

CLASS 17: SHEEP AND GOAT FARMING-CLASSIFICATION OF BREEDS OF INDIAN AND EXOTIC ORIGIN-NOMENCLATURE ALONE.

Sheep belongs to the family Bovidae ,Genus Ovis and Species- aries. The sheep an important economic livestock species contributes greatly to the agrarian Indian economy. They play and important role in the livelihood of a large percentage of small and marginal farmers and land less labourers. Sheep manure is an important source of organic fertilizer especially in the southern state where they are folded on fallow land for increasing fertility of the soil. Sheep are mostly maintained on natural vegetation grazing lands (common) waste lands and uncultivated lands, stables of cultivated crops and tree loppings. Sheep are mostly reared for meat and wool.

Population - world 1110.78 millions (1993)

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

Breeds: There are 44 describe breeds of sheep

Northern temperate region – Eg. – Gaddi, Kasmir 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.

Nutrition : Sheep prefer ground vegetarian grasses, legumes, and wide varieties of forages.

water requirement adult sheep 2 – 4 liters

Energy : Adult – Non pregnant sheep – 93 K cal. ME / kg. W ^{0.75}

Lactating - 102 K cal. ME / kg. W ^{0.75}

Protein – DCP requirement – 1 g for every 1kg live weight (adult non pregnant)

Increases by 50% during pregnancy and 100% during lactation.

Housing and shelter management : Normally sheep do not require elaborate housing facilities but minimum provision will definitely increase productivity. Shed could be along the wall of the house. Further protection could be provided with gunny bags and protection made of thatching material and bamboo.

space requirement – 1 m² space per head. shed measuring 18m x 6 m can accommodate 120 sheep.

Dipping and deworming are important management practices to be adopted.

GOAT : Family – Bovidea Genus Capra

Goats provide an dependable source of income to more than 40% of the rural population who live below the poverty line in India.

Population – 114.32 x 10⁶ (1992 estimated)

Goats are mostly raised by land less labourers and marginal farmers. Goats produce lean and juicy meats (chevon) which is preferred by all religious sects.

The goat milk contains lower fat percent with smaller fat globules, higher protein and lactose and rich in minerals.

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 had 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.

Nutrition : Goats generally accept a wide variety of feeds but what is acceptable to one may not be equally acceptable to the others. They prefer to select from the wide variety of feeds and vegetarians (Preferably leaves) and like fresh fodder, grains, seeds and pellets rather than the wet feeds, silages, chopped greens, soiled forages and hays. Goats have higher tolerance to the wide variety of otherwise undesirable phyto-chemical compounds which enable them to consume a wide range of plant species.

In comparison with cows, then milch goats require a higher amount of TDN. Goats have the capability of consuming dry matter to the tune of 5 to 8% of its body weight. As a species, it can utilize lignin and cellulose better than the other ruminants and sustain water deprivation for longer periods. The nitrogen recycling through rumen is also considered better.

The deficiency of major nutrients, energy, protein and dry matter, in the country amounts to 50-60. 50-75 and 80% respectively. Availability of the grass, browse and agro-industrial by-products for goats is approximately to the tune of 40, 9.6 and 48 million tonnes/annum in the country.

Goats are normally reared on browse and pasture forage that other ruminants do not consume. major part of feed of goats comes from natural vegetation on common grazing land range land and other non cultivable areas.

Top feed resources

A large variety of tree leaves (top feed) save as promising feed resources for goats. It is estimated that annual production of green leaves for fodder from trees in the country is to the tune of 24 million tones. Against the requirement of 1.9 m tones of DCP and 17 x 10 Million M cal DE the tree leaves provide 0.7 mt DCP and 4 x 10 m M cal DE to goats. Most of the tree

leaves contains 20 – 40% dry matter 4 – 15 % DCP and 50 – 60% TDN depending on the season of harvest but their palatability is poor which limits the energy supply to goats.

Housing

Shed – long axis East west

Floor space- adult goat 1.2.5 – 1.5 m²

Pregnant doe and bucks – 2 m².

Kids – 3 – 6 months 0.7 to 0.9 m²

6month – 1 year 1m²

Individual kidding pens are essential to house does in late pregnancy.

