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Traditional Management Practices Among Sheep Farmers in Udumalpet Region of Tamil Nadu

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ABSTRACT: Sheep farming is an integral component of rural livelihoods and often coexists synergistically with agricultural practices across various regions of Tamil Nadu. In particular, the Udumalpet–Gudimangalam region of Tiruppur district supports a resilient and well-established traditional sheep farming system, reflecting its deep-rooted cultural and economic significance. A total of 50 farmers across five villages were interviewed to collect the data regarding traditional practices followed by the farmers. The study revealed that 98 % practice sheep penning and predominantly use this practice to enhance soil fertility, and 92 % use lamb huts for neonatal care. Nearly 96 % of respondents prefer natural mating whereas 94 % of farmers use indigenous rams for mating and 96 % permit free-range grazing, reflecting a reliance on low-input, locally adapted methods. Ethnoveterinary treatments employing turmeric, neem, betel leaves, black pepper, and local fodder tree species are adopted by 82 % of farmers for managing ailments and injuries in sheep. Cultural beliefs like the use of (taweez) amulets by 24 % of respondents and 74 % harbor misconceptions about twinning, often avoiding twin-bearing ewes. Non-separation of ewes and lambs is practiced by 90 %, and 64 % interpret sheep behavior (restlessness, clustering) as cues for impending rainfall or storms. Based on the results, it is found that the farmers still hold a significant belief in traditional management practices which are area specific to enable better management of sheep farming.

Keywords: Sheep farming, lamb, Penning, Traditional Practices, Ethno-Veterinary Practice.

INTRODUCTION

The Udumalpet region of Tamil Nadu is known for its long-standing tradition of sheep farming activities for their livelihood. Farmers of this region possess a repository of indigenous traditional knowledge and practical skills attuned to their local environmental conditions. These traditional practices encompass a wide array of activities, including sheep penning to enhance natural soil fertility, the construction of lamb huts for neonatal care, ethno-veterinary treatments using locally available medicinal plants, and the interpretation of animal behavior as indicators of impending climatic changes. Devaki *et al.* (2021) also recorded that the above practices are adopted and followed by farmers of various parts of Tamil Nadu. Additionally, farmers in this region exhibit a strong preference for natural mating, indigenous rams, and free-range grazing, which reflects their emphasis on adaptability, resilience, and low-cost farming systems (Suresh *et al.,* 2008). Despite the increasing penetration of modern agricultural technologies, these practices play a vital role in sustaining the rural livelihood and ecological balance. The persistence of these traditions not only demonstrates their practical value but also highlights the cultural significance of livestock rearing in the region. This study aims to systematically document, analyze, and evaluate the traditional sheep farming practices of the Udumalpet region and highlight their relevance to sustainable agriculture, climate adaptation, and rural development.

METHODOLOGY

The study was conducted in the Udumalpet and Gudimangalam regions of Tiruppur district of Tamil Nadu. The region was selected due to a dense sheep population coexisting with coconut farming. Accordingly, a total of 50 sheep farmers from each of the five villages from Udumalpet block and Gudimangalam block of Tiruppur district were selected through a random sampling technique. The data were analyzed as per the conventional statistical tools such as mean, SD and percentage.

RESULTS AND DISCUSSION

Sheep penning. Sheep penning is a longstanding and widely practiced tradition among farmers in the Udumalpet region. This method involves sheltering

sheep in agricultural fields during the night, with the penning location rotated each morning to ensure optimal utilization of the entire field. The urine and manure produced by the sheep significantly enhance soil fertility, creating a natural and sustainable fertilization process and these finding was in agreement with (Manivannan *et al.,* 2018). This practice not only generates revenue for sheep farmers but also provides coconut farmers with valuable organic manure, fostering a mutually beneficial relationship known locally as Kidai Adaithal (Devaki *et al.,* 2021). Similar sheep penning practices have been documented across various regions of Tamil Nadu and Andhra Pradesh. Notably, there is a growing demand for sheep penning in the harvested rice fields of the Cauvery Delta region, where it is employed to enrich the soil further.

Table 1: The indigenous knowledge of sheep farmers in traditional.

Sr. No.	Traditional Practices	No. of Farmers (n =50)	Percentage
1.	Sheep penning	49	98
2.	Lamb huts	46	92
3.	Ethno veterinary practice / traditional knowledge in treatment	41	82
4.	Misbelief in twinning	37	74
5.	Tying of taweez around neck	12	24
6.	Non separation of ewes and lambs	45	90
7.	Preference for indigenous rams for breeding	47	94
8.	Preference for natural mating	48	96
9.	Preference for grazing than stall fed	48	96
10.	Forecasting of rain and other climatic events	32	64

Lamb Huts. Lamb huts are specially designed structures that provide essential protection for new born lambs during their early weeks of life, typically housing them for a minimum period of two weeks. They are constructed from locally sourced materials, such as Palmyra tree fronds and bamboo (Nandhini *et al.,* 2018). These huts not only ensure the well-being of the lambs but also promote sustainable practices within the community.

