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Study On Kid Rearing Practices Of Respondents Across Flock Size In North west Semi-arid Region Of Rajasthan, India

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ABSTRACT

A study on 120 goat rearers was conducted on kid rearing practices in north-west semi-arid region of Bikaner district of Rajasthan. For the study two tehsils Khajuwala and Pugal were selected and from each tehsil, four villages were selected randomly. Various kid rearing practices like Cleaning of kid after birth, Disinfection of naval cord. Colostrum feeding, Duration of kid suckling, Solid feeding after birth, Deworming, Control of external parasite, Housing of kids, isolation, Stage of grazing were studied but the flock size was not affected significantly by all above mentioned kid rearing practices however. It was found that maximum goat keepers at 65.83 percent were not aware about Cleaning of kids after birth and only 3.33 percent were well aware about disinfection of naval cord. Colostrum feeding to kid and suckling of kid for more than 3 month was practiced by 98.33 and 62.50 percent goat rearers, respectively. About 74.16 percent respondents were not aware about control of external parasites. Isolation of kids was not followed by 92.50 percent respondents.

INTRODUCTION

Small ruminants play a vital role for strengthening the backbone of rural prosperity in India and are yardstick of life for landless, marginal farmers and down trodden peasants. Goat rearing is a major occupation of majority of farmers in arid & semi-arid region of India and has become an integral part of their livelihood. It provides a dependable source of income to 40 percent of rural population below the poverty line in India.

The goat among the other livestock species possesses inherent characteristics to adjust under different climatic conditions. Due to capability of withstanding extreme drought conditions and ability to live on scare vegetation the goat population has increased leaps and bounds in spite of regular live animals marketing and transport for the purpose of slaughter to neighboring states. A systematic study on goat rearing practices is most warranted. This will not only put on records, the goat rearing practices in fields but will also give direction for improving the production of farmer's flocks. The information regarding goat management practices specially the kid rearing practices in fields are very scanty. By keeping in view the present study was planned.

MATERIALS AND METHODS

The study was conducted in northwest semi-arid region of Bikaner district of the Rajasthan Two tehsils from Bikaner district and four villages from each tehsil were randomly selected. The fifteen goat rearers from each of village selected, making a sample size of 120 goat rearers (60 from each tehsil) were surveyed for present investigation. The selection of goat rearers formed the ultimate unit of sample. A list of goat rearing families of the selected villages was prepared with the help of village Sarpanch and Patwari. Fifteen goat rearing families were interviewed from each village.

Thus, total 120 goat rearers formed the base of survey for present study. They were categorized in to three categories on the basis of flock size:

- Small holding (1-10 goats)
- Medium holding (11-50 goats)
- Large holding (Above 50 goats)

Five goat rearers were selected randomly from each holding. Total 120 goat rearers were selected from 8 villages of 2 tehsils of Bikaner districts of North-west semi-arid region of Rajasthan

An interview schedule was developed and pre-tested to collect relevant information on the different aspects of goat management practices. The observations were collected through personal interview techniques. The collected data were tabulated and analyzed to draw meaningful inferences.

RESULTS

The results pertaining to kid rearing practices are presented in **Table 1** which shows that cleaning of kid after birth was practiced by 34.16 percent and the flock size not affects the cleaning operation of kid after birth. (χ^2=0.07). however, 3.33 percent respondents were well aware about disinfection of naval cord but the effect of flock size on the practice of disinfection of naval cord was observed as non-significant (χ^2=0.51). The association between flock size and colostrum feeding to the newly born kid was observed as non-significant (χ^2=1.01). Almost all goat rearers at 98.33 percent were adopting this practice. Among the total goat rearers, all respondents of small flock holder were adopted colostrums feeding. The results are in conformity with that of Bagga [1], Malik and Sohal [2], Garg [3] and Gurjar [4].

The effect of flock size on solid feeding after birth was found to be non-significant ($\chi^2$1.2) the overall data revealed that maximum at 85.83 percent of goat rearers provided solid feed to their kid after birth above 30 days of age followed by 9.16 and 5.0 percent in between 15 to 30 days and within 15 days respectively. Among the medium flock size holders, maximum at 87.50 percent used to provide solid feeding to kids after 30 days of birth whereas, minimum at 2.50 percent goat rearers provide solid feed within 15 days. Data revealed that 36.36 percent of medium as well as large flock size holder and 27.27 percent of small flock size holders provided solid feed to their kid in between 15 to 30 days.

Table 1. Kid rearing practices of respondents across flock size.

Practices	Households (Flock size)			Overall	χ^2 Value
	Small (1-10)	Medium (11-50)	Large (>50)		
1. Cleaning of kid after birth					
a. Yes	13(31.70) (32.50)	14(34.14) (35.0)	14(34.14) (35.0)	41 (34.16)	0.07
b. No	27(34.17) (67.50)	26(32.91) (65.0)	26(32.91) (65.0)	79 (65.83)	
2. Disinfection of naval cord					
a. Yes	2(50) (5.0)	1(25) (2.50)	1(25) (2.50)	4 (3.33)	0.51
b. No	38(32.75) (95.0)	39(33.62) (97.50)	39(33.62) (97.50)	116 (96.66)	
3. Colostrum feeding					
a. Yes	40(33.89) (100)	39(33.05) (97.50)	39(33.05) (97.50)	118 (98.33)	1.01
b. No	0(0) (0)	1(50) (2.50)	1(500 (2.50)	2 (1.66)	
4. Duration of kid suckling					
a. 3 months	15(33.33) (37.50)	16(35.55) (40.0)	14(31.11) (35.0)	45 (37.50)	0.21
b. >3 months	25(33.33) (62.50)	24(32) (60.0)	26(34.66) (65.0)	75 (62.50)	
5. Solid feeding after birth					
a. Within 15 days	2(33.33) (5.0)	1(16.66) (2.50)	3(50) (7.50)	6 (5)	1.20
b. 15 to 30 days	4(36.36) (10.0)	4(36.36) (10.0)	3(27.27) (7.50)	11 (9.16)	
c. Above 30 days	34(33.00) (85.0)	35(33.98) (87.50)	34(33.00) (85.0)	103 (85.83)	
6. Deworming					

