

HOUSING MANAGEMENT OF GOATS

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Housing management

Housing tendency is seen in all domestic animals. Goats also no longer precluded from this instinct. Appropriate and suitable housing is an absolute necessity for goat farming. Goat keepers can lose up to 50 % of their kids due to diseases and complications caused by poor and unhygienic housing. Good housing is required for proper production, reproduction and health. Goats need shelter and are usually afraid of rain. Shelter is also necessary to protect goats especially kids from predators like dogs, wild animals and thieves. Ventilation, clean air and water facility are main points to be kept in mind while selecting the site for goat farming. The adult goats suffer reduced production and productivity due to bad weather. The animal shed must be in an elevated area so that the cleaned water, urine and dropping from the shed can drain properly into the drainage. The farm location should be away from city to provide zero public interference. However, it should have nearby access for selling the products. Sufficient pasture for grazing, land for cultivation of fodder crops and grasses are essential for successful farming. Continuous electricity and water supply is another important need for easy maintenance of the farm.

The selection of goat house depends on Goat Farming System, Size of herd and Resources available. Goat houses can be built using cheap materials that are locally available. Different groups of goats have special housing requirements. These are: Breeding males, Pregnant Does in the last stage, Goat kids and Sick goats. The key features of Goat housing include: location, design, type of floor and roof. The Design of the house depends on Purpose, Specialized needs, May be permanent or temporary, made of mud, bricks, or timber, should have adequate ventilation, Floor must be easy to clean, Roof and a wall must be strong.

Direction

The animal house should be constructed on well drained elevated plain area. It should be in east-west direction. Animals are tied in north –south direction to get heat protection. Some prefer north south direction shed orientation which is not suitable in arid zone. However, few choose north east

or south west direction for proper air movement in the shed. Proper light keeps shed dry and kills the germs. Planting the fodder trees surrounding the shed will keep it cool in the summer. The temperature of the shed should be between 28 to 30°C

Construction materials

Animal shed can be constructed by using strong locally available materials. They should have sufficient strength and last longer. Plan and design of the shed should be such a way that it can withstand wind, sun and rain.

Roof

It is required to get protection from sun and rain. “A” type of roof is ideal for arid region. One side of the wall protects another side from the heat, thus creates cool environment for the goats. Roofs must be sloped to allow water can run off and must not leak. The roof can be constructed of cement sheets, steel or thatched roof. A height of 12 feet is ideal for roof construction. 8-9 feet height at the sides for the double slope type and 3 feet overhang on both the sides, is recommended. Roofs are made from corrugated iron sheets, papyrus, grass or polyvinyl material.

Length and width

The width of the house should be 20 feet and length of the house is determined on the size of the flock. Inside partition can be made as per the convenience.

Floor

Proper flooring is required to prevent physical injury. Houses can be set on the ground or stilted. In Indian condition mud floor is more common. Floor can be mud type in which lime can be applied after removal of 1-2 inches of mud surface to prevent the diseases. The paddy straw/ground nut husk/sugarcane tops are spread on the mud floor for a depth of half feet in deep litter system. It should be cleaned properly and removed once in six months. It causes naval infection in kids. Elevated platform with free fall of faeces and urine and is preferable to prevent infection. Movable wooden slates can be opted for elevated system of rearing. They can be placed 1 -1.5 mt height above the floor. Wooden tree materials such as coconut, bamboo, areca nut can be utilized for this

purpose. The space between the plates should be 1.4 to 1.6 cm so that faecal excreta can fall to the ground through this space.

Pucca concrete floor is seen nowadays for rearing animals on stall fed conditions. In the concrete flooring, for every one meter there should be 2.5cm slope. Drainage should be 30-40cm wide and 7.5cm deep.

Feeder and waterer

In each housing system, the supply of water and feed is very important. Spreading the feed on the floor causes it to be trampled, soiled and the quality gets deteriorated. Hexagonal type racks are available to reduce the wastage of feed or straw. The water trough should have depth of half foot, width of one foot and 5-6 feet length. Clean water to be filled in these troughs for the goats. It is better to use detergents to clean the troughs.

Walls

Walls can be made of concrete cement up to 4 feet height and then wire mesh can be built over. Sides can be closed by gunny bags during winter seasons. However, walls across the width of the house should be closed till roof on the both sides.

Partition

Partition can be made by asbestos sheets, galvanizes steel or by thatch. It should be at least 15cm from the floor. It should be for every 30 feet as per the length of the house.

Floor space

For an adult goat 1-1.5m² floor space inside the shed is recommended. However, for 0-3, 3-6, 6-9- and 9-12-months kids recommended floor space is 0.25, 0.5, 0.75 and 1 m² respectively. Lactating doe and adult male require a floor space of 1.5-2 and 2 m² respectively. This space requirement will be doubled if they are reared in open paddock.

