

SRI Y N COLLEGE

[AUTONOMOUS]

DEPARTMENT OF ZOOLOGY

PROJECT WORK

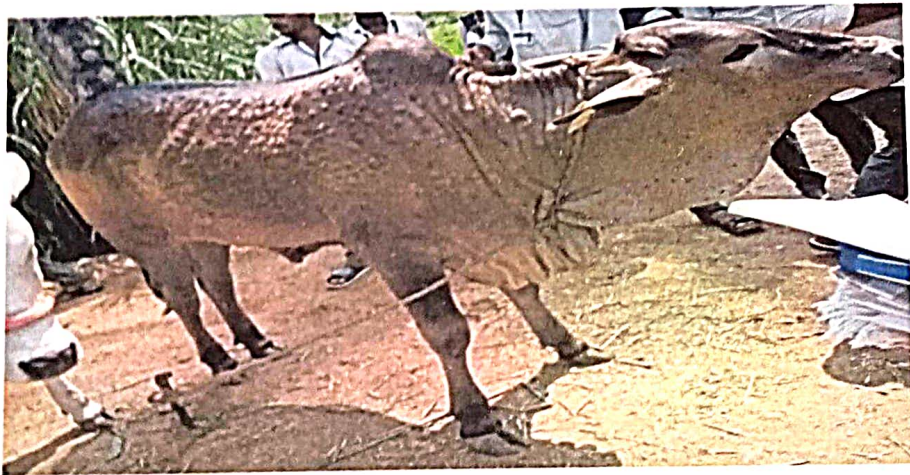
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B. Sirisha
Roll. NO:- 11206038
IIIrd. B.S.C (B.Z.C)

DAIRY FARM



CATTLE BREEDING

Abstract: Classification of cattle breeds contributes to our understanding of the history of cattle and is essential for an effective conservation of genetic diversity. Here we review the various classifications over the last two centuries and compare the most recent classifications with genetic data. The classifications devised during the 19th to the late 20th century were in line with the Linnaean taxonomy and emphasized cranial or horn morphology. Subsequent classifications were based on coat color, geographic origin or molecular markers. Several theories were developed that linked breed characteristics either to a supposed ancestral aurochs subspecies or to a presumed ethnic origin. Most of the older classifications have now been discarded, but have introduced several Latin terms that are still in use. The most consistent classification was proposed in 1995 by Felius and emphasizes the geographic origin of breeds. This is largely in agreement with the breed clusters indicated by a biochemical and molecular genetic analysis, which reflect either groups of breeds with a common geographic origin or single breeds that have expanded by export and/or crossbreeding. We propose that this information is also relevant for managing the genetic diversity of cattle.

Represented by a worldwide population of about 1.4 billion animals, cattle are our most important livestock species. As the major source of milk, meat, hides and draught power, cattle may be considered as multi-purpose livestock. In addition, since their domestication, they have played a major role in human culture by participating in fighting games, racing and religious ceremonies. Because of the animal's size, the husbandry of cattle requires a more organized management than the keeping of other livestock, which may well have made a major contribution to the growing complexity and stratification of early agricultural societies [1]. As with other domestic species, their dispersal over different continents and adaptation to various environments has led to the development of many types

makes Ongole breed the largest cattle breed by numbers, in the world surpassing even Wildebeest of africa.^[3]

Characteristics

Ongole cattle are known for their toughness, rapid growth rate, and natural tolerance to tropical heat and disease resistance. It was the first Indian breed of cattle to gain worldwide recognition.^[4]

Ongole bull[\[edit\]](#)

The Ongole is one of the heaviest breeds. They weigh approximately half a ton, are 1.7 meters in height and have a body length of 1.6 meters and girth measuring 2 meters.^[5]

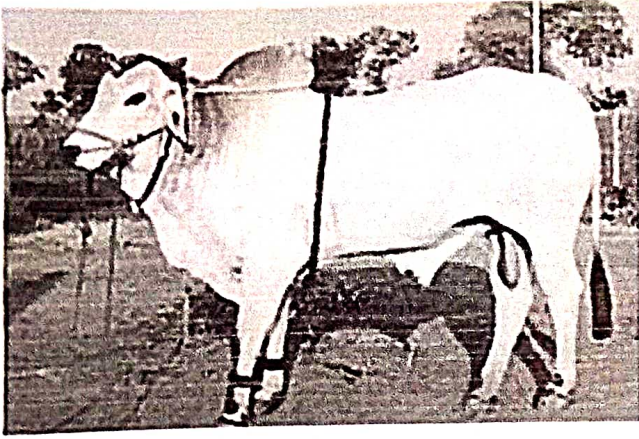
Ongole cow[\[edit\]](#)

