

## Livestock Breed

### Breed

A group of animals having a common origin and certain well-fixed characteristics that distinguish them from other groups within the same species. The breeds are able to transmit these characteristics uniformly to their offspring or next generation.

### Cattle breeds

#### Cattle Resources in Bangladesh: Deshi or Local, Red Chittogong and Improved Type cattle

| Points          | Indigenous or deshi cattle                | Red Chittogong cattle        | Improved Type cattle   |
|-----------------|---|------------------------------|--|
| Distribution    | Whole country                             | Ctg. and Ctg. hill           | Munshigong Type, Manikgong Type, Madaripur Type, Shahazatpur Type etc. are good milch and draft (dual) type cattle. They are superior than our local cattle. During British period Haryana, Sahiwal and Red Sindhi bull were distributed to develop these improved type cattle |
| Coat color      | Red, fawn, white, black or mixed          | Light red                    |  |
| Body size       | Small                                     | Medium                       |  |
| Body wt.        | F :150-200Kg, M :225-250 Kg.              | F :250-300Kg ,M :350-400 Kg. |  |
| Hump            | Developed                                 | Developed                    |  |
| Dewlap          | Medium                                    | Small                        |  |
| Udder/Mammary   | Small                                     | Medium and capacious         |  |
| Milk production | About 1 litre /day                        | 2-5 litre /day               |  |
| Purpose         | Bullock- hardy worker<br>Cow- poor milker | Dual Type: Milk and draft    |  |
| Resistance      | Good resistance to disease                | Good resistance to disease   |  |

#### Classification of cattle breeds according to purpose:

| 1. Milch breeds      |   | 2. Dual breeds                          |  |   |   | 3. Draught breeds  |  | 4. Beef breeds  |
|----------------------|---|---|--|---|---|--|--|---|
|                      |   | (Milk+Meat)                             |  | (Milk+Draught)  |   |  |  |   |
| Name                 | Origin                                  | Name                                    | Origin   | Name  | Origin                                    | Name   | Origin   | Name  |
| 1. Holstein-Friesian | Holland                                 | 1. Sahiwal (1500 lit. per lactation)    | Central and Southern part of Panjab of Pakistan. | 1. Haryana<br>2. Ongole<br>3. Nimari<br>4. Mewati<br>5. Rathi (1200lit/lac) | India<br>India<br>India<br>India<br>India | 1. Amritmahal<br>2. Kangayam<br>3. Hallikar<br>4. Malvi<br>5. Siri<br>6. Dhani | India<br>India<br>India<br>India<br>India<br>Pakisthan | 1. Beef master<br>2. Brahma<br>3. Short Horn<br>4. Angus<br>5. Heriford |
| 2. Jersey            | Island of Jersey in the English channel | 2. Red Sindhi (2500 lit. per lactation) | Hyderabad of India.                              |   |   |  |  |   |

### Goat breeds

#### Classification of goat breeds according to purpose:

| 1. Milk type               |             | 2. Meat type    |            | 3. Prolificacy  |            | 4. Fiber               |        | 5. Skin         |            |
|----------------------------|-------------|-----------------|------------|-----------------|------------|------------------------|--------|-----------------|------------|
| Name                       | Origin      | Name            | Origin     | Name            | Origin     | Name                   | Origin | Name            | Origin     |
| 1. Toggenbarg (2-5 Kg/day) | Switzerland | 1. Black Bengal | Bangladesh | 1. Black Bengal | Bangladesh | 1. Angora (Mohair)     | Turkey | 1. Black Bengal | Bangladesh |
| 2. Anglo Nubian(2-4)       | England     | 2. Barbari      | India      | 2. Barbari      | India      | 2. Kashmiri (Poshmina) | India  | 2. Mubende      | -          |
| 3. Saanen (2-5 Kg/d)       | Switzerland | 3. Alpine       | Europe     | 3. Ma-Tou       | China      |                        |        | 3. Maradi       | -          |
| 4. Damascus (4 Kg/d)       | Sudan       | 4. Fiji         | Fiji       | 4. Damascus     | Sudan      |                        |        |                 |            |
| 5. Jamunapari (1.5-2)      | India       | 5. Ma-Tou       | China      |                 |            |                        |        |                 |            |
| 6. Beetal medium yield.    | India       |                 |            |                 |            |                        |        |                 |            |
| 7. Barbari medium yield.   | India       |                 |            |                 |            |                        |        |                 |            |

## Sheep Breeds

### Classification of sheep breeds according to their wool production:

| 1. Fine-wool type                   | 2. Long wool   | 3. Medium-wool type  | 4. Crossbred wool type  | 5. Carpet-wool type                | 6. Fur type |
|-------------------------------------|--|--|---|------------------------------------|-------------|
| 1. Merino (Spain)<br>2. Rambouillet | 1. Cotswold<br>2. Leicester<br>3. Lincoln<br>4. Romney | 1. Dorset<br>2. Hampshire<br>3. Oxford<br>4. Suffolk<br>5. Tunis | 1. Columbia<br>2. Corriedale<br>3. Panama<br>4. Tailless or No Tail<br>5. Targhee | 1. Black-faced Highland<br>2. Lohi | 1. Karakul  |

