

# Biosecurity & Animal Agriculture

## Directions:

Answer the following questions.

1. Which of the following established a national policy to defend food and agricultural systems against terrorist attacks, major disasters and other emergencies?
  - A. Homeland Security Presidential Directive 9
  - B. Animal and Plant Health Inspection Service (APHIS)
  - C. U.S. Customs and Border Protection Agency
  - D. Food and Drug Administration (FDA)
2. Anna owns two horses which live in a pasture by her house. They are the only horses in the area and they never travel. However, Anna takes riding lessons on horses at a different barn and often rides her friends horses as well. She wears the same boots with whichever horse she rides and uses the same set of brushes and tack she uses on the horse she is riding that day. She only cleans the brushes when they are really dirty. Recently, her normally healthy horses are coughing and have runny eyes. Which of the following modes of transmission could be causing Anna's horses to become sick?
  - A. Fomite
  - B. Vector-borne
  - C. Oral
  - D. Aerosol
3. Jamaal's Red Brangus bull is very high quality and many of his neighbors would like to use the bull to breed their cows. One neighbor offered to bring the two cows he would like bred to Jamaal's operation to be put in the pasture with the bull and some of Jamaal's other cows. If Jamaal agrees to this practice which of the following should he NOT do?
  - A. Put the neighbor's cows in the pasture with his herd immediately
  - B. Isolate the neighbor's cows for a time before putting them in with his herd
  - C. Make sure the neighbor's cows are healthy and do not have any diseases
  - D. Make sure his animals are healthy prior to introducing new animals
4. Megan was working with her show lamb who has a ringworm (a fungal infection of the skin) on his face. Even though Megan thoroughly washed her hands and arms, which came in contact with the lamb, she has developed a ringworm on her arm. Ringworm is an example of which of the following?
  - A. Zoonotic disease
  - B. Animal disease

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5. Newcastle disease is typically transmitted through the air. Which of the following transmission types does this describe?
  - A. Fomite
  - B. Vector-borne
  - C. Oral
  - D. Aerosol
  
6. West Nile Virus is commonly spread by the bite of an infected mosquito. Which of the following pathogen transmission types does this describe?
  - A. Fomite
  - B. Vector-borne
  - C. Oral
  - D. Aerosol
  
7. Sara grazes all of her cows together in one pasture. Recently one of her cows aborted a fetus and tested positive for Brucellosis. Sara has separated this cow from the herd and moved her other cows to another pasture to prevent them from eating any contaminated grass in the pasture, since Brucellosis spreads by animals ingesting contaminated items in its environment. Which of the following modes of pathogen transmission does this describe?
  - A. Fomite
  - B. Vector-borne
  - C. Oral
  - D. Aerosol
  
8. Many animal and zoonotic diseases can be transmitted through direct contact. Which of the following is a good management practice for limiting the spread of disease through direct contact transmission?
  - A. Separate infected animals from healthy animals
  - B. Pen all of the animals together to keep a closer eye on them
  - C. Give antibiotics to all of the animals, even the healthy ones
  - D. Keep the animals together, but in a larger pen so they have more room to move around
  
9. Sam's Superior Swine is a large swine operation in Illinois. Sam has added on to his facility by adding showers and changing rooms so his employees can shower and change clothing prior to having contact with the animals. This procedure is an example of which type of biosecurity?
  - A. Operational biosecurity
  - B. Structural biosecurity

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10. Which of the following is NOT a result of proper biosecurity protocols?
- A. Animals are raised with an improved growth rate
  - B. Animals have an increased feed efficiency
  - C. Animals have a higher mortality rate
  - D. Animals have a lower instance of disease
11. Catherine has purchased ten chickens she would like to keep in her backyard in a chicken coop to produce eggs. Which of the following programs provides guidelines for backyard poultry growers?
- A. Defend the Flock Program
  - B. Cattle Health Surveillance Program
  - C. National Scrapie Eradication Program
  - D. National Aquatic Animal Health Plan
12. Which of the following is a disease type which can be transmitted from animal to animal, but not to humans?
- A. Zoonotic disease
  - B. Animal disease
13. Zane is at a stock show and forgot to bring a water bucket for his goat. His friend let him borrow their bucket. Zane knows his friend's goat has been sick and has a runny nose, but Zane goes ahead and borrows the bucket. Which of the following should Zane do before putting water in the bucket for his goat to drink to hopefully prevent the spread of disease to his goat?
- A. Thoroughly wash the bucket with soap and water prior to letting his goat drink out of it
  - B. Nothing, disease cannot spread in water
  - C. Nothing, mucous from a runny nose cannot be a mode of disease transmission
  - D. Wipe the bucket with a towel
14. Abby lives on a farm which raises sheep. Her mother has some pet chickens which roam around the farm and eat insects. Unfortunately, her mother's chickens have recently gotten sick. Abby is concerned her sheep might get sick as well. Which of the following is NOT a good plan for Abby to use to keep her sheep healthy?
- A. Pen the chickens in with sheep because animal diseases cannot cross species
  - B. Create a pen for the chickens which keep them separate from the sheep
  - C. Clean areas where the chickens have been to remove any feces or feathers the sheep could eat
  - D. Clean water and feed troughs the sheep use which the chickens could have come in contact with

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15. Maria owns a small dairy operation which has cows and a small specialty cheese operation called Maria Moos. Maria would like to add a small shop at her dairy to sell some of the products they make there. What advice should be given to Maria related to biosecurity and her adding the shop at her operation?
- A. There are no biosecurity risks which would increase if she added a shop
  - B. The only biosecurity risk she would face is if people brought their pets with them when they were shopping
  - C. There are many biosecurity risks which would increase if the shop was at the same location as her dairy cows due to more traffic and visitors, finding a separate location would be a better option
  - D. There are many biosecurity risks, but the extra money from the shop would pay for any outbreak she might have