

Research Paper

Goatary: A Gateway of Victory for Resource Deprived Farmers

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ABSTRACT

Within animal husbandry, goat farming plays an essential role in livelihood security and economic sustenance of rural people by providing regular employment and income generation throughout the year. Also, it providing security against risk in agriculture. The present study was conducted to the empowerment of schedule cast farmers through goat husbandry as an economic Venture for low-income families of faster body weight gain and higher milk-producing goat breed "*Sirohi*" under ICAR, New-Delhi sponsored SC-SP project for "Entrepreneurship and to strengthen their livelihood and economic improvement of Schedule cast youth" in the year 2019-2020, in Jodhpur district of western Rajasthan. Ten *Sirohi* goat units were demonstrated to each identified schedule cast respondent. Each unit comprised of ten females and one buck. The results revealed that the improved *Sirohi* goat has an immense production potential in arid regions under a traditional low input production system. The average expenditure and income on the rearing of animals were calculated at ₹ 26,576 and ₹ 60,174, respectively. The benefit-cost ratio was recorded at 1:2.26, which appears to be very much economical and viable. It is a profitable and economic venture for resource-poor families in livelihood and entrepreneurship.

HIGHLIGHTS

- ❶ Livestock farming has been recognized as an instrument of drought-proofing.
- ❷ Goat farming is the only alternative source of livelihood in the arid zone.
- ❸ Goat farming does meet not only the nutritional security but also an economic venture

Keywords: *Sirohi* goat, Entrepreneurship, Arid ecosystem, and Economics

Rajasthan had the highest goat population across India, at about 20.8 million in 2019. The goat population across the country grew by over ten percent between 2012 and 2019. Jodhpur district possesses 16.4 lakh goats and contributes 7.8% to the state goat population (Livestock Census, 2019). Among the small ruminants, goats are more widely distributed and contribute a significant source of supplementary income and family nutrition to resource-poor rural people (Kumar and Deoghare, 2003). A sizable rural population, especially the economically and socially backward classes, maintains goats on ecology where grazing material is virtually not available, degraded areas, and uncultivated wastelands in arid and semi-arid areas in Rajasthan (Lavania and Singh,

2008). The issue of poor adoption and diffusion of scientific practices must be effectively addressed at field condition. The adoption of scientific goat management practices is a unique phenomenon in all social systems. It is well recognized that the flow of innovative practices to the farmer community in the rural sector is neither rapid nor smooth (Mohan *et al.* 2009). Therefore, the present work was undertaken to analyze the economic viability of goat rearing under the traditional low input production system in the Jodhpur district of western

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Rajasthan. The socio-economic value of goat rearing compared to other livestock species is immense for poor farmers. The lower input, high fecundity, easy marketing, and unprejudiced social acceptance of their products are of few many advantages of this enterprise that provides assured higher income. Therefore, the present study was undertaken to analyze the economic viability of goat rearing under the traditional low input production system in the Jodhpur district of western Rajasthan.

MATERIALS AND METHODS

The locale of the study is characterized by scanty and erratic annual precipitation (100-400 mm), high evaporation rate (1500-2000 mm), high temperature, and poor fertility of the soil. In addition to this frequent drought, extreme events triggered by climatic change may pose a serious threat to the survival of living beings in arid regions (Patidar *et al.* 2014). College of Agriculture, Jodhpur has demonstrated Sirohi goat procured from Livestock Research Station (LRS), Chittodgarh, RAJUVA, Bikaner under ICAR, New-Delhi sponsored SC-SP project for Entrepreneurship and to strengthen their livelihood and economic improvement of Schedule cast youth through goat husbandry among in rural households of Keru village of Jodhpur District. The participants were trained on all aspects of goat husbandry farming, including animal Nutrition, Breeding, health, and Heading practices, before the distribution of 10 Sirohi goat units (Comprising 10

females and 1 male) to each selected schedule cast respondent. Close monitoring by regular field visits of a project staff member for technical backstopping. The performance of goats at the farmer's level was assessed by collecting data on the basis of body weight of kids at three months intervals, Milk yield at fortnightly, kidding percentage, mortality, and income from the sale of goats and their products. Heritability the genetic and phenotypic correlation for milk production traits were estimated through the paternal half-sib correlation method Robertson (1959).

RESULTS AND DISCUSSION

Sh. Prakash S/o Duda Ram is an educated non-metric SC Youth from Keru village of Jodhpur district of Western Rajasthan. He is a traditional farmer engaged in animal husbandry and also keeping some non-descript goats and could not succeed due to lack of scientific awareness towards the improved goat husbandry practices and low genetic quality animals. He has received 11 goats (10 females and 1 breeding male) of Sirohi breed and started a semi-intensive geometry unit with the technical help of project staff of the College of Agriculture, Jodhpur (Fig. 1&2).

