

Goat Farming in India

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Abstract

Goats are also known as poor man's cow. They are multipurpose animal that provide meat, milk, hide, hair and manure for soil fertility. Goat farming plays an important role in improving the financial conditions of people in the rural parts of India. Goats are small and can be slaughtered in young age. Goats are capable of adopting varying agro-climatic regions. A total of 41 indigenous goat breeds has been registered by NBAGR, among which Barbari, Beetal, Jamunapari, Osmanabadi, Sirohi, Black Bengal and Ganjam are the most important breeds of goat. Feeding systems of goat are basically upon locally available resources. Vitamins, minerals and salts should be added in appropriate quantity in goat feeding and the most common feeding system in goat is extensive system which includes migratory, transhumance, free range, pasture and range management of goats. The housing system in goat should follow adequate floor spacing, ventilation and cleanliness along with longitudinal axis of east-west direction. An effective healthcare program based on hygiene, nutrition and routine vaccination for disease prevention, parasite control and biosecurity is important for improving goat's productivity. The breeding policy for goats in India emphasizes selective breeding within recognized breeds and crossbreeding with improver breeds to enhance productivity. This approach aims to improve milk, meat, and fibre yield while conserving valuable indigenous genetic resources.

Keywords: Breeds, Feeding, Goat farming, Healthcare, Housing

Introduction

Goat farming comprises significant component of the livestock sector in India, contributing to employment, economy and livelihood. Goat is well known as poor man's cow because rearing them raise the living standards of the rural people and moreover, they possess versatile habits. Goat is raised for milk, meat, hair and hide. India is a leading country in milk production and among all livestock, goat contribute largely to nation's milk output. Chevon meat is considered as nutritious and plays an important role in Indian meat industry (Tamboli et al., 2025). The domestication of goat was occurred approximately between 7000-9000 BC.

In commercial production goats are reared under intensive and semi-intensive method, while goats are reared under extensive system in rural productions. Goats can be raised on a limited amount of land because they require less care and maintenance compared to other farm animals. Goat farming can be carried out in combination with sheep and cow rearing and breeding (Aslam et al., 2023). In recent years, goat farming has gained popularity in the rural parts of the country along with the entrepreneurs seeking for the profitable ventures.

Indigenous Breeds of Goat

Indigenous goat breeds are essential for the livelihoods of many rural farmers, particularly in India. Farmers often appreciate goats for being adaptable, hardy, and their contribution to positive and reliable outputs of meat, milk and fiber. These indigenous breeds are adapted to local environmental conditions and an environment that consists of dry and harsh climates, poor-quality fodder, and minimal management. In India, some important indigenous goat breeds are Barbari, Beetal, Jamunapari, Osmanabadi, Sirohi, Black Bengal and Ganjam. Black Bengal goat is famous for its high-quality meat and skin, and are found in West Bengal. The Jamunapari, native to Uttar Pradesh and known for good milk yield and large sized body. These breeds provide livelihood benefits to smallholder farmers and preserve important genetic materials for future breeding programs (Rathore et al., 2009; Gupta et al., 2014). Conservation of indigenous breeds is important since they are reservoir of outstanding traits such as disease resistance and heat tolerance, which are increasingly important in the face of climate change and rising production costs. Promoting the importance of indigenous breeds means supporting biodiversity, enhancing rural economy and reducing dependency on exotic breeds that often require high input systems (FAO, 2007).

Table 1. Breeds of Indigenous Goat

Temperate Himalayan regions breeds	Dry northern region breeds	Central region breeds	Southern breeds	Eastern region breeds
Kashmiri	Jamunapari	Konkan Kanyal	Surti	Ganjam
Changthangi	Barbari	Sangamneri	Osmanabadi	Assam hill
Gaddi	Beetal	Teressa	Malawari	Black Bengal
Chegu	Berari		Kannaiodu	Sumi-Ne
Pashmina	Gohilwadi		Sangamneri	

Bhakarwali	Jakhrana		Attapady Black	
Pantja	Kahmi		Bidri	
Chaugarkha	Kutchi		Kanni Adu	
	Marwari		Kodi Adu	
	Mehsana		Malabari	
	Rohilkhandi		Nandidurga	
	Sirohi		Osmanabadi	
	Surti		Salem Black	
	Zalawadi			
	Bundelkhandi			

