

Comparative Study on constraints of Kenguri Sheep Farming both in Intensive and Extensive Rearing Systems in Yadgir District of Karnataka

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ABSTRACT: The Kenguri sheep farmers constraints were analysed by using closed ended schedule through focused group discussion in their respective study area that is Yadgir district, Karnataka state, by selecting total of 20 each intensive and extensive farms based on availability. The mean analysis of constraints in intensive system having shortage of technical manpower as the major constraint ranked first (1.94 ± 0.06) followed by exploitation by middlemen (1.86 ± 0.09), shortage of labours (1.74 ± 0.12) and the remaining constraints were ranked subsequently. Likewise, the mean analysis of constraints in extensive system having scarcity of feed and fodder as the major constraint ranked first (1.92 ± 0.08) followed by shortage of technical manpower (1.84 ± 0.07), unregulated market price (1.78 ± 0.13) and the remaining constraints were ranked subsequently. Compared to farmers engaged in intensive sheep rearing, those engaged in extensive sheep rearing faced significant constraints in terms of sheep production, as poverty is the major factor between two rearing systems.

Keywords: Farmers Constraints, Kenguri sheep, Sheep rearing, Intensive rearing system, Extensive rearing system.

INTRODUCTION

As sheep rearing has become integral part of poor farmers life style, where it is fetching the basic needs of farmers' livelihood. There is huge demand for mutton due to globalization of its nutritive values and for the fulfilment of the demand, it becomes essential to improve the mutton quality of sheep (Kulkarni *et al.*, 2008). The total meat production in India is 9.77 million tonnes and ranked 8th to the world. The per capita availability of meat is 7.10 kg/annum. Meat production has been increased by 5.13% compared to previous year census (BAHS, 2023). The total sheep population of India is 74.26 million during the livestock census 2019 as India ranked third in the world. Total sheep population has increased by 14.13% over previous livestock census (BAHS, 2023). As per the recent report 2020, the total population of Kenguri sheep in southern parts of India that is Karnataka (majorly in Raichur, Koppal, Yadgir districts) is 6.7 lakhs (Gowane *et al.*, 2020).

According to Appannavar *et al.* (2010), the Kenguri is a popular native breed of mutton that is located to northeastern Karnataka state's districts of Raichur, Koppal, and Yadgir. The majority of Kenguri sheep in the district are raised in an extensive rearing system. It is common for places with little precipitation to have

vast rearing. The livestock are raised in a vast, additive-free system of pastures and open fields.

The major constraints in sheep production in Karnataka are a lack of grazing land, disease severity, middlemen, lack of water for drinking and cleaning, inadequate veterinary services, lack of marketing strategies, threat of wild animals and lack of credit support according to Shiva Kumara *et al.* (2017). The key problems, according to Rao *et al.* (2008) include a lack of awareness and accessibility of veterinary service providers, unethical veterinary practices by quacks, exploitation by middlemen or butchers due to cooperative failure and Shepherds' backwardness.

Disease outbreaks, a lack of veterinary care, a lack of housing, improper lamb care, predator threats, abortions due to stress, theft and restrictions on the entry of animals into migratory paths are among the key restraints noted by Suresh *et al.* (2008); Kathivaran *et al.* (2012); Rao *et al.* (2011) during migration.

In line with these observations, Umunna *et al.* (2014) asserted that shortage of forages was the first limiting factor, as reported by 89% of sheep and goat producers in Nigeria's urban areas. In their research on the constraints of sheep production in Ethiopia, Gobena and Tona (2017) stated that diseases and parasitism were the most serious problems, followed by a shortage of feed and fodder, a lack of water, a lack of enhanced technology inputs, and a lack of extension services. In

line with these findings, Getie *et al.* (2017) indicated that feed scarcity was a major issue in Ethiopian sheep production, followed by grazing land shrinkage and reduction in productivity and drought.

MATERIALS AND METHODS

The major constraints of Kenguri sheep farming faced by farmers of selected study area that is Yadgir district of Karnataka were analyzed by selecting 20 each intensive and extensive sheep farms during the year 2021. The average flock size of intensive farms ranging from 25 to 500 and that of extensive farms ranging from 35 to 300. The constraints of Kenguri sheep farmers were analysed by using closed ended schedule through focused group discussion (Channappagouda, 2019).

All the sheep farms were visited by pre-informing the farmers through tele-communication. To avoid the heat stress and to have normal behavioural activities among the sheep the farms were visited mostly during the cooler parts of the day.

Statistical analysis. All the results were derived from the statistical tests/tools such as Mean (average), standard deviation/error by using SPSS version 16.0 software developed by International Business Machines (IBM).

