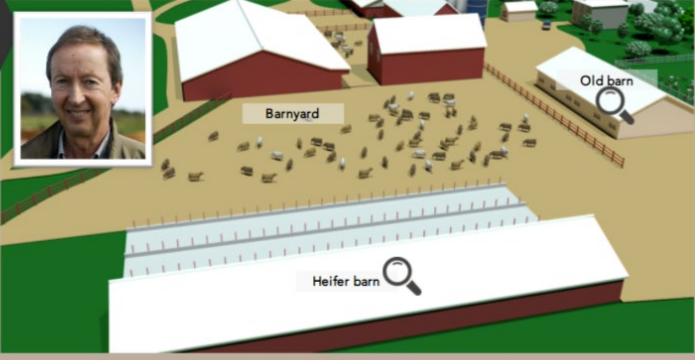



Strategies	Animal-Animal	Contaminated Food/Water	People on the Farm	Equipment, Vehicles, & Facilities
If you do buy animals, purchase healthy, test-negative animals (don't buy animals from auction yards)				
	Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact		Care for animals in the following order: healthy, quarantined, sick; washing hands and changing PPE between	

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8	<div><div><div><div>Biosecurity</div><div>Biosecurity Strategies</div></div><div>Strategies</div></div><div><div>What strategies can we use to reduce disease transmission risk?</div><div>8 of 55 pages</div></div><div><div><div>Animal-Animal</div><div><ul style="list-style-type: none">Have a closed herd (grow own replacements; do not take livestock to shows)If you do buy animals, purchase healthy, test-negative animals (don't buy animals from auction yards)Quarantine herd additions or returnsIsolate and treat sick animalsVaccinate against diseases of concern effectively (store vaccine/medicines correctly)Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contactRemove and dispose of placentas and aborted fetuses promptly and properly to protect animals and humansCull animals that do not respond to treatment or that are asymptomatic disease carriersUse AI for breeding whenever possible; Do not share breeding males between farms</div></div><div><div>People on the Farm</div><div><ul style="list-style-type: none">Use clean personal protective equipment (PPE) like gloves, boots, and coverallsWash hands; clean and disinfect (C&D) footwear and equipment; shower in/outRestrict visitors; Keep a log of visitorsPrevent employee ownership of same livestock species as those cared forCare for animals in the following order: healthy, quarantined, sick; washing hands and changing PPE between</div></div><div><div>Contaminated Feed and Water</div><div><ul style="list-style-type: none">Manage manure effectivelyHave an effective on-farm composting system for manure and mortalitiesProtect feed and water from contaminationControl flies, birds, wildlife, and other species</div></div><div><div>Equipment, Vehicles, and Facilities</div><div><ul style="list-style-type: none">Clean and disinfect (vehicles, equipment, facilities)Establish effective signage (parking, no entry, etc.); Control traffic on farmManage traffic flow; control access to the farm and animal areasDo not share equipment with othersHave separate equipment for feed and manureEnsure good air quality through effective barn ventilation systemsAvoid dirt and wood-based facilities</div></div></div><div><div>USDA</div><div>United States Department of Agriculture</div><div>National Institute of Food and Agriculture</div><div><div>🖨️</div><div>NEXT</div></div></div></div>
9	<div><div><div><div>Biosecurity</div><div>Biosecurity Strategies</div></div><div></div></div><div><div>Biosecurity Risk Report and Action Plan</div><div>9 of 55 pages</div></div><div><div>Farm Name: Olson Farm</div><div>Date: <input type="text"/></div></div><div><div>Biosecurity Investigator: <input type="text"/></div><div>Livestock Type: Dairy</div></div><div><div><div>Potential Disease Transmission Sources</div><div>What is the risk?</div><div>What strategies can be used to reduce this risk?</div></div><div><div>You will build on the report you started previously as you complete the activities and identify points of risk.</div><div>Make sure your report has your name and today's date on it.</div></div></div><div><div>USDA</div><div>United States Department of Agriculture</div><div>National Institute of Food and Agriculture</div><div><div>Biosecurity Strategies List</div><div>◀ BACK NEXT ▶</div></div></div></div>
10 The Skip ahead is a little slow.	<div><div><div><div>Biosecurity</div><div>Biosecurity Strategies</div></div><div></div></div><div><div>Welcome to the Olson Farm</div><div><div>If you have finished the Sources of Transmission Risk learning module and want to skip ahead, select this button.</div><div>Skip ahead</div></div></div></div> <div><div>Here is an overview of the Olson Farm, divided into 4 areas.</div><div>Explore the areas for sources of disease transmission risk.</div><div>In each area click on photos and magnifying glasses for more information.</div><div>Think about ways you could reduce the risk as each point is presented.</div><div>Click Next to begin.</div></div> <div><div>Area C</div><div>Area D</div><div>Area B</div><div>Area A</div></div> <div><div>USDA</div><div>United States Department of Agriculture</div><div>National Institute of Food and Agriculture</div><div><div>Biosecurity Strategies List</div><div>◀ BACK NEXT ▶</div></div></div>

<p>11</p>	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div>  <div>Area A</div> </div> <div> <div>Exploration points left</div> <div>6</div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> </div> <div> <div>Bred Heifer Barn, Old Barn, Barnyard</div> <div>11 of 55 pages</div> <p>This area contains several sources of potential disease transmission. What risks do they pose? Click on the magnifying glasses to get a closer look and click each picture with a white frame to review the specific risks.</p>  <div> <div>Biosecurity Strategies List</div> <div>◀BACK NEXT▶</div> </div> </div>
<p>11</p>	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div>  <div>Area A</div> </div> <div> <div>Exploration points left</div> <div>6</div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> </div> <div> <div>Bred Heifer Barn</div> <div>11 of 55 pages</div> <p>Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  <div> <div>Biosecurity Strategies List</div> <div>CLOSE ▶</div> </div> </div>
<p>11</p>	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div>  <div>Area A</div> </div> <div> <div>Exploration points left</div> <div>5</div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> </div> <div> <div>Bred Heifer Barn</div> <div>11 of 55 pages</div> <p>Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  <div> <div>Biosecurity Strategies List</div> <div>CLOSE ▶</div> </div> </div>

<p>11</p> <p>Click the "X" to close each pop up box</p>	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div> <div>Area A</div> </div> <div> <div>Exploration points left</div> <div>4</div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> </div> <div> <div>Bred Heifer Barn</div> <div>11 of 55 pages</div> <div>Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</div> <div> <div> <div>Brother-in-law's bull</div> <div>Shared or new breeding males could be carrying diseases that could spread to others.</div> </div> <div> </div> </div> <div> <div>Biosecurity Strategies List</div> <div>CLOSE</div> </div> </div> </div>
<p>11</p>	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div> <div>Area A</div> </div> <div> <div>Exploration points left</div> <div>4</div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> </div> <div> <div>Bred Heifer Barn</div> <div>11 of 55 pages</div> <div>Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</div> <div> <div> </div> </div> <div> <div>Biosecurity Strategies List</div> <div>CLOSE</div> </div> </div> </div>
<p>11</p>	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div> <div>Area A</div> </div> <div> <div>Exploration points left</div> <div>4</div> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> </div> <div> <div>Bred Heifer Barn, Old Barn, Barnyard</div> <div>11 of 55 pages</div> <div>This area contains several sources of potential disease transmission. What risks do they pose? Click on the magnifying glasses to get a closer look and click each picture with a white frame to review the specific risks.</div> <div> </div> <div> <div>Biosecurity Strategies List</div> <div><BACK NEXT></div> </div> </div> </div>


<p>11</p>	<div style="background-color: #2c3e50; color: white; padding: 10px;"> <h2>Biosecurity Biosecurity Strategies</h2>  <p>Area A</p> <p>Exploration points left 4</p> </div> <div style="text-align: center; margin-top: 10px;">  <small>United States Department of Agriculture National Institute of Food and Agriculture</small> </div>	<div style="text-align: right;"> 11 of 55 pages </div> <h3>Old Barn</h3> <p>The Olsons house their weaned heifers in the old barn. Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image.</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around;">   </div> <div style="text-align: right; margin-top: 10px;"> Biosecurity Strategies List CLOSE > </div>
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<p>11</p>	<div>Biosecurity Biosecurity Strategies</div> <div></div> <div>Area A</div> <div>Exploration points left 1</div> <div>United States Department of AgricultureNational Institute of Food and Agriculture</div> <div>Bred Heifer Barn, Old Barn, Barnyard</div> <div>This area contains several sources of potential disease transmission. What risks do they pose? Click on the magnifying glasses to get a closer look and click each picture with a white frame to review the specific risks.</div> <div>11 of 55 pages</div> <div></div> <div></div> <div>Biosecurity Strategies List</div> <div>‹BACK NEXT›</div>

11

Biosecurity

Biosecurity Strategies

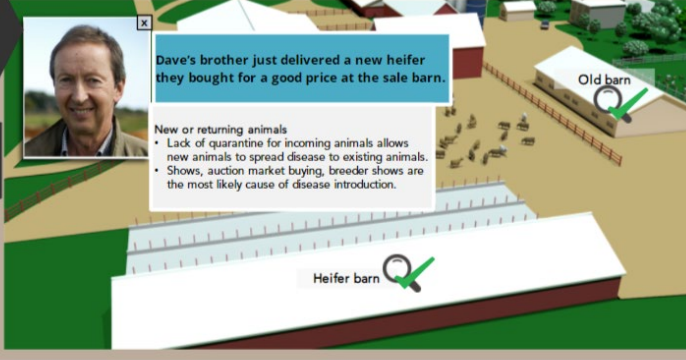


Area A

Exploration points left
0

Bred Heifer Barn, Old Barn, Barnyard

This area contains several sources of potential disease transmission. What risks do they pose? Click on the magnifying glasses to get a closer look and click each picture with a white frame to review the specific risks.



Dave's brother just delivered a new heifer they bought for a good price at the sale barn.

New or returning animals

- Lack of quarantine for incoming animals allows new animals to spread disease to existing animals.
- Shows, auction market buying, breeder shows are the most likely cause of disease introduction.

Old barn

Heifer barn

USDA United States Department of Agriculture National Institute of Food and Agriculture

Biosecurity Strategies List <BACK NEXT>

12

Biosecurity

Biosecurity Strategies

Let's explore the strategies.

Drag and drop the strategies for each source that can be used to reduce the risks. You can also refer to the Strategies List in your Resources.

Have a closed herd (grow own replacements; do not take livestock to shows).

Chronically sick animal

Brother-in-law's bull

New heifer from sale barn

Poor ventilation

Skid steer in barn

Contaminated wooden rails

USDA United States Department of Agriculture National Institute of Food and Agriculture

Biosecurity Strategies List <BACK NEXT>

12

Biosecurity

Biosecurity Strategies

Let's explore the strategies.

Drag and drop the strategies for each source that can be used to reduce the risks. You can also refer to the Strategies List in your Resources.

Avoid dirt and wood-based facilities.

Chronically sick animal

Brother-in-law's bull

New heifer from sale barn

Poor ventilation

Skid steer in barn

Contaminated wooden rails


USDA United States Department of Agriculture National Institute of Food and Agriculture

Biosecurity Strategies List <BACK NEXT>

12

Biosecurity

Biosecurity Strategies



Let's explore the strategies.

12 of 55 pages

Drag and drop the strategies for each source that can be used to reduce the risks.

You can also refer to the Strategies List in your Resources.

Correct

Select "Next" to continue.

Chronically sick animal

Cull animals that do not respond to treatment, or that are asymptomatic disease carriers.

Brother-in-law's bull

Use AI for breeding whenever possible; do not share breeding males between farms.

New heifer from sale barn

Have a closed herd (grow own replacements; do not take livestock to shows).

Quarantine herd additions or returns.

If you do buy animals, purchase healthy, test-negative animals (Don't buy from auction yards).

Poor ventilation

Ensure good air quality through effective barn ventilation systems.

Skid steer in barn

Clean and disinfect (vehicles, equipment, facilities).

Have separate equipment for feed and manure.

Contaminated wooden rails

Avoid dirt and wood-based facilities.

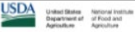
Biosecurity Strategies List

◀BACK NEXT▶

13

Biosecurity

Biosecurity Strategies



Here is your Biosecurity Risk Report and Action Plan so far.