Source: ICAR-NBAGR, Karnal

Feeds and Feeding in Goat

Indigenous goat breeds are frequently kept by smallholder farms and pastoralists in rural systems based on locally available feed resources. They have an established resilience and metabolic efficiency for a range of low nutrient and fibrous feeds which are not suited for livestock consumption. These goats follow traditional feeding pattern i.e., natural grazing. Goats consume shrubs, grasses, tree and shrub leaves and agricultural waste products when grazing. Farmers secondary feeding practice is to offer crop residue (wheat straw, maize stover and groundnut haulms) to goats, especially when fresh green forage is limited particularly in the dry season. In some areas, small quantities of concentrate feed (oil seed cakes, grains and pulses) offer a supplement to encourage growth, milk yield and reproductive performance (Devendra & Burns, 1983). The indigenous goats' capacity to survive on low inputs makes them optimal for marginal lands where conventional feeding systems would not be practical. In addition, their digestive process is well adapted to optimally utilize fibrous materials, which contributes to their hardiness. Adequate feeding management, particularly supplementation during key periods such as pregnancy and lactating periods, can greatly support their productivity (Singh et al., 2011). The traditional feeding system for indigenous goats provides a sustainable livestock system by maximizing the use of local feed resources with minimum externally sourced inputs. The computed maintenance requirement is 0.09% of digestible crude protein (DCP) and contains 0.09% of total digestible nutrients (TDN). For 1 litre of milk produced at 3.0% fat, the nutrient requirements consist of DCP is 43 grams and starch equivalent is 200 grams and for 1 litre of milk produced at 4.5% fat, nutrient requirements consist of DCP is 60 grams and starch equivalent is 285 grams. The important mineral mixture

are calcium, phosphorus and magnesium. Vitamins A, D and E is required in goat feeding. The feeding system required goat is tethering, intensive, semi- intensive and extensive and moreover, the most common feeding system in India for goat rearing is extensive system (Aslam et al., 2023). Clean and ad libitum of water should be provided along with clean water troughs (Gaur et al., 2023).

Housing System in Goat

The housing system in livestock should be adequately planned and well-designed in order to protect them from adverse climatic conditions, disease transmission, stress and in turn to increase the production in animals.

The shelter should be away from low-lying and moisture free area to prevent health related issues. The orientation should be in east-west direction and proper drainage facility should be available in order to keep the shelter moist free. Adequate ventilation system should be provided to maintain high-quality air index and to avoid respiratory ailments in goats. The ideal temperature inside the shelter should be 28-30°C. It is recommended to provide 15-20 square feet of space per adult goat is recommended, on average. This spacing allows goats to move comfortably and reduce the risk of overcrowding. The designs of the shelter should provide separate section for different age groups like kids, does and bucks (Gaur et al., 2023).

Table 2. Floor Space Requirement in Goat as per BIS

Type of Animals	Minimum floor space per animal (sq.m)
Ram or buck in groups	1.8
Ram or buck – individual	3.2
Lambs or kids – in group	0.4
Weaner in groups	0.8
yearling or goatlings	0.9
Ewe or doe in groups	1.0
Ewe with lamb	1.5

Source: Tamboli et al., 2025

Healthcare in Goat

Effective health management is essential to maintain optimal productivity and longevity in goats. An all-inclusive health management program should include health

prevention, health assessment, diagnosis and treatment of disease, and biosecurity measures for optimal performance and well-being of the animals.

Disease like PPR, enterotoxaemia, hemorrhagic septicaemia, goat pox and FMD are commonly occurring disease in goat. Ectoparasites such as ticks, lice, and mites should be managed through regular spraying or dipping with recommended treatment and by keeping the bedding clean (Kumar & Deoghare, 2002). Strategic deworming and vaccination schedules should be followed against parasitic and infectious disease. Biosecurity measures like isolation of new and sick animals should be done before introducing into the flock along with proper disposal of carcass and farm waste. Dead animals should be disposed of adequately to limit the spread of infections. Hoof trimming should be done regularly to minimize lameness and foot rot in goats (Acharya, 2010).

Goat Breeding Policy in India

India has given importance to systematic genetic improvement of goat populations through institutional breeding policies which are designed to improve productivity and maintain the diversity of breeds. The National Livestock Policy and state-level breeding programs emphasize selective breeding, crossbreeding of non-descript populations, and conservation of indigenous breeds suited to certain agro-climatic zones.

Conclusion

Goat farming in India has great prospects for rural development, income generation and nutritional fulfilment. The variety of indigenous goat breeds, low input needs and adaptability to diverse climatic conditions offers a sustainable income opportunity. If breeding policies, healthcare, and marketing are improved, productivity can be enhanced for the benefit of farmers and the nation.

Non-descript females should be bred with high-genetic-merit bucks from recognized breeds to enhance both milk and meat production. Therefore, upgrading with suitable improver breeds of the region is advised. Selective breeding within recognized breeds is also encouraged. For meat improvement, crossbreeding with the Boer breed from South Africa has been successfully practiced in farmers' flocks in Maharashtra. Similarly, crossbreeding of the Changthangi breed in Jammu & Kashmir with exotic Russian breeds such as Orenburg is recommended for improving pashmina fibre production (Tomar, 2009).

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