Dairy Cattle Evaluation Career Development Event

1. Breeds of dairy cattle that may be used in this CDE include Ayrshire, Brown Swiss, Guernsey, Holstein, Jersey and mixed breeds. Only one class may be mixed breeds. Teams will be given judging criteria for the class.

2. Four - six classes of 4 animals from the above breeds will be placed on type. At least 3 of these classes will be cows and from 1 to 3 classes may be heifers. The contestants will be allowed 12 minutes to place each class.

3. **Two** Oral Reasons will be required on the above listed cow classes. The Reason Class will be designated at the beginning of the contest. Scantrons must be turned in at the reasons classes.

4. One class of 4 animals will be placed on the basis on actual performance pedigree, type, and an overall placing. The pedigree will be based on the Minnesota DHIA Cow Index Form. Evaluation of the pedigree should be based on: 1) cow’s actual performance, 2) estimated production ability, and 3) estimated genetic transmitting ability. A perfect score for pedigree will be 25 points. A perfect score for type will be 25 points. A perfect score for the overall placing will be 50 points. Contestants will be allowed 12 minutes for placing this class.

5. One sire selection exercise will consist of ranking potential mates for one cow. Linear evaluation and production information on the cow will be provided along with the transmitting ability estimates of 4 sires. Contestants will be allowed 12 minutes for placing this class.

6. Team Activity (150 points) (30 minutes)
   - Part 1 (50 points) Team will answer 25 multiple choice questions on general dairy knowledge. The reference for the questions will be “Learning About Dairy It can be downloaded free at [http://www1.extension.umn.edu/youth/mn4-H/events/project-bowl/docs/PB-Learning-About-Dairy-Booklet.pdf](http://www1.extension.umn.edu/youth/mn4-H/events/project-bowl/docs/PB-Learning-About-Dairy-Booklet.pdf)
   - Part 2 (50 points) A team will analyze individual cow production records (DHI) of a 50-75 cow herd. Individual cows are to be selected according to their appropriate status for culling, breeding, or other management decision categories.
   - Part 3 (50 points) Dairy Management Exercise
     The exercise will consist of a 25 question written test involving dairy management practices and DHIA Records in making management decisions.

7. In Reasons Classes, contestants will have 12 minutes to prepare reasons and not more that 2 minutes in which to deliver the reasons. Contestants may use the placing card in delivering reasons. No other notes will be permitted. A perfect score will be 50 points.

8. Tea Activities will be provided to Regional CDE Chairs for use in their Regional Events.


10. Contestants will be permitted to view the animals from all angles but shall not at any time place their hands on any animal. At the beginning of each class the contestants will stand to the rear of the animals. Contestants will stand at least 12 feet away from each class for time periods as follows: 2 minute rear view, 2 minute side view, and a 2 minute head view. The classes will then be circled clockwise with cow No. 1 leading out, after which a 2 minute close up view will be allowed, and for the balance of the time, the contestants will remain at the distance of at least 12 feet.

11. Computer scan sheets will be used for this CDE. Form number 105477 will be used. Refer to the appendix for a sample.

12. Refer to the National FFA Contest for references.

13. The second place dairy team has the opportunity to participate in a national dairy judging event. The Minnesota Livestock Breeders provides a travel stipend to the team. Two options are the Big E in Harrisburg PA. and the World Dairy Expo in Madison, WI.
Sample Dairy CDE Team Activity

### Herd Summary

#### Type Test

<table>
<thead>
<tr>
<th>Test</th>
<th>23-DHR APDCS</th>
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</table>

#### Service or Heat Intervals (Number)

<table>
<thead>
<tr>
<th>Days</th>
<th>18-24 Days</th>
<th>26-40 Days</th>
<th>Other</th>
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<tr>
<td>&lt;18 Days</td>
<td>2</td>
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#### Peak and Persistency

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<th>305 ME</th>
<th>Prod Index</th>
<th>Lact Cows</th>
<th>DIM</th>
<th>Peak</th>
<th>MLM</th>
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#### Daily Milk

<table>
<thead>
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<th>SCC %</th>
<th>Lact</th>
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<tr>
<td>71</td>
<td>1.5</td>
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#### Current SCC Evaluation

<table>
<thead>
<tr>
<th>Cows</th>
<th>% SCC Infected by DIM</th>
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<tr>
<td>71</td>
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#### Management Level Milk

#### Annual Summary

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<th>Days in Milk</th>
<th>All Cows</th>
<th>Lact Cows</th>
<th>Days in Milk</th>
<th>All Cows</th>
<th>Lact Cows</th>
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<tbody>
<tr>
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<td>&lt;100</td>
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#### Yearly SCC Summary

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<td>50 - 100</td>
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<td>100 - 200</td>
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#### Changes in SCC Status

