

Unit A: Introduction to Cattle Management

Lesson 2: Exploring the Dairy Industry

Terms

- Artificial Insemination (AI)
- Beef
- Butterfat
- Cattle by-products
- Crossbreeding
- Culling
- Dairy Herd Improvement (DHI)
- Outcrossing
- Purebreeding
- Veal

How do I select cattle to improve my herd?

- Must be able to recognize desirable and undesirable traits
- Use breeding techniques to continually improve your herd while *culling* or removing animals from your herd based on set criteria or other situations that may arise

How do I select cattle to improve my herd?

- Keeping accurate records on the breeding program, feed consumption and milk production can help you with herd improvement. Comparing records with other herds can also help the dairy producer make herd improvements.

How do I select cattle to improve my herd?

- ❑ Permanently removing or culling animals from your herd based on a set criteria or other situations that may arise
 - opens up space for more profitable animals
 - considerations for culling
 - milk production, reproduction history, age of animal, chronic health problem and the animal's temperament

How do I select cattle to improve my herd?

- ❑ ***Artificial Insemination (AI)***: a method, other than natural mating, used to bring the sperm in contact with eggs
- ❑ Using AI a producer can select sperm from hundreds of different donors
- ❑ Look at daughters of the sire and determine if they have the traits you are seeking
- ❑ Disadvantages:
 - have to catch cows in heat and take time to breed

How do I select cattle to improve my herd?

- ***Purebreeding system:*** the mating of a purebred animal to another purebred animal
 - improves your herd by keeping registration papers of the ancestry of both the sire and the dam.
 - become familiar with genetics so you can pick the best sire for improvement of offspring.

How do I select cattle to improve my herd?

- ***Outcrossing system:*** the mating of an unrelated male and female of the same breed
 - helps produce hybrid vigor within the breed

How do I select cattle to improve my herd?

- ***Crossbreeding system:*** mating one breed of cattle to a recognized, but different breed
 - higher production and more resistance to disease
 - disadvantages
 - not able to register animals
 - difficult to predict what offspring may look like

What are some of the marketing options with dairy cattle?

Milk

- important to economy because used in a lot of products
- produced by cow after its first calf
- continue to produce if milked frequently and fed a nutritious ration
- when milk production starts to drop, bred cow for more milk
- can use bovine growth hormone (BGH) to increase milk production for extended periods of time

What are some of the marketing options with dairy cattle?

Veal: meat of young calves that are not used for replacement animals

- ❑ fed a specific diet to keep color of lean meat in carcass a light pink
- ❑ usually under 3 months of age
- ❑ fed a diet of milk only

What are some of the marketing options with dairy cattle?

Beef: meat from cattle

- ❑ cows no longer profitable because of age, production or reproduction
- ❑ sold for slaughter and used for beef
- ❑ male offspring not used for breeding
 - fed for period of time and then slaughtered for their meat and other products that are made from their hide, hoofs, and organs.

What are some of the marketing options with dairy cattle?

Cattle by-products: products made from various parts of the cattle

- come from the:
 - carcass, fat, bones, glands, intestines, brains, heart, and many other places
- examples of cattle by-products:
 - cat food, dog food, medicines, marshmallows, cosmetics, furniture and clothing

What dairy breeds are used for milking?

- Holstein
- Red and White Holstein
- Ayrshire
- Brown Swiss
- Guernsey
- Jersey
- Milking Shorthorn