13 of 55 pages

Biosecurity Risk Report and Action Plan

Farm Name: Olson Farm

Date: 02/08/22

Biosecurity Investigator: Bob

Livestock Type: Dairy

Potential Disease Transmission Sources	What is the risk?	What strategies can be used to reduce the risk?
Heifer barn, old barn, and barnyard:		
Chronically sick animals	<ul style="list-style-type: none"> Continually contaminate environment and other animals. Some animals carry diseases without showing signs of illness. 	<ul style="list-style-type: none"> Cull animals that do not respond to treatment or that are asymptomatic disease carriers.
Borrowed bull	<ul style="list-style-type: none"> Shared or new breeding males could be carrying diseases that could spread to others. 	<ul style="list-style-type: none"> Use AI for breeding when possible; Don't share breeding males between farms. Have a closed herd (grow own replacements; do not take livestock to shows).
New or returning animals	<ul style="list-style-type: none"> Lack of quarantine for incoming animals allows new animals to spread disease to existing animals. Shows, auction market buying, breeder shows are the most likely cause of disease introduction. Very big issue for all species! 	<ul style="list-style-type: none"> If you do buy animals, purchase healthy, test-negative animals (don't buy from auction yards). Quarantine herd additions/returns.
Poor ventilation	<ul style="list-style-type: none"> Air high in ammonia from urine and feces can irritate linings of the nose, throat, and lungs and increase likelihood of respiratory disease. 	<ul style="list-style-type: none"> Ensure good air quality through effective barn ventilation systems.
Vehicle in barn	<ul style="list-style-type: none"> Vehicles, tires, or driver's shoes could be contaminated and spreading disease agents. 	<ul style="list-style-type: none"> Clean and disinfect hands, feet, vehicles, equipment, facilities; shower in/out. Have separate equipment for feed and manure.
Contaminated facilities	<ul style="list-style-type: none"> Facilities that are not cleaned and disinfected regularly (or are difficult to C&D, such as wood structures or dirt floors) can harbor disease-causing agents; a build-up of "bait" bugs can overwhelm the resistance of an animal and cause disease. 	<ul style="list-style-type: none"> Avoid dirt and wood-based facilities.


Biosecurity Strategies List

◀BACK NEXT▶

14

Biosecurity

Biosecurity Strategies



Given the importance of hand washing, test your knowledge.

14 of 55 pages

See how well you do on this short self-test.

Question 1 of 4

When should you wash your hands?

☐ Before eating

☐ After handling animals

☐ Anytime they are dirty

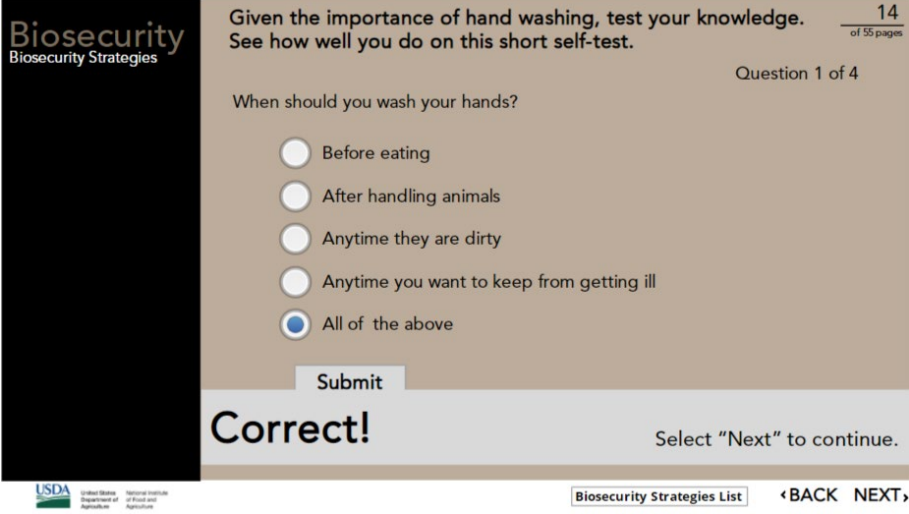
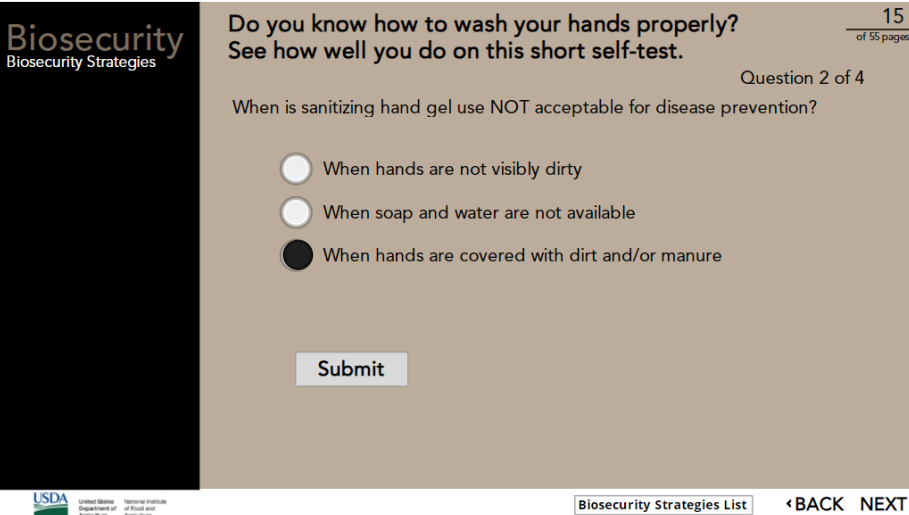
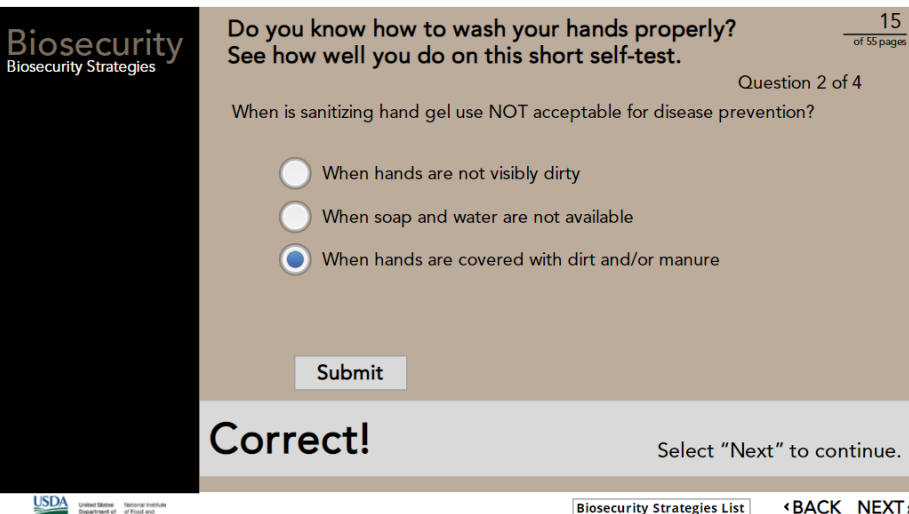
☐ Anytime you want to keep from getting ill

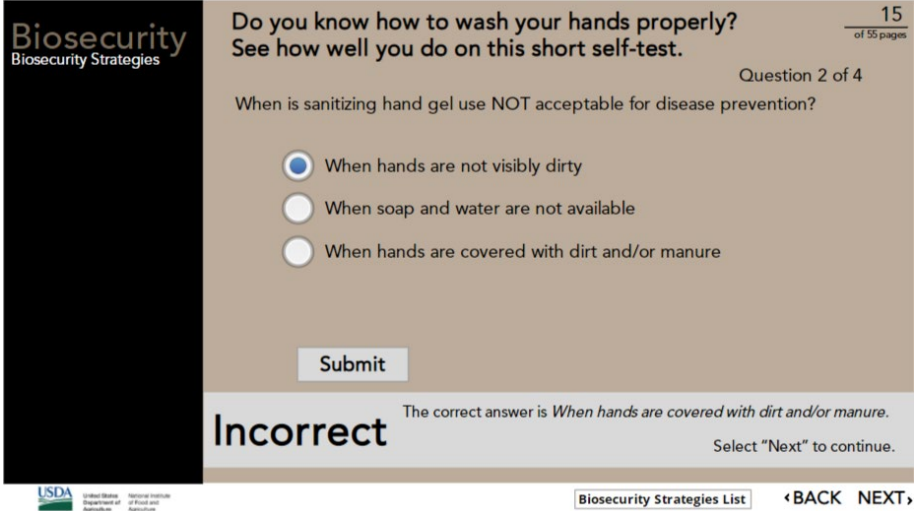
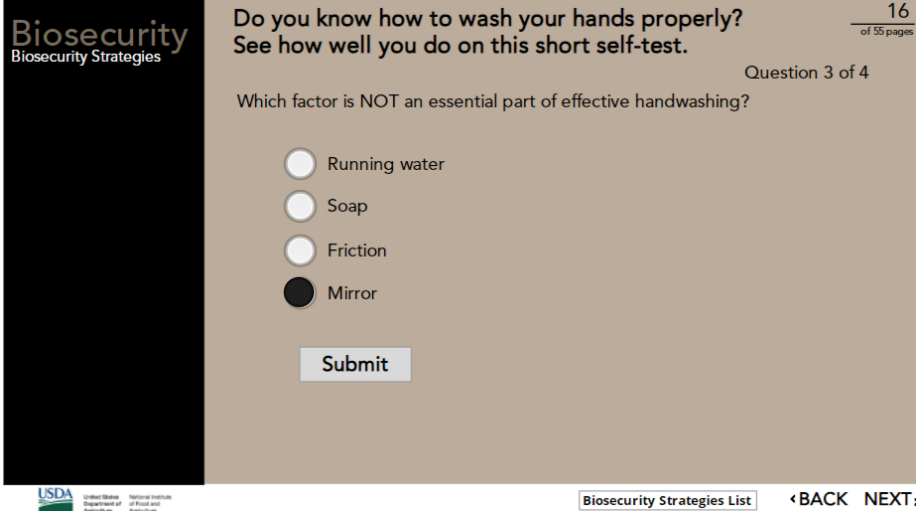
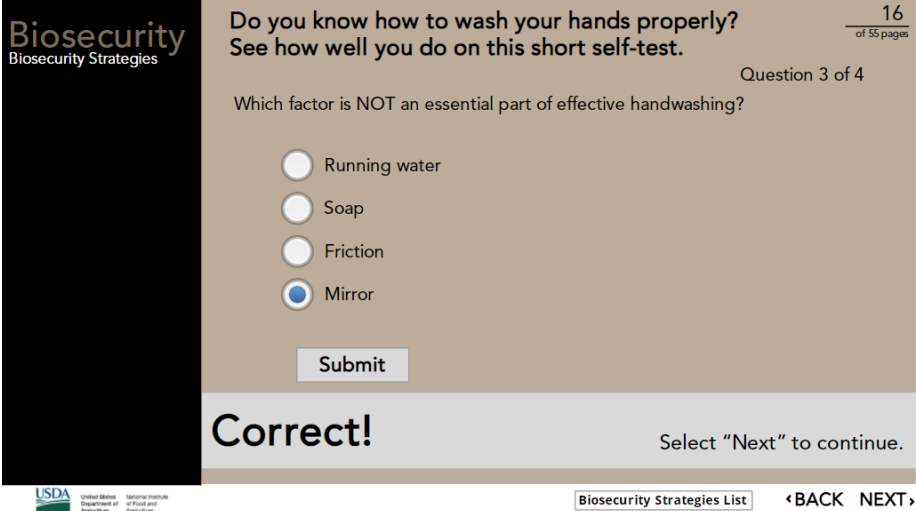
☒ All of the above


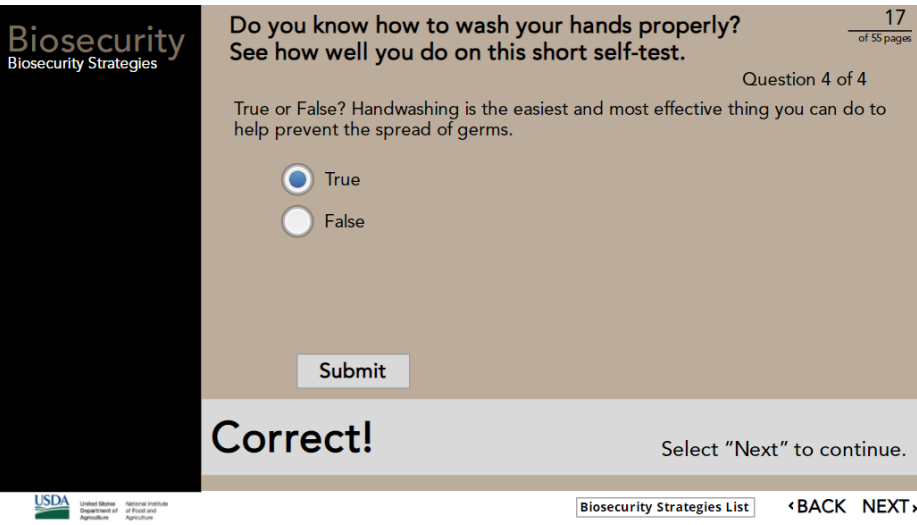

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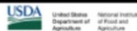


