



PADMABHUSHAN VASANTRAODADA PATIL MAHAVIDY
KAVATHE MAHANKAL DIST.-SANGLI

DEPARTMENT OF ZOOLOGY

FIELD-WORK

(Academic Year- 2023-24)

PADMABHUSHAN VASANTRAODADA PATIL MAHAVIDYALAYA
KAVATHE MAHANKAL DIST.-SANGLI

DEPARTMENT OF ZOOLOGY
FIELD-WORK
(Academic Year- 2023-24)

TITLE

STUDY OF GOAT FARM

PLACE

PUNYASHLOK AHILYADEVI HOLKAR SHEEP AND
GOAT FARM RANJANI

Date

3rd November, 2023

7.30 am to 05 pm



Department of Zoology
P. V. P. Mahavidyalaya,
Kavathe Mahankal
Date- 01/11/2023

To,
The Principal,
P. V. P. Mahavidyalaya Kavathe Mahankal.

Subject:- Regarding permission for Field visit of B.Sc. III — Zoology

Sir,

As mentioned above subject the department of zoology P. V. P. Mahavidyalaya Kavathe Mahankal organized Field visit for B.Sc. III Students at Punyashlok Ahilyadevi Holkar sheep and goat farm Ranjani To study the Principles of Goat farming on 03.11.2023. Said Field visit is for creating interest among students about the applied zoology. Therefore grant the permission for the same.

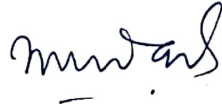
Thanking you,

Yours sincerely



Head
Department of Zoology
P.V.P. Mahavidyalaya
Kavathe Mahankal Dist. Sangli

Permission granted,



To,

The Principal,

Padmbhushan Vasatraodada Patil Mahavidyalay

Kavathe Mahankal, Dist-Sangli.

Subject: Permission Letter regarding Field-Work

Respected Sir,

With reference to your letter regarding organizing a field-work by Department of Zoology, Padmabhushan Vasatraodada Patil Mahavidyalaya, Kavathe Mahankal At our Punyashlok Ahilyadevi Holkar Sheep and Goat farm Ranjani. I agree and granted permission for field-work as on 03/11/2024 at 11.00 am. Regards

SsPali

प्रक्षेत्र व्यवस्थापक

पुण्यश्लोक अहिल्यादेवी भेंडी व शेळी विकास
प्रक्षेत्र राजणी.ता.कवठेमहानकाळ.जि.सांगली.

To,

The Principal,

PadmbhushanVasatraodada Patil Mahavidyalay

Kavathe Mahankal, Dist-Sangli.

Field-Work Completion Certificate

This is to certify that, a field-work organized by Department of Zoology, PadmabhushanVasatraodada Patil Mahavidyalaya, Kavathe Mahankal At our Punyashlok Ahilyadevi Holkar Sheep and Goat farm Ranjani. is completed satisfactorily. In this Field-Work 01Teacher and 15 Students were participated..

S. S. Patil
प्रक्षेत्र व्यवस्थापक
पुण्यश्लोक अहिल्यादेवी भेंडी व शेळी बिकारा
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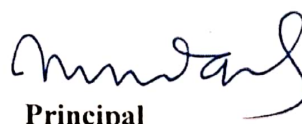
Shikshan Prasarak Sanstha's
Padmabhushan Vasantraodada Patil Mahavidyalaya, Kavathe Mahankal.

DEPARTMENT OF ZOOLOGY

B.Sc. III Academic Year (2023-24)
Report on Field Visit at Punayshlok Ahilyadevi Sheep and Goat Farm Ranjani

Title	Field Visit at Punayshlok Ahilyadevi Sheep and Goat Farm Ranjani
Date	03 November, 2023
Organizer	Department of Zoology, P.V.P. Mahavidyalaya Kavathe Mahankal
Coordinator	Prof. (Dr). Suvarna Balkrishna More
Background	Now a days, students have to get knowledge applied techniques like Goat farming and the related techniques. So this field visit is intended.
Objective	1. To acquired students with some basic concepts of the goat farming. 2. To aware students about the Economic importance of goat farming. 3. To know the techniques of Artificial insemination and synchronization. 4. To know the Techniques related with Goat farming.
Outcomes	1. Students acquired basic knowledge about Goat farming, their breeds and their management. 2. To develop adequate knowledge of scientific work and scientific ability to develop Goat farm. 3. To create awareness among the peoples about the natural resources and environment. 4. It helps to increase the economic growth of the community.
Conclusion	The field visit creates interest in students for preparation of a goat farm and application of the techniques related with goat farming. The Goat farming has very crucial importance for producing milk, meat and also for the wool. Thus, this field visit is fruitful and motivational for participated students.


