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Socio-economic profile and management practices followed by the Sojat goat owners in the Marwar region of the Rajasthan under characterization of Sojat goat project

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Abstract

Goat farming playing an important role in the development of rural mass and contributing to the livelihood of millions of poor by offering immense opportunities and potential for improvement of income and employment generation. The study was conducted in Marwar Region of Rajasthan under Characterization of Sojat Goat Project (CSGP). The study was revealed that the majority (67.52%) of total farmers were illiterately, majority (64.10%) of the farmers belong to the joint family, average family size was found to be 6.51 ± 0.01 . Average land holding was 2.29 ± 0.04 hec. The average holdings of sheep, cattle, buffalo, horse, camel were 5.52 ± 0.48 , 2.03 ± 1.3 , 2.03 ± 1.3 , 1.03 ± 0.09 , 0.14 ± 0.03 and 0.38 ± 0.07 , respectively in the surveyed area. Overall birth Weight 3,6,12 15& adult body weight animal of Sojat is 3.64 ± 0.08 , 21.95 ± 0.10 , 36.19 ± 0.44 , 53.38 ± 0.82 , 57.66 ± 0.45 and 68.39 ± 0.46 , respectively. The overall body weight ranging from 26 – 121 kg. The overall chest girth of the adult goat is 36.24 ± 0.07 and ranging from 24 – 56 inches. The overall body length of adult Sojat goat animals reported is 35.21 ± 0.08 and ranging from 23 – 52 inches. The body lengths of male & female animals were 35.89 ± 0.18 and 35.03 ± 0.06 inches, respectively.

Keywords: Socio economic Profile, Management Practices

Introduction

In India the popularity of meat goat farming business is growing day by day and the demand for meat goat breeds is also increasing. The state Rajasthan is number one in the goat population in our country which is 20.84 million (Anonymous, 2019) ^[1]. Goats are reared in all the districts of Rajasthan through its density is higher in the Aravali region. Goat keeping continues to be an important livelihood activity for the resource poor people in developing countries because of their wider adoptability, low investment, quick pay off and low risk involved. Goat rearing is the most dominant activity in the goat based farming systems in terms of both contribution to household's total income and employment generation (Kumar and Upadhyay, 2009) ^[2]. Small ruminants like Sheep and goats farming playing an important role in the development of rural mass and contributing to the livelihood of millions of poor by offering immense opportunities and potential for improvement of income and employment generation. (Ramesh *et al.*, 2012) ^[3].

The native belt of Sojat goat is Sojat, Pali, Bilara, Pipar, Jodhpur and Nagaur districts of Rajasthan. Sojat is one of the important dual-purpose breeds of goat (meat & milk). Sojat goat is a heavy breed and very suitable for meat production. The breed is not suitable for profitable milk production. Their average daily milk yield 991 gm. and per lactation period is 271 kg. Sojat breed is cross of Jamunapari and says this is a kind of Jamunapuri goat. There is a great variation in coat colour but they are generally white, and occasionally patches of tan or black are found on the body. The ears are very long, flat and drooping. Both sexes are found mostly without horned with a short and thin tail. A thin growth of hair is present on the body known as feathers. The breed has a well-developed udder round in shape with large conical teats. The bucks are larger than the does and are very beautiful. Usually, doe kids twice in 14 months, giving birth to single in 60 per cent while twins in 40 per cent cases. The average body weight of adult male goat is 83 kg., the female goat is 62 kg. The overall body length of the male goat is 36 and that of the female goat is 35 inches. Perhaps one of the world's most unusual looking goat breed and one of India's most popular breed, the Sojat goat.

