Dairy Cattle Evaluation  
Dairy Character  
Lesson 3

Area and/or Course: Animal Science/Dairy

Teacher Goal(s):

1. Students to gain exposure to dairy character traits.
2. Students to understand why dairy character is important in assessment of dairy cattle.
3. Students to have the ability to describe dairy character with proper terminology.

Lesson Title: Dairy Character

Objectives:

The student will be able to (TSWBT). (OR Skill Set numbers in parentheses at the end of the objective statement.)

1. Master the parts of the dairy cow. (AGPC 01.05.04.01)
2. Demonstrate understanding of dairy character in relation to dairy cattle evaluation. (AGPC 01.05.04.02)
3. Gain experience using terms related to dairy character to be used for oral reasons. (AGPC 01.05.04.04)

CIM/CAM Standard met by Objectives:

<table>
<thead>
<tr>
<th>Page</th>
<th>Category</th>
<th>Subject</th>
<th>Common Goal</th>
<th>Benchmark &amp; Number</th>
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<td>E-20</td>
<td>English Comm.</td>
<td>Tech. Speak</td>
<td>10:1</td>
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<td>2.</td>
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<td>3.</td>
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<td>Science Life</td>
<td>Heredity</td>
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Materials, Equipment, Audio-visual aids:

1. Power Point
2. Quiz
3. Class handout
4. Parts of the cow quiz
5. Reasons notes handout

References:

1. Hoards Dairyman
2. American Jersey Cattle Club
3. Holstein Foundation
4. Oregon State University Dairy Cattle Evaluation Extension Publication
5. World Holstein Friesian Association
Review Yesterday’s Lesson:
During our last lesson, we talked about the mammary system; its components, and why it is important. Who can state one of the six udder traits? Write them on the board.

1. Udder depth
2. Teat size and placement
3. Rear udder
4. Udder cleft
5. Fore udder
6. Udder balance and texture

Can anyone tell me why the mammary system is the most important trait?

We are now going to give the reasons that you prepared last time.

Set:
Today we will be going over the second of the 5 traits of dairy cattle. Last time we talked about the mammary system-today; we are going to discuss physical traits of the animal which predict her ability to milk. What better name for these traits than Dairy Character? The best way to envision the trait of dairy character is that it is nearly opposite of what is desired in beef cattle. Can anyone give me an example of a physical trait on a dairy cow that would be opposite to that of a beef cow?

1. 
2. 
3. 

Any answers are good. Looking for class participation.

Those are all great answers. We will be going through all of the parts of the cow related to dairy character in today’s lesson.

Summary:
At the completion of the class today, you will be able to:

1. Describe the components that make up dairy character.

2. Discuss why dairy character is important in assessment of dairy cattle.

3. Describe dairy character using proper terminology.
**Subject Matter Outline/Problem and Solution**  
(Application Points lace in throughout lesson) (Modeling, Guided Practice, and Content)

<table>
<thead>
<tr>
<th><em>Parts Of the Cow</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dairy Character</td>
</tr>
<tr>
<td>a. Physical evidence of ability to milk</td>
</tr>
<tr>
<td>b. General openness</td>
</tr>
<tr>
<td>c. Angularity and flatness of bone</td>
</tr>
<tr>
<td>d. Strength</td>
</tr>
<tr>
<td>e. Free from coarseness</td>
</tr>
<tr>
<td>2. Picture of Beef Cow</td>
</tr>
<tr>
<td>3. Picture of Amber with her head down</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategy – includes Teacher Activity, Student Activity, Questions/Answers and Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students are taking notes.</strong></td>
</tr>
<tr>
<td>Go over the parts of the cow. Remember that we will be having quizzes over these parts.</td>
</tr>
<tr>
<td>Dairy character is not the same as conditioning. It is based off of structures, not fat. A over conditioned cow (fat) can still possess dairy character.</td>
</tr>
<tr>
<td>Q: Where would flatness of bone be most prevalent?</td>
</tr>
<tr>
<td>A: Leg</td>
</tr>
<tr>
<td>Q: What is coarseness?</td>
</tr>
<tr>
<td>A: Roundness.</td>
</tr>
<tr>
<td>Things to notice:</td>
</tr>
<tr>
<td>1. Round leg bone</td>
</tr>
<tr>
<td>2. Ribs go straight down</td>
</tr>
<tr>
<td>3. Tight ribs</td>
</tr>
<tr>
<td>4. Hocks are the same size as the leg</td>
</tr>
<tr>
<td>Things to notice:</td>
</tr>
<tr>
<td>1. Delicate leg bone</td>
</tr>
<tr>
<td>2. Flat hock</td>
</tr>
<tr>
<td>3. Ribs curve back</td>
</tr>
<tr>
<td>4. Incurving thigh</td>
</tr>
<tr>
<td>5. Shaped like a triangle over her topline when viewed from the rear</td>
</tr>
</tbody>
</table>
4. **Comparison picture of Amber and Beef Cow**