Biosecurity Strategies List

◀BACK NEXT▶







14	 <p>Biosecurity Biosecurity Strategies</p> <p>Given the importance of hand washing, test your knowledge. See how well you do on this short self-test.</p> <p>14 of 55 pages</p> <p>Question 1 of 4</p> <p>When should you wash your hands?</p> <ul style="list-style-type: none"> <input type="radio"/> Before eating <input type="radio"/> After handling animals <input type="radio"/> Anytime they are dirty <input type="radio"/> Anytime you want to keep from getting ill <input checked="" type="radio"/> All of the above <p>Submit</p> <p>Correct!</p> <p>Select "Next" to continue.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>
15	 <p>Biosecurity Biosecurity Strategies</p> <p>Do you know how to wash your hands properly? See how well you do on this short self-test.</p> <p>15 of 55 pages</p> <p>Question 2 of 4</p> <p>When is sanitizing hand gel use NOT acceptable for disease prevention?</p> <ul style="list-style-type: none"> <input type="radio"/> When hands are not visibly dirty <input type="radio"/> When soap and water are not available <input checked="" type="radio"/> When hands are covered with dirt and/or manure <p>Submit</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>
15	 <p>Biosecurity Biosecurity Strategies</p> <p>Do you know how to wash your hands properly? See how well you do on this short self-test.</p> <p>15 of 55 pages</p> <p>Question 2 of 4</p> <p>When is sanitizing hand gel use NOT acceptable for disease prevention?</p> <ul style="list-style-type: none"> <input type="radio"/> When hands are not visibly dirty <input type="radio"/> When soap and water are not available <input checked="" type="radio"/> When hands are covered with dirt and/or manure <p>Submit</p> <p>Correct!</p> <p>Select "Next" to continue.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>




15	 <p>Biosecurity Biosecurity Strategies</p> <p>Do you know how to wash your hands properly? See how well you do on this short self-test.</p> <p>15 of 55 pages</p> <p>Question 2 of 4</p> <p>When is sanitizing hand gel use NOT acceptable for disease prevention?</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> When hands are not visibly dirty <input type="radio"/> When soap and water are not available <input type="radio"/> When hands are covered with dirt and/or manure <p>Submit</p> <p>Incorrect The correct answer is <i>When hands are covered with dirt and/or manure.</i> Select "Next" to continue.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>
16	 <p>Biosecurity Biosecurity Strategies</p> <p>Do you know how to wash your hands properly? See how well you do on this short self-test.</p> <p>16 of 55 pages</p> <p>Question 3 of 4</p> <p>Which factor is NOT an essential part of effective handwashing?</p> <ul style="list-style-type: none"> <input type="radio"/> Running water <input type="radio"/> Soap <input type="radio"/> Friction <input checked="" type="radio"/> Mirror <p>Submit</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>
16	 <p>Biosecurity Biosecurity Strategies</p> <p>Do you know how to wash your hands properly? See how well you do on this short self-test.</p> <p>16 of 55 pages</p> <p>Question 3 of 4</p> <p>Which factor is NOT an essential part of effective handwashing?</p> <ul style="list-style-type: none"> <input type="radio"/> Running water <input type="radio"/> Soap <input type="radio"/> Friction <input checked="" type="radio"/> Mirror <p>Submit</p> <p>Correct! Select "Next" to continue.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>

<p>17</p>	 <p>Biosecurity Biosecurity Strategies</p> <p>Do you know how to wash your hands properly? See how well you do on this short self-test.</p> <p>Question 4 of 4</p> <p>True or False? Handwashing is the easiest and most effective thing you can do to help prevent the spread of germs.</p> <p><input checked="" type="radio"/> True <input type="radio"/> False</p> <p>Submit</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>
<p>17</p>	 <p>Biosecurity Biosecurity Strategies</p> <p>Do you know how to wash your hands properly? See how well you do on this short self-test.</p> <p>Question 4 of 4</p> <p>True or False? Handwashing is the easiest and most effective thing you can do to help prevent the spread of germs.</p> <p><input checked="" type="radio"/> True <input type="radio"/> False</p> <p>Submit</p> <p>Correct!</p> <p>Select "Next" to continue.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>
<p>18</p> <p>Video Length = 1 minute, 27 seconds</p>	 <p>Biosecurity Biosecurity Strategies</p> <p>Cleaning and Disinfecting (C&D)</p> <p>Cleaning and disinfecting is one of the most important and effective strategies to reduce disease transmission. You already know this. People have been telling you to wash your hands all your life!</p> <p>Watch this video from the World Health Organization on effective, thorough hand washing.</p> <p>USDA United States Department of Agriculture National Institute of Food and Agriculture</p> <p>Biosecurity Strategies List <BACK NEXT></p>

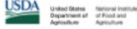


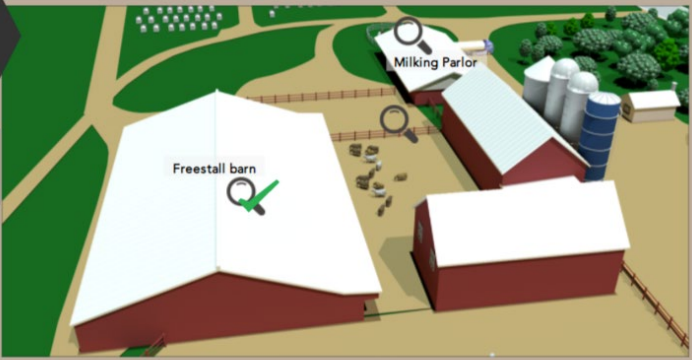
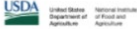

<p>19</p>	<div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> <p>You also probably know it's important to have clean footwear and clothes when you work with animals. But for disease prevention and control, everything that comes in contact with the animals and their environment needs to be clean and disinfected. (Remember indirect contact?)</p> </div> <div> <h3>Cleaning and Disinfecting (C&D)</h3> <p>Help Dave put together a visual aid to show employees how to clean and disinfect their boots. Drag and drop the images below into the lower section in the right order. Roll over each image for a description or click to enlarge. To close image, hover over the X in the upper right corner and click when the arrow becomes a pointer.</p>  <table border="1"> <thead> <tr> <th colspan="4">Cleaning and Disinfection Protocol</th> </tr> </thead> <tbody> <tr> <td>Step 1</td> <td>Step 2</td> <td>Step 3</td> <td>Step 4</td> </tr> <tr> <td>Step 5</td> <td>Step 6</td> <td>Step 7</td> <td></td> </tr> </tbody> </table> </div> <div>  Biosecurity Strategies List SUBMIT </div> </div>	Cleaning and Disinfection Protocol				Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	
Cleaning and Disinfection Protocol													
Step 1	Step 2	Step 3	Step 4										
Step 5	Step 6	Step 7											
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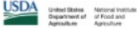
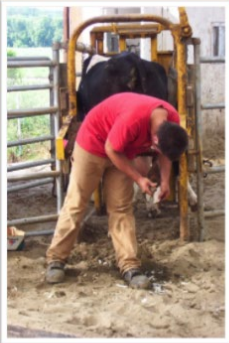

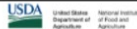
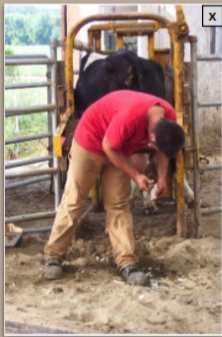

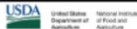
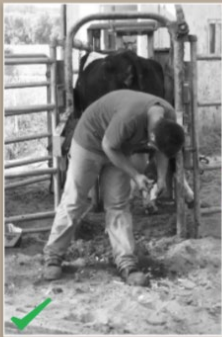

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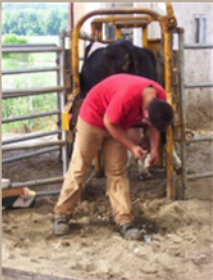
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<p>20</p> <p>Click "Skip Ahead" to move ahead to next activity *The skip action is slow.</p>	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> </div> <div> <p>Good job! Now let's go on to the next area.</p> <p>Explore the areas for sources of disease transmission risk. Remember to think about ways you could reduce the risk as each point is presented.</p> <p>Select "Next" to move to another area.</p> </div> </div> <div>  </div> <div> <div>Skip ahead</div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>◀BACK NEXT▶</div> </div> </div> </div>
<p>21</p>	<div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> </div> <div> <p>Freestall Barn and Milking Parlor</p> <p>This area contains additional sources of potential disease transmission. What risks do they pose? Click on the magnifying glasses to get a closer look and click each picture with a white frame to review the specific risks.</p> </div> </div> <div>  </div> <div> <div> <div>Area B</div> <div>Exploration points left 5</div> </div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>◀BACK NEXT▶</div> </div> </div> </div>


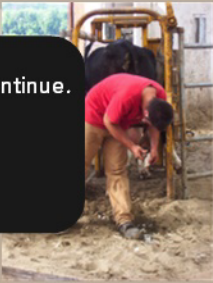
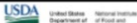

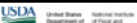

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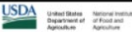





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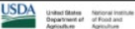
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22	<div> <div> <div>  </div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> </div> </div> </div> <div> <div>Area B: Strategies</div> <div>22 of 55 pages</div> </div> <div> <div>Which of these strategies should be used to reduce disease transmission by visiting caregivers?</div> <div> <input type="radio"/> Restrict visitors; keep a log of visitors <input type="radio"/> Clean and disinfect (C&D) before and after working with animals <input type="radio"/> Use clean personal protective equipment or PPE (gloves, boots, coveralls) <input checked="" type="radio"/> All of the above </div> <div>Correct!</div> <div>Select "Next" to continue.</div> <div>  </div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>BACK NEXT</div> </div> </div> </div>
23	<div> <div> <div>  </div> <div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> </div> </div> </div> <div> <div>Area B: Strategies</div> <div>23 of 55 pages</div> </div> <div> <div>Which of these strategies will reduce disease transmission by your workers? Select all that apply.</div> <div> <input type="checkbox"/> Discourage employees from owning the same species of livestock <input type="checkbox"/> Wash hands; clean and disinfect (C&D) footwear and equipment; shower in/out. <input type="checkbox"/> Wear the same clothing and footwear at home and work. <input type="checkbox"/> Use clean personal protective equipment (PPE) like gloves, boots, and coveralls </div> <div>  </div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>SUBMIT</div> </div> </div> </div>

23	<div> <p>Biosecurity Biosecurity Strategies</p>  </div> <div> <p>Area B: Strategies</p> </div> <div> <p>23 of 55 pages</p> </div> <div> <p>Which of these strategies will reduce disease transmission by your workers? Select all that apply.</p> </div> <div> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Discourage employees from owning the same species of livestock <input checked="" type="checkbox"/> Wash hands; clean and disinfect (C&D) footwear and equipment; shower in/out. <input type="checkbox"/> Wear the same clothing and footwear at home and work. <input checked="" type="checkbox"/> Use clean personal protective equipment (PPE) like gloves, boots, and coveralls </div> <div>  </div> <div> <p>Correct! Select "Next" to continue.</p> </div> <div> <p>C&D Protocol Biosecurity Strategies List <BACK NEXT></p> </div>
24	<div> <p>Biosecurity Biosecurity Strategies</p>  </div> <div> <p>Area B: Strategies</p> </div> <div> <p>24 of 55 pages</p> </div> <div> <p>Animals need to be vaccinated against diseases of concern, but if vaccines (and medicine) are not stored properly they lose their effectiveness or can become contaminated.</p> </div> <div> <p>Check all the statements that are examples of correct storage:</p> </div> <div> <ul style="list-style-type: none"> <input type="checkbox"/> Keep vaccines and medicine in the freezer <input type="checkbox"/> Wipe tops of bottles with alcohol and keep them covered to keep them sterile. <input type="checkbox"/> Read and follow manufacturer's instructions on label. </div> <div>  </div> <div> <p>C&D Protocol Biosecurity Strategies List SUBMIT</p> </div>
24	<div> <p>Biosecurity Biosecurity Strategies</p>  </div> <div> <p>Area B: Strategies</p> </div> <div> <p>24 of 55 pages</p> </div> <div> <p>Animals need to be vaccinated against diseases of concern, but if vaccines (and medicine) are not stored properly they lose their effectiveness or can become contaminated.</p> </div> <div> <p>Check all the statements that are examples of correct storage:</p> </div> <div> <ul style="list-style-type: none"> <input type="checkbox"/> Keep vaccines and medicine in the freezer <input checked="" type="checkbox"/> Wipe tops of bottles with alcohol and keep them covered to keep them sterile. <input checked="" type="checkbox"/> Read and follow manufacturer's instructions on label. </div> <div>  </div> <div> <p>Correct! Select "Next" to continue.</p> </div> <div> <p>C&D Protocol Biosecurity Strategies List <BACK NEXT></p> </div>

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Biosecurity

Biosecurity Strategies



Area B: Strategies


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Animals need to be vaccinated against diseases of concern, but if vaccines (and medicine) are not stored properly they lose their effectiveness or can become contaminated.

Check all the statements that are examples of correct storage:

☒ Keep vaccines and medicine in the freezer
 ☒ Wipe tops of bottles with alcohol and keep them covered to keep them sterile.
 ☒ Read and follow manufacturer's instructions on label.



Incorrect. Correct answers are outlined. Select "Next" to continue.

