



**FACULTY OF AGRICULTURAL
SCIENCES AND ALLIED
INDUSTRIES**

TOPIC: Breeds of Sheep, Goats and Swine

Sheep Breeds

India – 49.20 million (1992) – 6 th in over all sheep population in the world.

Breeds: There are 44 describe breeds of sheep

Northern temperate region – Eg. – Gaddi, Kashmir Merino, Gurez

North west Arid region – Eg. Chokla, Nali, Hissardale, Bharath merino

Southern – Nellore, Mandya, Mecheri, Kilakaraisal, Vembur, Coimbatore, Nilgiri, Ramnad White, Trichy Black, Madras red.

Eastern – Balangir, Shahdadi.

Exotic breeds – Merino, Rambouillet, Dorset, Corriedale

Indian sheep breeds

1. Mecheri

- It is distributed in Salem, Erode, Karur, Namakkal, and fewer parts of Dharmapuri districts of Tamilnadu.
- It is a meat purpose breed.
- It has medium sized body with pale purplish skin color.
- There are no horns for both the sexes.
- Tail is smaller and slender.
- Adult male average body weight 36kg.
- Adult female average body weight 22kg.



2. Chennai red

- This is distributed in Chennai, Kancheepuram, Villupuram, Thiruvannamalai districts of Tamilnadu.
- It is meat purpose breed.
- Majority are purple in color.

- Certain animals have colored stripes on their forehead.
- Adult male average body weight 36kg.
- Adult females average body weight 24 kg.



3. Ramanadhapuram white

- This is distributed in Ramanadhapuram, Sivagangai, and Virudhunagar districts of Tamilnadu.
- It is meat purpose breed.
- It has medium sized body.
- Majority of them are white in color.
- Certain goats hold black colored stripes all over their body.
- Adult males have their bent horns, whereas females with absence of horns.
- Legs are smaller and slender.
- Adult male average body weight 31kg.
- Adult female average body weight 23kg.



4. Keezhakaraisal

- This is distributed in Ramanadhapuram, Sivagangai and Thirunelveli districts of Tamilnadu.
- It is meat purpose breed.
- It has medium sized body.
- It is found in black red skin color.

- Black colored bands are found on the skin in the regions of head, stomach and legs.
- Tail is smaller and slender.
- Adult male goats are found with stronger coiled horns.
- Majority of the goats are found with wattle, under the jaw/throat.
- Adult male average body weight 29kg.
- Adult female average body weight 22kg.



5. Vembur

- It is distributed in Vembur, melakarandhai, keezha karandhai, nagalapuram regions, Tuticorin and Virudhunagar districts of Tamilnadu.
- It is meat purpose breed.
- These are taller breeds.
- They have white color skin with red color spots over their body.
- Ears are drooped out.
- Tail is smaller and slender.
- Adult males are found with horns and absence of horns in case of females.
- Adult males average body weight 35kgs.
- Adult females average body weight 28kgs.



6. Neelagiri

- These are distributed in Neelagiri district of Tamilnadu.
- It is wool purpose breed.
- They are medium weighed animal.
- Majority are found in white colors.
- Certain goats are found with purple spots on their body and face.
- Ears are broad and drooped out.
- Females are without horns.
- Adult male average body weight 31kg.
- Adult female average body weight 31kg.



7. Trichy black

- These are distributed in Trichy, Perambalur, Dharmapuri and Salem districts of Tamilnadu.
- It is wool purpose breed.
- These are smaller breeds.
- Black coloured all over the body.
- Adult males are found with horns and females without horns.
- Ears are smaller, facing forward and downwards.
- Adult male average body weight 26kg.
- Adult female average body weight 19kg.



8. Coimbatore

- It is distributed in Coimbatore district of Tamilnadu.
- It is wool purpose breed.
- Medium weighed animal.
- Found in white colors, with black or purple colored bands, seen over the regions of head and neck.
- 30% of adult females are free of horns.
- Adult male average body weight 25kg.
- Adult female average body weight 20kg.



9. Deccani

- Deccani breed is an admixture of the woolly types of Rajasthan and the hairy types of Andhra Pradesh and Tamil Nadu.
- It is found in Bombay-Deccan region and parts of Karnataka and Andhra Pradesh States.
- The sheep is small and hardy, and well adapted to poor pastoral conditions.
- It possesses a coloured fleece, black and gray colours being more dominant.
- The average annual yield of wool being 4.54 kg per sheep.
- The wool is of a low grade and is a mixture of hair and fine fibres, mostly consumed for the manufacture of rough blankets (Kambals).
- The flocks are maintained chiefly for mutton.



