

National FFA 2022
Poultry CDE
Team Activity Questions

Questions 1-3: refer to the reference picture.

1. Which part of the hen's reproductive tract performs a function that is needed at a breeder farm, but not at a commercial table egg farm?
 - a. Part A
 - b. Part B
 - c. Part C
 - d. Part D
 - e. Part F
2. Part A is the ____; one of the hormones it secretes is ____.
 - a. Ovary; luteinizing hormone
 - b. Adrenal gland; cortisol
 - c. Hypothalamus; gonadotropin releasing hormone
 - d. Ovary; progesterone
 - e. Pituitary gland; follicle stimulating hormone
3. If the blood spot on the egg shown in the reference picture is from an egg gathered at a commercial table egg farm, it **most likely** occurred because:
 - a. There was a hemorrhage in the isthmus
 - b. A loose shell fragment in the uterus cut a capillary, releasing blood
 - c. The follicle that produced the yolk did not rupture at the stigma
 - d. An embryo in this egg died early in the developmental stage
 - e. None of the above

Questions 4-7 The information in the reference picture (depicting eggs that hatch, infertile eggs, and eggs containing dead embryos) is representative of the egg-strain hatchery in this scenario.

4. Calculate the percent mortality for eggs incubated in this egg-strain hatchery.
 - a. 20% mortality
 - b. 10% mortality
 - c. 24% mortality
 - d. 12% mortality
 - e. 27% mortality
5. Calculate the percent fertility for eggs incubated in this egg-strain hatchery.
 - a. 88% fertility
 - b. 80% fertility
 - c. 95% fertility
 - d. 90% fertility
 - e. 67% fertility

6. Calculate the overall hatchability (hatchability of all eggs) in this egg-strain hatchery.
 - a. 50% hatchability of all eggs
 - b. 70% hatchability of all eggs
 - c. 80% hatchability of all eggs
 - d. 75% hatchability of all eggs
 - e. 65% hatchability of all eggs
7. Calculate the hatchability as a percent of fertile eggs in this egg-strain hatchery.
 - a. 90.0% hatchability of fertile eggs
 - b. 88.6% hatchability of fertile eggs
 - c. 84.3% hatchability of fertile eggs
 - d. 80.0% hatchability of fertile eggs
 - e. 78.9% hatchability of fertile eggs

Questions 8-10 pertain to the egg-strain pullet farm, and use information provided in the reference material and a few of the reference pictures.

8. Given the information in the reference material, how wide is each of the houses on the pullet farm?
 - a. 30 feet wide
 - b. 40 feet wide
 - c. 45 feet wide
 - d. 50 feet wide
 - e. 150 feet wide
9. Based on the information in the reference picture, depicting the body weights of birds on the pullet farm, calculate the percent uniformity (the percentage of birds that fall within 10% of the average body weight).
 - a. 48% uniformity
 - b. 68% uniformity
 - c. 75% uniformity
 - d. 64% uniformity
 - e. 80% uniformity
10. Which of the vaccines, shown in the reference picture, could be used during the growing phase of egg-strain pullets?
 - a. A
 - b. B
 - c. C
 - d. B and C
 - e. All of the above

Questions 11-15 pertain primarily to the table egg farm, and use information provided in the reference material.

11. All of the pullets that were alive at the end of the growout period on the egg-strain pullet farm, 147,000 birds total, were placed in a cage layer facility. What must the percent mortality have been at the egg-strain pullet farm during the growout period?
 - a. 2% mortality on the egg-strain pullet farm
 - b. 4% mortality on the egg-strain pullet farm
 - c. 5% mortality on the egg-strain pullet farm
 - d. 8% mortality on the egg-strain pullet farm
 - e. 10% mortality on the egg-strain pullet farm
12. At peak egg production, 2.5% of the birds that were placed on the table egg farm had died, and 139,000 eggs were produced the day of peak egg production. Calculate the **hen-housed egg production** for the day of peak egg production:
 - a. 99.5% hen-housed egg production
 - b. 97.0% hen-housed egg production
 - c. 94.6% hen-housed egg production
 - d. 91.8% hen-housed egg production
 - e. 86.7% hen-housed egg production
13. At peak egg production, 2.5% of the birds that were placed on the table egg farm had died, and 139,000 eggs were produced the day of peak egg production. Calculate the **hen-day egg production** for the day of peak egg production:
 - a. 99.3% hen-day egg production
 - b. 93.2% hen-day egg production
 - c. 94.6% hen-day egg production
 - d. 97.0% hen-day egg production
 - e. 91.5% hen-day egg production
14. By the end of the laying period, a total of 380 eggs per hen housed had been produced over 70 weeks of production (the birds were 88 weeks of age at that point). Calculate the overall **hen-housed egg production**:
 - a. 72.1% hen-housed egg production
 - b. 77.6% hen-housed egg production
 - c. 79.5% hen-housed egg production
 - d. 87.8% hen-housed egg production
 - e. 90.2% hen-housed egg production
15. Given the information in question 14, and the production cost and egg price information found on the reference material, calculate the average profit per dozen eggs for the table egg farm.
 - a. 14 cents per dozen eggs
 - b. 22 cents per dozen eggs
 - c. 30 cents per dozen eggs
 - d. 1 cent per dozen eggs
 - e. \$1 per dozen eggs