Breeds and Management of Goats

ImportantBreeds of Goats

BLACK BENGAL GOAT (Bihar, Bengal, Orissa)

Prolific and delicious meat producer.

Bucks = 25-30 kg,

Does = 20-25 kg.

Breeding start 12-15 months of age.

The female goat became pregnant twice a year.

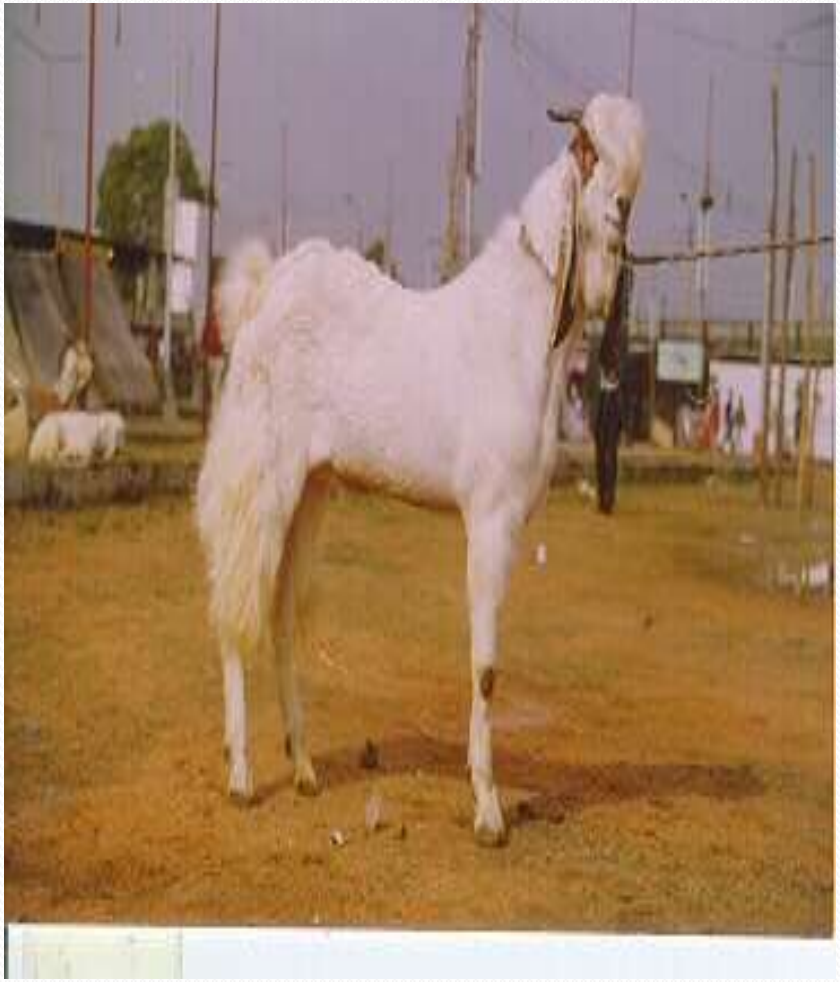
Sirohi (Rajsthan, UP)

Adult buck : 50 kg

Adult Doe: 30 kg.

The first kidding age: 18-20 months

JAMUNAPARI



Jamunapari – High Milk producer

BEETAL GOAT

Beetal – Highest growth rate

ATTAPADDY BLACK DOE

Attapady Black Doe – Thrive on hills of Kerala

JAKHRANA GOAT

A flock of Jakhrana goats on the hill side near Jakhrana, Alwar, Rajasthan.

KANNIADU GOAT (Tamil Nadu)

Rare goat of Tamil Nadu

MARWARI GOAT

Marwari goat – Survives in desert of Rajasthan

Boer (South Africa)

Widely imported in India and used for meat purpose

Golden Guernsey (British)

Dairy Breed

Pygmy Goat (Africa)

Saanen (Switzerland)

Toggenburg (Switzerland)

Dairy Breed

GOAT CARE AND MANAGEMENT

Goat care and management depend on the

- Animal's age
- Health
- Nutrition
- Pregnancy status

as well as production needs, the environment, and facilities.