5. **Dairy Character**
   - a. Ribs
   - b. Thighs
   - c. Withers
   - d. Neck
   - e. Skin/hide

6. **Ribs**
   - a. Wide apart
   - b. Flat
   - c. Deep
   - d. Slanted toward the rear

7. **Thighs**
   - a. Lean
   - b. Incurving
   - c. Wide apart from the rear

8. **Withers**
   - a. Sharp
   - b. Prominent about the chine

9. **Side view of dairy character**

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**Q:** Who can tell me some differences between these two animals?

**A:** All of the traits stated above.

These are the 5 parts of the cow to look at in order to assess dairy character.

We will go into each trait in more depth.

You want to be able to fit 2 fingers between the last two ribs.

Try to picture in your mind the differences between Amber and the Beef cow shown in the pictures.

Dairy cows are delicate creatures. Think of them as dainty little individuals, not burley or husky.

Marathon runners, not football players.

Looking from the rear of the cow towards the head, her topline should be sharp and triangular in shape.

The chine should pop up out of her topline.

**Q:** Who can tell me which animal possess the most dairy character?

**A:** 3rd.
10. Neck
   a. Long
   b. Lean
   c. Blend smoothly into shoulders
   d. Clean-cut throat, dewlap, and brisket

11. Skin/Hide
    a. Thin
    b. Lose
    c. Pliable

12. Picture of Selma

13. Dairy Character Terms
    a. More angularity
    b. More openness of rib
    c. Cleaner about the head, neck and withers
    d. Longer and leaner in the neck
    e. Sharper at the point of withers

14. Dairy Character Terms
    a. More prominent about the hips and pins
    b. Cleaner down that top line
    c. Flatter (leaner or thinner) in thighs
    d. More incurving in the thigh

We want a long clean neck. Think of Ambers neck versus the beef cow.

This lose hide is an indication that the animal is milking hard.

Q: What is one trait you notice on Selma which exemplifies dairy character?
A: Just about everything.

Dairy character terms are straightforward.

Q: What is another part of the cow we could be looking at to assess flatness of bone?
A: Leg

One way to determine angularity to the novice, is to look at the hips and pins. Are the pins round or triangular? Are the hips rounded or
15. Dairy Character Terms
   a. More chiseled over the chine
   b. More dairy sweep to her rib
   c. Show more cleanliness in the head and neck and prominence in withers, hips and pins
   d. More desirable balance between dairy and strength

16. Summary
   a. What are the 5 places on a cow dairy character can be evaluated?
   b. What is a reasons term to match each?

17. Reasons
   a. Jersey 4 year olds

18. Time to Practice
   a. Place the following classes
   b. Take notes for reasons

19. Placing
   - Shorthorn
     • 1-2-3-4 with cuts of 2-4-2
   - Jersey
     • 4-2-3-1 with cuts of 1-4-3
   - Reasons (click on speaker to listen)
     • Shorthorn
     • Jersey

   flat on top?
   This method is not 100%, but can be beneficial to someone just starting out.
   We will talk more about this in future lessons. Keep it in the back of your mind and try to think why this could be a challenge.

1. Ribs
2. Thighs
3. Withers
4. Neck
5. Skin/hide

**Give Quiz on Parts of the Cow.**

Listen to these reasons for terminology related to dairy character.

Also pay attention to structure.

Do you notice any differences between the breeds?

All of the cows are 4 year olds.

Prepare your reasons using your reasons note handout. We will be presenting these reasons next time.

You will find scores for possible placings in the back of the Instructor Manual under “Contest #1”.

Give Quiz on Parts of the Cow.
Dairy character is a trait used to predict the animals’ ability to give milk. What business are we in? The milk business. If we do not have milk, what do we have? Beef cow!!!

Next time we meet, we will have a quiz on all dairy character material. In addition, remember to be studying the part of the cow diagram.

Evaluation: (Authentic Forms of Evaluation, Quizzes, Written Exam – something you grade).

<table>
<thead>
<tr>
<th>Item</th>
<th>Obj. Number</th>
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<tbody>
<tr>
<td>1. Complete the quiz</td>
<td>1-3</td>
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</table>

Assignments: (Student Activities involved in lesson/designed to meet objectives but not graded).

<table>
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<tr>
<td>1. Complete the handout</td>
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Attachments:

1. Quiz
2. Class handout
3. Power Point
4. Parts of the cow quiz
5. Reasons notes page