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<th>% Change</th>
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#### Production Averages

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<td>2016-09-02</td>
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8.2 10/11/2012
### Consultant Summary

**Smith Dairy Farm**

**Henry Smith**

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<th>Service Sires</th>
<th>Animal PTA</th>
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### Inventory

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### Reproduction Summary

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<td>Animals Served (%)</td>
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<tr>
<td>Waiting Period (days or mo)</td>
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<tr>
<td>First Served (&lt;100 days or 15 mo) (%)</td>
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<td>64</td>
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<tr>
<td>Time to First Services (days or mo)</td>
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<td>Services per Animal</td>
<td>1.9</td>
<td>1.7</td>
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<tr>
<td>Open Period (&lt;150 days or 17 mo) (%)</td>
<td>43</td>
<td>56</td>
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<tr>
<td>Min Calving Interval (months)</td>
<td>12.3</td>
<td>24.9</td>
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<td>Heat Detection Index</td>
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### Monthly Herd Turnover

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<th>Jun</th>
<th>Jul</th>
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<th>Oct</th>
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### Birth Summary

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<tr>
<th>Dam's Lact</th>
<th>Num</th>
<th>Males</th>
<th>Females</th>
<th>Calving Difficulty Score</th>
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<td>Allow</td>
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<td>Allow</td>
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<td>1</td>
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<td>2+</td>
<td>74</td>
<td>7</td>
<td>75</td>
<td>5</td>
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<tr>
<td>Total</td>
<td>100</td>
<td>8</td>
<td>130</td>
<td>7</td>
</tr>
</tbody>
</table>

Management Calving Interval = 13.4 Months

8.3

10/11/2012
Sample Team Activity Questions

1. What was the death rate of cows over the last year for the whole cow herd?
   a. 0%    b. 2.4%    c. 4.7%    d. 7.6%    e. 9.4%

2. What best describes the herds calving practice?
   a. Most cows calve in the spring
   b. Most cows calve in the fall
   c. Cows calve year round

3. What was the number one reason for culling cows (other than dairy or death)?
   a. low production    b. reproduction    c. mastitis    d. feet & legs    e. injury

4. What % of the yearlings were bred to A.I. sires?
   a. 0%    b. 48%    c. 57%    d. 93%    e. 100%

5. Which age group has the highest average genetic merit dollars?
   a. calves    b. yearlings    c. 1st lactation cows    d. 2nd lactation cows    e. 3rd & later lactation cows

6. Which month is the worst for mastitis?

7. What age of cows have the highest ME dollar value?
   a. 1st lactation    b. 2nd lactation    c. 3rd+ lactation

8. When do cows tend to have the least problems with mastitis?
   a. early lactation    b. mid lactation    c. late lactation

9. What age of cow has the most mastitis?
   a. 1st lactation    b. 2nd lactation    c. 3rd+ lactations

10. What best describes this dairy’s dry period length?
    a. most cows are dry the proper amount of time
    b. too many cows have short dry periods
    c. too many cows have long dry periods

11. Comparing the current vs last test for SCC status:
    a. there were more cures than new infections
    b. there were more chronics than cures
    c. there were more chronics than negatives
    d. about 10% of cows are infected

12. Which is a true statement relative to quality of A.I. bulls used?
    a. uses best bulls on older cows
    b. uses best bulls on heifers
    c. uses bulls of equal quality across age groups

13. Relative to this dairy’s animal ID system of knowing the sire and the dam of cows, would it be:
    a. excellent    b. fair    c. poor

14. Which age group makes up the largest number in this herd?
    a. calves    b. yearlings    c. 1st lactation    d. 2nd lactation    e. 3rd+ lactation

15. Which management problem area should be investigated first?
    a. mastitis
    b. feet problems
    c. cow death rate
    d. reproductive problems
    e. low milk production
16. What is this herd’s voluntary waiting period for cows?
   a. 45 days  
   b. 50 days  
   c. 70 days  
   d. 90 days  
   e. 120 days

17. Which has a better conception rate?
   a. cows much better  
   b. heifers much better  
   c. heifers and cows about the same  

18. What was the average days open for the cows that conceived?
   a. 111 days  
   b. 118 days  
   c. 16 days  
   d. 90 days  
   e. 120 days

19. What is this dairy cow herd’s calving interval in months?
   a. 11  
   b. 13  
   c. 15  
   d. 17

20. What month had the most calvings reported?
   a. May  
   b. September  
   c. March  
   d. January

21. In which month did the most cows leave the herd?
   a. April  
   b. June  
   c. August  
   d. December

22. What animals had the most calving difficulty with the greater % scored 3 or greater?
   a. 1st lactation heifers  
   b. older cows