C&D Protocol

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Biosecurity

Biosecurity Strategies



Here is your Biosecurity Risk Report so far.

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Biosecurity Risk Report and Action Plan

Farm Name: Olson Farm

Date: 02/08/22

Biosecurity Investigator: Bob

Livestock Type: Dairy


Potential Disease Transmission Sources	What is the risk?	What strategies can be used to reduce the risk?
Area A Freestall barn and milking parlor: Visiting care givers (hoof trimmer, vet...)	<ul style="list-style-type: none"> Caregivers often go from farm to farm and can carry disease agents on their hands, clothing, and equipment. 	<ul style="list-style-type: none"> Restrict visitors: Keep a log of visitors Clean and disinfect (C&D) before and after working with animals
Dirty boots/clothes: Inadequate cleaning of clothing, equipment, etc.	<ul style="list-style-type: none"> Clothing, equipment, etc. can carry and spread disease agents to healthy animals. 	<ul style="list-style-type: none"> Use personal protective equipment Clean and disinfect (C&D) before and after working with animals
Working with sick animals before healthy	<ul style="list-style-type: none"> Workers can carry disease agents from sick animals on their hands and clothing and spread them to healthy animals. Sick animals can spread disease agents through direct contact and with their discharges (coughing, sneezing, urine, feces, etc.). 	<ul style="list-style-type: none"> Use personal protective equipment (PPE: gloves, clean boots, coveralls) Care for animals in the following order: healthy, quarantined, sick, working hands and changing PPE.
Not separating sick animals from other animals	<ul style="list-style-type: none"> Sick animals that are housed too close to healthy ones can spread disease agents by direct and indirect contact. 	<ul style="list-style-type: none"> Isolate and treat sick animals
No isolation or isolation too close to barn	<ul style="list-style-type: none"> Temperatures that are too high or too low can inactivate vaccine so they don't work. Needles left in the caps of vaccines can introduce bacteria that can make animals sick. 	<ul style="list-style-type: none"> Vaccinate against diseases of concern effectively (store vaccines/medicines correctly)
Employee keeps same type of animals	<ul style="list-style-type: none"> Workers may carry diseases from their animals to their employers' animals. 	<ul style="list-style-type: none"> Prevent employee ownership of same species of livestock as those cared for Clean and disinfect (hands, feet, shower in/out)

C&D Protocol **Biosecurity Strategies List** **BACK** **NEXT**

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Biosecurity

Biosecurity Strategies




Good job! Now let's go on to the next area.

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Explore the areas for sources of disease transmission risk.
Remember to think about ways you could reduce the risk as each point is presented.

Select "Next" to move to another area.



C&D Protocol

Biosecurity Strategies List

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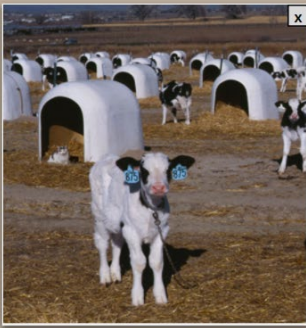

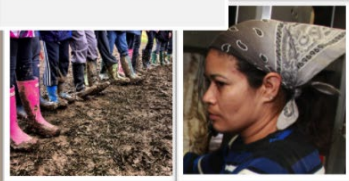


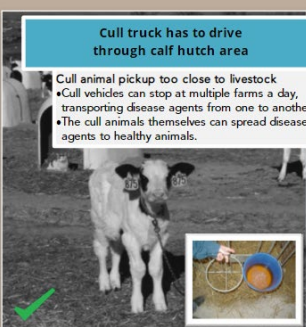




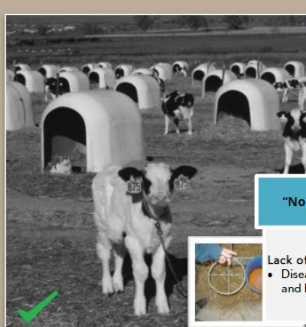

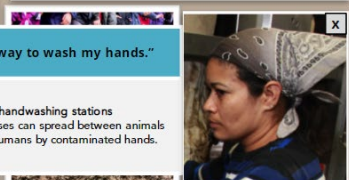


NEXT



Biosecurity Learning Modules




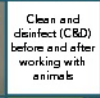



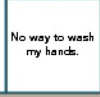










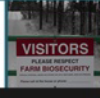

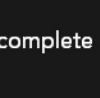

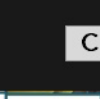










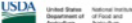

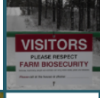

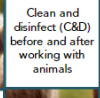

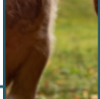

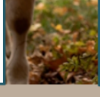









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<p>27</p>	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 3</p> </div> <div> <h3>Calf Hutches</h3> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image.</p>    <p>Cull truck has to drive through calf hutch area</p> <p>Cull animal pickup too close to livestock</p> <ul style="list-style-type: none"> Cull vehicles can stop at multiple farms a day, transporting disease agents from one to another. The cull animals themselves can spread disease agents to healthy animals. </div> <div>   C&D Protocol Biosecurity Strategies List CLOSE </div>
<p>27</p>	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 2</p> </div> <div> <h3>Calf Hutches</h3> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image.</p>    <p>"No way to wash my hands."</p> <p>Lack of handwashing stations</p> <ul style="list-style-type: none"> Diseases can spread between animals and humans by contaminated hands. </div> <div>   C&D Protocol Biosecurity Strategies List CLOSE </div>

<p>27</p>	<div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div>Exploration points left</div> <div>1</div> </div> <div> <div>Calf Hutches</div> <div> <div>27 of 55 pages</div> <div>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image.</div> <div>     </div> <div> <div>Visitors (3rd grade field trip)</div> <ul style="list-style-type: none"> Can spread disease agents. Can carry disease agents on boots and clothes. </div> </div> <div>  <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>CLOSE</div> </div> </div> </div> </div>
<p>27</p>	<div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div>Exploration points left</div> <div>0</div> </div> <div> <div>Calf Hutches</div> <div> <div>27 of 55 pages</div> <div>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image.</div> <div>     </div> <div> <div>Contaminated feed or water</div> <ul style="list-style-type: none"> May have disease agents from manure. Birds and rodents can contaminate feed or water with urine and feces. </div> </div> <div>  <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>CLOSE</div> </div> </div> </div> </div>
<p>27</p>	<div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div>Exploration points left</div> <div>0</div> </div> <div> <div>Calf Hutches</div> <div> <div>27 of 55 pages</div> <div>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image.</div> <div>     </div> </div> <div>  <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>CLOSE</div> </div> </div> </div> </div>

<p>28</p>	<div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> <p>Click on two boxes at a time until you've matched a Source of Risk photo with its corresponding Strategy. Keep trying until all the boxes disappear.</p> </div> <div> <h4>Area C Strategies Activity</h4> <div> <div> <p>Use personal protective equipment (PPE) like gloves, boots, and coveralls</p>  </div> <div> <p>Restrict visitors; Keep a log of visitors.</p>  </div> <div> <p>Clean and disinfect (C&D) before and after working with animals</p>  </div> <div> <p>Protect feed and water from contamination.</p>  </div> <div> <p>Control insects, birds, wildlife, and other species.</p>  </div> <div> <p>Establish effective signage (parking, no entry, etc.)</p>  </div> <div> <p>Prevent feral/canine contact with neighboring animals.</p>  </div> <div> <p>No way to wash my hands.</p>  </div> <div>  </div> <div>  </div> <div>  </div> <div>  </div> <div>  </div> <div>  </div> <div>  </div> <div>  </div> </div> <div>  </div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div><BACK</div> <div>NEXT></div> </div> </div> </div>
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28

Biosecurity

Biosecurity Strategies

Click on two boxes at a time until you've matched a Source of Risk photo with its corresponding Strategy. Keep trying until all the boxes disappear.

Area C Strategies Activity

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Biosecurity

Biosecurity Strategies

Here is your Biosecurity Risk Report so far.

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Biosecurity Risk Report and Action Plan

Farm Name: Olson Farm

Date: vcvxz

Biosecurity Investigator: vzyz

Livestock Type: Dairy

Potential Disease Transmission Sources	What is the risk?	What strategies can be used to reduce the risk?
Area A Area B Calf hutches:		
Visitors (dirty boots and clothes)	<ul style="list-style-type: none">• Can spread disease agents directly.• Can carry disease agents on boots and clothes.	<ul style="list-style-type: none">• Use personal protective equipment (PPE: gloves, clean boots, coveralls)• Restrict visitors. Keep a log of visitors.
Contaminated feed or water	<ul style="list-style-type: none">• May have disease agents from manure.• Birds and rodents can contaminate feed or water with urine and feces.	<ul style="list-style-type: none">• Clean and disinfect (C&D) before and after working with animals.• Protect feed and water from contamination.• Control flies, birds, wildlife, and other species (could also be indirect)
Wild/domestic animals around livestock	<ul style="list-style-type: none">• Many diseases are shared between wild and domestic animals with livestock.	<ul style="list-style-type: none">• Control flies, birds, wildlife, and other species (could also be indirect)
Lack of handwashing facilities	<ul style="list-style-type: none">• Diseases can spread between animals and humans by contaminated hands.	<ul style="list-style-type: none">• Clean and disinfect hands, feet, vehicles, equipment, facilities; shower in/out. Provide facilities for C&D.
Cull animal pick up too close to livestock	<ul style="list-style-type: none">• Cull vehicles can stop at multiple farms a day, transporting disease agents from one to another.• The cull animals themselves can spread disease agents to healthy animals.	<ul style="list-style-type: none">• Establish and maintain a line of separation (gates, perimeter, internal fences, and traffic flow)• Establish effective signage (parking, no entry, etc.); Control traffic on farm.

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Biosecurity

Biosecurity Strategies

Good job! Now let's go on to the next area.

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of 55 pages

Explore the areas for sources of disease transmission risk.
Remember to think about ways you could reduce the risks as each point is presented.


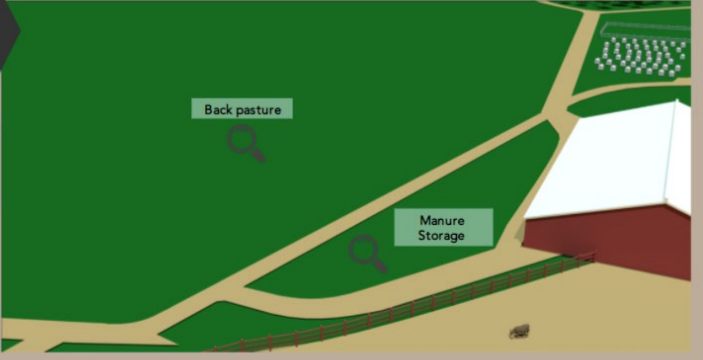



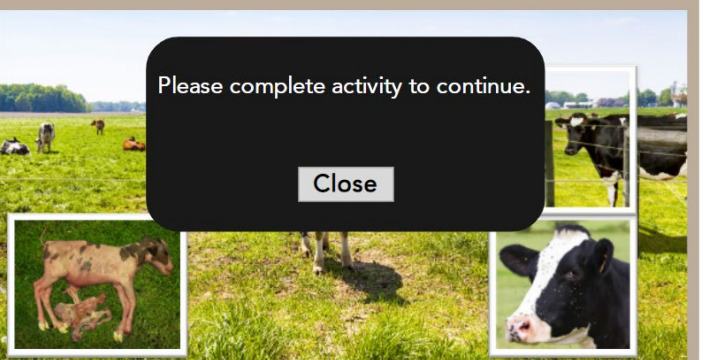
Select "Next" to move to another area.