The weight of an Ongole female is 432 to 455 kg. Milk yield is 600 kg to 2518 kg. The lactation period is 279 days.^[5] Ongole milk has a butterfat content of over five percent. This results in large, well-nourished calves with considerable growth by the time of weaning. Ongole cows stay close to their calves to protect them from predatory animals.

This wide variety of characteristics evolved over thousands of years, but was accentuated by the development of well defined, specialized and genetically isolated breeds during the last centuries.

After World War II and even more in the last quarter of the 20th century, this process has resulted in the global use of only a few of the most productive of these specialized breeds, which expanded at the expense of local, seemingly less productive populations. There is now a growing awareness that the diversity of cattle should be conserved and local breeds should be protected from extinction, although commercial interests still promote the 'industrial' breeds. However, the modern breeding techniques such as artificial insemination, cryopreservation and cloning by which the productive breeds expanded may also contribute to the conservation of local breeds. In order to make an optimal choice during conservation programs, it is essential to describe the relationships between breeds and the current diversity in the form of a consistent and comprehensive

Ongole Cow



Ongole cattle is an indigenous cattle breed that originates from Prakasam District in the state of Andhra Pradesh in India. The breed derives its name from the place the breed originates from, Ongole. The Ongole breed of cattle, Bos Indicus, has a great demand as it is said to possess resistance to both foot and mouth disease and mad cow disease.^[1] These cattle are commonly used in bull fights in Mexico and some parts of East Africa due to their strength and aggressiveness. They also participate in traditional bull fights in Andhra Pradesh and Tamil Nadu. Cattle breeders use the fighting ability of the bulls to choose the right stock for breeding in terms of purity and strength.

Ongole cattle are famous for their bulls. Traditionally, the Ongole breed have been raised by local farmers, fed by both the Gundlakamma, one of the rivers that originates from the Nallamala Hills, and in the plains, the Paleru river, a tributary of the Krishna River. The Ongole occupy an area no larger than about 100 square miles between the Gundlakamma and Musi rivers.^[2]

Ongole bulls have gone as far as America, the Netherlands, Malaysia, Brazil, Argentina, Colombia, Mexico, Paraguay, Indonesia, West Indies, Australia, Fiji, Mauritius, Indo-China and Philippines. The Brahmana bull in America is an off-breed of the Ongole. The population of Ongole off-breed in Brazil is called Nelore and is said to number several million. The famous Santa Gertrudis breed developed in Texas, USA have Ongole blood. This

MURRA COW



The **Murrah buffalo** is a breed of water buffalo (*Bubalus bubalis*) mainly kept for milk production. It originates in Punjab and Haryana states of India, where it is kept in the districts of Bhiwani, Hisar, Rohtak, Jind, Jhajhar, Fatehabad, Gurgaon and the capital region of Delhi.^[1] A Murrah buffalo at the Lakshmi Dairy Farm in Punjab set a record of 26.335 kg of milk in the 2016 National Livestock Competition and Expo.^[2]

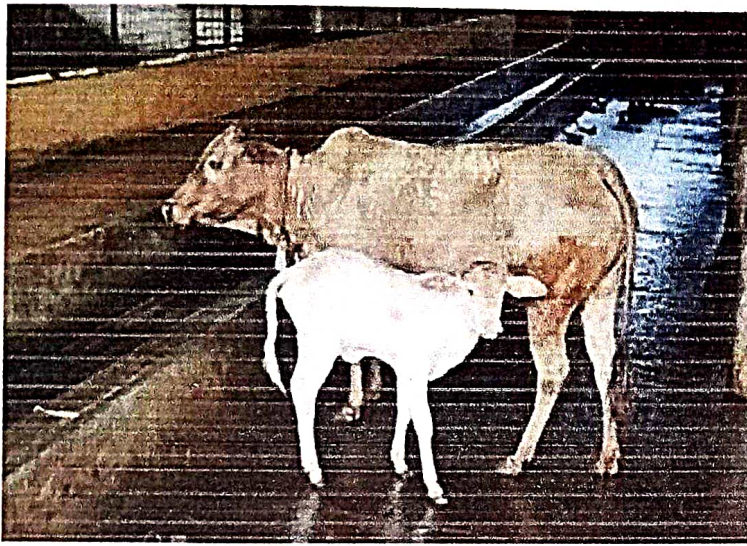
It has been used to improve the milk production of dairy buffalo in other countries, such as Italy, Bulgaria, and Egypt.^{[3][4][5][6]} In Brazil, this breed of buffalo is used for production of both meat and milk. Murrahs sell for a high price.^{[7][8]}