10. Nellore

- It is distributed in Nellore, Prakasam and Ongole districts of Andhra Pradesh.
- They are tall animals with little hair except at brisket, withers and breech.
- Rams are homed ewes are polled.
- Long and drooping ears;
- Majority of animals carry wattles.
- Males have average body weight of 36 kg and female have 28 kg.
- Nellore is the tallest breed of sheep in India, resembling goats in appearance.
- It has a long face and long ears with the body densely covered with short hair.
- The majority of the flocks are of fawn or deep red fawn colour.



11. Mandya

- It is distributed in Mandya district of Karnataka.
- Relatively small animals colour white - sometimes face is light brown which may extend up to neck.
- Compact body with typical reversed "U" shaped conformation from the rear.
- Ears long, leafy and drooping.
- Both sexes polled.
- Coat extremely coarse and hairy adult male weighs 35 kg and female weighs 23 kg.
- Best mutton type conformation among the Indian breeds.



12. Marwari

- Sheep are hardy, yielding coarser carpet variety white wool of a mixed hairy composition.
- This sheep is characterized by long legs, black face and a prominent nose.
- Fleshy appendages under throat, known as wattles, are often present.
- Tail is short and pointed.
- The sheep are found all over Jodhpur and parts of Jaipur districts.
- Flocks are raised in Pali and Barmer districts.
- The animals migrate to distant places in Uttar Pradesh, remote districts of Madhya Pradesh and sometimes to the northern parts of Maharashtra.
- They possess high resistance to disease and worms.
- The yield of wool per year is 0.90-1.81 kg per animal.

13. Gaddi

- Sheep are small in size, and are found in Kishtwar and Bhadarwah tehsils of Jammu.
- A large number inhabit the Kulu valleys in HP winter, and in summer they graze the highest elevations of them Pir Panjal Mountains, mostly in the Paddar range.
- Rams are horned, ewes hornless; fleece is generally white with brown coloured hair on the face.
- Wool is fine and lustrous; average annual yield is 1.13 kg per sheep, clipped thrice a year.
- A part of this clip is sent to Dhariwal mills and Amritsar markets.
- Undercoat is used for the manufacture of high quality Kulu shawls and blankets.

Exotic sheep breeds

1. Dorset

- This is native of U.K and are polled and horned.
- Face, ears and legs white in colour and free from wool.
- Wool yields 2.75 to 3.25 kg produce mutton of superior quality.
- Rams weight 80-110 kg and ewes weigh - 50 to 80 kg.

- It is a hardy breed and capable of performing well under most conditions.



2. Suffolk

- It is native of U.K. and is large animals with black face, ears and legs.
- Head and ears entirely free from wool.
- Both rams and ewes are polled though rams sometimes have scurs.
- Its average wool yield 2-3 kg.
- Mature Rams weigh 100-135 kg and ewes from 70-100 kg.
- Ewes are very prolific and excellent milkers.
- Suffolks imported to India have performed poorly than Dorsets.



3. Merino

- The most popular fine wool breed of the world, originated in Spain.
- It is a white faced sheep with white feet.
- Rams have horns whereas the ewes are hornless.
- Most of the head and legs are covered by wool.
- The animal is extremely hardy being able to survive under adverse weather and poor grazing conditions.

- The ewes live and yield longer than any other breed.



4. Rambouillet

- It was developed in France.
- This breed has a large head with white hair around the nose and ears.
- Rams have horns and ewes are hornless.
- Rams weigh as much as 125 kg and ewes up to a maximum of 90 kg.
- It produces an excellent fine-wool fleece.
- The fleece is heavy, close, compact, covering most of the body including face and legs.



5. Cheviot

- Is a medium wool breed, primarily developed in Scotland.
- The breed is small with erect ears, a clean white face and white legs, covered with short white hair.
- The nose, lips and feet are black.
- Rams weigh on an average upto 80 kg and ewes up to 55kg.



6. Southdown

- This breed is one of the oldest English breeds and has greatly contributed to the development of many other breeds of sheep.
- It is a small sheep excellent for mutton production.
- Body is low-set, compact, wide and deep with legs wide apart. Head is broad; face is light brown coloured.
- Rams weigh about 80 kg and ewes 55kg at maturity.



Goat Breeds

Breeds: 23 well defined breeds goats in India

For meat and skin – Black Bengal, Kanni adu

Meats, skin and milk – Barvari, Malabari (Tellicherry), Sirohi, Surti

Meat hair and skin – Gaddi, Kutchi, Marwari

Milk meat and skin – Beetal, Jamunabari,

Exotic breeds and crossbreeding experience : Specialized exotic dairy breeds of the temperate zone, viz, Alpine, Saanen, and Hohair breeds. , Angora bad been used in controlled experiments in India to assess the improvement of milk yield and Mohair production. The level production of crosses of high yielding indigenous dam breeds, Eg.