Shed

The shed should be 1.8m X 1.8m X 2.5m for 10 small goats. Pregnant and lactating should be given extra space.

Doe shed

15m X4m X 3m shed can accommodate 60 breeding does. There should be provision of racks for greens and hay. There should be space between two rows of the lactating does.

Lactating animal requires floor space of 5X5 feet. A raised platform of 1.5X3X1.5ft is required for milking.

Buck shed

4mX 2.5mX3m shed can hold 3 bucks. Bucks should be separated by partition.

They should be kept away from milking does and kids. It is better to change buck for every two years.

Kidding shed

It is the place where advance pregnant doe will be shifted for kidding. Movable hurdles can be used for the preparation of pens. This should be spacious for kidding. It should be cleaned and disinfected thoroughly to prevent naval infection. 1.5m X1.2m X 3m spacing is required for manger and water trough. The pen should provide warm weather to kids in winter. During cold weather, thick bedding material is essential for the kids.

Kid shed

7.5mX 4mX 3m can hold 75kids. It should be divided into two parts one part for un weaned kids and another for weaned kids.

Sick shed

It is for the sick animals.

Store room

It should have two compartments: one to hold medicines and other equipment's and another for feed or hay or straw.

Advantages and Disadvantages of a mud house

Advantages

1. They are cheap to construct 2. They are semi-permanent. 3. Materials are cheap and locally available.

Disadvantages

1. Ventilation is often not adequate 2. The floor is difficult to clean. 3. If they got thatched roof, they may leak during rainy season.

Advantages and Disadvantages of a Goat House with raised, slatted floor

A raised, slatted platform in subtropical and tropical areas has the following advantages:

- Air movement is more and it can enter through the slats and brings comfort in summer
- Urine, debris and manure can be dropped easily through the slatted floor and parasitic infestation is prevented.
- Suitable for large or small number of goats
- Reduced space requirements
- House is durable
- less labour to maintain and clean
- Remains relatively dry and clean
- Manure collection is easy and can be sold as fertilizer
- Stilts protect goats from large predators
- No need of bedding

The main disadvantage of raised, slatted floors is the high initial expense of construction. Other concerns are leg and foot problems from too wide a gap or poor maintenance of existing slatted floors.

General considerations

Place should be dry and clean. The goat house should be cleaned every day because the accumulated droppings make a good environment for multiplication of infectious agents and parasites that cause diseases.

If the goats do not get enough space for movement in the house, their activity is restricted and this has a subsequent effect of reduced goat productivity.

Goats love to see each other, even if penned separately. Suitable arrangements are to be made in the type of partitions / gates used. Pen and door heights vary according to breed and 1 to 1.25 m. height is advised for most of the breeds.

Floor should have even surface to absorb water content,

It is advisable to paint the shed before monsoon and make a provision of lime wash before winter season.

Proper ventilation and light are required. Moist condition may cause pneumonia. Also, Congestion in the house makes goats susceptible to respiratory diseases.

Morning light should fall on the animals and shed.

Deep litter should be changed once in three months. Young goats are very susceptible to parasites found in faeces and urine whereas the adults get skin and foot infections from dirty houses.

Fly repellents to be sprayed with sprays

For 10+1 goats

For 10+1, lean to type shelter can be constructed to reduce the cost. The floor space requirement is 27 m². Assuming eight give kids with 1.5 twinning rate, 12 kids of different age group are expected. Thus, it can hold 10 females, one male and 12 kids

For 25+2 goats

For 25 females 2 males are required. However, due to unforeseen reasons such as poor reproductive performance, it is better to keep extra male.

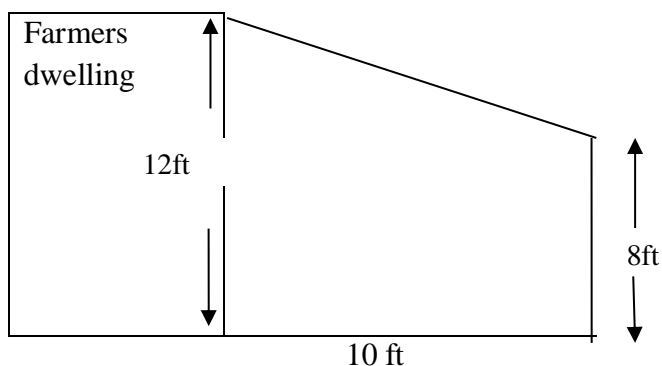
In organized farming system 80% of the females give birth to kids every year, so out of 25 female goats, 20 females will give offspring. Considering the twinning rate is 1.5 annually, 30 kids will be born per year. These kids are kept and reared till 9 to 12 months. Later they will be kept as parent stock or sold. There is no need of paddock, if they are sent for grazing outside day time. They will be sheltered in the covered area in night time.

