

TEAM ACTIVITY 5
KANSAS STATE UNIVERSITY
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All members may work together on the scenario below and answer the following questions. Please talk quietly or other teams may hear your ideas.

The poultry research farm at Kansas State University decided to grow pullets for an experiment. They wanted to study the effect of different calcium sources on egg quality to see if they could improve the egg shells of eggs sold in grocery stores. The farm manager looked through the catalog and decided to order some Cornish by Rock-Cross chicks. They also decided to floor brood these pullets.

The first thing they had to do was prepare the facilities for the arrival of the chicks. This meant that they had to clean and disinfect the facilities as best as possible. They installed a nipple drinking system. About 6" of a mixture of wood shavings and sawdust were spread on the floor to be used as litter. The eating system was checked and the temperature of the building was brought to 100°F about 2" above the litter. The relative humidity was about 5 to 10%. Tube feeders were installed and were filled to the top with a pullet starter ration that had about 26% protein and 1,310 metabolizable energy measured in Kcal/pound.

One of the biggest arguments the workers had was trying to decide on what type of lighting schedule to use. They decided to use 48 hours of continuous lights for the first two days, then 15 hours of light per day up to the third week. Then they switched back to 24 hours of light until the birds are ready to lay. At about 7 to 10 days of age the workers beak trimmed all the birds. A second trimming was done at about 4 weeks of age. They administered electrolytes and vitamins in the water when they beak trimmed them to reduce the amount of stress. Every so often, they took samples of about 100 birds and recorded the body weight. This was so they could determine uniformity. They found that about 60% of the birds in their flock were within $\pm 10\%$ of the overall mean weight.

The farm always has a good biosecurity program in place. The farm crew vaccinated the birds for Marek's, Newcastle disease, cross-beaks, and fowl pox disease. The farm thought they did a pretty good job since the birds weighed about 7.2 lbs in about 13.5 weeks of age. At this time, the birds are moved to a layer house where they were ready for egg production.

1. What breed of chicken should the farm have ordered?
a. Cornish by Rock-Cross b. Leghorn by Rock-Cross c. Rhode Island Reds
d. High-Yield Whites e. none of these
2. The final body weight of the pullets was:
a. too high b. too low c. just right d. can't tell from the information given
e. none of these
3. According to the body weight, the uniformity of the flock was 60% \pm 10% of the overall mean weight. 60% is:
a. about right b. too high c. too low d. can't tell from the information given
e. none of these
4. What should the protein content of an egg-type pullet starter ration be?
a. 26% b. 24% c. 22% d. 20% e. 18%

5. Why did the farm beak-trim the birds?
a. to reduce cannibalism b. to reduce noise c. to improve body weight gain
d. to reduce cross-beaks e. none of these
6. After the third week, the birds received 24 hours of light per day while they were growing. Which of the following statements is most true?
a. 24 hours of light per day is perfect because that gives them more time to eat feed and grow faster.
b. This was wrong because the birds only need 2 hours of light per day.
c. 24 hours of light per day was good because it makes the eggs larger.
d. 11 hours of light per day would have made the birds mature at the proper time.
e. 23 hours of light per day with one hour of darkness at night would have been the best choice.
7. From the information given, the farm did the right thing by vaccinating for diseases. Which of the diseases given did not require vaccination?
a. Marek's b. NewCastle disease c. cross beaks d. Fowl pox disease
e. all of them required vaccination
8. Moving the hens to the laying house at the age given was:
a. too soon b. too late c. it doesn't matter d. not enough information given
e. none of these
9. The farm crew spread litter on the floor of the pullet house. This was:
a. the right thing to do b. the wrong thing to do c. it would not have made a difference
d. instead of shavings they should have used rice hulls e. none of these
10. For the experiment, the farm crew decided to grow the pullets on the floor rather than in cages. This was:
a. the right thing to do b. the wrong thing to do c. cages or floor brooding are both OK
d. they should have grown them in cages the first 6 weeks then switched to a floor systems later
e. none of these
11. The farm crew installed a nipple drinking system in their poultry house. Which of the following statements is true?
a. Nipple drinking devices are labor saving water devices for poultry.
b. Nipple drinkers are only for pigs and never used for poultry.
c. They should have used a cup type drinking system.
d. Bell drinkers would have been preferred.
e. These are good drinkers but become to contaminated.
12. Relative humidity is a measure of the moisture content of the air. Considering the workers kept a relative humidity of about 5-10% in their building, this has resulted in:
a. too wet of an atmosphere b. possible chick dehydration
c. the day old chicks not being able to dry out d. too much water vapor in the air
e. the ventilation rate would have been too high to dispose of all the excess water

13. If you keep a flock of white egg laying birds that are of the commercial variety, about what percent of the eggs they produce would be graded Grade A Large?
a. 25% b. 50% c. 75% d. 100% e. none of these
14. For commercial white egg laying hens, about how many pounds of feed does it take to make one dozen eggs?
a. 1.5 lb b. 3.6 lbs c. 5.8 lbs d. 7.9 lbs e. 1.9 lbs
15. For the experiment, the farm crew added electrolytes to the water. Which one of the following statements is most true?
a. This is the wrong thing to do because they are illegal.
b. This is the right thing to do to reduce stress.
c. This was the wrong thing to do because it would decrease egg production.
d. This was the right thing to do because it would increase egg production.
e. Electrolytes will interfere with the water system and clog the nozzles.