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<p>31</p>	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div>  <div>Area D</div> </div> <div> <div>Exploration points left</div> <div>6</div> </div> </div> <div> <div> <div>Back pastures</div> <div> <p>This area contains additional sources of potential disease transmission. What risks do they pose? Click on the magnifying glasses to get a closer look and click each picture with a white frame to review the specific risks.</p>  </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> </div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>◀BACK NEXT▶</div> </div> </div> </div>
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31	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 5</p> </div> <div> <p>Back pastures</p> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  <div> <p>Dead fetus</p> <ul style="list-style-type: none"> Animals can pick up disease agents by sniffing and licking aborted tissues and fluids. </div> <div> <p>C&D Protocol Biosecurity Strategies List</p> </div> <div> <p>CLOSE</p> </div> </div>
31	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 4</p> </div> <div> <p>Back pastures</p> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  <div> <p>Fence-line contact</p> <ul style="list-style-type: none"> Disease agents can be spread by nose-to-nose contact and fecal contaminated grass and feed. </div> <div> <p>C&D Protocol Biosecurity Strategies List</p> </div> <div> <p>CLOSE</p> </div> </div>
31	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 3</p> </div> <div> <p>Back pastures</p> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  <div> <p>Vectors and birds</p> <ul style="list-style-type: none"> Vectors, such as mosquitos and flies, and birds can carry disease agents from sick animals to healthy on their bodies and feces. </div> <div> <p>C&D Protocol Biosecurity Strategies List</p> </div> <div> <p>CLOSE</p> </div> </div>

31	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 3</p> </div> <div> <p>Back pastures</p> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  </div> <div> <div>USDA United States Department of Agriculture National Institute of Food and Agriculture</div> <div>C&D Protocol Biosecurity Strategies List</div> <div>CLOSE</div> </div>
31	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Area D</p> <p>Exploration points left 3</p> </div> <div> <p>Back pastures</p> <p>This area contains additional sources of potential disease transmission. What risks do they pose? Click on the magnifying glasses to get a closer look and click each picture with a white frame to review the specific risks.</p>  </div> <div> <div>USDA United States Department of Agriculture National Institute of Food and Agriculture</div> <div>C&D Protocol Biosecurity Strategies List</div> <div><BACK NEXT></div> </div>
31	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 3</p> </div> <div> <p>Manure Storage Area</p> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  </div> <div> <div>USDA United States Department of Agriculture National Institute of Food and Agriculture</div> <div>C&D Protocol Biosecurity Strategies List</div> <div>CLOSE</div> </div>

<p>31</p>	<div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div>Exploration points left</div> <div>2</div> </div> <div> <div>Manure Storage Area</div> <div> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  <div> <div>Improper management of manure storage</div> <ul style="list-style-type: none"> Manure is a source of disease agents, especially bacteria and parasites. Poor management puts animals at risk of infection. </div> </div> <div> <div>31</div> <div>of 55 pages</div> </div> </div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>CLOSE</div> </div> </div>
<p>31</p>	<div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div>Exploration points left</div> <div>1</div> </div> <div> <div>Manure Storage Area</div> <div> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>  <div> <div>Shared Equipment</div> <ul style="list-style-type: none"> Equipment shared between tasks (like moving manure and moving feed) or between farms can carry and spread disease agents. </div> </div> <div> <div>31</div> <div>of 55 pages</div> </div> </div> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>CLOSE</div> </div> </div>
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31	<div> <p>Biosecurity Biosecurity Strategies</p> <p>Exploration points left 0</p> </div> <div> <h3>Manure Storage Area</h3> <p>What are the potential disease transmission sources shown here? Do you know the risks they present? Click on each image framed in white for more information about the disease transmission source and the risks it poses. Hide info after viewing each image</p>    <div> C&D Protocol Biosecurity Strategies List CLOSE </div> </div>
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32	 <p>Biosecurity Risk: Back Pastures 32 of 55 pages</p> <p>Which category from each drop down does each source of disease transmission fall into: Hint: If you need help, click on "Biosecurity Strategies list" in the navigation bar below.</p> <p>Dead fetus on pasture: %pg4 1DF%</p> <p>Fence-line contact: %pg4 1FLC%</p> <p>Poorly managed compost pile: %pg4 1SE%</p> <p>Vectors and birds: %pg4 1VB%</p> <p>Improper management of manure storage: %pg4 1IMMS%</p> <p>USDA Submit C&D Protocol Biosecurity Strategies List <BACK</p>
32	 <p>Biosecurity Risk: Back Pastures 32 of 55 pages</p> <p>Which category from each drop down does each source of disease transmission fall into: Hint: If you need help, click on "Biosecurity Strategies list" in the navigation bar below.</p> <p>Dead fetus on pasture: Animal-animal, People on the farm, Contaminated feed/water, Equipment, vehicles, facilities</p> <p>Poorly managed compost pile: Shared equipment</p> <p>Vectors and birds: Improper management of manure storage</p> <p>USDA Submit C&D Protocol Biosecurity Strategies List <BACK</p>
32	 <p>Biosecurity Risk: Back Pastures 32 of 55 pages</p> <p>Which category from each drop down does each source of disease transmission fall into: Hint: If you need help, click on "Biosecurity Strategies list" in the navigation bar below.</p> <p>Dead fetus on pasture: Animal-Animal, Animal-animal</p> <p>Fence-line contact: Equipment, vehicles, facilities, Animal-animal</p> <p>Poorly managed compost pile: Contaminated feed/water, Contaminated food/water</p> <p>Shared equipment: Equipment, vehicles, facilities, Equipment, tools, facilities</p> <p>Vectors and birds: Animal-Animal, Contaminated food/water</p> <p>Improper management of manure storage: Contaminated feed/water, Contaminated food/water</p> <p>Incorrect. Correct answers are displayed. Select "Next" to continue.</p> <p>USDA Submit C&D Protocol Biosecurity Strategies List <BACK NEXT</p>

33	<div> <div>  United States Department of Agriculture </div> <div> National Institute of Food and Agriculture </div> </div> <div> <h3>Biosecurity</h3> <p>Biosecurity Strategies</p> </div> <div> <p>What strategies would you recommend to reduce the risk posed by each of these sources of disease transmission?</p> <p>Using the Biosecurity Strategies List below, write in your own words the strategy you would recommend for each source of disease transmission.</p> <table border="1"> <thead> <tr> <th>Source of disease transmission</th> <th>Your recommendation</th> <th>Feedback</th> </tr> </thead> <tbody> <tr> <td></td> <td>type your text here Compare</td> <td></td> </tr> <tr> <td></td> <td>type your text here Compare</td> <td></td> </tr> <tr> <td></td> <td>type your text here Compare</td> <td></td> </tr> </tbody> </table> <div> C&D Protocol Biosecurity Strategies List BACK NEXT </div> </div>	Source of disease transmission	Your recommendation	Feedback		type your text here Compare			type your text here Compare			type your text here Compare	
Source of disease transmission	Your recommendation	Feedback											
	type your text here Compare												
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Biosecurity

Biosecurity Strategies



United States

Department of

Agriculture

National Institute

of Food and




Agriculture

What strategies would you recommend to reduce the risk posed by each of these sources of disease transmission?

Using the Biosecurity Strategies List below, write in your own words the strategy you would recommend for each source of disease transmission.

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Source of disease transmission	Your recommendation	Feedback
	your answer <div>Compare</div>	<ul style="list-style-type: none"> Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact
	your answer <div>Compare</div>	<ul style="list-style-type: none"> Remove and dispose of placentas and aborted fetuses promptly and properly Use appropriate vaccines
	your answer <div>Compare</div>	<ul style="list-style-type: none"> Control flies, birds, wildlife, and other species

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Biosecurity

Biosecurity Strategies



United States

Department of

Agriculture

National Institute

of Food and

Agriculture

What strategies would you recommend to reduce the risk posed by each of these sources of disease transmission?

Using the Biosecurity Strategies List below, write in your own words the strategy you would recommend for each source of disease transmission.

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Animal-Animal	<ul style="list-style-type: none"> Have a closed herd (grow own replacements; do not take livestock to shows) If you do buy animals, purchase healthy, test-negative animals (don't buy animals from auction yards) Quarantine herd additions or returns Isolate and treat sick animals Vaccinate against diseases of concern effectively (store vaccine/medicines correctly) Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact Remove and dispose of placentas and aborted fetuses promptly and properly to protect animals and humans Cull animals that do not respond to treatment or that are asymptomatic disease carriers Use AI for breeding whenever possible; Do not share breeding males between farms
People on the Farm	<ul style="list-style-type: none"> Use clean personal protective equipment (PPE) like gloves, boots, and coveralls Wash hands; clean and disinfect (C&D) footwear and equipment; shower in/out Restrict visitors; Keep a log of visitors Prevent employee ownership of same livestock species as those cared for Care for animals in the following order: healthy, quarantined, sick; washing hands and changing PPE between
Contaminated Feed and Water	<ul style="list-style-type: none"> Manage manure effectively Have an effective on-farm composting system for manure and mortalities Protect feed and water from contamination Control flies, birds, wildlife, and other species
Equipment, Vehicles, and Facilities	<ul style="list-style-type: none"> Clean and disinfect (vehicles, equipment, facilities) Establish effective signage (parking, no entry, etc.); Control traffic on farm Manage traffic flow; control access to the farm and animal areas Do not share equipment with others Have separate equipment for feed and manure Ensure good air quality through effective barn ventilation systems Avoid dirt and wood-based facilities

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Biosecurity

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United States

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Agriculture

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of Food and




Agriculture

What strategies would you recommend to reduce the risk posed by each of these sources of disease transmission?

Using the Biosecurity Strategies List below, write in your own words the strategy you would recommend for each source of disease transmission.

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Source of disease transmission	Your recommendation	Feedback
	<div>Please complete activity to continue.</div> <div>Close</div>	
		
		<div>type your text here</div> <div>Compare</div>

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<div>34</div>	<div> <div> <div>Biosecurity</div> <div>Biosecurity Strategies</div> <div>  <div> <div>United States</div> <div>Department of</div> <div>Agriculture</div> </div> <div> <div>National Institute</div> <div>of Food and</div> <div>Agriculture</div> </div> </div> </div> </div> <div> <div>What strategies would you recommend to reduce the risk posed by each of these sources of disease transmission?</div> <div>Using the Biosecurity Strategies List below, write in your own words the strategy you would recommend for each source of disease transmission.</div> <table> <tr> <th>Source of disease transmission</th><th>Your recommendation</th><th>Feedback</th></tr> <tr> <td></td><td>your answer <div>Compare</div></td><td> <ul style="list-style-type: none"> Do not share equipment with others Have separate equipment for feed and manure Clean and disinfect (vehicles, equipment, facilities) </td></tr> <tr> <td></td><td>your answer <div>Compare</div></td><td> <ul style="list-style-type: none"> Have an effective on-farm composting system for manure and mortalities </td></tr> <tr> <td></td><td>your answer <div>Compare</div></td><td> <ul style="list-style-type: none"> Manage manure effectively </td></tr> </table> <div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>BACK NEXT</div> </div> </div>	Source of disease transmission	Your recommendation	Feedback		your answer <div>Compare</div>	<ul style="list-style-type: none"> Do not share equipment with others Have separate equipment for feed and manure Clean and disinfect (vehicles, equipment, facilities) 		your answer <div>Compare</div>	<ul style="list-style-type: none"> Have an effective on-farm composting system for manure and mortalities 		your answer <div>Compare</div>	<ul style="list-style-type: none"> Manage manure effectively 			
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Biosecurity

Biosecurity Strategies

Let's say you have a herd of beef cattle consisting of 100 cows and 100 calves.

To replace a bred cow would cost \$1500 or more.

Weaned steer calves are worth \$700.

A loss of a calf due to abortion equals the value of one calf at weaning (\$700).

The cost for BVD vaccination is \$3/calf for a total of \$300 for your herd.

Vaccination Example

Calculate and fill in the costs in each "Cost" column by multiplying the cost per cow for the different expenses and the number of cows in each example. The first two slots have been filled in for you.

Expenses of vaccinating and not vaccinating	Less Disease #	Less Disease Cost	More Disease #	More Disease Cost	Vaccination #	Vaccination Cost
Cost of vaccination (\$3/calf)	0	0	0	0	100	300
Cost of Bred Cow Deaths (\$1500/cow)	1	1500	10	15000	0	0
Cost of Weaned Steer Deaths (\$700/calf)	1	700	10	7000	0	0
Cost of Abortions (\$700/calf)	2	1400	20	14000	0	0
Total Costs		\$ 3600		\$ 36000		\$ 300

Can you afford to vaccinate...?

Can you afford NOT to??

FYI: While vaccination is not a guarantee of NO disease, it significantly reduces the risk.

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Biosecurity

Biosecurity Strategies

Additional Benefits to a Biosecure Farm

There are other advantages to having a biosecure farm. Can you think of some?

Type your text here

[Compare](#)

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Additional Benefits to a Biosecure Farm

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Type your text here

Please complete activity to continue.

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38	<div>  </div> <div> <h3>Additional Benefits to a Biosecure Farm</h3> </div> <div> 38 of 55 pages </div> <div> <p>There are other advantages to having a biosecure farm. Can you think of some?</p> </div> <div> <p>Type your text here</p> </div> <div> <div></div> </div> <div> Compare </div> <div> <p>Did you think of any of these?</p> </div> <div> <ul style="list-style-type: none"> • Protect against many diseases, even new, as yet unknown, diseases • Improved relations with neighbors and agricultural community • Consumer trust in products • Open trade outlets </div> <div>  </div> <div> C&D Protocol </div> <div> Biosecurity Strategies List </div> <div> <BACK NEXT> </div>
39	<div>  </div> <div> <h3>Effectiveness</h3> </div> <div> 39 of 55 pages </div> <div> <p>Use these words to fill in the blanks:</p> </div> <div> <p>strategy bang buck cost effectiveness risks</p> </div> <div> <p>Besides cost, it is also important to consider how effective a _____ is. Some are very effective at reducing _____ while some only help a little.</p> </div> <div> <p>_____ is a way to compare the costs of different strategies with the outcome of using those strategies.</p> </div> <div> <p>In other words, which strategies are worth the cost of implementing them... ...which give us the biggest _____ for our _____ !</p> </div> <div>  </div> <div> C&D Protocol </div> <div> Biosecurity Strategies List </div> <div> SUBMIT </div>
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Printable
C&D
Protocol
and
Biosecurity
Strategies
List are
included at
the end of
this
document

Biosecurity

Biosecurity Strategies

We have added two columns to the Biosecurity Strategies List: one for relative cost and one for effectiveness.