- The young kid has needs for basic care very different from the older, mature goat.

Goats are bred and maintained for :

- Milk
- Meat
- Mohair
- Skins for leather
- Commercial antibody production
- Religious Taboos and Companionship.

- As browsers, goats utilize land too rough in terrain for sheep and cattle.
- Goat milk is more digestable than cow milk.
- Valued for the elderly, sick, infants, and those with allergic reactions to cow milk.

GOAT HOUSING

- Need simple shelter to protect from high cold in winter and from heat in summer.
- There are two main housing types, which include confinement
  - Intensive and loose
  - Extensive- loose or pasture systems
- A combination of housing types is present in village condition

- The housing should allow groups of
  - Milking does
  - Dry(non-lactating) does
  - Newborn kids
  - Growing kids and
  - Bucks
  - Pregnant Does
  - Sick Goats

  to be housed apart from each other.

- Extensive-the flock/herd grazes over large areas of marginal land unsuited to agriculture. The flock is usually shut into a yard/house at night.

- Intensive- animals are confined to yards/house and shelters and feed is brought to the flock.
  - It offers the greatest protection for the flock from both predators and parasites.

BUT

  - It needs increased labour and the capital investment required for facilities.

Wire net is the most common conventional goat fence.

Housing of Goats

- Select a higher place for building house.
  - keep the house always dry.
- Make the shed in east-west direction.
- The height of the shelter should be 3 to 5 meters
- Ensure sufficient flow of fresh air and light.
- Prevent damping condition.
- Goats are feared about rain.
  - Never let the rainwater to directly enter inside the house.
- An acre land is sufficient for raising 100 goats
- Shed premises should have **sufficient plantation** which protects the animals from direct sun during summer.
  - At least two trees should be planted in each paddock.

Housing of Goats

Type of Goat	Floor Space (sq. m)	Goats per Shed
Dry Goat	1-2	60-80
Buck	1.5-2	Individual pen
Milch Goat	1.4 x 1.2	50-60
Kids (3-6 months)	0.5-0.6	75-100
Kids (6-12 months)	0.8-1	60-80

Pen yard/paddock : 1.5-2.0 times of floor space in shed

Elevated floor shed

- Distance of 3m from the floor, the animals are reared.
- The elevated sheds will be clean and urine and dung will be collected in the floor and once in six months.
- This requires less labour and more irrigation land for the fodder production.
- Its initial investment is high.

Rearing in mud floor

- The shed should be constructed in elevated area to prevent water stagnation.
- Application of lime powder once in a month will reduce the disease occurrence in the shed.
- Once in a year 1-2 inches of mud surface should be removed.

Importance of Nutrition

- Balanced Nutrition
  - Maintenance
  - Health
  - Production
  - Reproduction

- Many health, reproductive and production problems can be prevented with good nutrition.

Poor nutrition results in:

- **Poor productivity**
- **Poor conception rates**
- **Lower birth weight of kid**
- **Poor weaning weights**
- **Difficult births**
- **Higher feed bills**
- **More infectious disease due to decreased immune system protection**

FEEDING

- As a general rule of thumb, goats will consume at least 3% of their body weight on a dry matter basis in feed.
- Goats require energy, protein, vitamins, minerals, fiber (bulk) and water.
- Fiber maintain a healthy rumen environment and prevent digestive disturbances.
- Water is the cheapest and most important feed ingredient

Animal	Protein	Energy
Bucks	11% CP	60% TDN
Dry doe	10% CP	55% TDN
Late gestation	11% CP	60% TDN
Lactation	14% CP	65% TDN
Kid	14% CP	68% TDN
Yearlings	12% CP	65% TDN

FEED

- Goats are natural browsers and have the unique ability to select plants when they are at their most nutritious state.
- Green Pasture are usually the primary and most economical source of nutrients for meat goats.
  - Pasture tends to be high in energy and protein when it is in a vegetative state.
  - It has a high moisture content

BUT

  - It is difficult for a high-producing doe or fast-growing kid to eat enough grass to meet its nutrient requirements.

