

Lecture 5

Exotic Breeds of Cattle

Ayrshire cattle

The Ayrshire breed of dairy cattle originated from Ayrshire in Scotland. The average mature Ayrshire cow weighs 1000 - 1300 pounds (450-600 kg). Ayrshires have red markings. The red can be an orange to a dark brown, with or without colored legs. They are known for low somatic cell counts, ability to convert grass into milk efficiently, and hardiness. The breed's strong points are the now desired traits of easy calving and longevity. They also have a very "spirited" nature, which may or may not be desirable.



Ayrshire Cow

The breed was also known as Dunlop cattle (see Dunlop) or Cunninghame cattle (see Cunninghame). They were exported to all parts of the world and extensive cattle docks used to exist at Cunninghamhead station for loading and export purposes. The Dunlops of that ilk are credited with breeding this line, with animals being brought in from Holland. Ayrshires are medium-sized cattle weighing over 1200 pounds at maturity. They are strong, rugged cattle that adapt to all management systems including group handling on dairy farms with free stalls and milking parlors. Ayrshires excel in udder conformation and are not subject to excessive foot and leg problems. These traits make Ayrshires outstanding commercial dairy cattle. Other traits that make Ayrshires attractive to the commercial dairyman include the vigor of Ayrshire calves. They are strong and easy to raise. The Ayrshire is a moderate butterfat breed and relatively high protein breed. The actual average of all Ayrshires on official ABA programs in 2002 is 17,230 pounds of milk with 665 pounds of fat and 542 pounds of

protein. Ayrshires (especially the ones from Finland) are also crossbred with Holstein cattle in order to improve the Holstein's hardiness and fertility.

Guernsey cattle

The Guernsey is a breed of cattle used in dairy farming. It is fawn and white in colour, and is particularly renowned for the rich flavour of its milk, as well as its hardiness and docile disposition. The unique qualities of the milk produced by the Guernsey cow have made the breed world famous. The milk has a golden colour due to an exceptionally high content of beta carotene. Beta-carotene is a source of Vitamin A, which has been touted to help reduce the risks of certain cancers. The milk also has a high butterfat content of 5% and a high protein content of 3.7%.^[2] Guernsey cows produce around 6000 litres per cow per annum. In the US Guernsey cows average 16,200 pounds of milk per year with 4.5% fat and 3.2% protein. Guernsey cattle are known to produce the highest percentage of A2 milk of all breeds of dairy cattle.



Herd of Guernsey Cattle

As its name implies, the Guernsey was bred on the British Channel Island of Guernsey. It is believed to be descended from two breeds brought over from nearby France, Isigny cattle from Normandy and the Froment du Léon from Brittany. Today the breed is well-established in Great Britain, the United States, Canada, South Africa and elsewhere.

The cow weighs 450 to 500 kg, slightly more than the average weight of the Jersey cow which is around 450 kg (1000 pounds). The bull weighs 600 to 700 kg which is small by standards of domestic cattle, and they can be surprisingly aggressive. The Guernsey cow has many notable advantages for the dairy farmer over other breeds. These include high efficiency of milk production, low incidence of calving difficulty and longevity. However, inbreeding is becoming a concern due to the small gene pool in a

given area, and may be solved in most cases by exchanging cows with no overlap in lineage from other farms. Guernsey cows are also sometimes regarded as somewhat more fragile than comparably sized breeds.

Jersey cattle

Jersey cattle are a small breed of dairy cattle. Originally bred in the Channel Island of Jersey, the breed is popular for the high butterfat content of its milk and the lower maintenance costs incurred by its lower bodyweight, as well as its genial disposition. The Jersey cow is quite small, ranging from only 360 to 540 kg (800 to 1200 pounds). The main factor contributing to the popularity of the breed has been their greater economy of production, due to: The ability to carry a larger number of effective milking cows per unit area due to lower body weight, hence lower maintenance requirements, and superior grazing ability. Ease of calving and a relatively lower rate of dystocia led to their popularity in crossbreeding with other dairy and even beef breeds to reduce calving related injuries. They have high fertility, high butterfat conditions, 6% butterfat and 4% protein, and the ability to thrive on locally produced food. Bulls are also small, ranging from 540 to 820 kg (1200 to 1800 pounds), and are notoriously aggressive. Castrated males can be trained into fine oxen which, due to their small size and gentle nature make them popular with young teamsters. Jerseys come in all shades of brown, from light tan to almost black. They are frequently fawn in color. All purebred Jerseys have a lighter band around their muzzle, a dark switch (long hair on the end of the tail), and black hooves, although in recent years color regulations have been relaxed to allow a broadening of the gene pool.

They are calm and docile animals, but tend to be a bit more nervous than other dairy cow breeds. They are also highly recommended cows for first time owners and marginal pasture. Unfortunately, they have a greater tendency towards postparturient hypocalcaemia (or "milk fever") in dams and frail calves that require more attentive management in cold weather than other dairy breeds due to their smaller body mass and greater surface area.



Jersey cattle being judged at a show in Jersey, home of the breed

As its name implies, the Jersey was bred on the British Channel Island of Jersey. It apparently descended from cattle stock brought over from the nearby Norman mainland, and was first recorded as a separate breed around 1700.