## Buffalo breeds

### Classification of Buffalo breeds according to purpose:

| 1. Milch breeds                             |        | 2. Dual breeds |        | 3. Draught breeds   |        |
|---|--------|----------------|--------|---|--------|
| Name  | Origin | Name           | Origin | Name  | Origin |
| 1. Murrah<br>2. Nili<br>3. Ravi<br>4. Kundi | India  | 1. Murrah      | India  | 1. Jaffarbadi<br>2. Nagpuri<br>3. Mnipuri<br>4. Bhadawari | India  |

## Description of breeds:

### Cattle:

#### Differential points between *Bos taurus* and *Bos indicus*:

| Points            | <i>Bos Taurus</i>                      | <i>Bos indicus</i>             |
|-------------------|--|--------------------------------|
| Hump              | Absent                                 | Present                        |
| Ears              | Round and short                        | Long pointed dropping ears     |
| Head              | Short and wide                         | Long and narrow                |
| Skin              | Tightly to the body (very thick 7-8mm) | Skin very loose (thin- 5-6 mm) |
| Sub-cutaneous fat | Large amount                           | Small amount                   |
| Hip bone          | Wide                                   | Narrow                         |
| Mammary gland     | Well developed and very capacious      | Developed                      |
| Legs              | Short and slow moving                  | Longer and faster moving       |
| Maturity          | Early. Full mouth at 4 yrs             | Late. Full mouth at 5½ yrs     |
| Utility           | Good milker                            | Moderate milker and good draft |
| Climate           | Temperate                              | Tropical                       |
| Bellowing         | Slow                                   | Loud                           |
| Resistance        | Susceptible to disease                 | Resistant                      |

#### Description of some important breeds of cattle:

| Points                        | <i>Holstein-Friesian</i> | <i>Jersey</i>                           | <i>Sahiwal</i>   | <i>Red Sindhi</i>                                    | <i>Hariana</i>       | <i>Amritmahal</i>   |
|-------------------------------|--------------------------|---|--|--|----------------------|---|
| Origin                        | Holland                  | Island of Jersey in the English channel | Central and Southern part of Panjab of Pakistan.               | Karachi and Hyderabad of India.                      | India                | Karnataka State of India                                  |
| Coat color                    | Black & white            | Fawn with or without white marking      | Various shade of red, pale red, dark brown splashed with white | Dark red and dark brown. Male are darker than female | White or light gray  | Gray colored body with dark head, neck, hump and quarters |
| Av. Body wt. (Kg)             | 1000(M), 675(F)          | 675(M), 450(F)                          | 525(M), 350(F)   | 450(M), 300(F)                                       | 500(M), 350(F)       | -   |
| Av. milk yield per lactation  | 6000 (lit.)              | 4000 (lit.)                             | 1500 (lit.)  | 2500 (lit.)  | 1200 (lit.)          | use for draught purpose, not so good milker               |
| Age at first calving (months) | 36                       | 38                                      | 30-43  | 30-43  | 32-72                | 30-70   |
| Av. Live weight at birth (Kg) | 45                       | 25-30                                   | 22-24(M)<br>20-22(F)   | 18-22(M)<br>15-22(F)                                 | 23-25(M)<br>22-24(F) | 20-23   |

### Description of goat breeds:

| <b>Charecters</b>                | <b>Black Bengal</b>                                    | <b>Jamunapari</b>  | <b>Saanen</b>                | <b>British Alpine</b>                    |
|----------------------------------|--|--|------------------------------|--|
| Origin                           | Bangladesh and part of India                           | India. Its home is between Jamuna, Ganges and Chambal rivers.  | Saanea valley of Switzerland | Swizerland and Austrain Alps.            |
| Coat color                       | Mainly black but brown, grey and white are also found. | White or light yellowish brown with light brown spots on the neck and face, and occasionally brown or black patches. | White or pale cream          | Black, tan, white or combination of both |
| Ear and Leg                      | Ear-upright & pointed<br>Leg-short                     | Ear-long & dropping<br>Leg-long  | -                            | -  |
| Hair in Buttock                  | Long hair absent                                       | Long and thick hair in buttock region  | -                            | -  |
| Body weight (kg)                 | 15 (M), 14 (F)   | 50-60 (M), 40-50 (F)   | 50-60(F), 65-80(M)           | 50-60(F), 65-80(M)                       |
| Height (cm)                      | 45-50  | 78-100   | 75-90                        | 75-85                                    |
| Body length (cm)                 | 54 (M), 55 (F)   | 77 (M), 75 (F)   | -                            | -  |
| Chest girth (cm)                 | 59 (M), 59 (F)   | 79 (M), 76 (F)   | -                            | -  |
| Average daily milk yield (litre) | Very poor in milk yield<br>0.2-0.3                     | 1.5-2.0  | 2-5 liter/day                | 1 liter/day                              |
| Kidding (Litter size)            | Prolific- twins or triplets                            | Doe kids once a year, single/ twins  | Single/Twin                  | Single/Twin                              |
| Birth wt. (Kg)                   | 1.0  | 2.3-4.9  | 2.7-3.6                      | 3-3.3                                    |
| Dressing %                       | 45.7   | 45-55  | 43--45                       | 45                                       |

