

2025 Pennsylvania FFA Dairy Cattle Evaluation and Management CDE Health Team Scenario

Directions: Please read the dairy farm management scenario and supplemental information provided for the scenario, identify problems and determine possible improvements. Your team should assume the role of a hired consultant advising the producer (judges). Then, you have 10 minutes to respond orally to the judges. Your team has 40 minutes to prepare your recommendations to be presented to a panel of judges. It is not necessary to describe the scenario to the judges since they are the producer. Teams will be allowed 10 minutes to present their recommendations, followed by 5 minutes of clarifying questions from the judges. You must answer the questions below, but are allowed to address other issues the herd is facing during the presentation.

You will be provided with an additional worksheet to assist you with your presentation. All four team members are expected to participate in the oral presentation. You may make and take notes for the presentation.

This scenario, your responses and evidence of team work are worth 420 points (340 points for Content and 80 points for Presentation Style).

2025 Pennsylvania FFA Dairy Cattle Evaluation and Management CDE Health Team Scenario

Scenario: Your team is a group of dairy consultants that works with producers to identify areas of weakness and provide ideas for solutions and growth. Dairy producer Henry Smith, owner of FFA Farms in Pennsylvania, calls you indicating he is having some problems with his dairy herd's production and overall health.

The farm is a small Jersey herd with 88 cows in milk in a freestall barn and is milked twice a day in a double 6 swing parlor. It takes approximately two hours each milking. The most recent DHI test was on May 15th, and the herd was averaging 45 lbs of milk with 4.8% fat and 3.6% protein. The average somatic cell count for this herd is 407,000 with 62% of the herd having a linear somatic cell count of 4 or higher. Mr. Smith said that the bulk tank weights had been fairly consistent for each pickup over the last 4 months averaging 44 lbs / cow. There are no major nutritional concerns at this time. The herd is fed using a pull through mixer wagon twice a day.

Using the provided information, address the following concerns in your presentation:

Concern #1: A few cows show clinical signs of mastitis such as hard, warm quarters and abnormal milk shortly after calving. Depending on their severity, some of these cows die while others recover on their own. These cows are kept in a calving pen near the parlor. Many more cows are experiencing increased cases of mastitis in mid to late lactation. Many cows begin their lactation with a linear somatic cell count of 1 or 2 but often are around a linear cell count of 5 or 6 by the end of lactation, although the milk from these cows appears to be normal. What are some recommended changes for Standard Operating Procedures for both the freestall barn and milking parlor to improve milk quality and mammary health?

Concern #2: Because of the increasing somatic cell count and incidences of mastitis, this herd is experiencing a loss of milk production. Besides updating their standard operating procedures, what are the most cost-effective ways to handle the chronically infected cows in order to reduce costs and increase income?

Concern #3: Over the last 6 months, a high percentage of calves (30%) have died within the first week of life from scours. This herd currently does not have a standard plan to care for new born calves. What are four critical pieces that should be checked and included in a calf care plan for this dairy?

Concern #4: Reproduction performance is below average. The current average for heats observed is 22%, average conception rate is 45%, days to first service is 120 and days open is 185. What are three things to check so that the farm can improve their reproductive measures? Are there any health problems that may be contributing to their reproductive issues?

Dairy Cow Veterinary Services

123 Main Street
Cow Town, PA 12345

To: Pennsylvania FFA Members
RE: Henry Smith's Herd Performance

Our practice has been the vet for Mr. Smith's farm for over 20 years. There are four employees on the farm: Mr. Smith, his wife, and their two high school children.

On our visits to the farm, we have discussed with the Smith's about their current standard operating procedures and the level to which the family can implement them. In all honesty, there are not any written standard operating procedures; rather, "the way it has always been done" seems to be their standing operating procedure. When conducting herd reproductive checks, we are finding ourselves palpating a lot of late lactation cows. Mr. Smith does not send mastitis cultures to our office as it is 30 minutes away from the farm. Instead he treats mastitis cases the best he can, using knowledge of the herd and cow's history. From what we know, his nutritionist evaluates the dry cow and lactating cow rations about every month or when Mr. Smith asks for a change.

We are concerned with the longevity and profitability of this herd. If they continue to lose their calves at this rate, the herd will not have enough replacements for the future. With the current state of the economy, we understand that the family may not be able to hire additional help. However, we feel there is room for improvement on the Smith Farm.

Some facts about daily operations that may help you identify areas of change:

- Freestall operation with a double-6 swing parlor
- Stalls are bedded every three days with sawdust from a local mill. There are mattresses underneath the sawdust. No additional products are added to the bedding.
- The herd uses a pre-dip and paper towels to prep the cows. Milking units are attached and cows are post-dipped before they exit the parlor after milking and immediately head back to their stalls. Spray bottles are used to apply the teat dips.
- At dry-off, cows are treated with Tomorrow (a dry cow mastitis treatment product), dipped and then moved to the dry cow barn.

We would like to see an outside individual explain to this producer that he needs to make and commit to some much-needed changes in order to improve the overall health and performance of his herd.

Good Luck,

Drs. Jones, Callen and Deeks