Using this list, see if you can uncover the hidden picture before you run out of money.

Each strategy will reveal more of the picture depending on how effective it is.

USDA

United States Department of Agriculture

National Institute of Food and Agriculture

Bang for the Buck

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Cost Rankings (\$\$\$, \$\$, \$, €, ¢)

Effectiveness

Reduces animal to animal disease spread

1. Have a closed herd (grow own replacements; do not take livestock to shows)
2. If you do buy animals, purchase healthy, test-negative animals (don't buy animals from auction yards)
3. Quarantine herd additions or returns
4. Isolate and treat sick animals
5. Vaccinate against diseases of concern effectively (store vaccine/medicines correctly)
6. Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact
7. Remove and dispose of placentas and aborted fetuses promptly and properly to protect animals and humans
8. Cull animals that do not respond to treatment or that are asymptomatic disease carriers
9. Use AI for breeding whenever possible; Do not share breeding males between farms

Reduces spread through people on the farm or v.v.

1. Use clean personal protective equipment (PPE) like gloves, boots, and coveralls
2. Wash hands; clean and disinfect (C&D) footwear and equipment; shower in/out
3. Restrict visitors; Keep a log of visitors
4. Prevent employee ownership of same livestock species as those cared for
5. Care for animals in the following order: healthy, quarantined, sick, washing hands and changing PPE between

Reduces chance of feed or water contamination or disease spread by same

1. Manage manure effectively
2. Have an effective on-farm composting system for manure and mortalities
3. Protect feed and water from contamination
4. Control flies, birds, wildlife, and other species (could also be indirect)

Reduces spread by equipment, vehicles, and facilities

1. Clean and disinfect (vehicles, equipment, facilities)
2. Establish effective signage (parking, no entry, etc.); Control traffic on farm
3. Manage traffic flow; control access to the farm and animal areas
4. Do not share equipment with others
5. Have separate equipment for feed and manure
6. Ensure good air quality through effective barn ventilation systems
7. Avoid dirt and wood-based facilities

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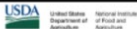
Biosecurity

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\$	★★★★★	3. Quarantine herd additions or returns
\$	★★★★★	4. Isolate and treat sick animals
\$	★★★★★	5. Vaccinate against diseases of concern effectively (store vaccine/medicines correctly)
\$	★★★★★	6. Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact
¢	★★★★★	7. Remove and dispose of placenta and aborted fetuses promptly and properly to protect animals and humans
¢	★★★★★	8. Cull animals that do not respond to treatment or that are asymptomatic disease carriers
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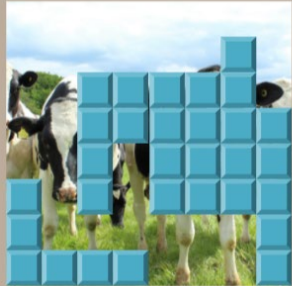
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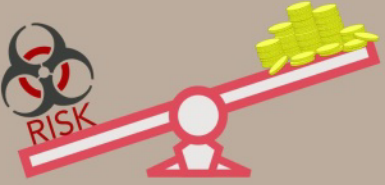





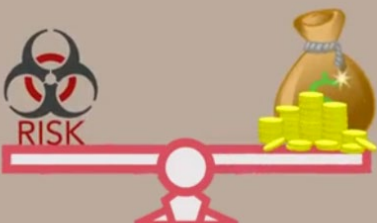

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Reset

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42	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div> <div>Risk Tolerance</div> <div>42 of 55 pages</div> </div> </div> <div>  <div> <p>Ultimately the decision as to which biosecurity strategies and how many to implement is up to each farmer. One important question is how much tolerance does the farmer have for risk. Some people are more comfortable with accepting more risk of disease outbreaks in their operation than others.</p> <p>Maybe they:</p> <ul style="list-style-type: none"> • Don't think the risk of disease outbreaks is that high; • Have enough cash flow and profit to absorb losses; • Are willing to accept some losses. <p>But their tolerance for risk is affected by changing circumstances.</p> </div> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div><BACK</div> <div>NEXT></div> </div> </div>
43	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div> <div>A Balancing Act</div> <div>43 of 55 pages</div> </div> </div> <div> <p>Each farmer needs to balance the costs of disease prevention against their perception and tolerance of risk.</p>  <p>Let's use an example of porcine epidemic diarrhea (PED), a disease that can cause severe diarrhea in sows and the death of up to 100% of piglets. So far there have been no cases in your state so you might be less interested in spending the money to put in a truck washing station.</p> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>CONTINUE</div> </div> </div>
43	<div> <div> <div>Biosecurity Biosecurity Strategies</div> <div> <div>A Balancing Act</div> <div>43 of 55 pages</div> </div> </div> <div> <p>Each farmer needs to balance the costs of disease prevention against their perception and tolerance of risk.</p>  <p>With these new developments you might be less tolerant of the risk and decide you should vaccinate your animals (and perhaps implement other strategies as well). You need to balance your risk against the cost of disease prevention.</p> </div> <div> <div>USDA</div> <div>United States Department of Agriculture</div> <div>National Institute of Food and Agriculture</div> <div>C&D Protocol</div> <div>Biosecurity Strategies List</div> <div>CONTINUE</div> </div> </div>

43	<div> <p>Biosecurity Biosecurity Strategies</p>  <p>United States Department of Agriculture</p> </div> <div> <p>A Balancing Act</p> <p>Each farmer needs to balance the costs of disease prevention against their perception and tolerance of risk.</p>  <p>With these new developments you might be less tolerant of the risk and decide you should vaccinate your animals (and perhaps implement other strategies as well). You need to balance your risk against the cost of disease prevention.</p> </div> <div> <p>43 of 55 pages</p> </div> <div> <p>C&D Protocol Biosecurity Strategies List CONTINUE</p> </div>
43	<div> <p>Biosecurity Biosecurity Strategies</p>  <p>United States Department of Agriculture</p> </div> <div> <p>A Balancing Act</p> <p>Each farmer needs to balance the costs of disease prevention against their perception and tolerance of risk.</p>  <p>Biosecurity will decrease the probability of an infection exposure and curtail its effect. At the same time, strategies need to make some financial sense.</p> <p>Every farm should have a biosecurity plan that includes short term and longer term goals and an emergency plan in the case of emerging disease outbreaks.</p> </div> <div> <p>43 of 55 pages</p> </div> <div> <p>C&D Protocol Biosecurity Strategies List <BACK NEXT></p> </div>
44	<div> <p>Biosecurity Biosecurity Strategies</p>  <p>United States Department of Agriculture</p> </div> <div> <p>Top Recommendations for the Olson Farm</p> <p>Open your biosecurity plan below and select your top recommendation for each farm area. Refer to the biosecurity strategies list to check cost effectiveness before you make your selection. Clicking on the recommendation will automatically fill in the blanks below. Compare your selection with that of two experts.</p> <p>Area A: <input type="text"/></p> <p>Area B: <input type="text"/></p> <p>Area C: <input type="text"/></p> <p>Area D: <input type="text"/></p> </div> <div> <p>44 of 55 pages</p> </div> <div> <p>C&D Protocol Biosecurity Plan Biosecurity Strategies List <BACK NEXT></p> </div>

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Biosecurity Biosecurity Strategies

Of the strategies listed, select what you think would be your one top recommendation for each area. Then submit your choices and compare them to what two experts would have chosen.

Don't forget to check the Biosecurity Strategies List for cost effectiveness.

Biosecurity Risk Report and Recommendations for Biosecurity Strategies

Farm Name Dave and Debbie Olson Date: 4/9/2020
4-H Investigator egf4gds Livestock type Dairy

Source of Risk of Potential Disease Transmission	Biosecurity Strategies
Area A: Heifer barn, old barn, & barnyard	<ul style="list-style-type: none"> 1. Chronically sick animals 2. Downed bull 3. New or returning animals 4. Poor ventilation 5. Vehicle in barn 6. Contaminated facilities
Area B: Freestall barn and Parlor	<ul style="list-style-type: none"> 1. Inadequate cleaning of clothing, equipment, etc. 2. Interacting with sick animals before healthy 3. Not separating sick animals from herd 4. Visiting care given (hoof trimmer, vet...) 5. No isolation or too close to barn 6. Improper storage of vaccines 7. Employee keeps same type of animals
Area C: Calf Hutches	<ul style="list-style-type: none"> 1. Visitors (dirty boots and clothes) 2. Contaminated feed or water 3. Mismanaged animals around livestock 4. Lack of handwashing facilities 5. Cull animal pick up too close to livestock
Area D: Back Pasture	<ul style="list-style-type: none"> 1. Fence line contact 2. Fles and birds 3. Abortions 4. Shared equipment 5. Poorly managed compost pile 6. Improper manure management

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Biosecurity Biosecurity Strategies

Top Recommendations for the Olson Farm

Open your biosecurity plan below and select your top recommendation for each farm area. Refer to the biosecurity strategies list to check cost effectiveness before you make your selection. Clicking on the recommendation will automatically fill in the blanks below. Compare your selection with that of two experts.

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Area A: Cull animals that do not respond to treatment or that are asymptomatic disease carriers

Area B: Restrict visitors: Keep a log of visitors

Area C: Use personal protective equipment (PPE: gloves, clean boots, coveralls)

Area D: Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact

Area A Heifer barn, old barn, & barnyard:
Dr. Smythe: My best recommendation is to cull animals that don't respond to treatment or are carrying diseases without signs of illness. Chronically sick animals that don't get better with treatment are suffering and they're a source of infection for other animals, too. Healthy-looking animals that test positive can also spread diseases to others, but it does increase expenses to find them through testing. I think identifying and culling animals that put others at risk is an efficient use of a biosecurity budget. Would you agree, Dr. Joanz?
Dr. Joanz: I agree that culling is an easy and effective biosecurity strategy. However, not allowing new diseases onto the farm in the first place is my top priority, so I recommend creating a quarantine for new herd additions and all returning animals. A manageable task is to create a pen that doesn't share feed, water, or nose-to-nose contact with other livestock. Then, you can keep all new or returning animals separate from the herd for two weeks, which should minimize any possibility of a disease spreading.

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Biosecurity Biosecurity Strategies

Top Recommendations for the Olson Farm

Open your biosecurity plan below and select your top recommendation for each farm area. Refer to the biosecurity strategies list to check cost effectiveness before you make your selection. Clicking on the recommendation will automatically fill in the blanks below. Compare your selection with that of two experts.

44 of 55 pages

Area A: Cull animals that do not respond to treatment or that are asymptomatic disease carriers

Area B: Restrict visitors: Keep a log of visitors

Area C: Use personal protective equipment (PPE: gloves, clean boots, coveralls)

Area D: Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact

Area B Freestall barn and milking parlor:
Dr. Joanz: I feel the first strategy to implement is caring for animals in the correct order: healthy animals first, then quarantined, and then sick, all while washing your hands and changing your PPE between groups. This doesn't cost any money; it just requires a change in management and it's a great first step for a biosecure farm.
Dr. Smythe: That's very true. But I would also recommend isolating and treating sick animals as a top biosecurity strategy here. These animals need to be treated in an isolated hospital area so they will get better while not spreading infection to other animals. Creating an isolation area decreases disease spread and makes it easier to treat sick animals. And it would also make caring for animals in the correct order easier!

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Top Recommendations for the Olson Farm

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Open your biosecurity plan below and select your top recommendation for each farm area. Refer to the biosecurity strategies list to check cost effectiveness before you make your selection. Clicking on the recommendation will automatically fill in the blanks below. Compare your selection with that of two experts.

Area A: Cull animals that do not respond to treatment or that are asymptomatic disease carriers

Compare

Area B: Restrict visitors: Keep a log of visitors

Compare

Area C: Use personal protective equipment (PPE: gloves, clean boots, coveralls)

Compare

Area D: Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact

Compare

Area C Calf Hutch Area:

Dr. Joanz: I would say that cleaning and disinfecting, or C&D for short, before and after working with animals is most important here. These young calves are just developing their immune systems, so anything workers have picked up on their clothes, boots, or hands from working with older or sick animals can bring in diseases. To prevent this, always wash your hands, and put on clean boots and coveralls before working with calves. Remember to also wash your hands after working with the calves because some of their diseases are zoonotic.

Dr. Smythe: Calves are babies and they need clean food, water, and housing. Keeping things that go in their mouths as clean as possible reduces their risk of disease, especially diarrhea. I agree that cleaning and disinfecting are very important, but keeping this equipment free from disease-causing agents is crucial. That's why my top recommendation here would be to do what it takes to protect feed and water from contamination.

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Top Recommendations for the Olson Farm

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Open your biosecurity plan below and select your top recommendation for each farm area. Refer to the biosecurity strategies list to check cost effectiveness before you make your selection. Clicking on the recommendation will automatically fill in the blanks below. Compare your selection with that of two experts.