Head
Department of Zoology
Head
Department of Zoology
P.V.P. Mahavidyalaya,
Kavathe Mahankal, Dist.-Sangli.


Principal
PRINCIPAL,
Padmabhushan Vasantraodada Patil
Mahavidyalaya, K. Mahankal, Dist-Sangli

Objectives

1. The major constraints of goat farming are listed below: Lack of sufficient knowledge about goat farming effectively. People are not using modern farming methods in goat rearing business.
2. Absence of specially-designed vehicles which are very useful for transporting live goats from one place to another.
3. Beginners without any practical goat rearing training faces high mortality rate in goats due to some fatal goat diseases like PPR, pneumonia, diarrhea, tetanus etc. As they lose money during first time, they don't want to start rearing goats again.
4. Goat producers can't choose the right breed for production due to lack of knowledge resulting low production and interest in goat farming.
5. Non-availability of all vaccines (especially PPR) and veterinary doctor throughout the country.
6. In some regions of India, the producers don't get proper price for their farm products, which discourage them in large production.
7. Many farm women don't have the ability to buy sufficient number (50-100) of goats for starting the business due to lack of capital. A farm of 50-100 goats can certainly generate a handsome income.

INTRODUCTION!-

The Ahilyadevi Holkar Goat and Sheep farming is located 15 km. away from Kavathe Mahankal. The area of this farm is about 715.40 hectares. This farm is situated in the East area of Ranjani village. The minimum temperature is about 25°C and maximum temperature about 38°C. This area constitutes seven percolating tanks, nine fresh water wells, twenty-one nallas, there are three boer wells, which are sufficient water for goat and sheep farming. Because of this favorable condition different kinds of goat and sheep are there. We studied Madgyal sheep and Osmanabadi Goats for meat and milk purpose.

There are separate compartments for ill goats, for young ones, for male and females. Also we studied different types of foods including azola, jawar, bajara, corn, elephant grass and Malabari plants, very interesting thing we studied are preparation of carpets, blankets and chatai by using wool of sheep. All these are prepared for the charkha. The number of goats and sheep is 1500 to 2000.

Goat farming involves the raising and breeding of domestic goats (*Capra aegagrus hircus*) as a branch of animal husbandry. People farm goats principally for their meat, milk, fiber and skins. The Boer goat, a widely-farmed meat-breed. Goat farming can be very suited to production alongside other livestock (such as sheep and cattle) on low-quality grazing land. Goats efficiently convert sub-quality grazing matter that is less desirable for other livestock into quality lean meat. Furthermore, goats can be farmed with a relatively small area of pasture and with limited resources. Goat farming is the raising and breeding of domestic goats. It is a branch of animal husbandry. Goats are raised principally for their meat, milk, fiber, and skin. Goat farming can be very suited to production with other livestock such as sheep and cattle on low-quality grazing land. Goats efficiently convert sub-quality grazing matter that is less desirable for other livestock into quality lean meat. Furthermore, goats can be farmed with a relatively small area of pasture and limited resources. Goat farming can be useful even in areas with less vegetation since there are pasture lands with less vegetation and goats usually do not consume much. Three-quarters of the global population eats goat meat.

SCOPE OF IMPROVED GOAT FARMING IN INDIA

Goats are widely distributed and are of great importance as a major source of livelihood of the small farmer and the landless in rural communities. Their productivity in this system is low and there is ample opportunity for improvement. Several large and progressive farmers have adopted commercial farming which helps in increasing the productivity of goats and bridging the demand-supply gap. However, use of improved technologies, particularly prophylaxis, superior

germplasm, low cost feeds and fodder and innovative marketing of the produce would be the prerequisites for successful commercial production. Since goats are very well adapted to harsh environmental conditions, livestock management portfolio can be diversified to decrease their risk in case of adverse climatic conditions. The investment risk in goat farming is their much shorter reproduction cycle that gives them the capability to rebuild population numbers much faster than cattle after any kind of reversal

During the initial phase of the goat farming, high mortality due to PPR, diarrhea. Pneumonia, tetanus, etc. is a major concern of the farmers due to lack of knowledge. About package of practices of improved goat farming, poor prophylaxis. Non-availability of vaccines, etc., poor preparedness of the farmers, lack of personal attention of the entrepreneurs and poor access to veterinary doctor with experience of small ruminants. The trade of live animals which is unorganized and is in the hands of a large number of middlemen, traders and butchers, does not favour farmers. The live animals were sold not on the basis of their body weight in the livestock markets resulting in under-estimation of the value of live animals. The availability of institutional credit was relatively easy for large projects, but was another constraint for the small entrepreneurs with projects of 50-100 goats and had limited capital for collateral security. Age at first parturition, parturition interval, litter size and mortality determine lifetime production as well as efficiency of production. All of these effects are clearly related to nutrition, health and management.

