HFHA Biosecurity Learning Module 1 Screenshots: What is Biosecurity?

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.

2.

3.
What is biosecurity?

Think about the word: It’s kind of two words put together: “bio” and “security.”

Bio comes from the Greek word for “life.”

Security comes from the Latin word for secure or safe.

What do you think it means?

Please type in your answer here.

Please complete activity to continue.

There are a number of definitions for biosecurity, some simple and some more complicated.

Try putting this definition together. Drag and drop the groups of words below into the blank box above to create the definition of biosecurity.

- animals, and plants
- or control
- Actions we take
- diseases of humans
- to prevent
There are a number of definitions for biosecurity, some simple and some more complicated. Try putting this definition together. Drag and drop the groups of words below into the blank box above to create the definition of biosecurity.

"Please complete activity to continue."

Actions we take to prevent or control diseases of humans, animals, and plants.

You got the whole definition! How does this definition compare to yours?

Biosecurity is a set of preventative measures designed to reduce the risks of infectious disease transmission to and among livestock.

In this set of modules, from now on, we will be talking about biosecurity for only humans and animals.

Select "Next" to continue.
Let's look at some examples of how we can prevent or control diseases.

Drag and drop the pop-up text boxes into the correct column for our definition of biosecurity.

<table>
<thead>
<tr>
<th>Actions we take to prevent or control</th>
<th>Disease of humans and animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate sick animals from those that are healthy</td>
<td></td>
</tr>
<tr>
<td>Clean and disinfect regularly</td>
<td>Coccidiosis</td>
</tr>
<tr>
<td>Grow your own replacement animals</td>
<td>IBR</td>
</tr>
<tr>
<td>Vaccinate against diseases of concern</td>
<td>CL</td>
</tr>
<tr>
<td>Control animals and insects that can spread diseases</td>
<td>Rabies</td>
</tr>
<tr>
<td>Keep new animals separate from others</td>
<td>PED</td>
</tr>
<tr>
<td>Only buy healthy animals</td>
<td>Johne’s Disease</td>
</tr>
<tr>
<td>Wash your hands before and after handling animals</td>
<td>Crypto</td>
</tr>
<tr>
<td>Make and follow a biosecurity plan</td>
<td>All humans and animals</td>
</tr>
</tbody>
</table>

Submit

Please complete activity to continue.

Close
Actually, most of these actions are good for biosecurity for all infectious diseases. Click on the actions below that you have done to prevent yourself from getting sick.

- Clean and disinfect regularly
- Separate sick animals from those that are healthy
- Vaccinate against diseases of concern
- Breed your own replacement animals
- Control animals and insects that can spread diseases
- Keep new animals separate from others
- Only buy healthy animals
- Wash your hands before and after handling animals
- Make and follow a biosecurity plan

Great!
Notice that actions you have already done to keep yourself healthy also work to keep animals healthy.

Select “Next” to continue.
Biosecurity
What is Biosecurity?

Why should we care?
Listen to each person’s story to find out.

Please complete activity to continue.

Close

Did you know that practicing good biosecurity prevents animals from getting sick or suffering? If animals get a disease that affects their lungs, like pneumonia, or one that gives them profuse diarrhea, like coronavirus, they may die. That's why I tell my veterinary clients that controlling the environment or vaccinating may prevent or reduce animal suffering.

Last week I noticed my lamb had a sore on its mouth. I opened its mouth and saw it had sore 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 were penalized once our fingers.
Why should we care?
Listen to each person’s story to find out.

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 slaughter 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.

You’ve listened to all of the stories.
Now you know why we should care about biosecurity!

- Prevent animal illness and suffering
- Prevent zoonotic disease
- Prevent economic loss
- Keep food prices low for consumers
- Keep good public opinion
- Keep trade open

Select “Next” to continue.

Let’s think about diseases.
Use the words to fill in the blanks. Drag each word to complete the correct sentence.

host  agent  non-infectious  zoonotic  infectious

Some diseases are caused by an and can pass from person to person or animal to animal.

These are called diseases.

Other conditions can be caused by poor nutrition, injury, cancer, genetics, etc.; these are causes.

Diseases that can pass from animals to humans or humans to animals are called diseases.

Infectious agents get inside the (person, animal, or plant) and multiply or produce toxins, causing disease.
Drag and Drop Properties

Drag a word at the top to complete each sentence.

Item returns to the start point if dropped outside of any target.