Area A: Cull animals that do not respond to treatment or that are asymptomatic disease carriers

Compare

Area B: Restrict visitors: Keep a log of visitors

Compare

Area C: Use personal protective equipment (PPE: gloves, clean boots, coveralls)

Compare

Area D: Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact

Compare

Area D Back Pasture:

Dr. Smythe: The best biosecurity strategy I see here is to prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact. It's almost impossible to know the health status of a neighbor's animals. Nose-to-nose contact can introduce a whole new set of diseases onto a farm, so preventing this contact is crucial.

Dr. Joanz: This time I agree with Dr. Smythe. Very well done!


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Biosecurity

Biosecurity Strategies

Here is your completed Biosecurity Risk Report. Select the print icon to print the report.





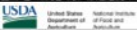









Biosecurity Risk Report and Recommendations for Biosecurity Strategies




Farm Name: Dave and Debbie Olson Date: fgsdgs

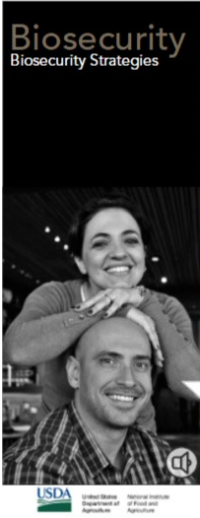
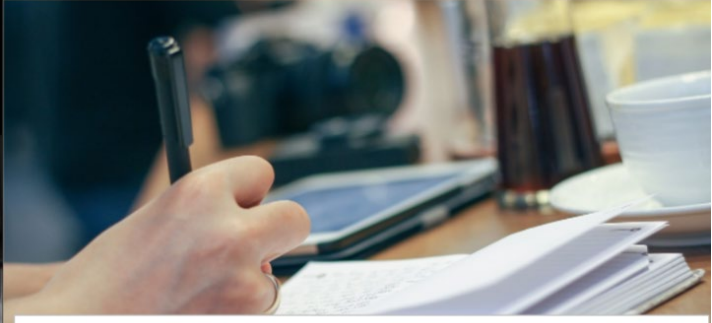




4-H Investigator: sgfdgfs Livestock type: Dairy

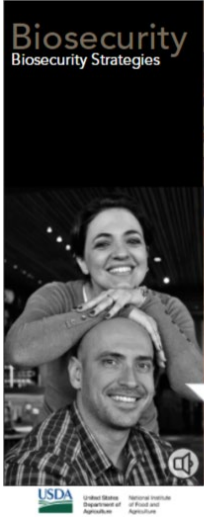

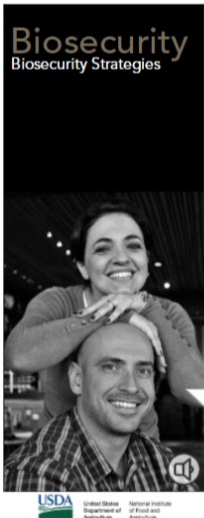

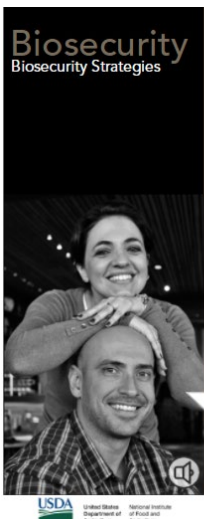

Source of Risk of Potential Disease Transmission	Biosecurity Strategies
Area A: Visitor	<ul style="list-style-type: none"> 1. Cull animals that do not respond to treatment or that are asymptomatic disease carriers. 2. Restricted visitors: Keep a log of visitors. 3. New or returning animals: <ul style="list-style-type: none"> • Use AI for breeding when possible. If not, buy a breeding male. Don't share breeding males between farms. • Have a closed herd (give own replacements, don't buy). 4. Quarantine new arrivals and any animal returns. 5. Quarantine feed and water from contamination. 6. Clean and disinfect (C&D) before and after working with animals. 7. Have separate equipment for feed and manure.
Area B: Feedlot	<ul style="list-style-type: none"> 1. Inadequate cleaning of clothing, equipment, etc. 2. Working with sick animals before healthy. 3. Not separating sick animals from herd. 4. Visiting same given (feed trough, vet, ...) 5. No isolation or too close to barn. 6. Improper storage of vaccines. 7. Employees keep same type of animals.
Area C: Calf Hutch	<ul style="list-style-type: none"> 1. Visitors (dirty boots and clothes). 2. Contaminated feed or water. 3. Wild/domestic animals around livestock. 4. Lack of handwashing facilities. 5. Cull animal pick up too close to livestock.
Area D: Back Pasture	<ul style="list-style-type: none"> 1. Fence line contact. 2. Feed and water. 3. Quarantine. 4. Shared equipment. 5. Poorly managed compost pile. 6. Improper manure management.







C&D Protocol Biosecurity Strategies List BACK NEXT

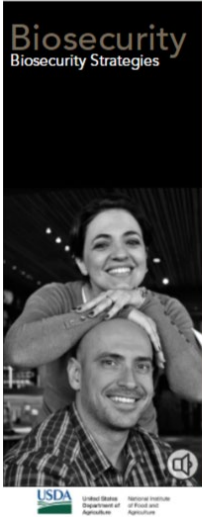

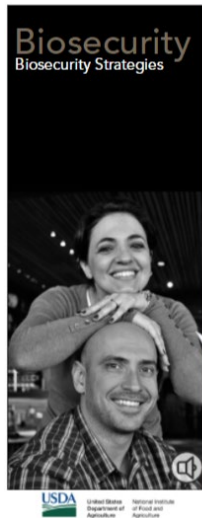



<p>46</p>	<div> <div>    </div> <div> <p>Congratulations, you've completed your mission!</p> <p>46 of 55 pages</p>  <div> <p>Thank you for your hard work and thoroughness in developing a Biosecurity Plan for our farm. We greatly appreciate it.</p> <p>We will work to implement your recommendations into our operation over the next six months. Good luck to you! Come back and see us anytime!</p> </div> </div> <div> <p>C&D Protocol Biosecurity Strategies List <BACK NEXT></p> </div> </div>
<p>47</p>	<div> <div>    </div> <div> <p>Epilogue: Six Months Later</p> <p>47 of 55 pages</p>  <div> <p>Hi there. Nice to see you again. Thanks again for all your work evaluating our farm. Based on your report we've made some changes to improve our biosecurity.</p> </div> </div> <div> <p><BACK NEXT></p> </div> </div>
<p>47</p> <p>*Do not click "Next". Allow for an auto-mated slide show.</p>	<div> <div>    </div> <div> <p>Epilogue: Six Months Later</p> <p>47 of 55 pages</p>  <div> <p>Hi there. Nice to see you again. Thanks again for all your work evaluating our farm. Based on your report we've made some changes to improve our biosecurity.</p> </div> </div> <div> <p><BACK NEXT</p> </div> </div>

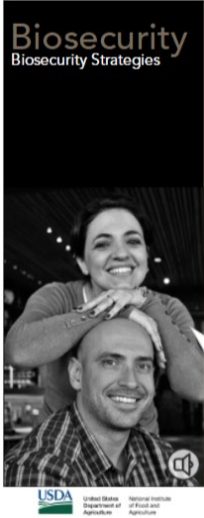
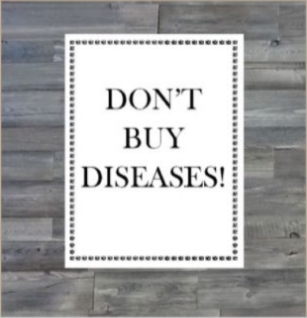
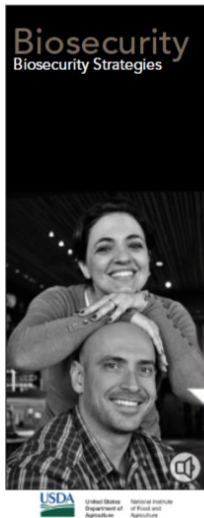




47	<div> <div> <div>Biosecurity Biosecurity Strategies</div>  </div> <div> <div>Epilogue: Six Months Later</div> <div>47 of 55 pages</div> </div> <p>We started off by having a meeting with everyone who works with our animals, including my brother. We explained biosecurity and ensured they understood what we were trying to do and why. We knew this wasn't going to work without their cooperation. We had everyone go through the first two modules and then we showed them your report and recommendations. Now we have weekly get-togethers to discuss how things are going. If everyone's followed the biosecurity rules that week, we have a pizza party!</p> <div>   </div> <div> <div>◀BACK</div> <div>NEXT▶</div> </div> </div>
47	<div> <div> <div>Biosecurity Biosecurity Strategies</div>  </div> <div> <div>Epilogue: Six Months Later</div> <div>47 of 55 pages</div> </div> <div>  <div>Biosecurity Routes of Infection</div> </div> <p>We started off by having a meeting with everyone who works with our animals, including my brother. We explained biosecurity and ensured they understood what we were trying to do and why. We knew this wasn't going to work without their cooperation. We had everyone go through the first two modules and then we showed them your report and recommendations. Now we have weekly get-togethers to discuss how things are going. If everyone's followed the biosecurity rules that week, we have a pizza party!</p> <div>   </div> <div> <div>◀BACK</div> <div>NEXT▶</div> </div> </div>
47	<div> <div> <div>Biosecurity Biosecurity Strategies</div>  </div> <div> <div>Epilogue: Six Months Later</div> <div>47 of 55 pages</div> </div> <div>  </div> <p>We started off by having a meeting with everyone who works with our animals, including my brother. We explained biosecurity and ensured they understood what we were trying to do and why. We knew this wasn't going to work without their cooperation. We had everyone go through the first two modules and then we showed them your report and recommendations. Now we have weekly get-togethers to discuss how things are going. If everyone's followed the biosecurity rules that week, we have a pizza party!</p> <div>   </div> <div> <div>◀BACK</div> <div>NEXT▶</div> </div> </div>

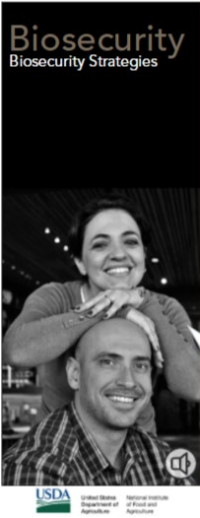
47	<div>  </div> <div> <p>Epilogue: Six Months Later 47 of 55 pages</p>  <p>Let's show you what we've done. But first, as you suggested, we've gotten more selective about who is allowed on our farm and we're keeping a log. So would you mind signing in before we look around?</p> <p>◀ BACK NEXT ▶</p> </div>
47	<div>  </div> <div> <p>Epilogue: Six Months Later 47 of 55 pages</p>  <p>◀ BACK NEXT ▶</p> </div>
48	<div>  </div> <div> <p>Epilogue: Six Months Later 48 of 55 pages</p>  <p>We started with the easy and inexpensive things we could do, even if they didn't seem that most effective. Some strategies just required a change in our processes. Others required a little extra to make them possible.</p> <p>◀ BACK NEXT ▶</p> </div>


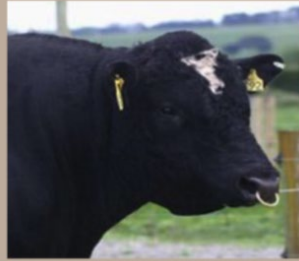


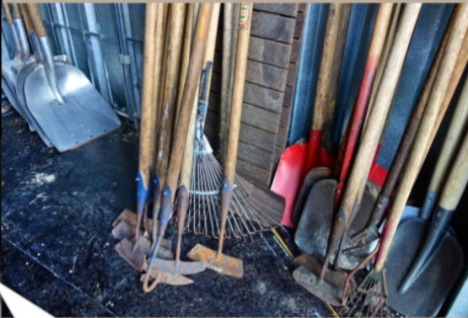





48	<div>  </div> <div>Epilogue: Six Months Later</div> <div>48 of 55 pages</div> <div>  </div> <div> <p>First, we looked at how we were caring for our animals. Changing the order of how we tend to the animals was a simple fix. Now we start from younger to older, and from healthy animals to those of unknown status, before ending with the sick animals.</p> </div> <div>◀ BACK NEXT ▶</div>
48	<div>  </div> <div>Epilogue: Six Months Later</div> <div>48 of 55 pages</div> <div>  </div> <div> <p>Oh, and we made washing hands and wearing personal protective equipment (PPE) a priority. Whenever anyone goes from one area to another, they're supposed to wash their hands and boots and change their gloves and coveralls.</p> </div> <div>◀ BACK NEXT ▶</div>
48	<div>  </div> <div>Epilogue: Six Months Later</div> <div>48 of 55 pages</div> <div>  </div> <div> <p>Oh, and we made washing hands and wearing personal protective equipment (PPE) a priority. Whenever anyone goes from one area to another, they're supposed to wash their hands and boots and change their gloves and coveralls.</p> </div> <div>◀ BACK NEXT ▶</div>