He reported that the 23 kids were born in two successive kidding. He reared the kids under semi-intensive system supplemented them concentrate ration along with feed supplements according to their body weight, and followed prophylactic health

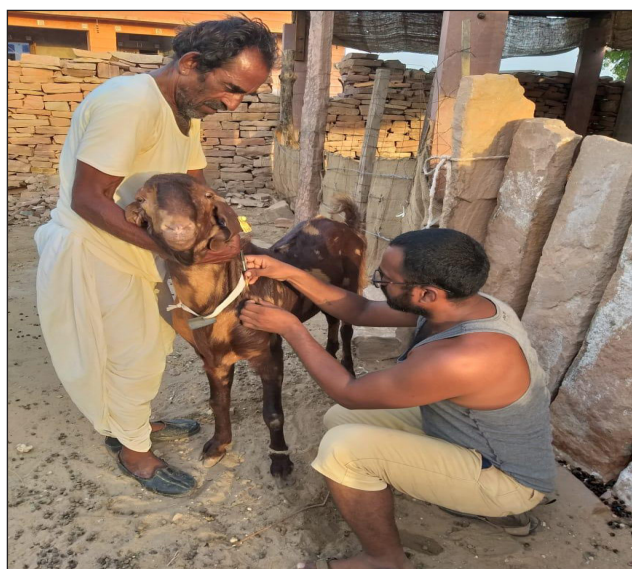


Fig. 1&2: Goat rearing management practices farmer house

measurement practices to curtail the mortality and morbidity among the animals. The performance of Sirohi goats was recorded on growth for different physiological stages, milk yield, and reproduction traits. The body weight at a different stage of growth 2.98 ± 0.31 kg at birth, 14.34 ± 1.68 kg at 90 days, 18.39 ± 0.45 kg at 180 days, 21.68 ± 0.59 kg at 270 days, 24.28 ± 0.68 kg at one-year-old. Male kids were heavier than female kids, and the sex ratio was nearly 50 percent. The average milk yield was 53.11 ± 16.18 kg for 30 days, 99.22 ± 21.81 kg for 60 days, and 110.58 ± 32.51 kg for 90 days of lactation. The reproductive performance of Sirohi goats 240.54 \pm 11.61 days kidding interval and 15 Percent of twinning. These findings are in accordance with Shinde and Khan (2002), Pathodiya (2003), and Kumar *et al.* (2014) for different reproductive and productive traits of goats.

Table 1: Economics of goat rearing under farmer's management system

Particulars	Cost/Returns involved (₹)
Expenditure	
Feed & fodder	2657.6
Imputed value of family labor	21260.8
Health & Prophylaxis	1328.8
Tool & Equipment	797.8
Unforeseen expenses	531.52
Total Cost	26576.0
Income	
After home consumption, Sale of milk @ ₹ 20/lit.	5500
Total kids born in year	23
Total male kids born	12
Total female kids born	11
Number of kids died	03
Number of female animals culled from foundation stock (05) and sold @ ₹ 4000/animal	20,000
Number of male kids sold @ ₹ 6000/- per animal	60,000
Income from sale of manure	1250
Total Gross income	86,750
Total Net Income	60,174
B:C Ratio	2.26:1

Source: Author's computation based on findings of the study.

According to him, the recurring cost *i.e.* cost of feed and feeding, the Imputed value of family labor,

tool and equipment, and medicines, and income from the sale of animals, manure, and milk, are presented in Table 1. The significant investment was found on family labor cost, which accounted alone 79.99 percent followed by Feed and feeding cost ten percent and veterinary medicines cost five percent of the total recurring cost. Goat provided an opportunity for efficient utilization of family labor (Kumar and Deoghare, 2003). The total expenditure on the rearing of goats was calculated ₹ 26,576. The total gross and net income earned was ₹ 86,750 and ₹ 60,174, respectively. The benefit-cost ratio was recorded at 2.26:1, which appears to be economical and viable. The income from goat rearing not only contributes to ensuring the food and nutrition security of the family but also provides crucial support to meet out the expenditure on treatment of sick in the family, studies of children, and social obligations. These findings are in line with the findings of Mishra *et al.* (2004), Kumar and Sagar (2005), Singh *et al.* (1995), Lavania (2006), and Sharma *et al.* (2009). Presently Sh. Prakash a champion farmer in the field of goat farming, and he becomes free launcher for advocating the importance of goat farming in the rural communities of adjoining areas. His activeness, Sincerity, hard-working nature contributed to his success in addition to technical guidance from the institute; with those, his qualities and timely technical advice, and properly timely implementation have transformed his life which he never thought. Moreover, the adoption of improved technologies and innovative marketing strategy has been considered the key drivers for small ruminants rearing (Tanwar and Rohilla, 2012). Pioneering efforts would go a long way in driving their sistren towards sustainable growth.

CONCLUSION

Based on the facts, it is concluded that goat farming has immense potential even in arid climatic conditions. Rural goat farming does not only meet the nutritional security but also an economic venture for resource-poor farm families in terms of livelihood and economic security and help check the people migration to urban/semi-urban areas. The Government is making concerted efforts to create an ecosystem to support their hard work so that the farmers get optimum returns on a sustainable basis. It would go a long way to encourage farmers

across India to follow the recommended practices and enhance their income. Thus, paving a way for sustainable livestock production to double farmers' income in the arid ecosystem.

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