

## **2006 National FFA Poultry Evaluation CDE Team Activity**

1. The most likely scenario for disease transmission in this story is:
  - A. Bill carried the disease from a commercial turkey farm to Tom's chickens, who transmitted it to the white duck, who transmitted it to the migratory birds who flew over the turkey farm, shedding virus to the turkeys below.
  - B. Mrs. Alvarez's white duck transmitted disease to the wild population. The wild birds flew over the auction disseminating the disease. Tom then bought exposed birds who gave the disease to his mother's laying hens. The virus blew from there to Circle A turkey farm.
  - C. Wild waterfowl shed virus into the pond which transmitted disease to the white duck which disseminated it to the chickens in Mrs. Alvarez's coop. Bill carried the disease from Tom's sick chickens into the turkey house.
  - D. Tom's mother's laying hens transmitted disease to Tom's new chickens. Bill drove his truck to Circle A Turkey farm and the virus was carried on the tires of the truck. The virus blew out of the turkey house and was probably breathed by the migratory birds.
  
2. The birds that Tom bought were:
  - A. Commercial leghorn laying hens
  - B. Commercial broiler chickens
  - C. Domesticated geese
  - D. None of the above
  
3. Which of the following statements about the turkey farm of Bill's friend is correct?
  - A. Bill's friend, as owner of the farm, must always wear coveralls and boot covers
  - B. Bill, as an employee of the turkey company, should be allowed on the farm
  - C. The turkeys appeared to be chilled, thereby increasing their susceptibility to disease
  - D. All of the above
  
4. Which of the following statements about Bill's visit to his friend's turkey farm is correct?
  - A. He should not have entered the turkey house
  - B. He is not a service technician, so he did not need to wear coveralls and boot covers
  - C. He should have driven his own vehicle
  - D. All of the above
  
5. The turkeys in this scenario most likely got sick because:
  - A. Turkeys are especially susceptible to disease
  - B. The farm lacked a security fence
  - C. The house was not properly cleaned and sanitized between flocks
  - D. Poultry diseases may be disseminated by humans
  
6. The biggest mistake of Mrs. Alvarez was: (choose the most correct answer)
  - A. Providing a pond on which migratory birds could land
  - B. Allowing access of her ducks to the pond
  - C. Selling her birds at the auction
  - D. Owning ducks

7. When Bill went to his family's house, his biggest mistake was: (choose the most correct answer)
- A. Visiting his family; he should not visit because they own birds
  - B. Not taking the sick birds to the state diagnostic laboratory immediately
  - C. Entering the pen with the sick birds
  - D. Suggesting that Tom call a family friend to look at the birds
8. Tom should have: (choose the most correct answer)
- A. Bought better chickens at the local auction
  - B. Placed the birds he bought far from his mother's birds
  - C. Called his brother sooner
  - D. Immediately reported the first dead bird to the state poultry diagnostic laboratory
9. Vaccination failures sometimes occur. If the turkeys in this scenario had been vaccinated, which of the following is a reason that the vaccine could have failed?
- A. Serotype variants
  - B. Too many birds sick at the same time
  - C. Growth rate of the turkeys was too high
  - D. A and C
10. In this scenario there were five turkey farms in a 20 mile radius to which Bill delivered feed. All of the farms grow male (tom) turkeys. Farm A contained 32,000 total birds in the brooder houses, and 19,200 total birds in the grower houses. Assume that the same bird density applies to each farm. Given the following information, how many total turkeys may have been affected?