Snap dropped items to drop target (snap to center).

**Feedback when incorrect:** You did not select the correct response.

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**Drag and Drop Properties**

Let's think about diseases.
Use these words to fill in the blanks. Drag each word to complete the correct sentence.

**host**  **agent**  **non-infectious**  **zoonotic**  **infectious**

Some diseases are caused by an **agent** and can pass from person to person or animal to animal. These are called **infectious** diseases.

Other conditions can be caused by poor nutrition, injury, cancer, genetics, etc.; these are **non-infectious** causes.

Diseases that can pass from animals to humans or humans to animals are called **zoonotic** diseases.

Infectious agents get inside the **host** (person, animal, or plant) and multiply or produce toxins, causing disease.

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## Biosecurity Learning Module

### 9

*Keep trying until all boxes are filled*

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### 9

For biosecurity, we are most concerned with infectious agents. Mouse over each picture to learn more about what is shown. Then drag each name on the left to the correct image on the right.

Please complete activity to continue.

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### 9

For biosecurity, we are most concerned with infectious agents. Mouse over each picture to learn more about what is shown. Then drag each name on the left to the correct image on the right.
Diseases are like accidents...
They both involve three factors.

For diseases to occur, three factors need to be present:

- Agent (capable of causing disease)
- Host (susceptible)
- Environment/Situation

What could be done to prevent soremouth?
Think about each factor and type in a few things you could do regarding the agent, host, and environment that would reduce the chance of Mycoplasma getting soremouth.

- Agent (Soremouth Viral)
- Host (Dairy)
- Environment (Dairy farm on long term)

Submit:
**Biosecurity**

What is Biosecurity?

What could be done to prevent sore mouth?

Think about each factor and type in a few things you could do regarding the agent, host, and environment that would reduce the chance of Mary's lamb getting sore mouth.

<table>
<thead>
<tr>
<th>What changes could you make?</th>
<th>Did you consider…?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Submit</td>
</tr>
<tr>
<td>Agent (Sore mouth virus)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Submit</td>
</tr>
<tr>
<td>Host (Lamb)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Submit</td>
</tr>
<tr>
<td>Environment (Sheep, dog at yard)</td>
<td>Submit</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- If you see or hear about it, clean and disinfect
- Wear disposable gloves and/or wash hands between animals
- Consider vaccinating for sore mouth
- Reduce stress as much as possible
- Do not allow close contact with animals from other flocks or farms

**Biosecurity**

Diseases are also accidents.

Create the correct combination by first dragging the host into the box on the right. Then drag the matching agent and environment into the boxes next to the arrows.

- Hosts
- Sheep
- Swine
- Cattle (all)
- Goat
- Human

Although more than one combination may be right, for this exercise we are looking for specific combinations. Keep trying!

Please complete activity to continue.
Biosecurity Learning Modules

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Create the correct combination by first dragging the host into this box on the right. Then drag the matching agent and environment into the boxes next to the arrows.

Although more than one combination may be right, for this exercise we are looking for specific combinations. Keep trying!

Try again.

Diseases are also accidents.

Bacterial Fungus

Agent

Host

Agent

Host

Environment (situation)

Eating undercooked meat or contact with infected animal

Agent

Host

Another animal’s grooming brush

Agent

Host

Direct contact with an infected animal or contaminated environment

Agent

Host

Click close to return to the activity

CLOSE
<table>
<thead>
<tr>
<th>13</th>
<th>Biosecurity Learning Modules</th>
<th>Healthyagriculture.org</th>
</tr>
</thead>
</table>

**Biosecurity**

**What is Biosecurity?**

Create the correct combination by first dragging the host into the box on the right. Then drag the matching agent and environment into the boxes next to the arrows.

Although more than one combination may be right, for this exercise we are looking for specific combinations. Keep trying!

**Diseases are also accidents.**

- **Host**

- **Agent**

- **Environment**

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**Close**
Biosecurity: What is Biosecurity?

Diseases are also accidents.

The severity of the disease depends on interactions between the host, agent, and environment.

Diseases are accidents that we can try to prevent.

When we try to prevent agents from making animals or humans sick, we call it BIOSECURITY.
End slide of the series
Here are the main points we want you to remember.

Great job! You answered all three guiding questions! Now you can check out the review sheet. Select “Next” to continue.

Disease occurs when the right agent and the right host are together in the right environment. We use biosecurity to prevent disease accidents from happening.