### Description of goat breeds:

| <b>Charecters</b>             | <b>Toggenburg</b>                                    | <b>Anglo-Nubian</b>                                     | <b>Kashmiri</b>                   | <b>Angora</b>             |
|-------------------------------|--|---|-----------------------------------|---------------------------|
| Origin                        | Swizerland   | Developed in England<br>African Nubian x Jamnapari      | Kashmir in India                  | Angora province in Turkey |
| Coat color                    | Fawn or chocolate color with white or cream stripes. | White to black, red or tan or any combination of those. | White and black or white in color | White                     |
| Hair Prodn/year               | -  | -   | 1.5 kg pashmina (Silky h air)     | 1.5- 3.0 kg mohair        |
| Height in cm                  | 65-75  | 80-100  | 65-80                             | 54                        |
| Body weight (kg)              | 60-65  | 60-70   | 50(F) , 60(M),                    | 40-45 (F), 65-85 (M)      |
| Average milk yield liter/ day | 1-3<br>(Maximum:5-6 liter)                           | 1-2   | 0.2                               | 0.5                       |
| Kidding                       | Single   | Twin / Single   | Single / Twin                     | Single/ Twin              |
| Birth wt.(Kg)                 | 3.8  | 2.5 - 3.9   | 2.1                               | 2.2                       |
| Dressing %                    | 44   | 51  | -                                 | -                         |

### Buffalo:

There are two types of buffalo according to the geographical distribution:

1. River type buffalo(Milk type) –Dual type 2. Swamp type buffalo-Marid(Burma), Kwa cum and Kwaipra (Thailand) for draft.

#### **Differential points between *Bubalus bubalis* and *Bubalus carabanesis***

| <b>Character</b>            | <b>River Buffalo</b>   | <b>Swamp Buffalo</b>                                      |
|-----------------------------|--|---|
| 1. Scientific name          | Bubalus bubalis  | Bubalus carabanesis                                       |
| 2. Chromosomes number       | 2n=50  | 2n=48   |
| 3. Body conformation        | Both back and front side of the body is massive              | Front side is lean but back side is massive               |
| 4. Weight                   | Male: 300-700 Kg<br>Female: 250-650 Kg                       | Male: 500 Kg<br>Female: 400 Kg                            |
| 5. Coat color/ Body color   | Jet-black to black. White mark may be present on head        | Jet-black to white. White mark on neck                    |
| 6. Body growth              | Rapid. Early maturity. 1st calving at 35 month               | Slow. Late maturity. Maturity after 3 yrs                 |
| 7. Gestation period         | 307-316 days   | 325-330 days  |
| 8. Mammary gland            | Capacious and well-developed                                 | Not developed   |
| 9. Wallowing                | In deep water  | In mud  |
| 10. Feeding                 | Both roughage and concentrate                                | Roughage only   |
| 11. Utility                 | Milk, Meat and Draft   | Draft only  |
| 12. Name of the breeds      | Murrah, Nili, Ravi, Jaffarbadi, Nagpuri, Monipuri, Bhadawari | China buffalo, Thai buffalo, Red buffalo etc              |
| 13. Origin and distribution | Asia sub-continent   | Singapore, China, Indonesia, Malaysia, Philippines, Burma |

#### **Description of Buffalo Breeds**

| <b>Characters</b>             | <b>Murrah</b>                                  | <b>Nili-Ravi</b>  |
|-------------------------------|--|---|
| Origin                        | Punjab and Delhi in India                      | Riverine tract of Sutleg river(Multan) and Ravi river of Pakistan and India.  |
| distribution                  | Different parts of India and Pakistan          | Different parts of India and Pakistan   |
| Coat color                    | Jet black with white marking on tail and face. | Black, but brown is not uncommon. Pink marks may be on udder and brisket. White marks on forehead, face, muzzle, legs and switch. |
| Horn                          | Short tightly curled                           | Small with high coil  |
| Neck and head                 | Light  | Neck- long & thin. Head- Heavy  |
| Average body wt. in kg        | 450(F) , 550(M)                                | Nili- 580(M), 453(F), Ravi- 635(M), 600(F)  |
| Udder                         | Developed                                      | Well developed  |
| Milk production (Liter / day) | 7.0  | 9.0-10  |
| Age at first calving (year)   | 3.5  | 3.3-4.4   |
| Utility                       | Male-heavy draft<br>Female-Good milker         | Male-moderate draft<br>Female- Good milker  |