Lack of improvement in their productivity is often attributed to the lack of skilled labour. Most of the labour is provided by the family. The person responsible for the day-to-day care varies widely depending on cultural factors, the number of animals, the production system (extensive or intensive) and other reasons. The role of women in goat farming varies depending on the country, region, ethnic groups, etc. In many places, women not only take care of the animals but also own and market them. As production systems become more sophisticated, management skill is considered as one of the most serious constraints in achieving higher production. For starting and maintaining a profitable and successful goat farming through entrepreneurship mode, strategic planning to mitigate the following constraints should be provided.

Goats are sensitive animals with peculiar feeding habits. By the means of their mobile upper lips and very prehensile tongue, goats are able to graze on very short grass and browse on foliage not normally eaten by other domestic livestock. Unlike sheep, goats relish eating aromatic plants in areas of scarce food supply and hence can penetrate deep into deserts. They are fastidious about cleanliness and like frequent change in the feed. Double sided portable hay rack Feeds given

must be clean and fresh, since goats eat nothing that is dirty or foul-smelling. They dislike wet, stale or trampled fodder. For this reason, it is advisable to feed them in hay-racks or hang the feed in bundles from a peg in the wall or from a branch of a tree. Double-sided portable hay-racks are the most suitable and convenient for stall feeding. It is preferable to serve them small quantities at a time; they waste a lot of it by trampling if offered more.

Goats are very fond of leguminous fodders. They do not relish fodder like sorghum/maize silage or straw. Goats do not relish hay prepared from forest grasses, even if cut in early stages, but very much relish hay prepared from leguminous crops. Some of the common green roughages liked by goats are: lucerne, berseem, napier grass, green arhar, cowpea, soybean, cabbage and cauliflower leaves, shaftal, senji, methi, shrubs and weeds of different kinds; and leaves of trees such as babul, Feeding of dry fodder in feeder neem, ber, tamarind and pipal. The common dry fodders liked by goats are straws of arhar, urid, mung, gram, dry leaves of trees, and lucerne/berseem hays.

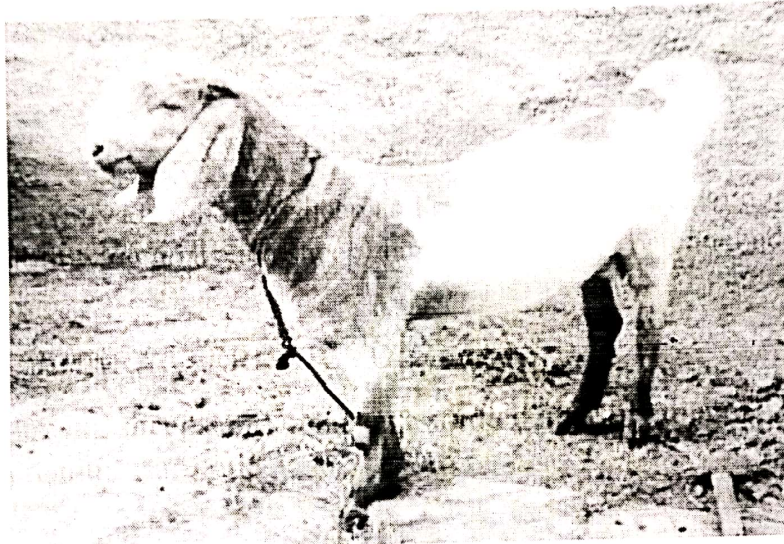
INFORMATION COLLECTED FROM FIELD VISIT:-

At Ahilyadevi holkar sheep and goat farm and surrounding are students studies following goats and sheep. Jamnapari, beetal, osmanabadi, Konkan kanyal, madgyal.