Importance of small ruminants in Indian Agricultural

GOAT

1. Adapted to different agro-climatic condition.
2. Un fastidious in food habit
3. No religious prejudice against chevon.
4. Low cost of maintenance, short term return and low risk.-better suited for small and marginal farmers.
5. Can thrive in conditions where cows and buffaloes can not sustain.
6. 35% of meat production and 3% of milk production of India.
7. During grazing 50% of time is spent only on tree leaves.
8. Being smaller in size - with larger surface area, well adapted to high temperature - arid areas.
9. Semi-arid areas with sparse vegetation, bushes, shrubs - steeply sloped mountainous regions cannot be suited for cattle but goat and sheep.
10. Physical characters of different breeds in various regions are well adapted. to the local need - large size with longer legs to suit longer distance walk in high temperature areas and small size with shorter legs are found in humid areas.
11. Special feeding habits with mobile upper lips and highly prehensile tongue can

take foliage which are not available to other livestock species.

12. Higher crude fibre digestibility.
13. High growth rate in population (2%) despite being slaughtered at higher numbers due to its prolificacy, short generation, regular breeding through out \ the year, short inter kidding interval.
14. High growth rate in body weight.
15. Adaptable in to any system of management.
16. No competition human beings.
17. Moderate milk yield, (1.5 to 2.5 Litres) from poor quality pasture
18. Manure from 1 goat is sufficient to manure half an acre.
19. High disease resistance.

Sheep

1. High adaptability to extremes of climate
2. Gregarious animal
3. Uniparous
4. Important in arid and semi- arid area for marginal sub-marginal holdings.
5. 6% of world population.
6. Insurance during the crop failure and during monsoon failure.
7. Apt to hilly, drought and desert regions
8. Important subsidiary and complimentary unit in mixed / integrated farming.
9. Can thrive on are agro-climatic regions except rainfall areas.
10. Can thrive in low set sparse vegetation where other livestock can not thrive because of close grazing.
11. No expensive investment for buildings equipment - suitable for marginal small farmers.
12. valuable manure.
13. Populations fluctuate due to diseases

Northern temperate Region - Fine wool

And Nilgiris of Tamil Nadu

North West arid Region - Carpet wool

Southern Region - Meat

Wool potential : 3.5 - 5 kg - exotic breeds

1 - 2 kg - Indian breeds

Poor management TM 20% of meat realisation

Effective utilization of and cultivable waste lands, unwanted shrubs and weeds.

Sheep breeds :

Southern region -

1. *Mandya*

Native tract : Karnataka

Colour - White

Physical traits - White, compact body, typical reverse "U" shaped from year end.

Body Weight - Male 35 kg : Female 25 kg

Good quality Mutton

2. *Nellore*

Native tract : Andhra

Colour : white

Physical traits : Tallest in Indian breeds.

Body weight - Male 36kg ; Female 30 kg.

Tamil Nadu

1. **Nilgiris** : developed from Tasmanian merino, Cheviot, dorset and south down breeds

Colour : white

Physical traits : polled, roman nose,

Body weight : 30 - 40 kgs.

Wool yield : 600 to 900 gm per annum

Only breed in south India producing apparel wool .

2. Coimbatore / Kurumbai / Sulur

Native tract : Coimbatore District

Colour : White with black or brown markings on face and neck

Body weight : Male 25 kg : Female 20 kg.

Coarse fleece : 400 - 500 g.

3. Madras red

Native tract : Chengalpet and Madras District

Colour : brown

Body weight : Male - 35 ; female - 25 kgs.

4. Mecheri

Native tract : Salem and Coimbatore District

Colour : Light brown

Body weight : Male 35 kg : Female 20 kg.

Polled

5. Keezhakaraisal

Native tract : Ramnad, Dindukal, Pudukottai, Madurai Districts

Colour : Dark tan with black markings on head, belly and legs.

6. Ramnad white

Native tract : Ramnad, Pudukottai, Thanjavur Districts

Colour : White with black markings on head , belly and leg.

Body weight : Male - 31 kg : Female - 20 kgs.

7. Vembur

Native tract : Virudhunagar, Tuticorin Districts.

Colour : White with red or fawn markings

Body weight : Male - 35 kgs : Female - 28 kgs.

8. Trichy black

Native Tract : Trichy, Arcot, Salem Districts.
Colour : Black with White face.
Body weight : Male - 25 kgs : Female - 18 kgs.

Exotic Breeds

1. Merino : Best fine wool breed

Native tract : Spain
Body weight : Male - 90 kgs : Female - 70 kgs.
Dense, strong staple, close crimps

2. Rambouillet

Native tract : Descendant from Merino developed in France.
Body weight : Male - 90 kgs : Female - 70 kgs.

