Biosecurity Keeps Everyone Safe

Skills: Language Arts

Objective: To discern between valid and invalid resources and write an informative research paper.

Background

Infectious disease is the interplay between an animal and its ability to resist disease (its immunity), an infectious agent (bacteria, viruses and parasites) and the environment. This happens the same way with cattle and other livestock as it does with people. Once an animal is sick, no one wants the disease to spread. That is where biosecurity comes into play. Biosecurity refers to management practices that reduce the chances infectious diseases will be carried onto a farm by animals or people. A simple formula to remember how diseases begin and spread is this:

Animal + Infectious Agent + Environment = Disease

Biosecurity practices should be used everywhere at all times. These are things that can be used in the home as well as on large ranches and farms. A small-scale situation that requires biosecurity precautions is getting a new puppy. If you get a new puppy when you already have a dog, you will need to take precautions to keep your old pet safe from your new pet. One thing that could cause problems is parvo. Parvo is a common disease carried by puppies that can cause extreme sickness and death. So in order to keep your pet healthy and safe, you will probably take it to the vet and get it vaccinated and then keep it away from your current pet for a few weeks to make sure it doesn't become sick itself. Once a few weeks have passed and your new dog remains healthy then you can introduce the dogs to each other and let them live healthy lives. By doing that you have just practiced biosecurity.

Because farmers and ranchers depend on their livestock for a paycheck and we depend on them for safe food, they are asked to use five main biosecurity precautions without fail:

1. Put all new animals into quarantine for at least 30 days before allowing contact with your other animals.
2. Properly vaccinate all animals.
3. Practice good personal hygiene. Always wash hands before and after dealing with your livestock. Also, wash boots and clothing after visiting another farm and after dealing with sick animals.
4. Know whom to contact. If there is an animal that is sick or acting oddly, call your veterinarian. If a suspicious person has been on your property or around your animals, call the police and report your concerns.
5. Limit all contact of your animals with others. Keep your animals away

P.A.S.S.

GRADE 6

Reading— 1.3b; 3.1b; 5.1ab,2abc

Writing— 2.2abcd; 7

Oral Language— 1.2; 2.1

GRADE 7

Reading— 1.1; 3.1a; 5.1ab,2ade

Writing— 2.2abcd,8

Oral Language— 1.2; 2.1,2

GRADE 8

Reading— 1.1; 3.1a; 5.1a,2abc

Writing— 1.1,2,3,4,5; 2.2abcde, 8

Oral Language— 1.2; 2.1,2

Resources Needed

computer access
library access

from other animals (wild and domesticated) and away from people who are from other farms and who have not gone through the proper hygiene precautions.

If there is a problem and animals begin to get sick then the next step to take is proper risk management. Risk management is the process by which you anticipate or recognize risks to your operation. Once you do, you then take action to remove or decrease the risk to an acceptable level.

Whether we are ranchers protecting our herd, pet owners protecting our pets or parents protecting our kids, we our all concerned about safety.

Activities

1. Read and discuss background and vocabulary.
2. Students will get on the Internet and find five legitimate resources and five unqualified resources.
   —Use the Internet and determine what are legitimate resources and what are unqualified, inadequate resources.
   —Use the hand-out on worksheet A to complete this assignment.
   —Stick to one topic about safety that you could use to write a paper later.
3. To test your fact-finding abilities, write a research paper about safety. It can be about using the biosecurity practices of farms and ranches to keep yourself, your pets, your siblings, your home, etc, safe.
   —Use the information you found in activity one, as well as adding new information you might need to complete the assignment.
   —Interview a veterinarian, farmer, police officer, doctor, etc., and use their information as a resource for your paper.
   —Use information from the sources found in the library, and ask the librarian about the best ways to start searching for your topic.
   —After you have found all your information, evaluate it and compile it into a research paper.
4. As a class, discuss an outbreak of some kind that has happened on a farm. Whether it is foot and mouth disease in cows or the avian flu breaking out, go over the details of the event and make a common story among everyone.
   —Once you have discussed the topic and everyone in the class has agreed on the basic events, divide the class into small groups and assign each a part.
   —Each group is going to write a point of view paragraph about the events on the farm before, during, or after the outbreak. One group can be the farmer, another the veterinarian, one a neighbor whose livestock is threatened, and one can even be one of the animals involved. Let the students help you think up all the possible parts. There can be fun parts as well as serious parts.
   —After they have all written their part, let each group read theirs aloud. Discuss each one separately and then the event as a whole. Discuss things that could have been done differently to avoid the problem, things done during the problem in order to stop it faster and things done after to keep something similar from happening again.

Vocabulary

credentials—document attesting to the truth of certain stated facts
infectious disease—a disease transmitted only by a specific kind of contact
legitimate—authentic; genuine
parvo—any of a group of viruses containing DNA in an icosahedral protein shell and causing disease in dogs and cattle; not known to be associated with any human disease
quarantine—enforced isolation or restriction of free movement imposed to prevent the spread of contagious disease; A condition of enforced isolation.
scholastic—of or relating to schools; academic; Adhering rigidly to scholarly methods
vaccinate—perform vaccinations or produce immunity in by inoculation

Are Your Sources Reliable?

When doing research, you have to be sure that you are getting proper information that is useful for a paper. This information is useful because it was gathered from legitimate sources. It was gathered from the Department of Agriculture, Food and Forestry and from the OSU Cooperative Extension Service. They are both very respected and well researched sources to use for getting information, and they are easy to use for anybody. When finding information for a research paper you must make sure that the sources are official. The best way to find official sources is to go to the library and use all of its journals and other official sources. Another place to find information is the Internet. That, however, can get tricky. There are many thousands of Web pages that have little actual content and are mainly links to other pages, which may be links to other pages, and so on. You must be very careful when using information from the Internet. There are certain things you can look for to verify the site's legitimacy. They are:

1. Who is responsible for putting up the website? Look for who wrote the information. If the author is not listed or has no credentials, then it is probably not a useful source.
2. When was it written? Is it current or incredibly old?
3. Are any sources cited? If the author of the piece does not document anything then it is very probable that there is no validity in the information. You do not want to use someone's opinion.
4. Has the site won any awards? Have any scholastic peers reviewed the piece and validated it?

When choosing between using the library and the Internet something to keep in mind is that up to 90 percent of the contents of college libraries' collections are not on the Internet. Because of copyright laws it is too expensive to put all the scholarly work on the Internet. This means that the most legitimate information is still found through the library. You do not have to question your information choices as much in libraries as on the web.

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Name _____

Worksheet A

Website Name	Legitimate or illegitimate site?	Who is responsible for the site?	When was it written?	What are the sources cited?	Has the site been peer-reviewed or has it won any awards?	How did you get to the site?

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