BREED CHARACTERISTICS OF GOATS

The following sheeps and Goats are studied at Ahilyadevi Holkar Goat and Sheep farming Ranjani:

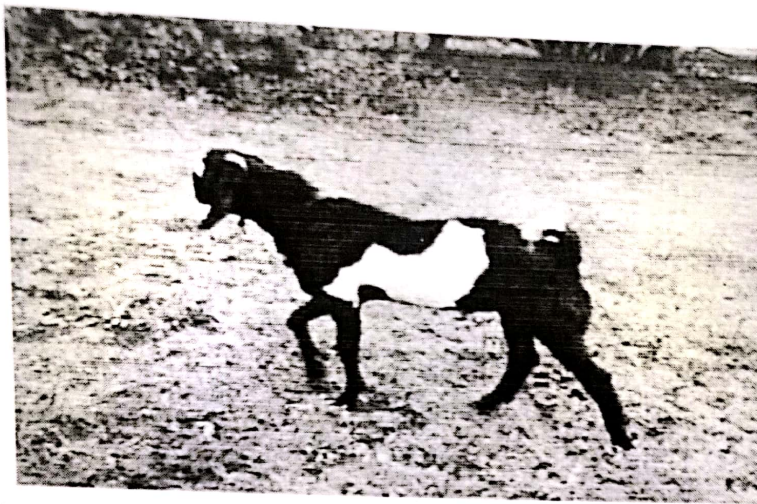
1) Jamnapari:



Characters:

1. Native: Uttar Pradesh and gives 2-3 lit milk per day.
2. Coat colour is white with brown.
3. Males and females have horns, the length of the horn is 30 cm.
4. Ears are long, flattened and elongated down, the length of the ears is 30 cm.
5. A convex head with hair on it, the nose looks like a parrot's beak.
6. The tail is short and thin. Breast is big and round in shape.
7. Weight: adult male-45 Kg, adult female: 38 kg.
8. Height: adult male: 78Cm, adult female- 75 cm.
9. Chest circumference adult male 80 cm, adult female 76cm.
10. The age of first kidding is 660 days.
11. The interval between two periods is 300 days.
12. The amount of giving a kid 56.2 %. The rate of given twins 43.1 %.
13. Lactation period 170 days. Body weight for meat production :
14. Birth weight 3.3 kg, 3 month weight 12 kg, 6 month weight 18 kg, 9 month weight 24 kg, 12 month weight 30 kg.

2) Beetal



Characters:

1. Native: Panjab.Milk &meat type breed.
2. Coat color: predominantly black or brown with white spot.
3. Ears are long, flat, curved and erect. Ear length is 24.8 cm.
4. Medium sized horns are found in males and females. The horns are curved back. The length of the horn is 11.95cm.
5. The tail is short and thin.Breast is big and have cone-shaped.Birth age: 3kg.
6. Weight: adult male- 59 Kg, adult female: 35 kg.
7. Body length adult male 86 kg and adult female 70 kg.
8. Height: adult male: 92 Cm, adult female- 77 cm.
9. Chest circumference adult male 86 cm, adult female 74cm.
10. The interval between two periods is 357 days.The age of first kidding is 559 days.The amount of giving a kid 40.66 %.
11. The rate of given twins 52.6 %.The rate of given three.chicks 6.52 %.
12. Lactation period 187 days.Milk production 177.38 kg.
13. First kidding age- 559 days.Body weight for meat production :
Birth weight 3 kg, 3 month weight 9 kg, 6 month weight 12 kg,9 month weight 15 kg, 12 month weight 22 kg.

3) Osmanabadi



Characters:

1. Coat colour is predominantly black, white,brown and spotted.
2. Long and short-haired type withlong hair on thighs and hind quarters.
3. Tall and large size body and legs.
4. Weight: adult male- 34 Kg, adult female: 32 kg.
5. Body length adult male 69 kg and adult female 67 kg.
6. Height: adult male: 78 Cm, adult female- 75 cm.

7. Chest circumference adult male 72 cm, adult female 72 cm.
8. The interval between two periods is 240 days.
9. The age of first kidding is 390-420 days. The rate of given twins 40 %.
10. The rate of given three chicks 10 %. Lactation period 90-150 days.
11. Milk production 0.5-1.5 kg. First kidding age- 559 days.
12. Average birth weight is 2 kg. Body weight for meat production :
Birth weight 2 kg, 3 month weight 7 kg, 6 month weight 11 kg,
9 month weight 15 kg.

3) Madgyal Sheep



Characters:

1. The sheep is sturdy and large in body size.
2. The colour is predominantly white with brown patches on body.
3. The ram and ewes are polled, have Roman nose (parrot mouth) and ears are long and drooped. Neck longer than other breeds.
4. Tail of Madgyal sheep was found short and curved.
5. The overall average weight of a Madgyal sheep at birth is 3.0 to 3.5 kg.
6. Age of first period 210 to 320 days.
7. The interval between two periods is 210 to 270 days.
8. The distance between two periods 17 to 22 days.
9. The age of first kidding is 390 to 510 days.
10. The rate of given twins 1 to 2 %. Milk lactation 400 to 1200 per days.
11. Lactation period 90 to 150 days
12. The adult female weights 50 kg and the ram or male 57 kg.
13. Body length adult male 87 kg and adult female 82 kg.
14. Height: adult male: 88 Cm, adult female- 83 cm.
15. Chest circumference adult male 92 cm, adult female 88 cm.
16. Wool weight in kg. –reproduction kg – male 3 to 5, female 2 to 5
3 month kg – male 19 to 32, female 16 to 32