3. Polworth :

Native tract : Australia (for areas not suitable for merino)
Lincoln x Merino

4. South down :

Native tract : England
smallest of meat breed
Typical meat breed (compactness short legs)

5. Cheviot : Superior and effective meat producer

Body weight : Male - 80 kgs : Female - 55 kgs.

6. Corridale : Dual purpose (meat and wool)

Native tract : New Zeland
Lincoln x Merino

7. Karakul : Pelt breed

Goat Breeds :

Jamunapari

Home tract : Etawah district and tract between Jamuna and Jambal river in UP.

Physical traits : Large, tall, long folded pendulous ear, prominent roman nose, long and thick bunch of hairs on hind quarters

Length : 3½' - 4½'

Height : 2½' - 3½'

Body weight : Does 45 to 60 kg

Buck 60 to 85 kg

Milk Yield : 2.25 to 2.75 kg per day.

Beetal

Home tract : Punjab

Colour : Red, tan

Physical traits

As this breed evolved from Jamunapari physical traits are almost similar to it.

Barbari

Home tract : UP, Hariyana

Colour : white with red spots

Body weight : Does 25 to 35 kgs.

Buck 35 to 45 kgs.

Suitable for stall feeding.

Prolific breeder and high milk yielder

Black Bengal

Home tract : West Bengal

Colour : Black

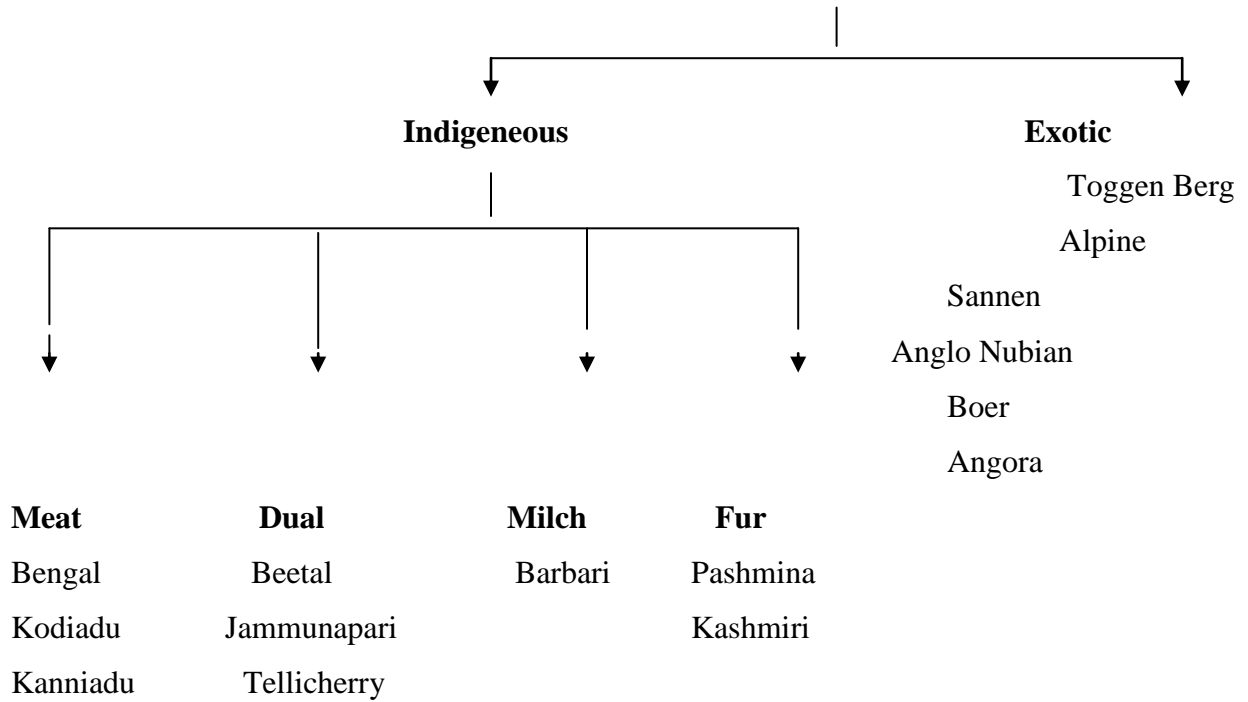
Physical traits : shorter breed.

