

Seven Major Breeds of Dairy Cattle in the U.S.

Objectives:

- Students will be able to name the major breeds of dairy cattle in the United States.
- Students will be able to explain at least one benefit for each breed of dairy cattle.
- Students will be able to name the differences between each breed of dairy cattle.

Approximate Lesson Length: 40 to 45 minutes (additional time for activities)

Materials Needed:

- Computer or paper and pencil
- Multimedia projector and screen
- [Seven Major Breeds of Dairy Cattle in the United States PowerPoint](#)
- Copies of "[Seven Major Breeds of Dairy Cattle Lab Sheet](#)" and [Answer Key](#)
- [AAC Calves Representing Major Breeds Cards](#)

Vocabulary:

Ayrshire, Breed, Brown Swiss, Guernsey, Holstein, Jersey, Milking Shorthorn, and Red and White

Lesson Components:

Component	Time	Component	Time
Intro & Activating Strategy	10 min.	Seven Breeds of Dairy Lab	15 min.
PowerPoint & Discussion	10 min.	Lesson Closure—Kahoot Game	10 min.

Introduction:

Red, white or brown cow? There are currently seven major breeds of dairy cattle recognized by the Purebred Dairy Cattle Association, a group that governs breed standards and characteristics. Today we are going to learn about each of the seven major breeds of dairy cattle in the United States.

Activating Strategy:

Being able to recognize dairy breeds at a glance is a valuable skill for anyone interested in the dairy industry. In addition, there are certain breeds that have desirable traits for certain production scenarios.

Let's watch a [video](#) to help you recognize each of the major breeds of dairy cows and some special characteristics.

PowerPoint and Discussion:

Using slides 8 -14, go over the basic facts about each of the seven major breeds of dairy cattle.

Alternative Engagement—Seven Breeds Jigsaw Activity. Instead of telling the students these basic facts on slides 8 -14, you could divide the class into seven groups and have students complete this PowerPoint slide of facts instead. You could give the students the breed association links (provided on slide 15) and have each group research the specific website to find these basic facts. All information will be found on these websites as they were used to gather the facts on these slides.

Connection to Adopted Calf Closure: “Today you learned about the seven major breeds of dairy cattle in the United States. Identify the breed of our Adopt a Cow calf and share one important point you learned about this breed.”

Seven Major Dairy Cattle Breeds Lab:

For this lab, we used one adopted calf to represent each of the seven major breeds of dairy cattle. If your adopted calf has been used, then you are able to complete the lab without collecting the necessary information on slide 19. However, if your adopted calf is not one of the seven, then you will need to provide the information to the students.

Introducing the lab: “Let’s look at some of the Adopt a Cow calves to compare and contrast them with our learned information about the seven major breeds of dairy cattle in the United States. You will be working together with a partner to apply this information to some Adopt a Cow calves which represent each of the main breeds. But first, we will list the necessary information we have received about our very own Adopt a Cow calf.”

After completing slide 19 together, assign students partners. Give each pair the “AAC Calves Representing Major Breeds Cards” and the “Seven Major Breeds of Dairy Cattle Lab Sheet.” Allow students class time to work together on the lab, walking around providing assistance as needed.

Comparison Closure: “Today we compared our adopted calf with other calves in the program which are the same or different breed. Looking at our adopted calf and her breed, how does she compare to the calf used to represent her breed?”

Lesson Closure—Kahoot Game:

To formatively assess what students learned in this lesson, you will facilitate a Kahoot game. You need to have a Kahoot account (free to all educators) to access the already prepared game.

Kahoot Activity: “Today we learned about each of the seven breeds of dairy cattle and their important qualities. Let’s play a [Kahoot game](#) to test your recognition of the breeds and what makes each breed special.”

Use Slide 31 to make sure students know how to play Kahoot. Click [Kahoot game](#) to access the 16-question multiple choice assessment. Facilitate the game play.

Lesson Closure: “Today you learned about each of the seven breeds of dairy cattle and their important qualities. Tell us your favorite breed of dairy cow and at least two reasons why it is your favorite breed of the seven.”



Name: ANSWER KEY

Date: _____

Adopt a Cow Update 1 Lesson

Seven Major Breeds of Dairy Cattle Lab

Directions: Answer the questions below in the spaces provided.