6 month kg – male 30 to 49, female 20 to 48
1 year kg – male 44 to 60, female 30 to 51

Diseases of Goats and Control Measures

We also observed sheep and goats affected by many disease. The proper treatment given by veterinary doctor experts. The disease Awareness and their control methods are required for successful goat farming. In many cases, intensive goat farming leads to spreading of many diseases which results high mortality. If goat farmers are not aware of common goat diseases and their prevention, there may be a chance of getting losses in goat farming business. Hence, it's very important to identify the symptoms and apply preventive care. The followings are types of diseases found in most of the goat breeds in India.

A) Bacterial Diseases

1. Mastitis 2. Enterotoxaemia 3. Pneumonia 4. Brucellosis
5. Anthrax 6. Haemorrhagic Septicemia 7. Foot Rot 8. Tetanus

B) Viral Diseases

1. Goat Pox 2. PPR-Paste Des Petits Ruminants 3. FMD-Foot and Mouth Disease, 4. Contagious ecthyma 5. Blue tongue

C) Endo-Parasitic Diseases

1. Tape worm 2. Round worm 3. Round worm

D) Coccidiosis: Fluke infection

E) Ecto-Parasitic Infestation: Lice and Tick

F) Other General Problems in Goats

1. Bloat 2. Indigestion 3. Pregnancy Disease

Prevention and control of diseases

Proper scheduled vaccination is must to prevent this type of diseases to overcome the mortality rate in goats. The does not vaccinated with PPR, goat pox, brucellosis vaccines previously should be vaccinated at the 5th month of gestation. Kids should be vaccinated with PPR vaccine at 5 months of age.

Vaccination Schedule for Goats

Diseases	Vaccine	Dose	Immunity	Primary vaccination (Age)	Regular vaccination
PPR	PPR	1 ml S/C	3 year	3 months & above	Once in 3 years
Foot & mouth Polyvalent disease (F.M.D.)		3 ml S/C	1 year	4 months & above	Twice in a year
Anthrax	Anthrax spore vaccine	3 ml S/C	1 year	4 months & above	Once Annually (May-June) (in affected area only)
Enterotoxaemia	ET vaccine	5 ml S/C	1 year	4 months	Before monsoon (Preferably in May), Booster vaccination after 15 days of 1st vaccination
Haemorrhagic Septicemia(H.S)	HS vaccine	2.5 ml	1 year	6 months & above	Once Annually (before monsoon)
Black Quarter (BQ)	BQ vaccine	2.5 ml	1 year	6 months & above	Once Annually (before monsoon)
Goat Pox	Pox vaccine	1 ml	1 year	3 months & above	Once Annually (Dec. month)
C.C.P.P	IVRI vaccine	0.2 ml S/C	1 year	3 months & above	Once Annually (Jan, month)
Rabies	Rabies post bite vaccine	1 ml S/C	1 year	-	0,3,7,14,28, 90 days

HOUSING MANAGEMENT OF GOAT

Housing instinct is widely prevalent in the animal kingdom and goats are no exception. The site having great source of fresh and clean water supply, availability of all types of equipment, easily available food source, fertile field for crop, grasses and other green plant production should be selected for housing of goat. House should be neat, clean, dry with proper ventilation and drainage system inside facilitated with good transportation and veterinary service along with proper marketing facility Goats do not thrive on marshy or swampy ground. Goats should be provided with a dry, comfortable, safe and secure place, free from worms and affording protection from excessive heat and inclement weather. A market near the farm land is also required to sell products easily and buy necessary commodities.

Type of shed -

- 1) Mud floor shed 2) Deep litter shed 3) Elevated floor shed 4) Concrete house

Normally goat do not require elaborate housing facility, but minimum provisions for protection against inclement weather conditions (sun, rain, winds) should be facilitated. Shed could be built along the wall of the house. Protection with gunny bags thatched material and bamboos may be temporarily provided. The roof should be made of asbestos sheet supported by tubular or angular steel. The wooden rafters and thatching material could also be used

Orientation of shed

1. A Sheds with long axis running East-West provide a cooler environment underneath than the one with a North-South orientation.
2. The latter keeps the shed dry and promotes sanitation
3. Inside the shed for longer period) though this orientation may impose a greater stress on the animals, if left inside the shed during daytime in hot and climate. A North-East to South-West orientation is expected to give maximum comfort in hot arid environment.