Body Weight : Does 10 to 15 kg

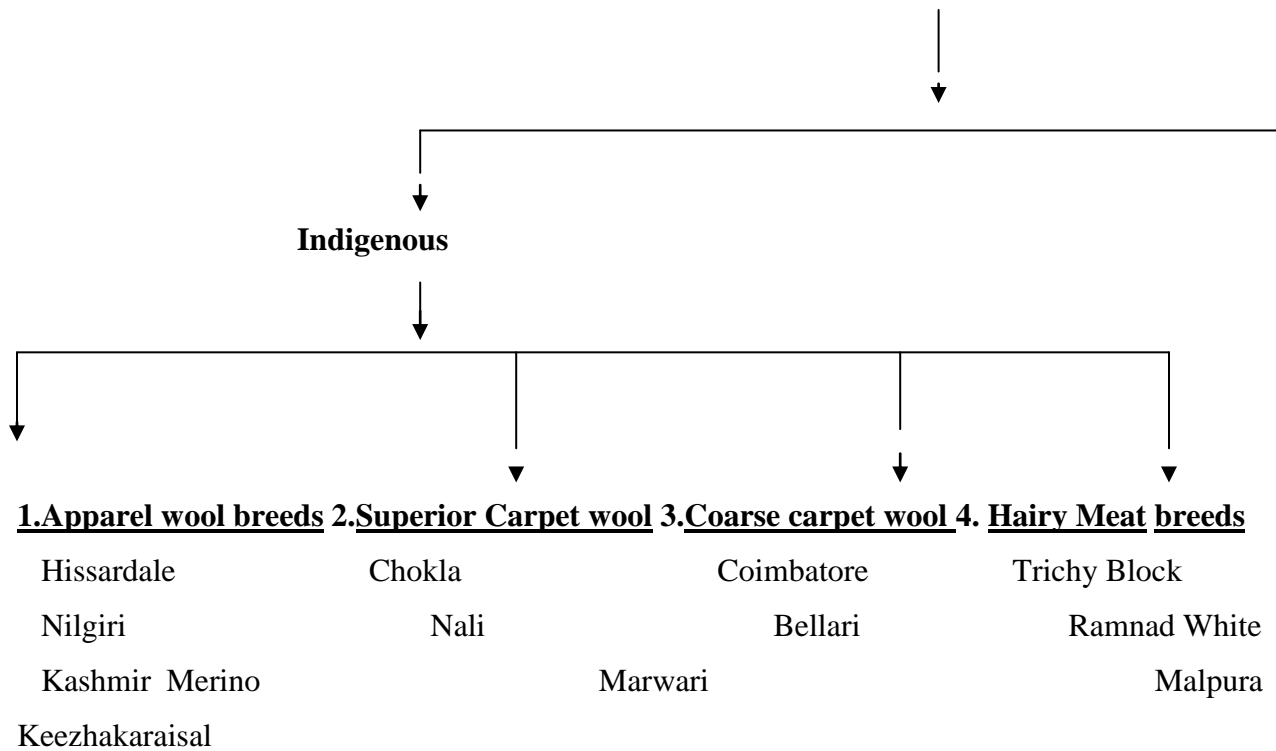
Buck 15 to 20 kg

Nomenclature		
Traits	Sheep	Goat
Species	Ovine	Caprine
Group	flock	Band/herd
Adult male	Ram	Buck
Adult female	Ewe	Doe
Young male	Ram lamb	Buckling
Young female	Ewe/Gimmer lamb	Goatling
New born	Lamb	Kid
Castrated Male	Wedder	Wether
Castrated Female	spayed	Spayed
Act of parturition	Lambing	Kidding
Act of mating	Tupping	Servicing

Breeds of Goat



Breeds of sheep



Avivastra	Magra - Bikanari	Vembur
	Jaisalmeri	
Meecheri		
	Poonch	Madras
Red		
	Karnah	Nellore
	Gaddi	Mandya
	Avikalin	

Exotic



1. Fine Wool Breeds

Merino
Rambouillet
Pol worth

2. Mutton

South down
Dorset
Suffolk

3. Dual purpose

Corridale

4. Pelt

Karakul

Breeds

Temperate Himalayan : good quality wool.

1. Gurez
2. Bharwal
3. Gaddi
4. Ramper Bushiar

Western region : - superior carpet wool.

Magra
Chokla
Nali
Bikanari

Coarse wool - Marwari