Holstein

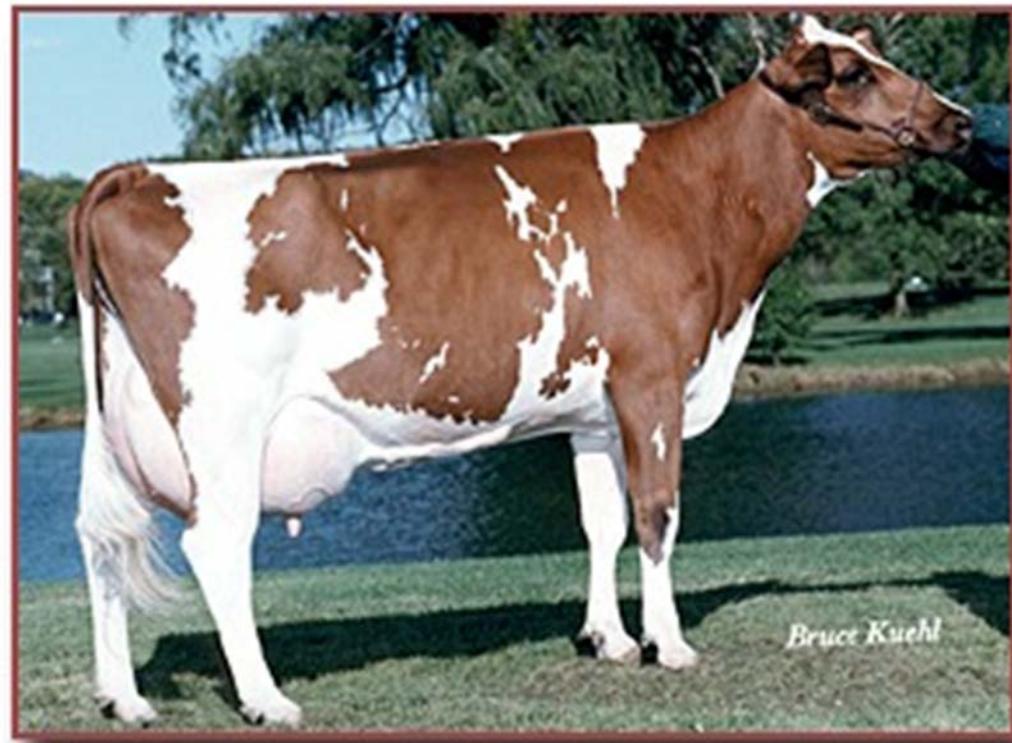


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- Most popular breed
- Originated in Netherlands
- Black & white
- very large animals
- produce large average amount of milk per cow
- milk is lower in butterfat and protein
- **butterfat** –
 - the fat content in the milk

Red & White Holstein

- Evolved from the black & white Holstein
- Red & white in color
- all other characteristics very similar to Holstein
- large animals
- high milk production
- low butterfat and protein



Ayrshire

- ❑ Originated in Scotland
- ❑ light to dark cherry red, browns, and white in any combination
- ❑ polled
- ❑ known for strong feet & legs, grazing ability, and well-attached udders



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Brown Swiss

- ❑ Originated in the Alps of Switzerland
- ❑ Solid brown in color
- ❑ Nose & tongue are black
- ❑ light-colored band around muzzle
- ❑ higher fat and protein ratio than Holstein
- ❑ Calm disposition



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Guernsey

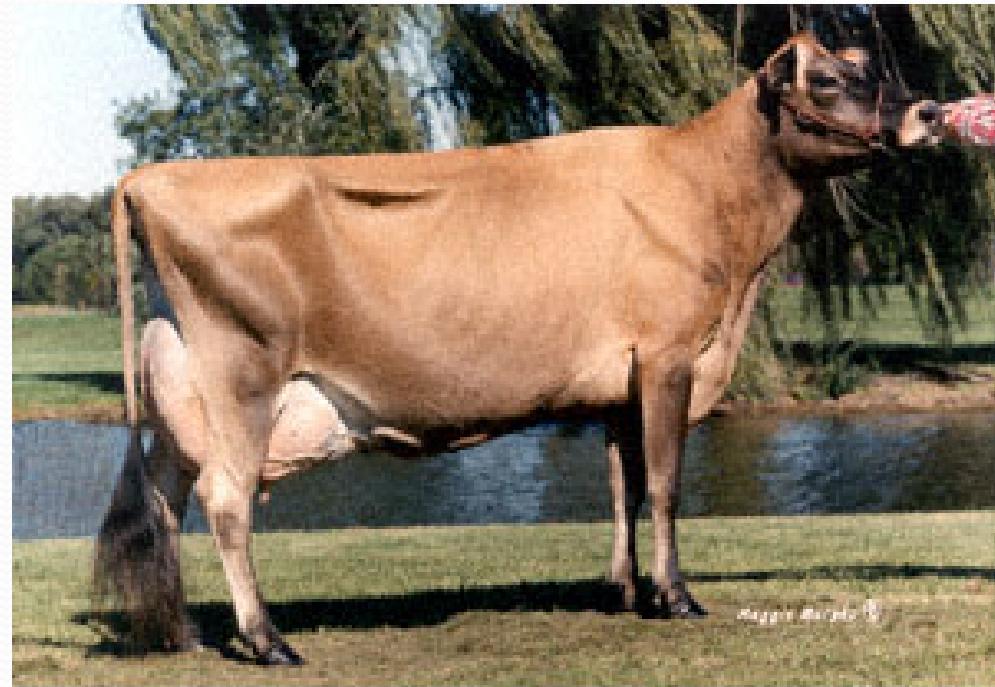
- Originated in the island of Guernsey
- color is mostly fawn with white markings
- smaller calves
- their milk color is more golden in color
- popularity has declined



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Jersey

- ❑ Originated in the island of Jersey
- ❑ vary in color but can be fawn, near white, grayish, with or without white markings
- ❑ known for udder qualities
 - well shaped with strong attachments
- ❑ lower in milk
- ❑ butterfat & protein is the highest
- ❑ increasing in popularity
- ❑ small breed



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Milking Shorthorn



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- Originated in England
- any combination of red and white, just red or just white
- very adaptable
- commonly used for beef & dairy
- a fairly new breed designated as a dairy breed in 1968

Review/Summary

- How do I select cattle to improve my herd?
- What are some marketing options with dairy cattle?
- What dairy breeds are used for milking?