

Dairy Unit

Production Cycle

The Life of a Cow

- How do you get a cow to produce milk?
 - Same as any other mammal, it must have a baby.
- When a cow has a calf it produces milk to feed the baby. As long as the cow is milked it will continue to produce milk.
- This is called a “lactation”. The cow’s production will decrease over time (in nature, the older a baby animal, the less milk it needs).

The Life of a Cow

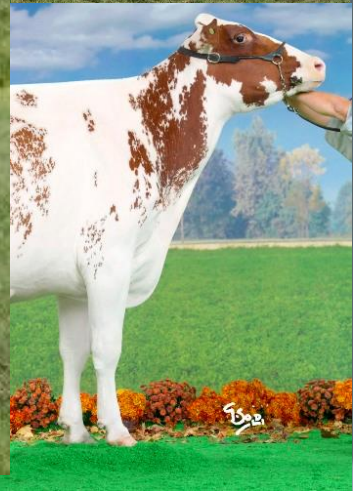
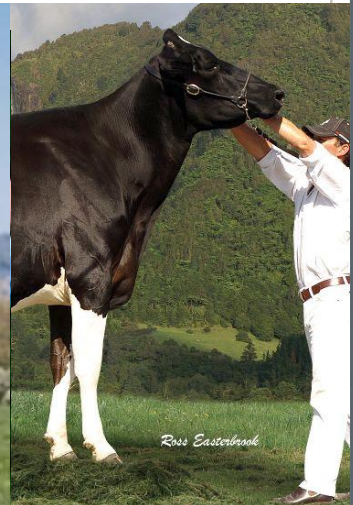
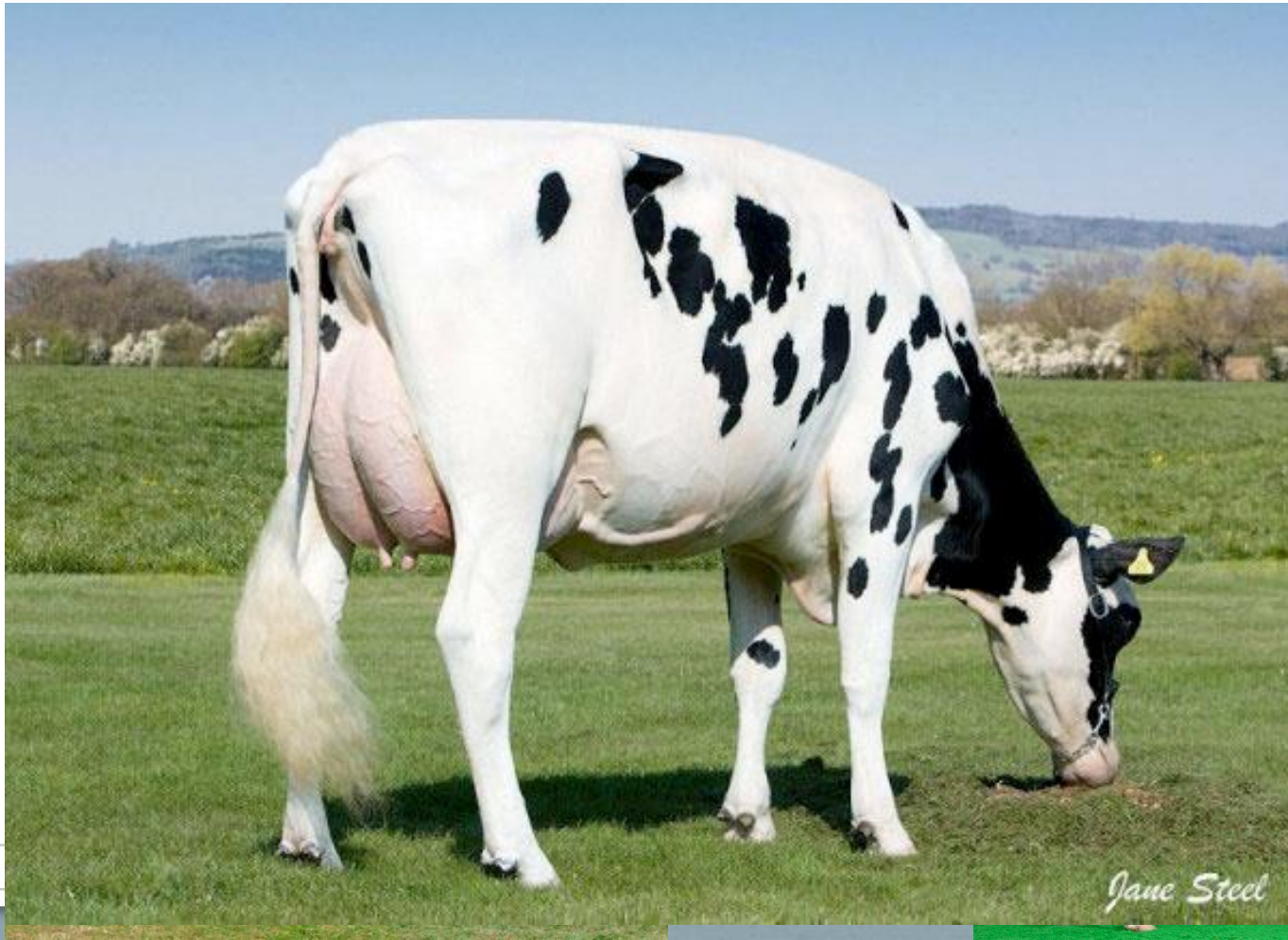
Some terminology:

- Female Bovine: cow
- Male Bovine: bull
- Baby Bovine: calf
- Female bovine before it has a calf: heifer
- Castrated male bovine: steer
- Holstein-Friesian: The most common type of cow used in Dairy production.
- Jersey: The second most common type of dairy cow.

Skill Tester # 1

A

C



Answer

- All of the above!
- Holsteins can be red or black. The red gene is recessive and only appears if both parents give the offspring the red gene. If either one gives a black gene the calf will be black.
- Question: Can a black cow and a black bull make a red calf? Can a red cow and a red bull make a black calf?

Skill Tester # 2

- Which of the following is a Jersey Cow



The Life of a Cow

- When a heifer reaches 15 months old, it comes in “heat”, meaning the cow is ready to be bred.
- In typical dairy herds, cows are artificially inseminated using bull semen collected from genetically superior bulls.
- Companies such as *Westgen* provide this bull semen to farmers.
- These companies help farmers to match their cows with ideal bulls to produce the best possible offspring.
- In farmer terms, the mother of a calf is called the *dam* and the father is called the *sire*.

Skill Tester # 3

- Which is the cow and which is the bull?



The Life of a Cow

- Once she has become pregnant, it takes 9 months before the calf will be born.
- Once the calf is born, it is fed milk from the mother cow once, because this milk contains *colostrum*, which is full of antibodies that will protect the calf from illnesses.
- After this the calf is taken from its mother and fed using bottles or automatic feeders.

The Life of a Cow

- The cow is placed into milk production and is milked 2 or 3 times per day, or by robot as often as the cow likes.
 - Milking 3 times causes the cow to produce more milk, but it means more work for the farmer.
- The cow remains in production for 10 months, at which time she is “dried up”. Dry cows stop producing milk for two months, at which time they have another calf and the cycle is repeated.

The Life of a Cow

- Cows that are good calvers, stay healthy and produce a lot of milk, will be kept in production for several lactations (until one of these three things changes).
- Cows that are poor calvers, are lame or have poor milk production are removed from the herd and replaced with younger cows.

How to milk a cow

- By Hand
- By Machine
- In a Milking Parlour
- Using a Robot!