Popular Article

Health Care and Management Practices for Profitable Goat Farming

Vijay D. Domple^{1*}, Lalit Kumar Saini¹, Sirsat Shraddha D¹, Subhash S. Raut², Amit Kumar³

¹Department of Veterinary Physiology and Biochemistry, Apollo College of Veterinary Medicine, Jaipur, Rajasthan, India.

> ²Department of Livestock Products Technology, Apollo College of Veterinary Medicine, Jaipur, Rajasthan, India.
> ³Department of Veterinary Physiology, DUVASU, Mathura, U.P., India.

*Corresponding author: Vijay D. Domple, Email: vijaydomple@gmail.com

Introduction

Goat farming is one of the growing businesses all over the world because of the huge demand for its tasty meat. Now goat farming doesn't remain goat farming it became an enterprise. The goat is an important source of meat, milk, skin, fiber, manure and its milk also has all nutritional properties. As a result, it is a profitable business if doing in the right way..

Importance of the Goat Farming

Less risk in livestock farming compared to other livestock species. It needed a low initial investment and less housing requirement. Some important attributes of goat production are small body size, docile nature, high prolificacy, survives on low-grade ration and small gestation period, No religious restriction slaughter and against goat consumption. Normally the milk of goat is easy to digest because of the small size of fat globules and non-allergic. Goat meat is naturally lean, meaning it is much lower in saturated fat and cholesterol, having a

naturally higher HDL count (good cholesterol) and a naturally low LDL count (bad cholesterol). It is also lower in calories than other meats. Goat meat is hearthealthy because it contains less saturated fat and more unsaturated fats, which helps lower bad cholesterol and reduce the risk of cardiovascular disease and relatively good for health.

Advantages of Goat farming

Most of the countries goat meat is widely consumed locally and may be export. It is costlier than chicken, fish and beef. Most importantly it has a huge demand in the market every time. Therefore, it is all-time money for the farmer and can be sold easily. Goat is a very good converter of poor roughages into high-value output i.e. meat, milk and fiber. The best-suited animal to varied climatic conditions. Goat starts production in 10 to 12 month of age its and small gestation period is five months normally give two kids. It also contributes to crop production and farm fertility through the return of manure and urine. Especially in European markets the goatskin is a very valuable product with high added value.

Methods of Goat farming

- Extensive management system: Firstly in this method goats go for grazing outside the area every day. Normally 80% of rural farmers using this method and making a profit. Because of urban area development, this method is getting short day by day.
- Semi-intensive management system: In this method goat left open for grazing 4 to 5 hours every day. Hence, remaining time goat lives in farm and fed green and dry fodder.
- Intensive management system or stall feeding method: It is the commercial goat farming method and intensive management system also known as the stall feeding system. In this method goats live in a particular area and not go for grazing, particularly all green, dry and concentration fodder are arranged in the shed and basically, a short walking area in the farm also arranged for goat.

Goat Housing Importance

Firstly goat requires shelter/housing for protection from inclement weather such as rains, excessive heat during summer and cold during winter in addition to protecting from predator attack. Goat housing plays an important role in goat farming. Therefore, start with minimal housing requirements and as the farm grows in size, after that add the sheds according to requirements. Housing needs of a goat are minimal as compare to dairy animals consequently run area should be double the width of the covered area mainly depends on farm size. The orientation of the long axis of the shed should always be in East-West direction in

the plain region and it also depends mainly on region to region.

Breeds of Goat

As per 2012 livestock census, as a result, there are 13.53 crores of goats reared by farmers and majority of which are local or mixed types. Normally there are number of recognized breeds of goats available in different regions which are given below. In addition, the farmers can improve the productivity of the local goats by using the quality breeding bucks of these goat breeds based on their location and agroclimatic zone rather than introducing new breed from a different region.

List of Indian Goat breeds

State	Goats breeds	
	available	
Gujarat	Gohilawadi,	
	Mehsana, Kutchi,	
	Surti, Zalawadi, Sojat.	
Maharashtra	Osmanabadi,	
	Sangamneri, Berari	
Rajasthan	Sirohi, Marwari,	
	Jakhrana	
Uttar Pradesh	Jamunapari, Barbari	
Tamil Nadu	Kanniadu, Kodiadu,	
	Salem Black	
Punjab	Beetal	
Kerala	Malabari, Attapady	
	Black	
Odisha	Ganjam	
West Bengal,	Black Bengal	
Bihar, Jharkhand		
Uttarakhand	Pantja	
Himachal Pradesh	Chegu, Gaddi	
Jammu &	Changathangi, Chegu	
Kashmir		
Nagaland	Sumi-ne	
Goa	Konkan Kanyal	

Goat Feed

Quality feed to the goats always gives quality milk and meat. Normally 50 to 60 % of the total cost spent on the goat feed it is one of the most important factors of commercial goat farming. Therefore, the health of goat totally depends on its feed. Goats eat green fodder (plants), dry fodder and mainly concentration fodder (dana) etc. In stall feeding farm the fodder should be given according to the bodyweight of the goat or in other words, 10 % of the body weight per day. For Example, if your goat weight is 50 kg than they need 5 kg (Green, Dry and concentration fodder) in the whole day.

Concentration Feed

Concentration feed is the mixture of wheat, maize, rice bran, and soy cake or any cake, mineral mixture and salt, etc. however, the quantity of goat feed given according to age are as follows:

3-6 month	100-250 gm
6-9 month	250-350 gm
9-12 month	250-400 gm

Green Fodder

Sorghum (jowar), bajra (pearl millet), moringa, azola, subabool, lucerne (alfa alfa), hedge lucerne, maize grass, cowpea, berseem, napier grass (elephant grass), guinea, anjan grass (beffel grass), dinanath grass, marvel grass, sewan grass, guar (cluster bean), methi grass (fenugreek) & tree leaves etc..