Ventilation

The efficiency of ventilation is greatly affected by the summer and winter directions of the prevailing wind at any place. During the winter in temperate zone, the sides may be closed but cross ventilation space is left at the roof height.

Height and shape of roof

The height at centre in 'A' shaped roof is suggested to vary from 3 to 3.5 m. A height of less than 3m interferes with proper ventilation resulting in reduced convective heat loss from animals. The heat loss through radiation from goats to cool sky is curtailed in low roof sheds. 'A' shaped roof is better for hot climatic regions because one side of 'A' shaped roof saves the other half from direct solar radiation by casting its shadow. It helps in cutting down heat gain from the roof of the shelter. Double roof with both roofs of same or different materials are effective in reducing the heat.

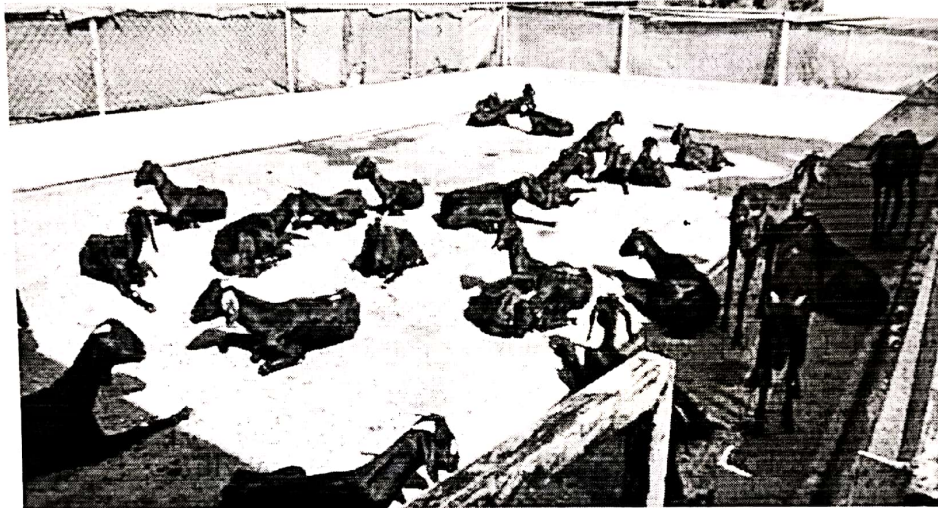
Floor type and space- Animal lies on the floor may potentially be a source of thermal and physical discomfort, injury, and infectious diseases. Ideal bed needs to be hygienic, dry, resilient and reasonably temperature resistant. Deep, clean, dry straw can provide an ideal bed for weaners and growers during cold but a thin layer of straw is more suitable during warm weather.

House space requirement

In accordance with increasing the body size and weight of goats, goats require more space. A house of 1.8 meter x 1.8 meter x 2.5 meter (5.5 ft x 5.5 ft x 8.5 ft) is suitable enough for housing 10 small goats. The nursing and pregnant goats should

be kept separately. However, every goat needs their required space for proper growing and better production.

Type of animals	Minimum floor space per animal (m')
Adult goat	0.75 X 4.5 X 4.8
Billy goat	2.4 X 1.8
Goat kid	0.3 X 0.3



Doe shed

1. Shed should be 15m x 4m x 3 m to accommodate 60 does used for breeding
2. Stalls for keeping milking does may be arranged in two rows with a passage in between them.
3. The dimensions of each stall meant to keep a single milking doe may be 1.2 m wide and 1.4m long.
4. Partitions separating one stall from the other should be there.
5. Racks for hay and greens may be provided in the shed



Kidding shed

1. It is the shed used as maternity room for does. Individual spacious pens are essential to house does in late pregnancy.

2. Movable hurdles can also be used for preparing kidding pens. Individual kidding pens are contaminated very quickly, and need frequent
3. cleaning and disinfection otherwise they may constitute an important source of naval infection to kids
4. The pens for kidding should be at the warmest part of the goat house complex if the kidding is expected in cool weather.
5. The protection of kids from low temperature is essential to reduce the kidmortality.
6. Dimension of 1.5 x 12 x 3.0 m high along with a manger for holding feed andhay and a bucket for keeping water should be provided.