RESULTS AND DISCUSSION

A. Constraints of intensive sheep farms

From the table, it was observed that, the mean analysis of constraints in intensive system having shortage of technical manpower as the major constraint ranked first (1.94 ± 0.06) followed by exploitation by middlemen (1.86 ± 0.09), shortage of labours (1.74 ± 0.12), unregulated market price (1.66 ± 0.16), scarcity of feed and fodder (1.52 ± 0.13), shrinking grazing land (1.46 ± 0.12), poor market infrastructure and unorganized markets (1.30 ± 0.09), non-availability of quality

breeding animals (1.26 ± 0.06), lack of institutional mechanism for market information (1.19 ± 0.12), lack of interest among farmers in capacity building activities (1.16 ± 0.09), insufficient and improper distribution of medicines to institutions (1.12 ± 0.13), lack of diagnostic facilities (1.09 ± 0.09), least priority given to sheep credit by banks (1.06 ± 0.06), poor coverage of sheep under insurance (1.04 ± 0.04) and natural calamities/loss due to theft/wild animal attack (1.00 ± 0.00) ranked in descending order.

B. Constraints of extensive sheep farms

The Table 1 results revealed that, the mean analysis of constraints in extensive system having scarcity of feed and fodder as the major constraint ranked first (1.92 ± 0.08) followed by shortage of technical manpower (1.84 ± 0.07), unregulated market price (1.78 ± 0.13), exploitation by middlemen (1.60 ± 0.14), non-availability of quality breeding animals (1.52 ± 0.14), shortage of labours (1.40 ± 0.10), poor market infrastructure and unorganized markets (1.32 ± 0.09), shrinking grazing land (1.20 ± 0.11), lack of interest among farmers in capacity building activities (1.10 ± 0.08), lack of institutional mechanism for market information (1.08 ± 0.07), insufficient and improper distribution of medicines to institutions (1.06 ± 0.06), lack of diagnostic facilities (1.04 ± 0.04), poor coverage of sheep under insurance (1.02 ± 0.02), natural calamities/loss due to theft/wild animal attack (1.00 ± 0.00) and least priority given to sheep credit by banks (0.93 ± 0.15) having descending ranks.

The results of present study revealed that, there was shortage of supply of feed and fodder and also lack of proper technical inputs were the major constraints in both the systems of sheep farming. These results were in agreement with the outcomes of Thilakar and Krishnaraj (2010); Suresh *et al.* (2008); Kathivaran *et al.* (2012).

Table 1: Sheep rearing constraints analysis- Assessment as per farmers' perception.

Sr. No.	Constraints	Intensive (n=20)	Intensive ranking	Extensive (n=20)	Extensive ranking
1.	Shrinking grazing land	1.46 ± 0.12	VI	1.20 ± 0.11	VIII
2.	Scarcity of feed and fodder and mortality due to disease outbreak	1.52 ± 0.13	V	1.92 ± 0.08	I
3.	Non availability of quality breeding animals	1.26 ± 0.06	VIII	1.52 ± 0.14	V
4.	Shortage of labour	1.74 ± 0.12	III	1.40 ± 0.10	VI
5.	Natural calamities/ loss due to theft/wild animal attack	1.00 ± 0.00	XV	1.00 ± 0.00	XIV
6.	Lack of interest among farmers in capacity building activities	1.19 ± 0.09	X	1.10 ± 0.08	IX
7.	Unregulated market price	1.66 ± 0.16	IV	1.78 ± 0.13	III
8.	Exploitation by the middlemen	1.86 ± 0.09	II	1.60 ± 0.14	IV
9.	Poor market infrastructure and unorganized markets	1.30 ± 0.09	VII	1.32 ± 0.09	VII
10.	Lack of institutional mechanism for market information	1.19 ± 0.12	IX	1.08 ± 0.07	X
11.	Shortage of technical manpower	1.94 ± 0.06	I	1.84 ± 0.07	II
12.	Poor coverage of sheep under insurance	1.04 ± 0.04	XIV	1.02 ± 0.02	XIII
13.	Insufficient and improper distribution of medicines to institutions	1.12 ± 0.13	XI	1.06 ± 0.06	XI
14.	Lack of diagnostic facilities	1.09 ± 0.09	XII	1.04 ± 0.04	XII
15.	Least priority given to sheep credit by banks	1.06 ± 0.06	XIII	0.93 ± 0.15	XV

CONCLUSIONS

The farmers involved in extensive sheep rearing, faced major sheep production constraints when compared to farmers involved in intensive sheep rearing. From the

current experiment it was found that, the farmers involved in intensive sheep production were able to meet the production requirements of animals to a greater extent, when compared to extensive system. As because, the marginally poor farmers can't afford

labour and additional input expenses, they opt for extensive sheep rearing in open grazing lands and in case of marginally rich farmers, they choose intensive/stall feeding sheep farms as they can afford the extra expenses. So, the constraints faced by sheep farmers is a matter of poverty in this experiment.

FUTURE SCOPE

The constraints analysis in the present study of Kenguri sheep farmers both in intensive and extensive rearing systems may be useful for betterment of managerial practices in sheep production, which will aid as a profitable venture for the farmers.

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Conflict of Interest. None.

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