Vaccination Program in Goat Farming

Goats are susceptible to a number of infectious diseases and which cause huge economic loss to the goat farming community. Off course Timely vaccination reduces mortality and morbidity in goats leading to the increased production and reproduction performance of goats. Vaccination has an important role to play in the responsible use of antibiotics on animal farms.

Vaccination Schedule

Name	Primary		Repeat
of	Vaccination		Vaccination
disease	Primary	Booster	
	Dose	Dose	
Hemorr	At 3	3-4	Once in a
hagic	months	weeks	year
Septice	age	after 1st	
mia		dose	
(HS)			
Foot &	At 3	3-4	Once in six
Mouth	months	weeks	months
Disease	age	after 1st	
(FMD)		dose	
Enteroto	At 3	3-4	Once in a
xaemia	months	weeks	year (2 dose
(ET)	age	after 1st	with 1
		dose	month
			interval)
Goat	At 3	3-4	Once in a
Pox	months	weeks	year
(GP)	age	after 1st	
		dose	41.
Peste-	At 3	Not	At 4 th Year
des-	months	require	
petits	age	d	
ruminan			
ts (PPR)			

Basic Care and Management for Goats

1. Up to 3 months of age: The animal from day 1 of birth to 30 day should always be fed with mother goat milk only. Especially the quantity of mother goat milk should be 10% of the body weight of the kid. For

example, if the born kid weight is 5 kg then it should be fed with 500ml of mother milk in 4 times a day (125 ml in one time). Particularly note that if fed 500 ml in time then there are chances of diarrhea. The animal from day 30 to day 90 the food content should be soft green and dry fodder and grains (grain in powder form) and milk. Similarly, the quantity of a mixture of all these should be 10 % of the body weight. Usually the animal above 90 days, the food composition should be green fodder, dry fodder and concentration feed (grains) according to the weight of goat.

2. Above 3 months of age: Above 3 months age kids separate male and female in the shed. Normally the shed area should be clean and dry everyday usually add Neem leaves in fodder because it has nutrition content and antibacterial properties. Change the soil in the shed twice in a year and spread the limestone powder in every month is equally important. The drinking water should always be clean every day and available every time. The age of breeding buck should be normally 1.5 to 2 years for good productivity. Similarly, keep proper care and management of the pregnant goats and always keep them away from other goats. Always give extra 400 to 500 gm concentration feed (grains) to the pregnant goats.

Deworming of Goats

Actually, deworming is necessary for goats to prevent the infections caused by the endoparasites. Parasites contribute to the poor growth and unfitness in the goats. General preventive measure for internal parasites in goats includes proper management of waste disposal, dry and

well-ventilated shelter, Removal of the soil in the sheds at the interval of 6 months. The dose of the drug should be accurate Fenbendazole is generally given 5 mg/kg; but in case of goats, it is given 10 mg/kg. Rotation of the drug should be done to prevent the emergence of the drug resistance. Always deworming should be done alternately with drugs of different classes and brands to prevent emergence of the resistant parasites. In case of organized goat farms, deworming in goats is done twice in a year: pre-rainy season and post-rainy season. In fact, it can be done at the age of three months.

Artificial Insemination in Goats

Artificial insemination is the technique involving semen collection from buck through the artificial vagina and transfer or deposit of semen through a gun into the reproductive tract of the doe. It is differ from natural mating. The technique is used to enhance the breed through fresh semen or commercially available frozen semen. This technique can also be used to convert non-breed into breed or improvement of the breed.

Advantages of Artificial Insemination in Goats

No need of keeping a large number of males on the farm, which reduces the cost of maintaining bucks. It helps in genetic improvement. The AI technique can be used to convert low quality indigenous breed into the high-quality breed. By injecting high-quality breed semen into a low-quality doe. It helps in maintaining records of breeding and the number of does can be breeding in one day. It reduces the risk of transferring disease and desired sex

can be produced through sperm sexing.

Importance of Marketing in Goat Farming Business

There is a huge demand for goat meat in India. During festive times like Holi, Bakrid, New Year or any sacrificial occasion. Consequently, the price of the animal gets very high, so try to sell the animal during this period. With this, in mind, India is Top goat meat exporter to the Gulf countries so there is no worry in the sale of the goats..

Some Basics Strategies of Marketing

In order to get maximum returns from goat farming, consequently selling goats and its products to middleman should be avoided at any cost. At any rate, the animal should be sold on the basis of body weight and probably not on the visual appraisal. Normally maximum profit can be obtained by selling the animal between 6-9 months of age in the small and medium-sized breed and 9-12 months of age in larger breeds.

- ➤ What to sell? : Live goat (meat goat or breeding goats),
- ➤ When to sell? : Eid, Dushara, Holi and Durga-Puja,
- ➤ Where to sell? : At farm or goat market.

Record Keeping in Goat Farming

Record keeping is one of the most important parts of goat farming. The record can be kept in the excel sheet or on the paper. If you are going to starting a big commercial goat farm than it needs the proper management of the farm. The record helps a goat farmer to keep stock and

manage all the aspects in the farm properly. Records, which should be kept, include: Mating records, Birth record, Deaths record, Sales record and Health record.

Conclusion

Goat rearing can be a profitable or successful venture thus the health aspects of goats are taken effectively. However, the major activities that should be applied are vaccination and deworming, secondly hygiene management, or weather shelter to protect from vagaries of climate and mainly clean drinking water, balanced feed and farm bio securities for effective health management.