Research Methodology

Table A: Details of Survey in Field Area

S. No.	Districts	Distance From Head Quarter (CVAS, Navania) (km.)	Tehsils	Villages	No. of Farmers	No. of Goats
1.	Pali	205	Sojat City	Sojat Road	6	229
				Alays	3	150
				Dhandhre	15	500
				Siyaat	4	200
				Bhesana	7	230
				Basna	3	150
				Mandla	9	248
				KhoKhara	4	200
				Ramasani	5	200
				Pachundakhurd	1	25
			Jaitaran	Sisarwada	3	100
				Nimbol	1	610
				Kharadi	1	35
2.	Jodhpur	250	Pipar	Pipar City	9	243
				Ransigava	2	40
				Kaparda	4	66
				Khejarla	3	62
				Riya	3	180
				Pipar	1	190
			Bilara	Sindhipura	20	1211
				Khuwaspura	1	21
3.	Nagaur	415	Nagaur	Basin	5	226
				Kumari	1	56
				Dukosi	1	6
				Nagaur	2	104
				Goa	2	23
Total	03		05	27	117	5428

Result and Discussion

A. Socio-Economic Profile

1. The education level of farmers

The level of education of selected farmers was classified into three categories, viz, illiterate, primary to higher secondary

and above graduation level. It was observed that the majority (67.52%) of total farmers were illiterately followed by the higher secondary level of 20.51 per cent and above graduation level only 11.97 per cent. (Table-1 and figure - 1).

Table 1: Distribution of farmers based on the level of education

S. No.	Education	Pali		Jodhpur		Nagaur		Total	
		N	%	N	%	N	%	N	%
1	Illiterate	61	96.82	13	30.23	05	45.46	79	67.52
2	Primary/ Middle/ sec./Higher sec. level	01	1.59	20	46.51	03	27.27	24	20.51
3	Graduate/ Post Graduate level	01	1.59	10	23.26	03	27.27	14	11.97
Total		63	100	43	100	11	100	117	100

N = No. of farmers

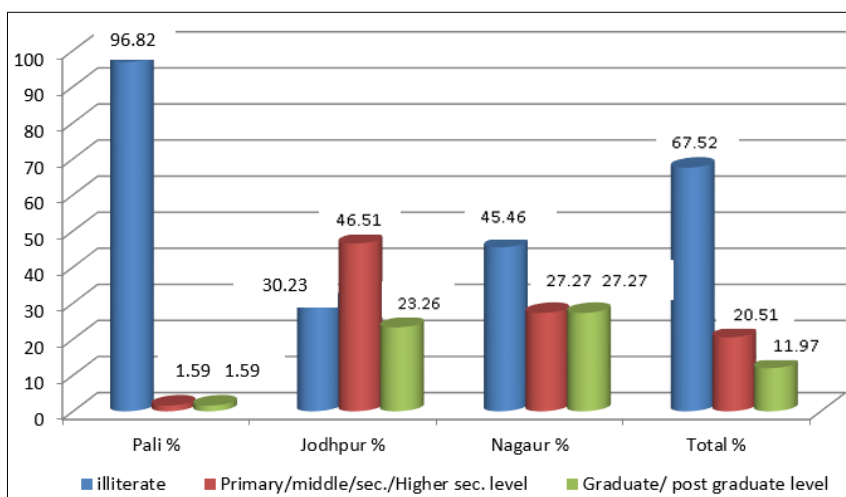


Fig 1: Distribution of farmers based on the level of education

2. Type of family

Based on the type of family, the total farmers were classified

into two categories viz., joint family and the nuclear family.

Table 2: Distribution of farmers based on the type of family

S. No.	Type of family	Pali		Jodhpur		Nagaur		Total	
		N	%	N	%	N	%	N	%
1	Joint	56	88.89	13	30.23	06	54.54	75	64.10
2	Nuclear	07	11.11	30	69.77	05	45.46	42	35.90
Total		63	100	43	100	11	100	117	100

F= No. of farmers

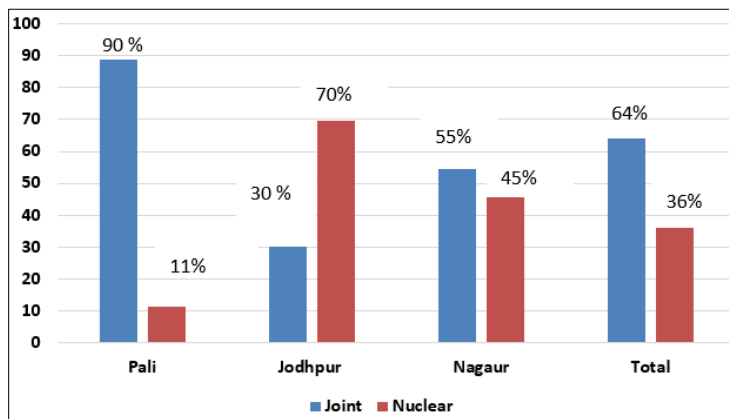


Fig 2: Distribution of farmers based on the type of family

The data presented in table- 2 and figure - 2 indicates that out of total farmers majority (64.10%) of the farmers belong to the joint family, while 35.90 per cent had nuclear families in the study area.