For 50+3 goats

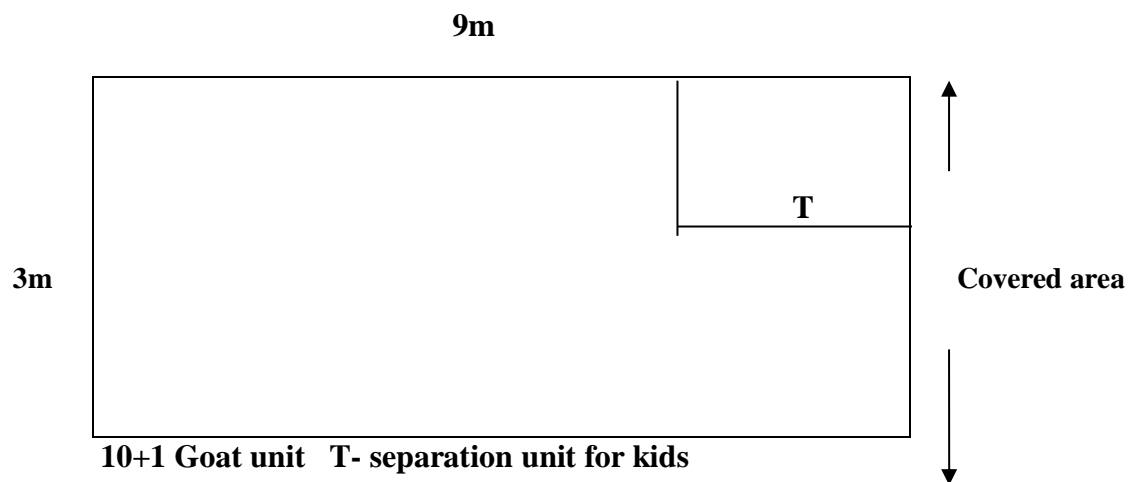
For 50 females 3 males are required. However, due to unforeseen reasons such as poor reproductive performance, it is better to keep five adult males. In an organized farming system 80% of the females give birth to kids every year, so out of 50 female goats, 40 females will give offspring. Considering the twinning rate is 1.5 per year, 60 kids will be born annually. In this half part, i.e. 30 will be females and thirty will be male kids. 10-20 % of replacement of the adults will be done in organized farm. Kids are reared till 9 to 12 months later they will be sold or kept as parent stock. There is no need of paddock, if they are sent for grazing outside day time. They will be sheltered in the covered area in night time.

Backyard housing

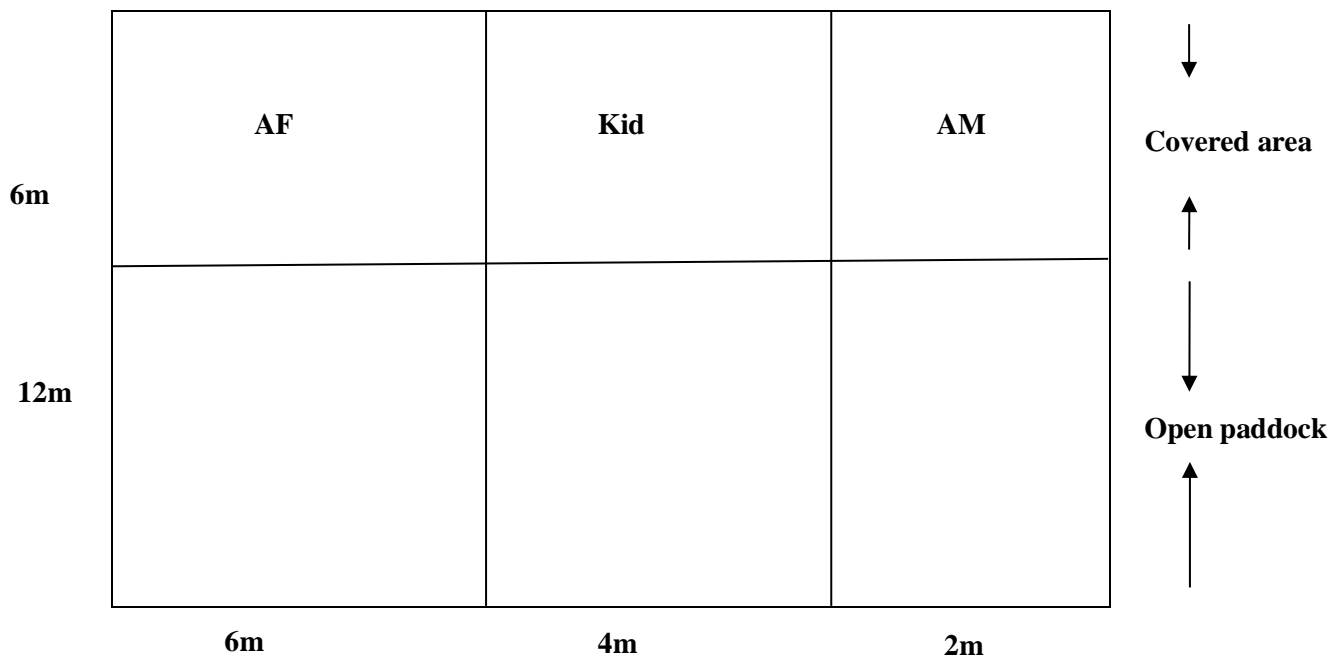
Thatched shed can be constructed using bamboo, areca nut and dry straw materials. It can be constructed attaching to the farmers dwelling. If this is not the case, goats can rear in the open paddock secured with wire fence.