48	<div>  <p>Biosecurity Biosecurity Strategies</p> <p>USDA United States Department of Agriculture</p> <p>National Institute of Food and Agriculture</p> </div> <div>Epilogue: Six Months Later</div> <div>48 of 55 pages</div> <div>  </div> <div> <p>That includes us too! If we don't do it, how can we expect our workers to do it? We have to lead by example. Of course, that meant we had to spend some money to have boots and coveralls available.</p> </div> <div> <p>And it sure increased our laundry!</p> </div> <div> <BACK NEXT> </div>
49	<div>  <p>Biosecurity Biosecurity Strategies</p> <p>USDA United States Department of Agriculture</p> <p>National Institute of Food and Agriculture</p> </div> <div>Epilogue: Six Months Later</div> <div>49 of 55 pages</div> <div>  </div> <div> <p>We've also cleaned out and rearranged some things in the old barn so we could establish a quarantine area for new additions or returning animals. We also set up a hospital area to isolate and treat sick animals away from the healthy animals.</p> <p>And we're stricter about culling animals that just don't seem to get better and the ones whose tests show they are carriers of disease even if they aren't actually sick.</p> <p>Plus, we keep an eye on our pregnant cows for signs of abortions. We make sure to remove the placentas and fetuses quickly and dispose of them as our vet advises.</p> </div> <div> <BACK NEXT> </div>
48	<div>  <p>Biosecurity Biosecurity Strategies</p> <p>USDA United States Department of Agriculture</p> <p>National Institute of Food and Agriculture</p> </div> <div>Epilogue: Six Months Later</div> <div>49 of 55 pages</div> <div>  </div> <div> <p>We've also cleaned out and rearranged some things in the old barn so we could establish a quarantine area for new additions or returning animals. We also set up a hospital area to isolate and treat sick animals away from the healthy animals.</p> <p>And we're stricter about culling animals that just don't seem to get better and the ones whose tests show they are carriers of disease even if they aren't actually sick.</p> <p>Plus, we keep an eye on our pregnant cows for signs of abortions. We make sure to remove the placentas and fetuses quickly and dispose of them as our vet advises.</p> </div> <div> <BACK NEXT> </div>


49	<div>  </div> <div>Epilogue: Six Months Later</div> <div>49 of 55 pages</div> <div>  </div> <div> <p>We've also cleaned out and rearranged some things in the old barn so we could establish a quarantine area for new additions or returning animals. We also set up a hospital area to isolate and treat sick animals away from the healthy animals.</p> <p>And we're stricter about culling animals that just don't seem to get better and the ones whose tests show they are carriers of disease even if they aren't actually sick.</p> <p>Plus, we keep an eye on our pregnant cows for signs of abortions. We make sure to remove the placentas and fetuses quickly and dispose of them as our vet advises.</p> </div> <div>◀BACK NEXT▶</div>
49	<div>  </div> <div>Epilogue: Six Months Later</div> <div>49 of 55 pages</div> <div>  </div> <div> <p>We've also cleaned out and rearranged some things in the old barn so we could establish a quarantine area for new additions or returning animals. We also set up a hospital area to isolate and treat sick animals away from the healthy animals.</p> <p>And we're stricter about culling animals that just don't seem to get better and the ones whose tests show they are carriers of disease even if they aren't actually sick.</p> <p>Plus, we keep an eye on our pregnant cows for signs of abortions. We make sure to remove the placentas and fetuses quickly and dispose of them as our vet advises.</p> </div> <div>◀BACK NEXT▶</div>
49	<div>  </div> <div>Epilogue: Six Months Later</div> <div>49 of 55 pages</div> <div>  </div> <div> <p>Eventually, we would like to have a closed herd and we're working up to that. But in the meantime, we don't take any of our livestock off the farm. If we have to buy animals, we ask for herd test results and health histories first, and then we only buy test-negative animals.</p> </div> <div>◀BACK NEXT▶</div>

49	<div>  </div> <div>Epilogue: Six Months Later</div> <div>49 of 55 pages</div> <div>  </div> <div> <p>Yeah! To remind us how important that is we have a sign in our office, "Don't buy diseases!" Did you see it?</p> </div> <div>◀ BACK NEXT ▶</div>
49	<div>  </div> <div>Epilogue: Six Months Later</div> <div>49 of 55 pages</div> <div>  </div> <div>  </div> <div> <p>Speaking of signs, we spent a little more money to put up signs in an effort to control car and truck traffic on our farm. We now keep vehicles away from the animals and their feeding areas as much as possible.</p> </div> <div>◀ BACK NEXT ▶</div>
50	<div>  </div> <div>Epilogue: Six Months Later</div> <div>50 of 55 pages</div> <div>  </div> <div> <p>Once we had done the quick and easy fixes, we took a look at our budget and decided on some strategies we could afford to do this year.</p> </div> <div>◀ BACK NEXT ▶</div>

50	<div>  </div> <div>Epilogue: Six Months Later</div> <div>50 of 55 pages</div> <div>  </div> <div> <p>We reviewed our herd's health history and vaccination schedule with our veterinarian. We adjusted our vaccinations a bit to give us more protection from some of the more common or serious diseases. We'll plan for more protection in our budget in the future.</p> </div> <div>◀BACK NEXT▶</div>
50	<div>  </div> <div>Epilogue: Six Months Later</div> <div>50 of 55 pages</div> <div>  </div> <div> <p>We reviewed our herd's health history and vaccination schedule with our veterinarian. We adjusted our vaccinations a bit to give us more protection from some of the more common or serious diseases. We'll plan for more protection in our budget in the future.</p> </div> <div>◀BACK NEXT▶</div>
50	<div>  </div> <div>Epilogue: Six Months Later</div> <div>50 of 55 pages</div> <div>  </div> <div> <p>As we said before, we're working on having a closed herd, so we're starting to grow our own replacements. Artificial insemination isn't in our budget yet, so we bought a test-negative bull from a test-negative herd, of course, so we won't have to borrow one anymore. And we won't loan him out, either!</p> </div> <div>◀BACK NEXT▶</div>

50	<div>  </div> <div>Epilogue: Six Months Later</div> <div>50 of 55 pages</div> <div>  </div> <div> <p>As we said before, we're working on having a closed herd, so we're starting to grow our own replacements. Artificial insemination isn't in our budget yet, so we bought a test-negative bull from a test-negative herd, of course, so we won't have to borrow one anymore. And we won't loan him out, either!</p> </div> <div>  <small>United States Department of Agriculture</small> </div> <div> <small>National Institute of Food and Agriculture</small> </div> <div>◀ BACK NEXT ▶</div>
50	<div>  </div> <div>Epilogue: Six Months Later</div> <div>50 of 55 pages</div> <div>  </div> <div>  </div> <div> <p>Speaking of sharing, we also bought more shovels, pitch forks, and wheelbarrows, so we can have separate equipment for feed and for dealing with manure, dead animals, and fetuses. Oh, and our Extension agent taught us how to better manage the animals' manure and dirty bedding.</p> </div> <div>  <small>United States Department of Agriculture</small> </div> <div> <small>National Institute of Food and Agriculture</small> </div> <div>◀ BACK NEXT ▶</div>
50	<div>  </div> <div>Epilogue: Six Months Later</div> <div>50 of 55 pages</div> <div>  </div> <div> <p>We also learned that we qualified for a cost sharing program to develop safe watering sites away from streams for the cattle. This keeps both the livestock and stream water cleaner and safer year-round.</p> </div> <div>  <small>United States Department of Agriculture</small> </div> <div> <small>National Institute of Food and Agriculture</small> </div> <div>◀ BACK NEXT ▶</div>


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We can't afford that.

And last but not least, by any means, we've added handwashing facilities in all the areas where we work with animals. We're not going so far as to have showering in and out or having special vehicle wash areas.

However, we have set up an area near the vehicle entrance where someone can wash and disinfect their vehicle.

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




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Strategy	Cost	Benefit
Have separate vehicles for feed and manure.	\$5	★★★★
Prevent contact with neighboring animals or their discharges through water, air, or direct fence-line contact.	\$5	★★★★
Install modern barn ventilation systems.	\$55	★★★★
Establish and maintain a line of separation (gates, perimeter and internal fences)	\$5	★★★★
Have an effective on-farm composting system for manure and mortalities.	\$5	★★★★
Provide better facilities for C&D (shower in/out; vehicle wash)	\$55	★★★★
Use AI for breeding.	\$	★★★★
Improve our manure management facilities.	\$5	★★★★
Replace old, wood facilities for animal housing. (Use old barn for equipment storage.)	\$55	★★

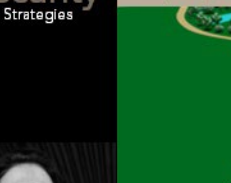
Check here to select your strategies

We've also started a biosecurity savings account. Every month we put money into it. Here's a plan of the strategies we're going to put in place over the next 3-5 years. Which 5 strategies would you recommend we start with?

SUBMIT


52	<div> <div> <div>Biosecurity Biosecurity Strategies</div>    </div> <div> <div>Epilogue: Six Months Later</div> <div>52 of 55 pages</div> </div> <div> <p>There's one more recommendation on your report that we're having trouble doing. We have two employees who keep the same type of animals as us. We feel bad about firing them and besides, they're good workers! So, we make sure they wash up and use PPE when they arrive. And as we hire more employees, we'll look at whether they keep dairy cows and try to hire ones that don't.</p> </div> <div>   </div> <div> <div>◀ BACK</div> <div>NEXT ▶</div> </div> </div>
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52	<div> <div> <div>Biosecurity Biosecurity Strategies</div>   </div> <div> <div>Epilogue: Six Months Later</div> <div>52 of 55 pages</div> </div> <div> <p>Well, there you have it. Thanks to you, our farm is more biosecure than it was and we have a well-thought out and reasonable plan to make it even safer.</p> </div> <div>   </div> <div> <div>◀ BACK</div> <div>NEXT ▶</div> </div> </div>

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Biosecurity Risk Report and Recommendations for Biosecurity Strategies

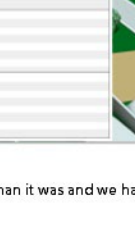


Form Name _____ **Date and Details Owner** _____


4-11 Investigator _____ **Date:** _____

4-12 Investigator _____ **Livestock type** _____


Source or Risk of Potential Disease Transmission	Security Strategies
Access A Neighbor 1. Current security measures 2. Current security measures 3. Current security measures	1. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 2. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 3. Current security measures to prevent access to the area (e.g., fencing, gates, etc.)
Access B Visitor 1. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 2. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 3. Current security measures to prevent access to the area (e.g., fencing, gates, etc.)	1. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 2. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 3. Current security measures to prevent access to the area (e.g., fencing, gates, etc.)
Access C Visitor 1. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 2. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 3. Current security measures to prevent access to the area (e.g., fencing, gates, etc.)	1. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 2. Current security measures to prevent access to the area (e.g., fencing, gates, etc.) 3. Current security measures to prevent access to the area (e.g., fencing, gates, etc.)



Well, there you have it. Thanks to you, our farm is more biosecure than it was and we have a well-thought out and reasonable plan to make it even safer.



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Paulita raises pigs.

Carl raises beef cattle.

Sharon raises dairy goats and sheep.

Oh! And our neighbors have asked us what we think they should do on their farms! Together, we're going to make our agricultural community a more biosecure place to raise beef and dairy cattle, pigs, sheep, and goats.

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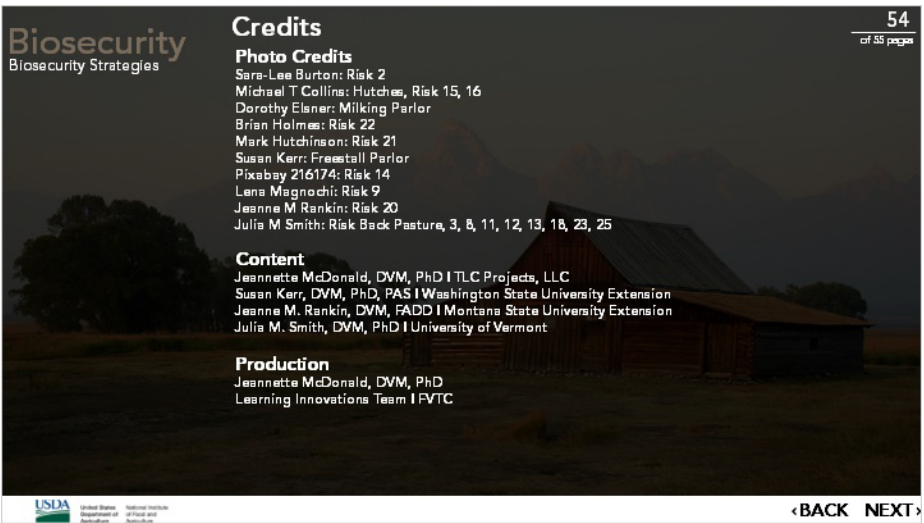
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See what you've started?! Thanks again!!

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