

**Team Activity 9**  
**Kansas State University**  
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Members of the KSU Poultry Judging Team decided to have a fundraiser to earn scholarship money. They decided to grow a group of turkeys for sale for the Thanksgiving holiday. Students had access to an old barn at the research farm that Dr. Beyer said he would allowed them to use. This building was 40' wide and 50' long. The first thing they needed to do was to clean out the facilities to make sure the birds would not be exposed to diseases. The old litter was pushed out of the barn and hauled away to the compost pile. The rest of the building was then washed and scrubbed until it was completely clean. After it was completely clean, they then used a disinfectant called Quaternary Ammonia to spray down the entire facility.

After the barn was cleaned, the students chose to add about 3-4" of rice hulls on the floor of the house. They knew that clean litter was essential to growing healthy birds. They then put a divider across the building so that they could save heating costs when they brooded the birds in a smaller space. One of the students went to the hatchery to pick up the birds they would need for the fundraiser. He picked up 7 boxes of poults marked "toms" and each box contained about 100 poults. They placed the poults on the floor of the production house near hovers. The hovers were set to maintain 90-95°F at the start and then they were checked and adjusted each week, reducing the temperature 15 degrees per week for the first 4 weeks.

During the first few days the students left the lights off at night. After that, the lights were left on 24 hours a day and the intensity was increased to a minimum of 15 foot candles (100 lux). The students knew that increasing the light intensity would reduce the occurrence of picking and cannibalism.

After the starter period had passed, the students removed the divider and allowed the poults to run throughout the entire facility for the rest of the grow-out period. They grew the birds for a total of 8-10 weeks before they decided they were ready to go to market. After accounting for mortality and some birds that required culling, the students had about 650 birds left to sell. The birds were then sent to the processing plant to be prepared for Thanksgiving. The average live weight of the birds was about 30 lbs. The student's records show that it took about 29.25 tons of feed to grow all the turkeys to this weight. The final dressing weight was about 12 lbs. The feed cost during the growing season averaged about \$150/ton. When the students sold the turkeys, they smoked them and they were able to earn about \$20.00 each. The students then cleaned out the barn and purchased some more poults and started another set of birds to grow-out after leaving the barn empty for 2 days. This second flock did OK, although they had increased mortality compared to the first flock.

1. The choice of rice hulls as litter for turkeys is
  - a. The correct choice since it's small and will help small birds walk during the starting period.
  - b. The correct choice because they are able to consume some of the rice hulls and get extra growth from it.
  - c. The wrong thing to do because rice hulls are too small and very dusty.
  - d. The wrong thing to do because the odor of the rice hulls often puts the birds off feed.
  
2. The space the students allowed to start these tom turkeys during the starter period was
  - a. About right.
  - b. Not enough space.
  - c. Too much space.

3. When the students went and picked their turkeys up and their boxes were marked “toms” and “poults”, this meant
  - a. The boxes contained hen chicks meant for egg production.
  - b. The boxes contained males that were meant for breeding production.
  - c. The boxes contained day old male turkeys.
  - d. The boxes contain males used for chicken production, *not* turkey.
4. Once the students removed the divider and allowed the birds to have access to the remainder of the building, the amount of space for the birds was
  - a. About right
  - b. Too much
  - c. Too little
5. The temperature at which the students chose to start the birds was
  - a. About right
  - b. Too low
  - c. Too high
6. What was the total gross receipts that the students received for their turkeys?
  - a. \$14,000
  - b. \$13,000
  - c. \$12,000
  - d. \$10,000
7. From the information given, what was the approximate feed conversion rate for these turkeys?
  - a. 4:1
  - b. 3:1
  - c. 2:1
  - d. 1.8:1
8. What was the approximate total profit that the students made by growing the birds considering only feed costs and no other expenses?
  - a. \$2,750
  - b. \$4,306
  - c. \$8,612
  - d. \$12,611
9. The *livability* of the birds during this grow-out was approximately nearest to
  - a. 93%
  - b. 87%
  - c. 82%
  - d. 76%
10. The time the students allowed the turkeys to grow to processing weight was
  - a. About the correct time expected.
  - b. Too little time.
  - c. Too long.
11. Which of the following are **unique** to turkeys?
  - a. Toenails
  - b. Waddles
  - c. Drumette
  - d. Snoods
12. In the text, it says “The students knew that increasing the light intensity would reduce the occurrence of picking and cannibalism”. Is this statement true or false?
  - a. True
  - b. False
13. The students used quaternary ammonia as a sanitization agent. Was this the correct thing to do?
  - a. Yes, it's a good sanitizing agent
  - b. Yes, it's a good antibiotic that also loosens dirt and sterilizes the wall
  - c. No, ammonia is toxic to birds and should not have been used
  - d. No, you just need fresh water since there should be no bacteria on the walls anyway.
14. Was the percentage dressing weight about what is expected for a commercial turkey today?
  - a. Yes, it's about right
  - b. No, it should be lower
  - c. No, it should be higher

15. The students dropped the temperature in the barn by 15 degrees each week. This was:
- a. Correct, it's the recommended amount
  - b. Incorrect, it should have been 5 degrees per week
  - c. Incorrect, the temperature should be the same throughout the grow-out period
  - d. Incorrect, because commercial turkeys are usually grown outside after the second week.