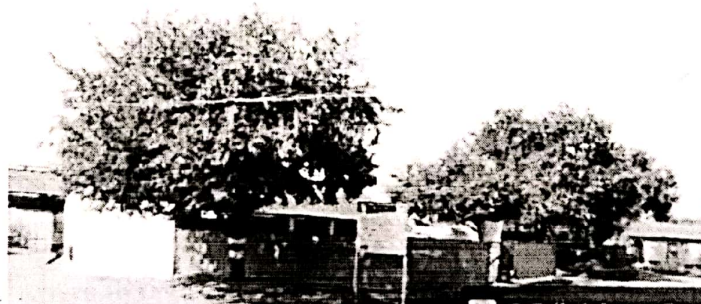
Kid shed

1. A shed with a dimension of 7.5m x 4mx 3m high can accommodate 75 kids.
2. Shed should be partitioned breadth wise dividing into 2 compartments. The compartment having dimension of 5m x 4m x 3m high should be used to keep the unweaned animals and other compartment with dimension of 2.5x4m should be used for keeping the weaned animals



Sick animal shed

1. Sick animal shed with a dimension of 3 x 2 x 3m high is suitable for segregating ailing and diseased animal.

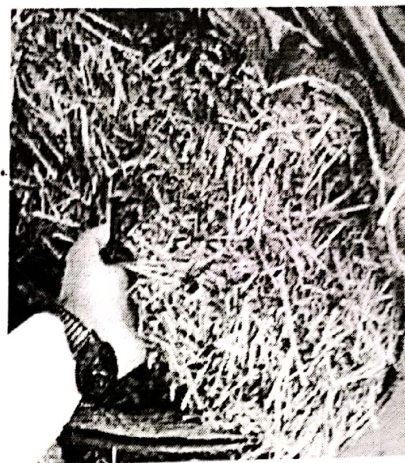


Shearing room /Store room

1. This may consist of two compartments with a dividing wall. One room may be exclusively for storing the wool and shearing equipment, and the other for keeping the feed and medicine. The room may be with a dimension of 6m x 3.5m x3m situated in the front side.

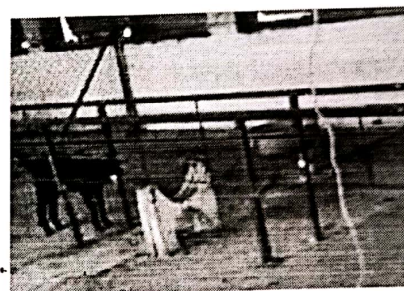
Essential appliances required in goat house

Feeders: The contamination of feed wastage and with faeces and urine are the major problem in existing feeders. The rectangular and hexagonal feeder has been developed with provision of feeding green roughages, straws as well as concentrates. For goats it is better to feed the stall fed animals above ground level. Feed racks can be used for this purpose, which can also minimize the feed wastage also.



Water troughs:

Contaminated water is major source of infection. Water tanks or troughs should be covered and need regular cleaning. Water troughs of 3-4cm in length per goat, when raised in groups are sufficient. Water tanks with flat valves may be suitable for large-scale intensive goat production.



Type of animals	Space per animal (cm)	Width of manger/ water trough (cm)	Depth of manger/water trough (cm)	Height of inner wall of manger/water trough(cm)
Adult goat	40-50	50	30	35
Kid	30-35	50	20	25

Construction details of Goat shed

Walls: The walls may be of brick in cement mortar up to 1.2 m in height and the rest of the portion shall be covered with wire-netting supported by angle irons of size 5x5x6 cm section or wooden posts of suitable section. The walls of the stalls adjoining the passage shall be 1.5m high and they shall be of brick in cement mortar.

Roof: The roof may be of lean to type, gabled type and it may be made of plain or corrugated asbestos cement sheets or galvanized steel sheets or aluminum sheets and where the rainfall is not heavy it may be of thatch.

Partitions: The partitions separating one stall from the other may be either simple wooden plank, galvanized steel or asbestos sheets. The partition shall be at least 15 cm above the floor level. Ideal low cost sheds of raised bed platform for hygienic housing

The nutrients are divided into maintenance, production and pregnancy requirement. As goats have a higher metabolic rate than cattle, their maintenance requirements are higher

OUTCOME

During two visits we studied five types of goats and sheeps at Aihlyadevi Holkar farm Ranjani. At study area the goats and sheeps are under the observation of veterinary exports. Dr. Dhadas and Dr. Patil gave us very nice information about the goat and sheep breeding, there feeding, veterinary care and also artificial insemination. Nutrition is generally regarded as a significant regulator of optimum production and reproduction performance. Goat is not able to digest the cell walls of plants as the retention time of feed in is less. Trees and shrubs, poor quality roughage sources for cattle are considered as high in quality for goats because goats avoid eating the stems, ignoring the taste, ability to detoxify tannins. In general, goats are reared in three different systems like extensive, semi-intensive and intensive.