Among Indian buffalo breeds, Murrah is noted to have the highest milk yield.^[9]

Murrah buffaloes are jet black in colour, sometimes with white markings on the face or legs. Their eyes are black, active, and prominent in females, but slightly shrunk in males and should not be walled, i.e., the cornea should not have whiteness. Their necks are long and thin in females and thick and massive in males. Their ears are short, thin, and alert.^[citation needed]

They typically have short and tightly curved horns. Bulls weigh around 550 kg (1,210 lb) and cows around 450 kg (990 lb). Average milk production is 2,200 l (480 imp gal; 580 US gal) in a lactation period of 310 days.^{[10][11]}

Kapil Cow



India is blessed with a high level of diversity in every domain including biodiversity. The biodiversity of Indian cow breeds is quite large with existing 40 races in different parts of the country. Kapila cow is an exceptional breed of Indian cows native to Dakshina Karnataka and Kasaragod. This breed got its name from the Great Sage, Kapila Maharshi, who used to rear them according to the Hindu mythology. Kapila cow represents the esteemed breed in terms of spiritual value and products of this breed are considered as the holiest among all cow products for rituals. Golden Kapila is a variant of the Kapila breed and considered as the most revered cow for worship. These cows possess golden hide of shining texture, golden eyes, and nose. Temples like the Tirupati Thirumala use milk of Kapila cow for the daily abhishekam of Lord Sri Venkateshwara. In its native place, Kapila cow is domesticated by Brahmins since centuries.

other dairy breed of Sindh, the Tharparkar or White Sindhi, both by color and form, the Red Sindhi is smaller, rounder, with a more typical dairy form, and with short, curved horns, while the Tharparkar are taller with a shape more typical of Zebu draft breeds, and with longer, lyre shaped horns. The bulls are usually of a darker color than the cows.

Breeding

It has been crossed with include Holstein-Friesian, Brown Swiss and Danish Red. It has also been used to improve beef and dual purpose cattle in many tropical countries, as it is sufficiently meaty to produce good beef calves in such crosses and the high milk production helps give a fast-growing calf which is ready for market at one year. It is somewhat smaller than the very similar Sahiwal and produces a little less milk per animal as a result. This has caused it to lose favor with some commercial dairies in India and Pakistan, which have been phasing out their Red Sindhi herds by breeding to Sahiwal bulls for a few generations. The resulting cows, which are three-quarters Sahiwal and one-quarter Red Sindhi, can not be distinguished from pure Sahiwal cattle. Red Sindhi cattle are also used for milk production in Brazil, but this race of zebu is not popular as others.

precious cow breed. We are proud to have a dedicated research center for Kapila cow called Kapila Cattle Research Center, at Meenavada, near Anand, Gujarat. Let us hope for the best outcomes on the research and development as well as propagation of this breed during the coming years and healthy life for all.

Red Sindhi

Cow in Sindh

Red Sindhi cattle are the most popular of all Zebu dairy breeds. The breed originated in the Sindh province of Pakistan, they are widely kept for milk production across Pakistan, India, Bangladesh, Sri Lanka, and other countries. They have been used for crossbreeding with temperate (European) origin dairy breeds in many countries to combine their tropical adaptations (heat tolerance, tick resistance, disease resistance, fertility at higher temperatures, etc.) with the higher milk production found in temperate regions. It has been crossed with Jerseys in many places, including India, the United States, Australia, Sri Lanka, etc.

Description

The Red Sindhi range in color from a deep reddish brown to a yellowish red, but most commonly a deep red. They are distinguished from the