1. Given what you have learned already about the seven major breeds of dairy cattle in the U.S., complete the following questions.

a. Which breed of dairy cow is the biggest in size? Holstein or Red & White

b. Which breed of dairy cow is the smallest in size? Jersey

2. Using the information on your adopted calf, record the following information in the table below.

Name	Breed	Birth Height (in)	Birth Weight (lb)	Farm Name	State

3. Using the information of the AAC calves representing the major breeds of dairy cattle, complete the table below.

Name	Breed	Birth Height (in)	Birth Weight (lb)	Farm Name	State
Annie	Ayrshire	27	55	Nance Farm	SC
Tawny	Brown Swiss	30	70	Gervais Family Farm	VT
Fancy	Guernsey	28	40	Triple H Dairy	KY
Snickerdoodle	Holstein	36	100	Four Pines Farm LTD	OH
Margie	Jersey	28	78	Long Green Farms	MD
Ruby	Milking Shorthorn	30	72	JJC Jerseys	NE
Courtny	Red & White	29.5	85	Rottinghaus Holsteins	KS

Using the information in the table, answer the following questions.

4. Which calf is the tallest? Ruby & Tawny What is her breed? Milking Shorthorn & Brown Swiss

5. Which calf is the shortest? Annie What is her breed? Ayrshire

6. Do your results from problems 4 and 5 match the answers to question 1? No

Explain. Holsteins are usually the tallest and jerseys are usually the smallest and neither calf was those breeds.

7. Looking at your adopted calf and her breed, how does she compare to the calf used to represent her breed?

Answers will vary depending on the AAC calf

8. Which breed of dairy cow in the United States is your favorite? Answers will vary

Explain why you chose this breed. Answers will vary

Name: ANSWER KEY

Date: _____

Adopt a Cow Update 1 Lesson

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6. Do your results from problems 4 and 5 match the answers to question 1? No

Explain. Holsteins are usually the tallest and jerseys are usually the smallest and neither calf was those breeds.

7. Looking at your adopted calf and her breed, how does she compare to the calf used to represent her breed?

Answers will vary depending on the AAC calf

8. Which breed of dairy cow in the United States is your favorite? Answers will vary

Explain why you chose this breed. Answers will vary

Meet Annie

Ayrshire / Holstein Cross

Birth Height (in):

27 inches

Birth Weight (lb):

55 pounds

Farm Name:

Nance Farm

State:

South Carolina

Owner:

Farmer Caci



Meet Tawny

Birth Height (in):

30 inches

Birth Weight (lb):

70 pounds

Farm Name:

Gervais Family Farm

State:

Vermont

Owner:

Farmer Kati

Brown Swiss



Meet Fancy

Guernsey

Birth Height (in):

28 inches

Birth Weight (lb):

40 pounds

Farm Name:

Triple H Dairy

State:

Kentucky

Owner:

Farmer Chris



Meet Snickerdoodle

Holstein

Birth Height (in):

36 inches

Birth Weight (lb):

100 pounds

Farm Name:

Four Pines Farm LTD

State:

Ohio

Owner:

Farmer Mackenzie



Meet Margie

Birth Height (in):

28 inches

Birth Weight (lb):

78 pounds

Farm Name:

Long Green Farms

State:

Maryland

Owner:

Farmer Alice

Jersey



Meet Ruby

Milking Shorthorn

Birth Height (in):

30 inches

Birth Weight (lb):

72 pounds

Farm Name:

JJC Jerseys

State:

Nebraska

Owner:

Farmer Jodi



Meet Courtney

Red and White

Birth Height (in):
29.5 inches

Birth Weight (lb):
85 pounds

Farm Name:
Rottinghaus Holsteins

State:
Kansas

Owner:
Farmer Stacy





Adopt a Cow Update 1

The Seven Major Breeds of Dairy Cattle in the United States

**Part
1**

Introduction



Introduction

Red, white or brown cow? There are currently seven major breeds of dairy cattle recognized by the Purebred Dairy Cattle Association, a group that governs breed standards and characteristics.

Today we are going to learn about each of the seven major breeds of dairy cattle in the United States.