Misbelief in twinning. In general, ewes typically give birth to a single lamb during the lambing process. Twinning, however, is a phenomenon observed in only a select few sheep breeds. Within this farming community, there is a prevailing belief that twinning is associated with misfortune. These findings are in agreement with (Venkataramanan *et al.,* 2017). As a result, farmers often choose to sell or cull ewes that produce twins. This unscientific approach not only undermines the potential benefits of twinning but also leads to significant economic losses for the farmers.

Taweez around the neck. Approximately 24% of sheep farmers engage in the practice of tying taweez around the necks of their animals. They believe that this amulet serves as a protective measure against the evil eye and various diseases (Devaki *et al.,* 2021). This tradition is commonly observed among sheep farmers, reflecting a blend of cultural beliefs and agricultural practices.

Preference for natural mating. Farmers in this region predominantly prefer natural mating practices. Rams are permitted to graze alongside ewes, facilitating natural breeding. Notably, 96% of respondents believe that conception rates are superior with natural mating. Additionally, factors such as the ease of oestrus detection when rams are present and the limited availability of artificial insemination for small ruminants in field conditions further contribute to the farmers' preference for natural mating methods.

Preference for indigenous rams than exotic breeds. Around 94% farmers of this region prefer indigenous rams for mating as they withstand climatic variation and have higher disease resistance compared to exotic breeds. Moreover, indigenous rams being hardy and drought-tolerant have ability to thrive over limited resources, making it suitable for areas with limited water resource.

Preference for grazing. About 96% of farmers of this region allow their animals for grazing. All sheep farmers informed that barren and agricultural lands were used for grazing. In addition, Korangadu pattern of grazing was also followed by the farmers of this region (Devendran *et al.,* 2010).

Ethno veterinary practice/traditional method of treatment. The utilization of traditional knowledge for the treatment of ailments, wounds, and various diseases is a prevalent practice among 82% of farmers in this region. Commonly employed remedies include turmeric (*Curcuma longa*), neem oil (*Azadirachta indica*), betel leaves (Piper betle), and black pepper (*Piper nigrum*), which are frequently used for wound management (Karnaraja *et al.,* 2022), alleviating bloat, and deworming livestock. Furthermore, minor bone fractures are addressed using virali leaves (Dodonaea viscosa) and arali leaves (Nerium oleander) (Meena *et al.,* 2020). In these cases, a bamboo stick (Bambusa arundinacea) is securely tied to the affected bone for a duration of two weeks, allowing the animal to heal effectively. This integration of traditional practices underscores the deep-rooted knowledge and resourcefulness of local farmers in managing animal health.

Non separation of ewes and lambs. 80% of the respondents lack conviction towards weaning practices. New born lambs up to one month of age are kept in separate areas except for feeding. Subsequently, the lambs and ewes are permitted to graze together. These

findings are in agreement with (Usha *et al.*, 2022) Notably, a significant number of farmers in this region continue to provide unlimited access to colostrum for their lambs.

Forecasting of rain and other climatic events. Certain breeds of sheep are traditionally believed to sense climatic events earlier than humans. Similarly, farmers in this region report that sheep often migrate to different areas before rainfall. According to this study, 64% of farmers often interprets behaviors such as restlessness or gathering in a specific location prior to storms or rain. These signs are often interpreted by local communities as natural indicators of impending weather changes. Such observations have been passed down through generations, forming an integral part of traditional weather forecasting practices. Manivannan *et al.* (2018) also recorded the same findings in their study. Although not scientifically proven, these behaviors continue to hold significance for many farmers, influencing their decisions regarding crop protection and livestock management.

CONCLUSIONS

The traditional livestock management practices observed among sheep farmers in this region play a critical role in promoting agricultural sustainability and enhancing soil fertility, particularly through techniques such as sheep penning. Furthermore, the reliance on plant-based ethno-veterinary remedies represents a promising alternative approach to conventional animal healthcare. However, prevailing misconceptions such as those related to twinning and the use of amulets (taweez) necessitate targeted awareness programmes. Institutional support through policy frameworks, farmer education, and capacity-building initiatives is essential to optimize productivity and foster ecological resilience in semi-arid farming systems.

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