<b>Farm</b>	<b>Houses</b>	<b>Age in house</b>	<b>Dimensions</b>
Farm A	2 brooder	< 43 d of age	40 x 600
	4 grower	> 43 d of age	40 x 600
Farm B	1 brooder	< 43 d of age	45 x 500
	3 grower	> 43 d of age	45 x 500
Farm C	2 brooder	< 43 d of age	50 x 600
	4 grower	> 43 d of age	50 x 600
Farm D	1 brooder	< 43 d of age	45 x 600
	3 grower	> 43 d of age	45 x 600
Farm E	2 brooder	< 43 d of age	45 x 400
	5 grower	> 43 d of age	45 x 400

- A. Approximately 220,000 birds
- B. Approximately 50,000 birds
- C. Over 230,000 birds
- D. Approximately 176,000 birds

## **Questions from the web-based resources about Avian Influenza**

11. The highly visible “bird flu” in the news is which strain?
  - A. H5N1
  - B. O<sub>157</sub>:H<sub>7</sub>
  - C. LPAI
  - D. HVT
  
12. Avian influenza viruses are classified by a combination of:
  - A. Proteins: hemagglutinin (H) and neuraminidase (N)
  - B. Conditions: hematopoiesis (H) and neuropathy (N)
  - C. Proteins: hemostatic (H) and neuropeptide (N)
  - D. Markers: hyaluronic acid (H) and nicotinic receptors (N)
  
13. Which of the following is not one of the four key areas on which the USDA surveillance program for HPAI is concentrated?
  - A. Backyard flocks
  - B. Migratory bird populations
  - C. Predatory bird populations
  - D. Live bird markets
  
14. In poultry meat AI viruses:
  - A. Cannot be destroyed
  - B. Cannot be carried
  - C. Cannot survive above cooking temperatures of 165°F
  - D. None of the above
  
15. Which of the following is included in the key species of interest in North America listed by the USDA for detection of Avian Influenza in wild bird populations?
  - A. Chickens
  - B. Shorebirds
  - C. Swallows
  - D. None of the above

**2006 National FFA  
Poultry Evaluation CDE Team Activity Answer Key**

1. C From the video
2. D From the video
3. B “A” is not necessary true; with good biosecurity growers do not have to wear protective clothing in their own facilities. “C” is incorrect (from the video).
4. A Page C-128
5. D
6. B “A” is incorrect; it is unreasonable (and unnecessary) for ponds to be eliminated. “C” is incorrect; it may not be the best idea, but selling birds at auctions is legal. “D” is incorrect; it is fine to own ducks. “B” is most correct; had she restricted the access of her birds to wild birds (especially migratory waterfowl) the scenario could have been avoided.
7. C “A” is not reasonable or necessary, given good biosecurity and common sense. “B” is also incorrect; as an employee of a poultry company Bill should not handle someone’s sick birds, and this is not his responsibility. “D” is also incorrect, leaving “C” as the best answer; he entered with his work shoes on, and no coveralls or boots.
8. B “A” could be somewhat true, but it would be difficult to detect a “better” bird. “C” is incorrect because he did not call his brother in the scenario. “D” is also incorrect; it is not necessary to report a single dead bird immediately to the state poultry diagnostic laboratory.
9. A Page C-129
10. A From the information the density on farm A is:  $40 \times 600 = 24,000$  square feet/brooder house  $\times 2 = 48,000$  square feet/32,000 birds = 1.5 square feet/bird (also in the manual, page C-123). For the grower house,  $24,000 \times 4$  houses = 96,000 square feet/19,200 birds = 5 square feet/bird (also in the manual, page C-125)  
Farm B:  $45 \times 500 = 22,500 \times 1$  house = 22,500 square feet of brooder space  $\times 1$  bird/1.5 square feet = 15,000 birds in the brooder house;  $22,500$  square feet  $\times 3$  grower houses = 67,500 square feet of grower space  $\times 1$  bird/5 square feet = 13,500 birds in the grower houses; total on farm =  $15,000 + 13,500 = 28,500$   
Follow same approach for C (64,000 on farm), D (34,200 on farm), and E (42,000 on farm) and add the totals:  $51,200$  (farm A) +  $28,500$  (farm B) +  $64,000$  (farm C) +  $34,200$  (farm D) +  $42,000$  (farm E) = 219,900 total birds
11. A from the resource “Don’t chicken out! “Bird flu” info for you”
12. A from the USDA Avian Flu Brochure and the resource “Don’t chicken out! “Bird flu” info for you”
13. C from the USDA Avian Flu Brochure
14. C from the USDA Avian Flu Brochure
15. B from the USDA Avian Flu Brochure