Learning Objectives

- Students will be able to name the major breeds of dairy cattle in the United States.
- Students will be able to explain at least one benefit for each breed of dairy cattle.
- Students will be able to name the differences between each breed of dairy cattle.



Essential Vocabulary

Ayrshire – a breed of dairy cow with reddish-brown spots on a white body, medium in size, and known for her ruggedness and ability to adapt to any environment.

Breed – a group of domestic animals, originated and maintained by humans and having a clearly defined set of characteristics.

Brown Swiss – a breed of dairy cow with gray-brown coloring, large in size, and known as the oldest breed of dairy cow dating back to 400 BC.

Guernsey – a breed of dairy cow with white spots on a light yellowish-tan body, medium in size, and known for her golden colored milk due to a high content of beta carotene & higher amounts of butterfat and protein.

Holstein – a breed of dairy cow with a black-and-white spotted body, largest in size, and making up the largest number of cows of any breed at 90% of dairy cows.

Jersey – a breed of dairy cow with light to medium brown color and large eyelashes, smallest in size and known for the high butterfat content in her milk.

Milking Shorthorn – a breed of dairy cow with red; red and white; or white and roan color; medium in size and known for being the first dairy cow brought to America.

Red & White – a breed of dairy cow with red and white spots; large in frame, and known for being the newest breed of dairy cow since the 1960's.

A green vertical bar is on the left side of the slide. A white circle with a double black outline is positioned on the bar. The text 'Part 2' is inside the circle.

**Part
2**

Seven Major Breeds of Dairy Cattle in the United States



Activating Strategy

Being able to recognize dairy breeds at a glance is a valuable skill for anyone interested in the dairy industry. In addition, there are certain breeds that have desirable traits for certain production scenarios.

Let's watch a [video](#) to help you recognize each of the major breeds of dairy cows and some special characteristics.





Ayrshire



- **Origin:** County of Ayr, Scotland
- **Color:** Reddish-brown or mahogany and white
- **Arrival in the U.S.:** 1822
- **Avg. Size:** 1,200 pounds
- **Avg. Milk Production:** 17,230 lbs.
- **% Butterfat:** 3.86%
- **% Protein:** 3.15%
- **Misc.:** Adaptability to any environment



Brown Swiss



- **Origin:** Switzerland
- **Color:** Grey, dark brown, tan, or almost white
- **Arrival in the U.S.:** 1869
- **Avg. Size:** 1,400 pounds
- **Avg. Milk Production:** 23,090 lbs.
- **% Butterfat:** 4.05%
- **% Protein:** 3.32%
- **Misc.:** Oldest breed of dairy cow



Guernsey



- **Origin:** Isle of Guernsey, English Channel
- **Color:** Golden color and white
- **Arrival in the U.S.:** 1840
- **Avg. Size:** 1,300 pounds
- **Avg. Milk Production:** 17,578 lbs.
- **% Butterfat:** 4.41%
- **% Protein:** 3.27%
- **Misc.:** Milk is golden in color due to high beta carotene



Holstein



- **Origin:** The Netherlands
- **Color:** Black and white
- **Arrival in the U.S.:** 1852
- **Avg. Size:** 1,500 pounds
- **Avg. Milk Production:** 25,293 lbs.
- **% Butterfat:** 3.67%
- **% Protein:** 3.08%
- **Misc.:** Makes up 90% of all dairy cows and is the largest of all breeds



Jersey



- **Origin:** Isle of Jersey, English Channel
- **Color:** Brown or fawn
- **Arrival in the U.S.:** 1850's
- **Avg. Size:** 1,000 pounds
- **Avg. Milk Production:** 18,040 lbs.
- **% Butterfat:** 4.81%
- **% Protein:** 3.65%
- **Misc.:** Highest butterfat content in her milk and is the smallest of all breeds



Milking Shorthorn



- **Origin:** England
- **Color:** Red, red and white, white, or roan
- **Arrival in the U.S.:** 1783
- **Avg. Size:** 1,400 pounds
- **Avg. Milk Production:** 15,000 lbs.
- **% Butterfat:** 3.33%
- **% Protein:** 3.1%
- **Misc.:** First dairy cow brought to America



Red and White Holstein



- **Origin:** United States
- **Color:** Red and white
- **Arrival in the U.S.:** 1964
- **Avg. Size:** 1,500 pounds
- **Avg. Milk Production:** 25,293 lbs.
- **% Butterfat:** 3.67%
- **% Protein:** 3.08%
- **Misc.:** Newest breed and only breed to originate from the U.S.