3. Size of family

The average family size in the project area studied was found to be 6.51±0.01 (ranging from 3 to 12) as shown in below table-3 and figure 3.

Table 3: Distribution of farmers based on the size of the family

S. No.		Pali	Jodhpur	Nagaur	Total
1	Mean ± SE	6.88±0.02	5.56±0.03	8.09±0.23	6.51±0.01
2	Range	5 - 9	3 - 9	5 - 12	3 - 12
3	N	62	44	11	117

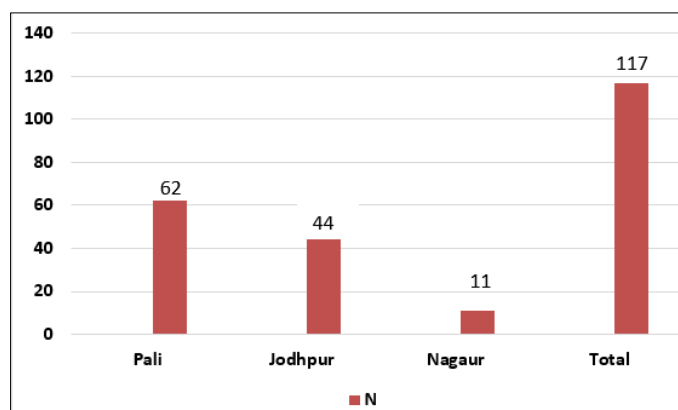


Fig 3: Distribution of farmers based on the size of the family

4. Land holding

The data in table- 4 and Figure- 4 indicate that average land holding was 2.29 ±0.04 ha. The majority of the farmers

(81.20%) are to have land and 18.80 per cent of farmers were landless in the survey area. The goat owners were poor and had no ancestral land assets.

Table 4: Distribution of farmers based on land

S. No.	Land holding (ha.)	Pali		Jodhpur		Nagaur		Total	
		N	Range	N	Range	N	Range	N	Range
1	Landless	22	-	-	-	-	-	22(18.80)	-
2	Own land	40	1 - 5	44	1- 6	11	1-3	95(81.20)	1 - 6
3	Total	62	-	44	-	11	-	117	-
4	Average Land Mean±SE	2.56±0.09		2.11±0.10		2.00±1.18		2.29 ±0.04	

N =No. of farmers, () = Per cent,

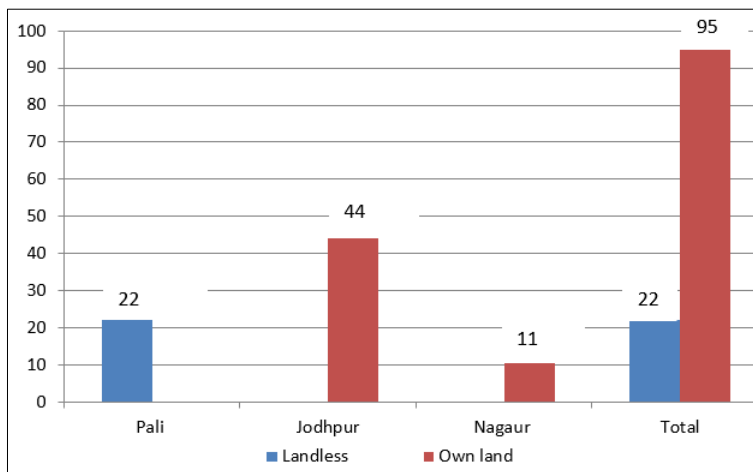


Fig 4: Distribution of farmers based on land

5. The main occupation of farmers

Based on the type of the main occupation, the farmers were classified into two categories Animal Husbandry and Animal

husbandry + Agriculture. Their frequencies were counted and converted into a percentage for all the categories of respondents.