Some Possible Alternatives

HAY – (Alfalfa, Clover):

- Primary source of nutrients for goats in winter season.
- moderate source of protein and energy for goats but high in Calcium.
- The energy, as well as protein content of hay depends upon the maturity of the forage
- curing and storage is also necessary to maintain nutritional quality.

Silage – (Maize, Jowar):

- Made from forage or grain crops has been successfully fed to goats
- Moldy silage can cause listeriosis or "circling disease" in goats.

Silage is typically fed on large farms, due to the need for storage and automated feeding equipment.

Concentrates (Grain)

- There are two types of concentrate feeds: Carbonaceous and Proteinaceous.

Carbonaceous concentrates or "energy" feeds include the cereal grains – Maize, barley, wheat, oats and rye – and various by products feeds, such as fat, soybean hulls and wheat middlings.

- It is not necessary to process grains for goats unless they are less than six weeks of age.
- Problems with cereal grains is that they are high in phosphorus content, but low in calcium.
- Feeding a diet that is high in phosphorus and low in calcium can cause urinary calculi (kidney stones) in bucks – Most common problem in Bucks -

Vitamins and minerals

- The most important are salt, calcium, and phosphorus. The ratio of calcium to phosphorus should be kept around 2:1.
- Vitamins are need in small amounts. Goats require vitamins A, D and E, whereas vitamin K and all the B vitamins are manufactured in the rumen.
- Coccidiostats and antibiotics can also be added to the mineral mix or supplement.
- Goats should have ad libitum access to clean, fresh water at all times. A mature goat will consume between 2.5 – 5.0 L of water per day

Newborn/Kids Management

- Kids health depend on the immunoglobulins absorbed from colostrum for protection from infectious agents in their environment.
- If kids are not suckling on their dams, colostrum to be provided within the first 24 hours of birth
- Kids should be fed a minimum of 100-150 ml colostrum within the first few hours after birth.

Growing Kids

- Kids should be started on solid foods early to be ready for weaning beginning about 6-8 weeks of age.
- Soft and tender grasses should be fed to the Kids initially.
- They should be given 150-200 gms grains (of nearly 16-18 % protein) per day, depending upon the breed.

Dry Does and Bucks

- To be fed an all forage diet, which will provide the necessary nutrients for maintenance .
- For dry does and bucks body condition and health are the primary goals of a feeding program.
- A few weeks prior to kidding, the does can be gradually reintroduced to grain feeding

Breeding Management

- Avoid over fed bucks
- Deworming
- Trimming hooves
- Vaccinations
- Breed a female goat as soon as she is 7 to 10 months old, regardless of size and weight.
- A doe kid should be at 70 to 75% of her mature weight before breeding.

Pregnant does

- Does should not be dewormed during the first 20 to 60 days of pregnancy because the stress associated with handling and deworming may cause the animal to abort .
- Should be dewormed 2 to 3 weeks prior to kidding or comfortably after kidding.

Kidding Management

- Supplement your does with a concentrate or hay, feed it at night
- Keep the doe on non slippery clean floor and put in a pack of clean, dry straw.
- Clean the kid immediately after birth.
- Trim the navel to about 3 inches and dip it in the 7% iodine.

Care of Newborn Kids

- Colostrums feeding within the first 20 min after birth.
- Give sufficient area for the kids for feeding and resting.
- Dis-bud kids at 1 to 2 weeks of age depending on the horn growth.