Source: Dairy Cattle Breeds Organizations

- Ayrshire Breeders Association www.usayrshire.com
- Brown Swiss Association www.brownswissusa.com
- American Guernsey Association www.usguernsey.com
- Holstein Association www.holsteinusa.com
- American Jersey Cattle Association www.usjersey.com
- American Milking Shorthorn Society
www.milkingshorthorn.com
- Red and White Dairy Cattle Association
www.redandwhitecattle.com

Connection to Adopted Calf Closure

Today you learned about the seven major breeds of dairy cattle in the United States. Identify the breed of our Adopt a Cow calf and share one important point you learned about this breed.



**Part
3**

Seven Major Dairy Cattle Breeds Lab



Introduction

Let's look at some of the past and present Adopt a Cow calves to compare and contrast them with our learned information about the seven major breeds of dairy cattle in the United States.

You will be working together with a partner to apply this information to some Adopt a Cow calves which represent each of the main breeds.

But first, we will list the necessary information we have received about our very own Adopt a Cow calf.



Our Adopted Calf

- Name:
- Breed:
- Birth Height (in):
- Birth Weight (lb):
- Farm Name:
- State:
- Owner:



Ayrshire

Meet Annie

Birth Height (in):
27 inches

Birth Weight (lb):
55 pounds

Farm Name:
Nance Farm

State:
South Carolina

Owner:
Farmer Caci

Ayrshire / Holstein
Cross



Brown Swiss



Meet Tawny

Birth Height (in):

30 inches

Birth Weight (lb):

70 pounds

Farm Name:

Gervais Family Farm

State:

Vermont

Owner:

Farmer Kati

Brown Swiss





Guernsey

Meet Fancy

Birth Height (in):
28 inches

Birth Weight (lb):
40 pounds

Farm Name:
Triple H Dairy

State:
Kentucky

Owner:
Farmer Chris

Guernsey





Holstein

**Meet
Snickerdoodle**

Holstein

Birth Height (in):

36 inches

Birth Weight (lb):

100 pounds

Farm Name:

Four Pines Farm LTD

State:

Ohio

Owner:

Farmer Mackenzie





Jersey

Meet Margie

Birth Height (in):
28 inches

Birth Weight (lb):
78 pounds

Farm Name:
Long Green Farms

State:
Maryland

Owner:
Farmer Alice

Jersey



Milking Shorthorn



Meet Ruby

Birth Height (in):

30 inches

Birth Weight (lb):

72 pounds

Farm Name:

JJC Jerseys

State:

Nebraska

Owner:

Farmer Jodi

Milking Shorthorn





Red and White

**Meet
Courtney**

Birth Height (in):
29.5 inches

Birth Weight (lb):
85 pounds

Farm Name:
Rottinghaus Holsteins

State:
Kansas

Owner:
Farmer Stacy

Red and White





Seven Major Breeds Lab

Take time in class to work on the Seven Major Breeds of Dairy Cattle lab with a partner.

Comparison Closure

Today we compared our adopted calf with other calves in the program which are the same or different breed. Looking at our adopted calf and her breed, how does she compare to the calf used to represent her breed?



**Part
4**

Kahoot Activity

Introduction



Today we learned about each of the seven breeds of dairy cattle and their important qualities. Let's play a [Kahoot game](#) to test your recognition of the breeds and what makes each breed special.



It's time to play...



How to Play

1. When directed, click the Kahoot box above
2. Type in the pin number provided for you and click "ENTER"
3. Wait for everyone to join the game
4. When the game begins, select the answers you think are correct as fast as you can. As you answer questions, you will earn points.
5. The top three winners will be highlighted on the screen

<https://create.kahoot.it/details/a244936d-8444-4851-b5ac-b70533a794e3>

Lesson Closure

Today you learned about each of the seven breeds of dairy cattle and their important qualities. Tell us your favorite breed of dairy cow and at least two reasons why it is your favorite breed of the seven.

