




BUFFALO BREEDS



Kingdom:	<u>Animalia</u>
Phylum:	<u>Chordata</u>
Class:	<u>Mammalia</u>
Order:	<u>Artiodactyla</u>
Family:	<u>Bovidae</u>
Subfamily:	<u>Bovinae</u>
Tribe:	<u>Bovini</u>
Genus:	<u><i>Bubalus</i></u>

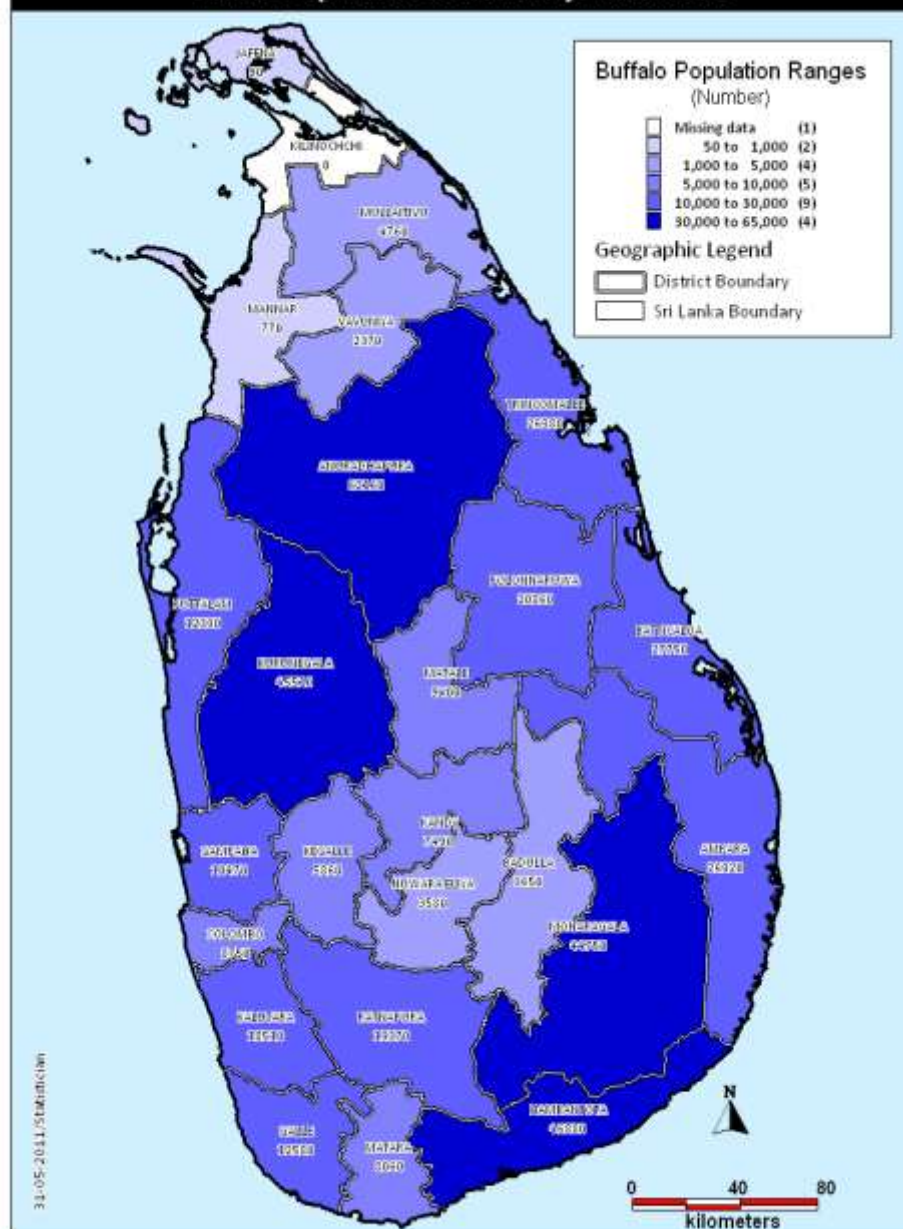
- **The domestic buffalo is descended from the wild water buffalo (*Bubalus arnee*)**
- **Now designated an endangered species.**
- **Buffalo have been bred, predominantly in Asia, for thousands of years for use by humans.**

Introduction (cont....)

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

SRI LANKA

Buffalo Population Distribution by District 2010



31-05-2011/Statistician

Data Source:
Dept. of Census and Statistics, Sri Lanka

Map Produced by:
Databank, Planning and Economics Division
Dept. of Animal Production and Health, Peradeniya, Sri Lanka

Buffalo Breeds

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

LOCAL BUFFALO



- Origin – Sri Lanka
- 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.

	Female	Male
Maturity age	36 months	30 months
Average weight	525 kg	800 kg
Appearance	 <p>The image contains two side-by-side photographs of Nili-Ravi cattle. The left photograph shows a dark-colored female cow standing in a red-walled enclosure, with a person partially visible behind her. The right photograph shows a dark-colored male bull standing in an outdoor dirt area, with a person standing next to it. Below each photograph is a caption: 'Nili-Ravi Female' and 'Nili-Ravi Male'.</p>	

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**
- **Breed of water buffalo**

- **found in ,**

**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

	Male	Female
Average weight	499 Kg	408 Kg
Average height	130 cm	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 (Solid Not Fat):- 9 to 9.15%

MURRAH



ORIGIN

- The origin places of Murrah buffalo are
India.
Pakistan.



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.

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.
- Tail : Long reaching up to fetlock joint (2, 3, and 6) with black or white switch up to (maximum) 8.0 inches (4).



- **Horns** : **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.

	Male	Female
Average weight	550 Kg	450Kg
Height	142 cm	132cm

MILK PRODUCTION

- The onset of lactation is with the birth of the calf.
- 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.**
- 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 its of milk produced by a buffalo, and similarly 4-5 its of water per leter of milk should be given.

Diseases



Bacterial Diseases

- Bovine brucellosis
- Tuberculosis
- Paratuberculosis
- Haemorrhagic septicaemia
- Chlamydiosis
- Leptospirosis

Viral Diseases

- Foot-and-mouth disease
- Rinderpest
- Malignant catarrhal fever
- Blue tongue
- Bovine viral diarrhoea
- Rabies
- Ephemeral Fever

Parasitic Diseases

- Trypanosomiasis
- Ascariidiosis
- Fasciolosis
- Babesiosis
- Strongilosis
- Coccidiosis
- Echinococcosis/hydatidosis

THANK YOU!