In Extensive System of feeding the Goats are generally allowed for grazing in the entire pasture for the whole season. It is not conducive to making the best use of the whole grasses. So rotational grazing method is preferably practiced. In Semi-intensive System Goats are allowed to graze on the common property resources or cultivable/fallow land for 8-12 hour/day and then supplemented with concentrates through provision of stall feeding, shelter at night under shed and 3 to 5 hour daily grazing and browsing on pasture and range. In this method the feed cost is increased. Goats require nutrients for body maintenance, growth, reproduction, pregnancy, and production of products such as meat, milk and hair. Water, energy, protein, minerals and vitamins are major nutrients and the nutrient requirement varies on various stages of development and production. Energy comes primarily from carbohydrates (sugars, starch and fiber) and fats in the diet. Crude protein is the most important nutrient in view of nutrition and cost. Goats require many minerals for basic body function and optimum production. Both vitamin E and Selenium function as anti-oxidants, the requirement of either one being partially met by the other. Kids are feed with Colostrum, the first milk produced after birth contains a high content of immunoglobulins (antibodies), vitamin A, mineral, fat

etc. Feeding of colostrum serves as laxative aid in the excretion of the muconium lining of the digestive tract, provides an excellent energy source for the newborn, protect the newborn goat until its own immune system begins functioning about 3 weeks of age through immunoglobulins.

Before building house for goats, following points need to be attended

1. Select a dry and higher place to keep the goats safe from flood.
2. Keep the floor of the house dry always.
3. Always ensure the huge follow of light and air inside the house
4. Make house in suitable for controlling temperature and moisture.
5. Always keep the house free from damp as it is responsible for various diseases.
6. Make the wall of the house with concrete or by using bamboo poles.
7. House must be strong and comfortable. Keep enough space inside the house for taking rest. House must have the facilities of cleaning well regularly.
8. Goats are affected easily by cold and water Extra care is required in rainy and winter season to prevent from pneumonia.
9. Sheds require seasonal spraying to protect the flock from ectoparasites and disinfection particularly prior to kidding.
10. Replace earthen floors in every 3 months besides disinfection with carbolic acid to protect from snakes and reptiles.
11. Annual white washing with lime prior to winter are suggested. Painting of sheds is recommended prior to monsoon
12. Application of thatch panels to control the excessive airflow during summer and winter through the sheds in the hot-arid environment is expected to improve the shed microclimate.

The goats and sheep's for is now day to young generation to earn money. It play role in side business also and income. The goats for milk and wool are very beneficial. Produce milk dairy goats give copious amounts of milk, usually more than a family can use. It can be used to make goat cheese, goat yogurt, and a variety of other dairy products. Use them as pack animals. Their herds can be useful to clear lands. Goats can be trained to carry your gear on hikes, and are especially suited to steep and rocky paths. They can easily carry 20 to 30 percent of their body weight, and they have a minimal environmental impact.



Head
Department of Zoology
P.V.P. Mahavidyalaya,
Kavathe Mahalkal, Dist.-Sangli.

SHIKSHAN PRASARAK SANSTHA'S
PADMABHUSHAN VASANTRAODADA PATIL MAHAVIDYALAYA, KAVATHE
MAHANKAL
DEPARTMENT OF ZOOLOGY

LIST OF STUDENTS ENROLLED FOR FIELD WORK

(Academic Year-2023-24)

**PLACE: PUNYASHLOK AHILYADEVI HOLKAR SHEEP
AND GOAT FARM RANJANI**

DATE: 3rd NOVEMBER, 2023

Sr. No.	Name of the Students	Class
1.	Bhushan Rajendra Chavan	B. SC. III
2.	Ashwini Shivaji Shirke	B. SC. III
3.	Shridhar mohan kambale	B. SC. III
4.	Rohan Rajesh kambale	B. SC. III
5.	Pratibha Mohan Phakade	B. SC. III
6.	Sagar Sambhaji Bansode	B. SC. III
7.	Vishwajeet Santosh Mane	B. SC. III
8.	Sanika Kailas Salunkhe	B. SC. III
9.	Sandhyarani Amol Bhosale	B. SC. III
10.	Pornima Sanjay Jadhav	B. SC. III
11.	Rutuja Anil Mane	B. SC. III
12.	Rupali Ramchandra Kharade	B. SC. III
13.	Anisha Anil Kshirsager	B. SC. III
14.	Sanika Sanjay Bhosale	B. SC. III
15.	Rutuja Ashok Patil	B. SC. III

Photos:-