23. What is the stillbirth rate for this herd?
   a. 2.2%  
   b. 6.1%  
   c. 7%  
   d. 8%  
   e. 10%

24. How would you describe this farm’s overall management level?
   a. above average  
   b. average  
   c. below average

25. Of the following, what should this dairy’s highest priority be?
   a. increase fat %  
   b. increase milk production  
   c. increase conception rate  
   d. decrease age at 1st calving
Team Activity Key

E 1. What was the death rate of cows over the last year for the whole cow herd?
   a. 0%  b. 2.4%  c. 4.7%  d. 7.6%  e. 9.4%

   Annual turnover of 39% times 24% of those died = 9.4%

C 2. What best describes the herds calving practice?
   a. Most cows calve in the spring
   b. Most cows calve in the fall
   c. Cows calve year round

B 3. What was the number one reason for culling cows (other than dairy or death)?
   a. low production  b. reproduction  c. mastitis  d. feet & legs  e. injury

D 4. What % of the yearlings were bred to A.I. sires?
   a. 0%  b. 48%  c. 57%  d. 93%  e. 100%

A 5. Which age group has the highest average genetic merit dollars?
   a. calves  b. yearlings  c. 1st lactation cows  d. 2nd lactation cows  
   e. 3rd & later lactation cows

E 6. Which month is the worst for mastitis?
   e. January

   January had the most infections at 55 and highest SCC.

A 7. What age of cows have the highest ME dollar value?
   a. 1st lactation  b. 2nd lactation  c. 3rd+ lactation

B 8. When do cows tend to have the least problems with mastitis?
   a. early lactation  b. mid lactation  c. late lactation

   Only 14% infected 30 to 220 DIM

C 9. What age of cow has the most mastitis?
   a. 1st lactation  b. 2nd lactation  c. 3rd+ lactations

   32% of 3rd+ lactation infected

A 10. What best describes this dairy’s dry period length?
   a. most cows are dry the proper amount of time
   b. too many cows have short dry periods
   c. too many cows have long dry periods

   91% of cows 40 to 70 day dry

B 11. Comparing the current vs last test for SCC status:
   a. there were more cures than new infections
   b. there were more chronics than cures
   c. there were more chronics than negatives
   d. about 10% of cows are infected

   5 cures and 10 chronics

C 12. Which is a true statement relative to quality of A.I. bulls used?
   a. uses best bulls on older cows
   b. uses best bulls on heifers
   c. uses bulls of equal quality across age groups

   NM$ of service sires very similar for all age groups
A 13. Relative to this dairy's animal ID system of knowing the sire and the dam of cows, would it be:
   a. excellent    b. fair     c. poor
   % identified by sire and dam is 100%

A 14. Which age group makes up the largest number in this herd?
   a. calves     b. yearlings    c. 1st lactation    d. 2nd lactation    e. 3rd + lactation

C 15. Which management problem area should be investigated first?
   a. mastitis
   b. feet problems
   c. cow death rate
   d. reproductive problems
   e. low milk production

   The herd is better than average for each area except death rate is worse than average at 9.4%

C 16. What is this herd's voluntary waiting period for cows?
   a. 45 days   b. 50 days   c. 70 days   d. 90 days   e. 120 days

C 17. Which has a better conception rate?
   a. cows much better
   b. heifers much better
   c. heifers and cows about the same

B 18. What was the average days open for the cows that conceived?
   a. 111 days   b. 118 days   c. 16 days   d. 90 days   e. 120 days

B 19. What is this dairy cow herd's calving interval in months?
   a. 11   b. 13   c. 15   d. 17

C 20. What month had the most calvings reported?

B 21. In which month did the most cows leave the herd?
   a. April   b. June   c. August   d. December

A 22. What animals had the most calving difficulty with the greater % scored 3 or greater?
   a. 1st lactation heifers    b. older cows

   1st lactation had 11% greater than 2 versus 6% for older cows

B 23. What is the stillbirth rate for this herd?
   a. 2.2%   b. 6.1%   c. 7%   d. 8%   e. 10%

   15 divided by 245 total calvings

A 24. How would you describe this farm's overall management level?
   a. above average   b. average   c. below average

B 25. Of the following, what should this dairy's highest priority be?
   a. increase fat %
   b. increase milk production
   c. increase conception rate
   d. decrease age at 1st calving

   Fat% is high. Conception rate is well above average. Age at 1st calving is 25 months which is younger than average. Milk production is pretty good but it has been decreasing over the past year so seems there should be a priority to increase this.
<table>
<thead>
<tr>
<th>Class</th>
<th>Form</th>
<th>Rump</th>
<th>Legs &amp; Feet</th>
<th>Udder</th>
<th>Teats</th>
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**8.9**

**10/11/2012**