Table 5: Distribution of farmers based on the main occupation

S. No.	Occupation	Pali		Jodhpur		Nagaur		Total	
		N	%	N	%	N	%	N	%
1	Animal Husbandry	23	36.51	01	02.33	04	36.36	28	23.93
2	Animal Husbandry+ Agriculture	40	63.49	42	97.67	07	63.64	89	76.07
	Total	63	100	43	100	11	100	117	100

F=No. of farmers

The results presented in table -7 and Figure - 5 showed that 76.07 per cent of total farmers of all districts had Animal husbandry + Agriculture while only 23.93 per cent of total

farmers were dependent on Animal husbandry as their main occupation for their livelihood.

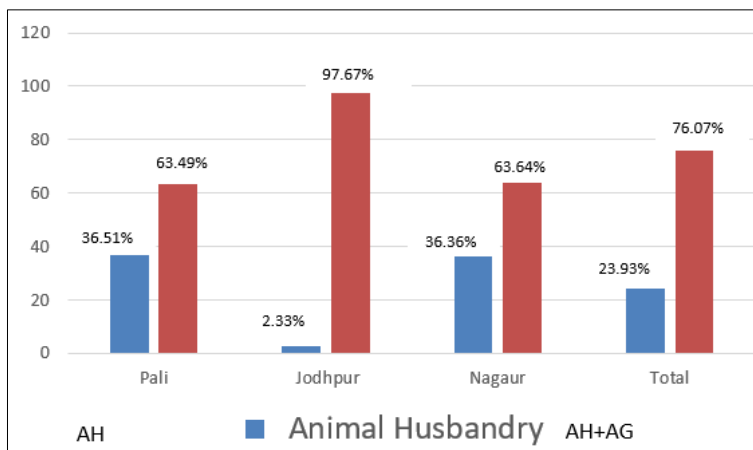


Fig 5: Distribution of farmers based on the main occupation

6. Income from goat rearing

The data recorded in table- 6 showed that the overall income

of farmers is (₹) 75581.20±422.26 and ranging from (₹) 20000-300000 from goats rearing practices in the survey area.

Table 6: Annual Goat incomes of the farmers

S. No.	Income(₹)	Pali	Jodhpur	Nagaur	Overall
1	Average	68888.89±656.36	89534.88±1313.05	82272.73±4738.46	75581.20±422.26
2	Range	20000-300000	15000-200000	20000-150000	20000-300000
3	N	62	44	11	117

7. Total Annual Income of farmers

The data recorded in table- 7 showed that the overall annual

income of farmers is (₹) 175970.20±590.86 and ranging from 80000-360000 in the survey area.

Table 7: Total incomes of the farmers

S. No.	Income(₹)	Pali	Jodhpur	Nagaur	Overall
1.	Average	166475.41±865.81	195581.39±171.94	146363.64±438.91	175970.20±590.86
2.	Range	80000-350000	10000-360000	80000-200000	80000-360000
3.	N	62	44	11	117

N= No. of farmers

8. Distribution of respondents on the basis of livestock composition

The survey shows that respondents in the study area had maximum number of goats, compared to other livestock.

Table 8: Livestock composition of goat owners

S. No.	Livestock	Pali	Jodhpur	Nagaur	Overall
		Mean±SE	Mean±SE	Mean±SE	Mean±SE
1	Goat	47.33±1.16	47.33±0.88	37.73±3.73	46.39±0.55
2	Sheep	1.95±0.32	10.1 ± 1.08	4.51±0.52	5.52±0.48
3	Cattle	1.86±0.21	2.1 ± 0.24	2.13±0.24	2.03±1.3
4	Buffalo	0.25±0.06	1.51± 0.18	1.35±0.15	1.03±0.09
5	Horse	0.31±0.09	0.11 ± 0.04	0.28±0.11	0.14±0.03
6	Camel	0.58±0.10	0.35 ± 0.14	0.23±0.10	0.38±0.07

The overall average goats per household in the study area were 46.39±0.55. The average holdings of sheep, cattle, buffalo, horse, camel were 5.52±0.48, 2.03±1.3, 2.03±1.3, 1.03±0.09, 0.14±0.03 and 0.38±0.07, respectively in the surveyed area (Table- 8).