Beetal were superior to those of the crosses of relatively low yielding Malabari in spite of similar body size. The advantage of improvement in milk yield of exotic crosses at all the experimental stations, has been further discounted by abysmally low fertility and high mortality of kids.

Indian Goat breeds

1. Jamunapari

- Jamunapari breeds are found mainly in the state of Uttar Pradesh.
- Its coat colour is white with tan or black markings at neck and ears
- They are bearded in both sexes; havetuft of long hairs in the buttocks.
- It is largest and most elegant of the long-legged goats of India.
- It has pronounced Roman nose having a tuft of hair which results in parrot mouth appearance.
- Their horns are short and flat and horizontally twisting backward.
- An adult male ranges from 90 to 100 cms in height, whereas a female goat ranges from 70 to 80 cms in height.
- It is, tall and leggy with convex face line and large folded pendulous ears.
- Generally found in white colors.
- Their ears are large and drooped downwards.
- An adult female weighs between 45kgs to 60kgs, whereas an adult male ranges between 65kgs to 80kgs.
- Average birth weight is up to 4 kg.
- Average age at first kidding is 20-25 months.
- They have large udder and big teats and average yield is 280 kg / 274 days.
- Have the ability to yield 2 to 2.5kgs of milk per day.
- The fat content of the milk ranges between 3 to 3.5%.
- They thrive best under range conditions with plenty of shrubs for browsing.



2. Beetal

- It is are found mainly in the state of Punjab
- These breeds are grown mainly for the purpose of milk and meat.

- Generally smaller than the breed of Jamunapari.
- Coat Colour is predominantly black; or brown with white spots of distering size
- Males usually possess beard.
- They are not so heavy in weight.
- Average birth weight - 3 kg.
- An adult female goat ranges between 40kgs to 50kgs, whereas an adult male ranges between 50kgs to 70kgs.
- Age at first **kidding** - 20-22 months.
- Average lactation yield - 150 kg.
- They are having the ability to give, one kg to two kgs of milk per day.
- Maximum yield being 591.5 kg in a lactation period of 177 days.



3. Barbari

- This is short haired and erect-horned goat popular in urban areas of Delhi, Uttar Pradesh, Gurgaon, Karnal, Panipat and Rohtak in Haryana state.
- Barbari breeds are grown mainly for milk and meat purpose.
- The color of this breed is white with light brown patches.
- An adult female goat weighs between 25kgs to 35kgs, whereas an adult male goat ranges between 35kgs to 45kgs.
- They are having the ability to give one kg to 1.5kgs of milk per day.
- This breed have better reproductive capabilities.
- They will give, 2 to 3 kids in parturition.
- They are usually stall-fed and are reported to yield 0.90-1.25 kg of milk(fat content 5%) a day in a lactation period of 108 days
- They are prolific breeder and kid twice in 12-15 months.



4. Tellicherry

- Tellicherry breed is also called as malabari breed.
- It is found mostly in the state of Kerala.
- It is grown mostly for the purpose of meat.
- Generally seen in white, purple and black colors.
- An adult female ranges in weight from 30 to 40kgs, whereas an adult male ranges between 40 to 50kgs.
- They can yield one kg to two kgs of milk per day.
- These types of breeds have better reproductive capabilities.
- They can give two to three kids in a parturition.



5. Sirohi

- Coat colour is brown, white, and admixture of colours in typical patches; hair coarse and short.
- Compact and medium sized body.
- Tail twisted and carries coarse pointed hair.
- Horns are small and pointed, curved upward and backward.
- Average body weight of **buck** is 50 and **doe** is 23 kg.
- Average birth weight is 2.0 kg.
- **Kidding** is once a year, twins are common.
- Average age at first **kidding** is 19 months.

- Average lactation yield - 71 kg.
- Average lactation length - 175 days.



6. Osmanabadi

- Coat colour is predominantly black; white, brown and spotted occur.
- Long and short-haired type, based on presence or absence of long hair on the thighs and hind quarters.
- Tall and large size body and legs.
- Average birth weight 2.4 kg.
- **Kidding** is once a year.
- Average age at first **kidding** 19-20 months.
- It has good quality meat.
- Good yielders produce up to 3.5 kg a day.
- Average milk yield 170-180 kg per lactation.