Charolais cattle

Charolais cattle are a beef breed of cattle (*Bos taurus*) which originated in Charolais, around Charolles, in France. They are raised for their meat and are known for their composite qualities when crossed with other breeds, most notably Angus and Hereford cattle. The breed tends to be large muscled, with bulls weighing up to 2,500 pounds (1,100 kilograms) and cows up to 2,000 pounds.



Charolais Bull



Charolais cow and calf

The breed was introduced in the southern US as early as the 1940s. It was the first popular breed after the English breeds and Brahmans. It was known to produce beef animals that had more red meat and less fat. The breed was often crossed with English breeds. Despite their relatively northerly origin,

Charolais tolerate heat well, and show good weight gains on even mediocre pasturage. The coat is almost pure white. The Australian and Canadian breed standards also recognise cattle possessing a light red colour called 'Red Factor' Charolais. The term *Charbray* refers to the offspring of Charolais crossed with Brahmans and is recognised as a breed in its own right. Charolais also can be black in colour.

Angus cattle

Angus cattle (Aberdeen Angus) are a Scottish breed of cattle much used in beef production. They were developed from cattle native to the counties of Aberdeenshire and Angus in Scotland, and are known as Aberdeen Angus in most parts of the world.



Mixed herd of Black and Red Angus



Angus cattle grazing

They are naturally polled (do not have horns) and solid black or red, although the udder may be white. There have always been both red and black individuals in the population, and in the USA they are regarded as two separate breeds - Red Angus and Black Angus. Black Angus is the most popular beef breed of cattle in the United States, with 324,266 animals registered in 2005.

Red Angus cattle occur as the result of a recessive gene. Breeders collecting red cattle from black herds began the Red Angus Association of America in 1954. Other countries such as the United Kingdom and Canada still register both colors in the same herd book. The Angus breed is known to be prone to several possible genetic disorders. Angus cattle are widely used in crossbreeding to reduce the likelihood of dystocia (difficult calving). They are also used as a genetic dehorner as the polled gene is passed on as a dominant trait.

Beefmaster

Beefmaster cattle have been developed by Lasater combining the breeding of the Brahman and Hereford cattle and also used some registered Shorthorn bulls. After making crosses of Brahman-Hereford and Brahman-Shorthorn, he felt a superior animal had been produced and called the cattle "Beefmaster." The exact pedigree of the foundation cattle was not known. The breeding operations were carried on in multiple-sire herds and rigid culling was practiced.



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The cattle were handled under range conditions that were often adverse, and a culling program was started based on disposition, fertility, weight, conformation, hardiness and milk production. Stress was placed on the production of beef. No selection has been made to characteristics that do not affect the carcass, such as horns, hide or color. The original concepts of Tom Lasater in developing Beefmaster

cattle have continued. Selection continues for those points which were originally used and are now known as the Six Essentials - Weight, Conformation, Milking Ability, Fertility, Hardiness and Disposition. Considerable progress has been made in selecting cattle that give very satisfactory levels of production under the practical and often severe range conditions. Satisfaction by ranchers and creditable performance in feedlots indicate the value of stressing the important utilitarian points in developing breeding herds.

Brahman cattle

The Brahman or Brahma is a breed of Zebu cattle (*Bos primigenius indicus*), later exported from India to the rest of the world. The main breeds used were Kankrej, Guzerat, Nelore or Ongole and the Gir or Gyr cattle. It is named for the sacred cow of Hinduism.



Brahman bull



Brahman Calves

The American Brahman has a distinct large hump over the top of the shoulder and neck, and a loose flap of skin (dewlap) hanging from the neck. Their ears are larger than *Bos taurus* breeds. Bulls weigh 1,600 to 2,200 pounds (800 to 1,100 kg) and cows weigh 1,000 to 1,400 pounds (500 to 700 kg). At birth, calves weigh 60 to 65 pounds (30 to 33 kg). American Brahman are known as a docile, intelligent breed of beef cattle. Brahman cattle can be gray or red color. Their tail switch is black, and they have black pigmentation on their noses, tips of ears, and hooves. They are primarily a horned breed of cattle however there are some bloodlines of Brahman that are naturally polled (without horns).

Brahmans have a greater ability to withstand heat than European cattle. They have more sweat glands, and also an oily skin, thought to help repel pest insects along with a smooth coat. They have a short hair

coat. They are also more resistant to parasites and disease. Brahmans have also been extensively crossbred with European cattle in subtropical United States, in Central America and in some tropical areas of the world to gain their advantages in hot climates. A Brahman cow is an extremely good mother, offering protection and an abundance of milk for her calves. Brahman calves tend to measure high weights at weaning because of the outstanding milk given by Brahman cows. In some countries, especially in South America, Brahman cattle are used for both milk and beef production.

The Brahman is mainly used for breeding and the meat industry; it has been crossbred extensively with *Bos taurus* (European) beef breeds of cattle. Brahman cattle are known for their extreme tolerance to heat conditions, and therefore are used in many tropical regions. They are also resistant to insects due to their thick layer of skin. Brahman cattle live longer than many other breeds, often still producing calves at ages 15 and older.