a. Yes	10(27.77) (25.0)	12(33.33) (30.0)	14(38.88) (35.0)	36 (30.0)	0.96
b. No	30(35.71) (75.0)	28(33.33) (70.0)	26(30.95) (65.0)	84 (70.0)	
7. Control of external parasite					
a. Manual	1(33.33) (2.50)	1(33.33) (2.50)	1(33.33) (2.50)	3 (2.50)	1.46
b. Chemicals	8(30.76) (20.0)	8(30.76) (20.0)	10(38.46) (25.0)	26 (21.66)	
c. Traditional	1(50) (2.50)	0(0) (0)	1(50) (2.50)	2 (1.66)	
d. No practiced	30(33.70) (75.0)	31(34.83) (77.50)	28(31.46) (70.0)	89 (74.16)	
8. Housing					
a. With doe	10(35.71) (25.0)	9(32.14) (22.50)	9(32.14) (22.50)	28 (23.33)	0.09
b. Separate	30(32.60) (75.0)	31(33.69) (77.50)	31(33.69) (77.50)	92 (76.66)	
9. Isolation					
a. Yes	2(22.22) (5.0)	3(33.33) (7.50)	4(44.44) (10.0)	9 (7.50)	5.50
b. No	38((34.23) (95.0)	37(33.33) (92.50)	36(32.43) (90.0)	111 (92.50)	
10. Stage of grazing					
a. Within 30 days age	1(25) (2.50)	1(25) (2.50)	2(50) (5.0)	4 (3.33)	1.74
b. 30-45 days age	3(21.42) (7.50)	5(35.71) (12.50)	6(42.85) (15.0)	14 (11.66)	
c. Above 45 days age	36(35.29) (90.0)	34(33.33) (85.0)	32(31.37) (80.0)	102 (85.0)	

The deworming practice for newly born kids was non significantly affected by flock size. (χ^2=0.96). the overall results showed that maximum at 70.0 percent of goat rearers did not adopted deworming practices while, 30.0 percent of respondents were founds to be adopt deworming practices for newly born kid. These findings are in the line of Handa and Gill [5] and Gurjar [4]. The proportion of goat rearers who were aware for deworming of newly born kid increased as well as flock size increases while, reverse trend was observed for those who did not adopted deworming practices.

The overall results showed that maximum at 74.16 percent goat rearers did not practice to control external parasites. Total 21.26, 2.50 and 1.66 percent goat rearers control the ecto-parasites by using chemical, manual and traditional methods, respectively. Similar results were also reported by Raut et al. [6], Khuspe et al. [7] and Rao [8]. The proportion of goat rearers who did not practice to control ecto-parasites decreased with increase in flock size. Maximum at 25.0 percent of large flock holders control the ecto-parasites, chemically while, no respondent was found in medium flock size that used traditional method for control of external parasite. Control of external parasite was not affected by different flock size (χ^2=1.46).

Maximum goat rearers at 76.66 percent of surveyed population housed their kids in separate space while, 23.33 percent housed kids with doe. These findings are in agreement with the report of Sharma [9] and Gurjar [4]. Equal numbers of goat rearers at 22.50 percent among medium aa well as large flock holders were housing their kids with the respective does while, equally goat rearers 77.50 percent of medium as well as large flock holders housed their kids in separately in sheds. The effect of flock size on housing of kids was non-significant (χ^2=0.093).

The practice of isolating male and female from their doe with the different flock size was found to be non-significant (χ^2=5.500). However it was adopted only by 7.50 percent farmers, while, 92.50 percent goat rearers do not isolate the kids from their does. Almost similar findings were observed by Gurjar [4]. The proportion of goat keepers who isolate male and female from their doe increases with flock size.

The effect of flock size on stage of grazing of kids was non-significant (χ^2=1.74). The maximum goat rearers at 85.0 percent send their kids for grazing after 45 days of age whereas, 11.66 and 3.33 percent send kids for grazing between 30 to 45 days and within 30 days of age, respectively. A proportion of goat rearers who allow the kids for grazing at above 45 days of age were decreased with increase in flock size. Among small flock size holders, maximum at 90.0 percent allowed kids for grazing after 45 days of birth whereas, minimum 2.50 percent farmers of medium flock holder allowed grazing for kids within 30 days after birth.

CONCLUSION

The effect of flock size on kid rearing practices like Cleaning of kid after birth, Disinfection of naval cord, Colostrum feeding, Duration of kid suckling, Solid feeding after birth, Deworming, Control of external parasite, Housing of kids, isolation, Stage of

grazing was non-significant however it was observed that maximum goat keepers at 65.83 percent were not aware about Cleaning of kids after birth and only 3.33 percent were well aware about disinfection of naval cord. Colostrum feeding to kid and suckling of kid for more than 3 month was practiced by 98.33 and 62.50 percent goat rearers, respectively

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