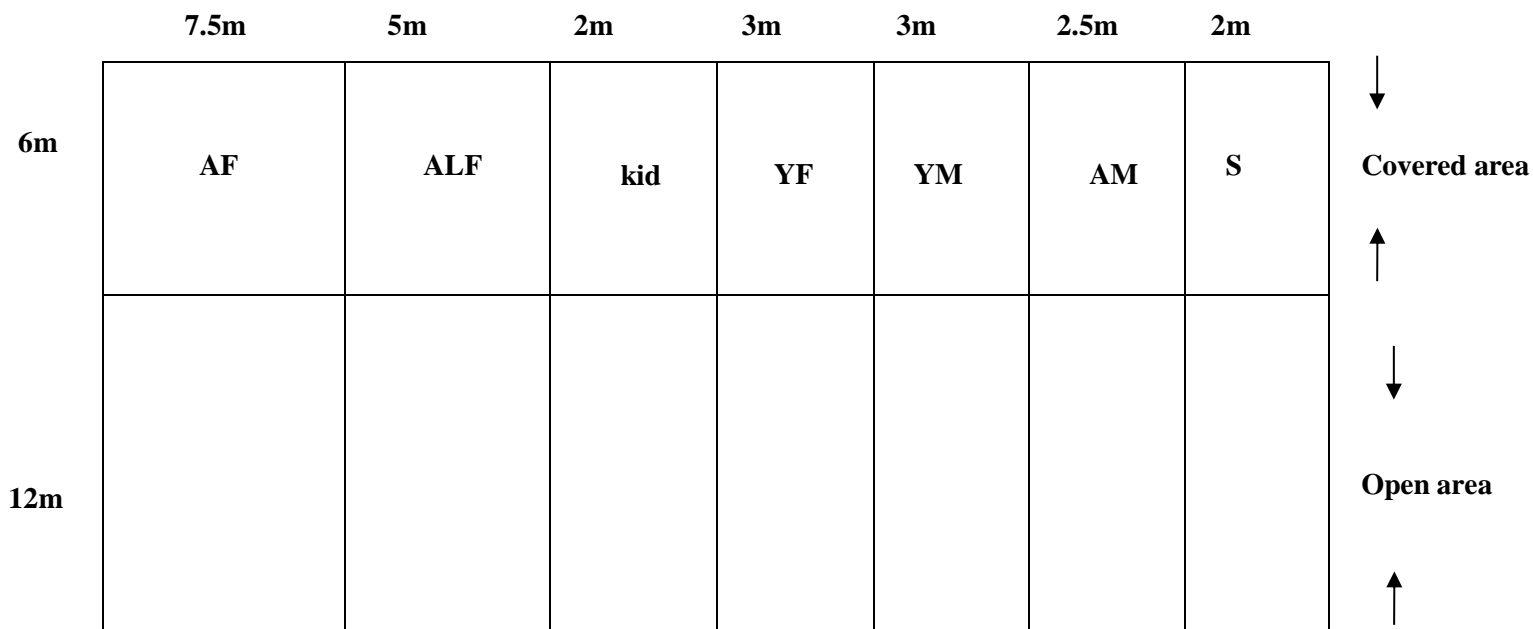
Lean to low type house (Ref: CIRG, Makhdoom)



(Ref: CIRG, Makhdoom)



Plan for 25+3 goat unit: AF is adult female, AM is adult male (Ref: CIRG, Makhdoom)



Plan for 50+3 goat unit: AF- Adult female, ALF –Adult lactating female, young female
 YM-Young male and AM- adult male and S-store room (Ref: CIRG, Makhdoom)

Goat/ Sheep housing in village



Courtesy; Mr. Shrimanth S Bane, Raibag, Belgaum

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