B. Feeding and Management practices

1. Feeding Practices in survey area

Marwar region has a history of erratic and insufficient rainfall, with only one crop and hence people are dependent on livestock for their livelihoods. The goat feeding, therefore, is mainly by the extensive method of feeding by taking the animal to grazing is found most common. During grazing leaves of plants like babul, Neem, Kekeer, Ber, Karanj, Khezri, Akra, Beri, Kair, Karunda, Thur, Motha, Dhaman, Dubh, Patharchatta, Anjan, etc. are normally fed. 55.47 percent of goats were found stall-fed and the remaining 44.53 percent semi stall feeding practices followed. A small quantity of grain of barley, maize, bajra etc. is given to pregnant animals and female animals after kidding.

2. Management practice in survey area

A. Flock information

Analysis of data on 117 flocks of goat keepers indicates a differential strategy of maintaining flock structure in different districts. The data indicates that most of the males are sold after 12 months of age. The trend observed in the 0-6 month age group was seen continued in the 6-12 month age group as well. More than an average fraction of disposal is evident in Pali district compared to Jodhpur and Nagaur district. In case of >12 months of age group, the sale and disposal of females are lesser indicating reluctance of goat keepers to dispose of adult females.

B. Housing system

The Housing system largely is by keeping the goats in open for the whole day and giving shelter at night. The pattern of housing was found to be of three types fully open, half-open

and fully covered. In a fully open housing system, the goats were kept in open space around the house is uncovered space. In half-open type, the goats are kept in a paddock surrounded by a stone barrier of 4 to 5 feet height or biological fencing to prevent the wild animals from entering the paddock. In closed housing, the goats are housed in the space where the owner is living, such goats normally are not large flocks but the number is in one, two or three.

The ground floor of the housing provided could be of either soil or hard surface. Good ventilation is a basic requirement in the housing management of the goats for good health. It was noted that the majority (87.84%) of the goat rearers have made arrangements for drainage where the goats are housed. Only 12.16 per cent have not provided any arrangement of draining.

C. Reproduction Parameters

As shown in table – 16 overall of first oestrus duration, age of first kidding and kidding interval of Sojat goat is 317.89±0.18, 3.64±0.01, 540.75±0.16, and 419.87±4.08 days, respectively. The service period is 269.87±4.08 days of Sojat female does. The average litter size is 1.95±0.01 and the lifetime number of kidding is 16.67±2.40. In the survey area 100 per cent natural breeding in goats. The overall milk production in the survey area is 991.02±0.12gm per day per animal. The overall age of the first mating of male is 408.60±0.02 days in a survey area of Sojat goat.

D. Phenotypic characteristics

Body Size- Large, Utility of Breed –Dual Purpose (Meat & Milk) but mostly used for meat purpose. Heavy breed well developed round udder & conical teats. Bucks are larger in size than female and beautiful. This breed is famous for their good height, health and for their white color, hair present; Skin color of this breed is pink. Ear Type -Very long, flat & Pendulous ear, Ear Length- 12 to 16 "Ear Width – 5 to 6". Tail is short and thin. Head convex, mostly animals polled Wattles and Beard absent in animals.

Table 9: Body weights for Sojat goat for each group (Kg.)

