

BUFFALO BREEDS








Scientific classification	
Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Artiodactyla
Family:	Bovidae
Subfamily:	Bovinae
Tribe:	Bovini
Genus:	Bubalus
Species:	<i>B. arnee</i>
Binomial name	
<i>Bubalus arnee</i> (Kerr , 1792)	

- The domestic buffalo, *Bubalus bubalis*, is descended from the wild water buffalo (*Bubalus arnee*)
- Now designated an endangered species.
- Buffalo have been bred, predominantly in Asia, for thousands of years for use by humans.

Introduction (cont....)

- Water buffaloes  Milk production.
- Local buffaloes  For power in rice cultivation
- Introduced Indian breeds  Milk production
Cross breeding

Buffalo Breeds

- Local buffalo
- *Nili Ravi*
- *Murrah*
- *Surti*

LOCAL BUFFALO



- Origin – Sri Lanka
- Classification
- Morphology – Small in body size
 - Dark grey in color and possesses light grey markings in front of the neck called *chevrons*

- Habitat – found in rural areas such as Jaffna and Mannar
- Milk production – 350 – 390 Kg per lactation
- They are kept for power in rice cultivation to plough and harrow the field.

Nilliravi



Scientific name

Bubalus bubalis



Biological classification of Nilliravi buffalo

- Kingdom - Animalia
- Phylum - Chordata
- Class - Mammalia
- Order - Artiodactyl
- Family - Bovidae
- Genus - Bubalus
- Species - Bubalis

Distribution

- Mainly Lahore, Sheikhpura, Faisalabad, Sahiwal, Multan and Bahawal Nagar districts in punjab province.

Morphological characters

- Nilliravi buffalo is a milk type of buffalo breed.
- Their colour is mainly Black & some are brown.
- They have a wedge shape.
- Massive frame.
- Small curly horns and wall eyes.

- They often have white markings on the forehead, face, muzzle, and legs.
- White switch of tail.
- They have large, strong udder and are generally docile.
- White markings extending above hock, knee and over the neck and body.

Male & Female Differences

- Average age at maturity in male 30 months & in female 36 months.
- Average weight at maturity in male is 800kg & in female 525kg.



Nili-Ravi Female



Nili-Ravi Male

Milk yield



- May be range from 90 to 18kg per day producing about 1600kg in a lactation period of 250 days

Surti

- **Other names**

- Gujarati
- Deccani
- Nadiadi
- Surati

Country of origin - India

The Surti is a breed of water buffalo found in the Charottar of Gujarat between the Mahi and Sabarmati rivers



Characteristics of Surti buffalo

- The Surti buffaloes are of medium size and docile temperament.
- Horns are sickle-shaped and flat which grow in a downward & backward direction and then upwards at the tip forming a hook.

- The breed has got a fairly broad and long head with a convex shape at the top in between horns.
- The skin color is black or brown.
- Surti breed has got an unique straight back.
- Good specimen have two white collars.
- Coat - rusty brown or silver-grey

Performance of Breed

- Weight Male: average 499 kg
- Female: average 408 kg
- Height Male: ca. 130 cm
- Female: ca. 125 cm
- Average milk production:-
 - i) 1st Lactation:-1500-1600 Kg
 - ii) Other than 1st Lactation:- 1900-2000 Kg

- Age at 1st calving:- 45 to 47 months
- Calving interval:- 400 to 425 days
- Body weight at maturity:- 350 to 375 Kg
- Breeding period:- Seasonal (Sept. to April)
- Fat:- 7 to 7.5%
- SNF:- 9 to 9.15%

MURRAH BUFFALO



ORIGIN

- The origin places of Murrah buffalo are

India.

Pakistan.



MORPHOLOGICAL FEATURES

- Body : Sound built, heavy and wedge shaped.
- Head : Comparatively small.
- Face : Comparatively long.
- Neck : Comparatively long.
- Body colour : Jet-black.
- White markings on face and leg extremities may be there (2, 3), but are not generally preferred.
- Eyes : Should not be walled i.e. the cornea should not have whiteness.
- Tail : Long reaching up to fetlock joint (2, 3, and 6) with black or white switch up to (maximum) 8.0 inches (4).

- Horns : Different from other breeds of buffaloes; short, tight, turning backward and upward and finally spirally curving inward. The horns should be somewhat flattened. As the age advances the horns get loosened slightly but spiral curves increases.
- Limbs : Comparatively short but strong built.
- Skin : Soft, smooth with scanty hairs as compared to other buffaloes.
- Udder : Fully developed, drooping.
- Teats : Equally distributed over the udder but hind teats are longer than fore teats.
- Loin : Broader and sliding forward.
- Body weight : The average body weight of males, 550 Kg and the females, 450-Kg.
- Height : The average height at withers; male: 1.42 meter; female: 1.32 meter.

MILK PRODUCTION

- The onset of lactation is with the birth of the calf. The initial yield is a reliable indicator of the animal's genetic potential. The highest yield is reached after five to six weeks of lactation and maintained for some weeks. Thereafter the yield decreases until the end of lactation. The lactation ends as the dry period starts.



- Lactation and milk yield depend on both genetic and non-genetic factors.
- The genetic influence is due to species, breed, and individual. Further, it is affected by ability to reproduce, e.g. fertility and thereby calving interval. Improvement on these may be the result of breeding and selection.
- The non-genetic factors are management, amount and quality of feed and skill of the farmer to detect heat and illnesses. Factors which are outside the farmer's control such as climate, temperature, humidity etc. also influence lactation and milk yield.



FEED FOR MURRAH BUFFALO

Feed for buffaloes goes as below:

- (1) Total feed should be 10 % of their body weight, assuming a buffalo is of 500 Kgs, they should get 50 kgs of feed.
- (2) 35 kg Green fodder, 10 kg dry fodder and 5 kg concentrate feed, dry fodder is to fill their stomach, and min 40 - 50 lts of water.

- Concentrate feed should be calculated on the basis of how much a buffalo produces milk like 500 grams of concentrate should be give for each lts of milk produced by a buffalo, and similarly 4-5 lts of water per lt of milk should be given.

DISTRIBUTION

- The Murrah buffalo is originally from Rohtak, Jind and Hisar districts of Haryana; Nabha and Patiala districts of Punjab states of India; and in Pakistan, but has been used to improve the milk production of dairy buffalo in other countries, such as Italy, Bulgaria, Egypt and Pakistan.

The Murrah breed of Water buffalo (*Bubalus bubalis*) is the premier milking buffalo. In Haryana, Murrah buffalo keeping has a special role as its husbandry has been the way of life.

Consequently, Haryana has the privilege of being known as the livestock mint of India. The buffalo of Murrah breed, which is described as the “Asian tractor”, is in fact triple purpose animal — for milk, meat and work.