7. Kanni aadu

- These are the tallest goat breeds found in Thirunelveli and Ramanadhapuram districts of Tamilnadu.
- Black or white spots in the black background are the characteristics colors of this breed.
- They are usually grown for meat purpose.

- The adult females of this breed ranges from 25kgs to 30kgs and the adult males ranges from 35kgs to 40kgs in body weight.
- They are having ability to give birth to 2 to 3 kids.
- They grow well in the draught regions.



8. Kodi aadu

- These breeds are taller and found with different colors, but predominantly black
- They usually give birth to one or two kids.
- They are usually grown for the purpose of guiding the goat flocks, which goes for grazing..
- These types of breeds are mostly found in the districts of Sivagangai, Ramanadhapuram, and Tuticorin districts of Tamilnadu.



9. Black Bengal

- Coat colour is predominantly black, brown/grey and white with soft, glossy and short hairs.
- Dwarf in body size, legs short, straight back; both sexes are bearded.
- Average live weight of buck is 15 kg and doe is 12 kg.
- Most prolific among the Indian breeds.

- Multiple births are common - two, three or four kids are born at a time.
- **Kidding** is twice a year. Average litter size is 2.1.
- Average age at first **kidding** is 9-10 months.
- Average lactation yield is 53 kg. Lactation length is 90 to 120 days.
- Its skin is in great demand for high quality shoe-making.



10. Chegu

- Coat colour is predominantly white but greyish red and mixed colours are also seen.
- Average buck live weight of buck is 39 kg and **doe** is 26 kg.
- Average birth weight is 2.0 kg.
- **Kidding** is once a year and mostly single.
- Average lactation yield is 69 kg and lactation length is 187 days.
- Used for draught to carry salt and small loads.
- Have long hair with under coat of delicate fibre below (cashmere or pashm).
- Legs are medium sized. Face and muzzle is tapering. Ears are Small.
- Horns are bent upward, backward and outward with one or more twists.
- Used for draught (pack) to carry salt and small loads.



11. Changthangi

- Predominantly white and the rest are brown, grey and black. Undercoat white/grey; yields warm delicate fibre - pashmina (cashmere, pashm).

- Body and legs are small, have strong body and powerful legs.
- Ears are small, pricked and pointed outwards.
- Horns are large turning outward, upward and inward forming a semicircular ring.
- Average live weight of buck is 20 and doe is 20 kg; average birth weight is 2.1 kg.
- Kidding is once a year, normally single;
- Average age at first kidding is 20 months.



Important breeds of pigs

1. Large White Yorkshire

The large White Yorkshire is a popular English Bacon breed, which had its origin Yorkshire and neighboring countries in northern England. Yorkshire sows are noted as **good mothers**.

- Bacon type breed
- The body colour is solid white with occasional black pigmented spots called 'freckles'
- Other distinguishing characteristic are erect ear, snout of medium length, large in size and slightly dished face
- Skin is pink coloured and is free from wrinkles with long and moderately fine coat. Neck is long and full to the shoulder. Back is slightly arched
- Matured body weight boar: 300-400kg and sow 230-320kg
- Most extensively used exotic breed in



India.. It is an excellent breed for the purpose of crossbreeding

2. Middle White Yorkshire

This breed was evolved by crossing the Large White Yorkshire with smaller breed of Yorkshire extraction. The breed is accepted as excellent pork pig, reaching slaughter weight early and with a high percentage of lean meat to bone. The breed is hardy, grows rapidly, but is not as prolific as the Large White Yorkshire. Extensively used to upgrade desi pigs as it is smaller in size. Adult body weight boar: 250-340kg and sow 180-270kg.

3. Landrace

The origin of this breed is Denmark, where it has been bred and fed to produce the highest quality bacon in the world.

- Large, long body. The breed is white in colour, although black skin spots 'freckles' rather common.
- White bristles in white body
- The breed is characterized by its long, deep side; square ham. The legs are relatively short .The carcass is more lean than that of the meat.
- Matured body weight boar 270-360kg and sow 200-320kg.



ECONOMIC TRAITS

- Litter Size
- Weight at Birth.
- Weaning Weight.
- Litter size at Weaning.
- Growth rate:
 - Birth to Weaning : $\text{Weaning wt.} - \text{birth wt.} / 56$
 - Weaning to 154 days: $\text{Weight at 154 days} - \text{Weaning weigh} / 98 \text{ days}$
 - Weight at 154 days to 210 days : $\text{Wt. at 210 days} - \text{Wt. at 154 days} / 154 \text{ days.}$
- Feed efficiency: Feed consumed per of kg of Live weight.
- Mortality percentage.