	Birth	3M	6M	12M	15M	18 & Above
Overall	3.64±0.08 (234)	21.95±0.10 (964)	36.19±0.44 (1142)	53.38±0.82 (1312)	57.66±0.45 (493)	68.39±0.46 (1283)
Range	3.0-4.0	11.0-38.0	16.0-88.0	29.0-97.0	32.0-105.0	26.0-121.0
Districts						
Pali	3.51±0.04 (191)	22.49±0.11 (573)	31.26±0.15 (454)	42.92±0.18 (627)	57.55±0.25 (398)	64.39±0.42 (735)
Range	3.0-4.0	17.0-29.0	25.0-40.0	33.0-55.0	40.0-70.0	26.0-103.0
Jodhpur	4.24±0.44 (37)	21.26±3.31 (356)	40.61±0.79 (604)	68.62±1.80 (537)	58.54±1.98 (92)	78.25±1.03 (405)
Range	2.0-13.0	11.0-38.0	16.0-88.0	29.0-97.0	32.0-105.0	29.0-121
Nagaur	3.83±0.41 (6)	20.03±0.65 (35)	31.10±0.32 (84)	42.44±0.40 (148)	53.33±1.66 (3)	60.79±0.76 (143)
Range	3.0-4.0	15.0-29.	19.0-38.0	32.0-50.0	50.0-55.0	41.0-103.0
Sex						
Male	3.74±0.14 (99)	21.85±0.15 (517)	39.63±0.74 (651)	61.78±1.38 (737)	79.67±5.01 (24)	82.78±0.95 (388)
Range	3.0-13.0	11.0-13.0	17.0-88.0	35.0-92.0	40.0-105.0	29.0-121.0
Female	3.57±0.09 (135)	22.06±0.11 (447)	31.63±0.19 (491)	42.62±0.24 (575)	56.57±0.29 (469)	62.16±0.34 (895)
Range	2.0-13.0	13.0-30.0	16.0-44.0	29.0-55.0	32.0-90.0	26.0-103.0

Table 10: Chest girth for Sojat goat for each group (Inches.)

	Birth	3M	6M	12M	15M	18&Above
Overall	7.89±0.07 (234)	22.98±0.13 (964)	29.46±0.12 (1142)	33.15±0.13 (1312)	34.92±0.15 (493)	36.24±0.07 (1283)
Range	5.0-17.0	11.0-39.0	22.0-48.0	24.0-52.0	24.0- 53.0	24.0-56.0
Districts						
Pali	7.79±0.04 (191)	23.54±0.09 (573)	27.13±0.07 (454)	30.24±0.12 (627)	34.35±0.10 (398)	35.80±0.07 (735)
Range	5.0-8.0	20.0-26.0	23.0—31.0	24.36-36	29.0-40.0	24.0-40.0
Jodhpur	8.08±0.35 (37)	22.12±0.31 (356)	31.42±0.18 (604)	36.98±0.18 (537)	37.51±0.63 (92)	37.13±0.16 (405)
Range	7.0-17.0	11.0-39.0	22.0-48.0	24.0-52.0	24.0-23.0	27.0-56.0
Nagaur	9.83±1.33 (6)	22.60±0.29 (35)	27.99±0.12 (84)	31.58±0.11 (148)	31.67±0.33 (3)	35.92±0.13 (143)
Range	8.0-15.0	20.0-26.0	24.0-31.0	27.0-35.0	31.0-32.0	31.0-42.0
Sex						
Male	8.00±0.00 (99)	23.62±0.16 (517)	31.18±0.17 (651)	35.20±0.15 (737)	38.82±2.03 (24)	36.89±0.16 (388)
Range	8.0-8.0	13.0-39.0	22.0-48.0	24.0-52.0	25.0-52.0	29.0-56.0
Female	7.81±0.12 (135)	22.24±0.20 (447)	27.19±0.08 (491)	30.53±0.18 (575)	32.73±0.12 (469)	35.94±0.07 (895)
Range	5.0-17.0	11.0-39.0	23.0-38.0	24.0-40.0	38.0-53.0	24.21-41.0

Table 11: Body Length for Sojat goat for each age group (Inches.)