Reproductive Aspects - Summary

FEMALE		
Age of puberty		**7-10 months**
Breeding weight		**60-75% of adult weight**
Estrous cycle		
	Length	**18-22 days**
	Duration	**12-36 hours**
	Signs	**Tail wagging, mounting, bleating**
Ovulation		**12 to 36 hrs from onset of standing heat**
Gestation length		**146-155 days**
Breeding season		**August-January**
Seasonal anestrous		**February-July**
Buck effect on estrous		**Positive**
MALE		
Age of puberty		**4-8 months**
Breeding age		**8-10 months**
Breeding season		**All year**
Breeding ratio		**1 buck : 20 to 30 does**

Health care

- To improve the herd's productivity through general husbandry, nutrition management, parasite control, vaccination, and environmental management.
- Careful recordkeeping
- Appropriate rations and provide shelter
- Hooves must be trimmed regularly
- A constant source of fresh water.
- Regularly check the herd for any diseases.

Weaned Kids

- Examined for intestinal parasites one month after weaning.
- Polled kids -rechecked for any genital abnormalities.
- Feet must be trimmed before kids are turned out.
- Examine the kids with neurologic signs, such as Blindness or Nervous symptoms.

Bucks

- Vaccines and parasite treatments
- Bucks must be given plenty of exercise.
- Feet must be trimmed at least four times yearly.
- Before the breeding season, bucks must have adequate body condition and should be examined for genital abnormalities.

Signs and control of Disease

- Separate sick animals from the herd and provide appropriate treatments.
- Remove dead animals immediately and compost or burn the carcass.
- Examine aborted goats and submit to a veterinarian for necropsy if needed.
- Trim feet on regular basis to minimize risk of footrot or other foot deformities.

- Feed adequate colostrum to kids in the first 3-4 days of birth
- Disinfect the navel at birth with tincture of Iodine .
- Administer preventative medicine to 2 week old kids
- Vaccinate does during dry period for passing maximum maternal antibodies to the kids.
- Pastures are the major source of internal parasite infestation.

Preventive measures

- Provide clean, dry and draught free environment
- Don't allow water accumulation in the farm
- Control rats, mice and insects
- Provide fresh and clean water
- Clean utensils weekly
- During summer avoid overcrowding & minimize transport
- Provide ventilation in barns
- Keep record of all treatments
- Record mortalities
- Cull goats with frequent treatments
- Record vaccinations and dewormings

Castration and Disbudding/Dehorning

BENEFITS

- Avoid strong flavour in the meat, to avoid odors
- Control aggressive behavior in male goats
- Avoid injuries to the herdmates, to the owner

S.N	Name of Disease	Time Table	
		Primary vaccination	Regular Vaccination
1.	Anthrax	At the age of 6 month for kid or lamb	Once Annually(In Affected area only)
2.	Haemorrhagic Septicemia (H.S.)	At the age of 6 month for kid or lamb	Once AnnuallyBefore monsoon
3.	Enterotoxaemia	At the age of 4 month for kid or lamb (If dam is vaccinated) At the age of 1st week for kid or lamb (If dam is not vaccinated)	Before monsoon (Preferably in May) Booster vaccination after 15 days of first vaccination.
4.	Black Quarter(B.Q)	At the age of 6 month for kid or lamb	Once Annually(Before monsoon)
5.	P.P.R.	At the age of 3 month for kid or lamb & above	Once in three years
6.	Foot & mouth disease(F.M.D.)	At the age of 4 month for kid or lamb & above	Twice in a year (September & March)
7.	Sheep Pox	At the age of 3 month & above for lamb	Once Annually (December month)
8.	Goat Pox	At the age of 3 month & above for Kid	Once Annually(December month)
9.	C.C.P.P.	At the age of 3 month & above for Kid or lamb	Once Annually(January month)

IDENTIFICATION

- Tattooing - This is the preferred method of permanent identification.
  - The small sized tattoo plier works best on goats, especially goat kids.
  - The numbers will grow bigger along with the kid's ear as it grows
- Eartagging - Try to avoid using metal tags as they infect easily

Marketing

- Price for chevon/mutton has risen from Rs 120 per kg to Rs 300- 350 per kg over a decade
- Huge demand for meat during festive seasons
- Slowly moving from extensive to intensive system of management for commercial production.
- Female goats not acceptable for meat relatively tender male goats are generally used.

…Thank You…