	Birth	3M	6M	12M	15M	18&Above
Overall	7.44±0.11 (234)	22.49±0.12 (964)	28.65±0.13 (1142)	31.74±0.24 (1312)	34.17±0.15 (493)	35.21±0.08 (1283)
Range	6.0-16.0	12.0-40.0	21.0-43.0	23.0-56.0	23.0-55.0	23.0-52.0
Districts						
Pali	7.08±0.09 (191)	22.89±0.10 (573)	26.09±0.10 (454)	28.42±0.12 (627)	34.05±0.10 (398)	34.95±0.07 (735)
Range	6.0-9.0	19.0-27.0	22.0-31.0	23.0-33.0	28.0-40.0	23.0-37.0
Jodhpur	9.14±0.26 (37)	21.92±0.31 (356)	30.77±0.18 (604)	35.65±0.20 (537)	34.85±0.70 (92)	36.21±0.17 (405)
Range	8.0-15.0	12.0-40.0	21.0-42.0	23.0-56.0	23.0-55.0	25.0-52.0
Nagaur	8.33±1.67 (6)	21.83±0.34 (35)	27.19±0.18 (84)	51.59±1.53 (148)	30.00±0.00 (3)	34.41±0.15 (143)
Range	6.0-16.0	19.0-26.0	24.0-31.0	26.0-33.0	30.0-30.0	28.0-39.0
Sex						
Male	7.49±1.61 (99)	23.12±0.17 (517)	30.59±0.17 (651)	34.06±0.38 (737)	38.91±1.83 (24)	35.89±0.18 (388)
Range	6.0-10.0	12.0-33.0	21.0-43.0	26.0-56.0	25.0-55.0	25.0-52.0
Female	7.39±0.15 (135)	21.76±0.19 (447)	26.07±0.12 (491)	28.74±0.17 (575)	33.94±0.12 (469)	35.03±0.06 (895)
Range	6.0-16.0	12.0-39.0	22.0-35.0	23.0-40.0	23.0-42.0	23.0-38.0

Table 12: Body Height for Sojat goat for each group (Inches.)

	Birth	3M	6M	12M	15M	18 & Above
Overall	7.39±0.08 (234)	22.97±0.14 (964)	29.24±0.07 (1142)	31.97±0.13 (1312)	33.01±0.15 (493)	34.98±0.11 (1283)
Range	6.0-19.0	11.0-39.0	21.0-43.0	24.0-49.0	24.0-49.0	25.0-51.0
Districts						
Pali	7.18±0.05 (191)	23.44±0.11 (573)	26.67±0.11 (454)	29.15±0.13 (627)	32.76±0.13 (398)	34.50±0.15 (735)
Range	6.0-8.0	18.0-32.0	21.0-30.0	24.0-30.0	27.0-36.0	28.0-37.0
Jodhpur	8.19±1.81 (37)	22.15±0.31 (356)	29.30±0.11 (604)	35.61±0.20 (537)	34.19±0.55 (92)	36.02±0.19 (405)
Range	7.0-15.0	11.0-39.0	21.0-43.0	24.0-49.0	24.0-49.0	25.0-51.0
Nagaur	9.17±1.80 (6)	22.69±0.46 (35)	27.75±0.19 (84)	30.67±0.17 (148)	31.33±0.66 (3)	34.42±0.15 (143)
Range	7.0-18.0	18.0-29.0	24.0-31.0	27.0-35.0	30.0-32.0	31.0-44.0
Sex						
Male	7.55±0.06 (99)	23.47±0.17 (517)	30.18±0.08 (651)	34.50±0.16 (737)	37.26±1.66 (24)	35.31±0.17 (388)
Range	7.0-9.0	12.0-33.0	21.0-43.0	24.0-49.0	24.0-49.0	25.0-51.0
Female	7.27±0.13(135)	22.32±0.22 (447)	26.68±0.12 (491)	28.73±0.15 (575)	32.80±0.13 (469)	34.83±0.14 (895)
Range	6.0-18.0	11.0-39.0	21.0-34.0	24.0-41.0	24.0-43.0	28.0-41.0

Table 13: Reproduction Performance of animals in the survey area

Female reproduction traits	Districts	Pali	Jodhpur	Nagaur	Overall
Age at 1 st Oestrus (days)	N	290	69	27	386
	Average	321.17±4.44	305.15±0.60	314.44±1.21	317.89±0.18
Oestrus cycle duration (Days)	N	251	53	3	307
	Average	20.02±0.01	20.84±0.01	19.92±0.01	20.27±0.01
Age first kidding (Days)	N	354	63	3	420
	Average	547.38±3.60	507.86±1.00	450.00±16.67	540.75±0.16
Kidding interval (Days)	N	124	33	42	199
	Average	429.27±4.01	417.42±17.35	394.05±6.28	419.87±4.08
Service period (Days)	N	124	33	42	199
	Average	279.27±4.01	267.42±16.99	244.05±6.28	269.87±4.08
Litter size	N	24	19	-	43
	Average	2.04±0.09	1.84±0.03	-	1.95±0.01
Age at first mating of Male (Days)	N	81	307	45	433
	Average	439.07±8.17	403.51±0.30	388.44±1.81	408.60±0.02

Table 14: Milk Production of survey animals

Female production traits	Districts	Pali	Jodhpur	Nagaur	Overall
Daily milk yield (gm)	N	1023	191	85	1299
	Average	981.37±4.79	998.47±0.61	1090.45±0.99	991.02±0.12
Total milk yield (kg)	N	132	59	82	273
	Average	265.80±2.92	271.58±0.51	278.41±0.24	270.84±0.11
Total lactation length (Days)	N	125	58	82	264
	Average	256.63±2.59	276.72±0.41	278.88±0.27	267.91±0.11
FAT%	N	1045	190	85	1320
	Average	3.27±0.02	3.39±0.01	3.38±0.01	3.29±0.01
SNF%	N	1045	190	85	1320
	Average	8.29±0.08	8.18±0.01	8.21±0.02	8.27±0.01

Table 15: Feeding practices in the survey area

Particulars	Type of practices	Pali	Jodhpur	Nagaur	Total
Feeding	Stall feeding	626 (21.02)	1970 (97.00)	415 (99.05)	3011 (55.47)
	Semi stall feeding	2352 (78.98)	61 (3.00)	4 (0.95)	2417 (44.53)
Total		2978 (100.00)	2031 (100.00)	419 (100.00)	5428 (100.00)

Table 16: Housing practices followed by goat owners

Particulars	Type of practice	Pali	Jodhpur	Nagaur	Total
Housing	Only during the day	10 (0.33)	-	-	10 (0.18)
	Only at night	2311 (77.50)	40 (1.97)	-	2351 (43.32)
	Day and night	661 (22.17)	1991 (98.03)	415 (100.00)	3067 (56.50)
Total		2982 (100.00)	2031 (100.00)	415 (100.00)	5428 (100.00)

E. Performance

Table 16: Body weight (kg) and body measurements (inches)

Age group	Sex	Body weight	Girth	Height	Length
Birth	M	3.74±0.14	8.00±0.00	7.55±0.06	7.49±1.61
	F	3.57±0.09	7.81±0.12	7.27±0.13	7.39±0.15
3 months	M	21.85±0.15	23.62±0.16	23.47±0.17	23.12±0.17
	F	22.06±0.11	22.24±0.20	22.32±0.22	21.76±0.19
6 months	M	39.63±0.74	31.18±0.17	30.18±0.08	30.59±0.17
	F	31.63±0.19	27.19±0.08	26.68±0.12	26.07±0.12
12 months	M	61.78±1.38	35.20±0.15	34.50±0.16	34.06±0.38
	F	42.62±0.24	30.53±0.18	28.73±0.15	28.74±0.17
15 months	M	79.67±5.01	38.82±2.03	37.26±1.66	38.91±1.83
	F	56.57±0.29	32.73±0.12	32.80±0.13	33.94±0.12
18 months & above	M	82.78±0.95	36.89±0.16	35.31±0.17	35.89±0.18
	F	62.16±0.34	35.94±0.07	34.83±0.14	35.03±0.06

Summary and Conclusion

Overall birth Weight 3,6,12 15& adult body weight animal of Sojat is 3.64±0.08, 21.95±0.10, 36.19±0.44, 53.38±0.82, 57.66±0.45 and 68.39±0.46, respectively. The overall body weight ranging from 26 – 121 kg in the survey area. (Table-

12)

Table – 13 indicated that the overall chest girth of the adult goat is 36.24±0.07 and ranging from 24 – 56 inches. The overall body length of adult Sojat goat animals reported is 35.21±0.08 and ranging from 23 – 52 inches. The body

lengths of male & female animals were 35.89 ± 0.18 and 35.03 ± 0.06 inches, respectively. (Table-14)

In survey area of Sojat goat overall body height at birth 3, 6, 12, 15 and adult is 7.39 ± 0.08 , 22.97 ± 0.14 , 29.24 ± 0.07 , 31.97 ± 0.13 , 33.01 ± 0.15 and 34.98 ± 0.11 inches, respectively. The overall range of body height of adult animals is from 25 – 51 inches. (Table – 15)

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