

FACTORS AFFECTING SEX RATIO IN MADRAS RED SHEEP

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ABSTRACT

Data on Madras Red lambs maintained at Sheep Section, Livestock Research Station, Kattupakkam, Tamil Nadu, between 1994 and 2006 were analyzed. The overall sex ratio was found to be 50.93:49.07%. The percentage of male births was highest during off season (56.09%) when compared with the main season (50.13%). The percentage of male births was higher in twinning (64.71%) than in single births. Of the 12 year period more number of males were observed in 7 years. Monthwise study revealed that the percentage of males was higher in 8 months except February, April, May and June with the highest rate (62.07%) observed on October month.

Key words: Sheep, Madras Red, Sex ratio, Twinning

INTRODUCTION

Increased frequency of desirable sex in breeding population helps in maximizing genetic gain by enhancing the intensity of selection. The farmers always prefer more females for further production than the males. A study was undertaken to observe the factors affecting sex ratio in Madras Red sheep.

MATERIALS AND METHODS

The data pertaining to lambing namely sex, type of birth, month and year of lambing of the Madras Red sheep maintained at the Sheep Section, Livestock Research Station, Kattupakkam, Tamil Nadu were analyzed for the period between 1994-2006. The ewes were bred in two seasons with each season in a year extending over 55-60 days from 15th

August through September and up to the middle of October and from 15th February to March. Abnormal births and stillbirths were not considered for the study. The data was statistically analysed (Snedecor and Cochran, 1967) to verify the differences between the number of male and female births in different seasons and years.

RESULTS AND DISCUSSION

Out of 1718 births recorded, 875 lambs were males and 843 were females forming a percentage of 50.93 and 49.07 respectively. This was found similar to Krishna Rao (1966) who had recorded 50.84% males and 49.15% females in Mandya, Prushothaman *et al.*, (1978) who had observed

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Table 1
Season wise sex ratio of Madras Red Sheep

Sl. No.	Season	No. of ewes lambbed	Total birth	% of birth	Male	Per cent (%)	Female	Per cent (%)
1	Main season	1471	1488	86.61	746	50.13	742	49.87
2	Off season	230	230	13.39	129	56.09	101	43.91
	Total	1701	1718		875	50.93	843	49.07

Table 3
Year wise sex ratio in Madras Red sheep

Sl.No.	Year	Total birth	No. of male births	Per cent (%)	No. of female births	Per cent (%)
1	94-95	161	95	59.01	66	40.99
2	95-96	192	89	46.35	103	53.65
3	96-97	143	70	48.95	73	51.05
4	97-98	165	90	54.55	75	45.45
5	98-99	144	59	40.97	85	59.03
6	99-2000	162	93	57.41	69	42.59
7	2000-2001	156	75	48.08	81	51.92
8	2001-2002	133	70	52.63	63	47.37
9	2002-2003	140	72	51.43	68	48.57
10	2003-2004	107	56	52.34	51	47.66
11	2004-2005	127	68	53.54	59	46.46
12	2005-2006	88	38	43.18	50	56.82
	Total	1718	875	50.93	843	49.07

Table 4
Month wise sex ratio in Madras Red sheep

Sl.No.	Year	No. of does kidded	Total birth	No. of Male	%	No. of Female	%
1	January	848	856	428	50.00	428	50.00
2	February	124	125	62	49.60	63	50.40
3	March	49	49	25	51.02	24	48.98
4	April	11	11	3	27.27	8	72.73
5	May	5	5	1	20.00	4	80.00
6	June	10	10	4	40.00	6	60.00
7	July	114	114	66	57.89	48	42.11
8	August	51	51	30	58.82	21	41.18
9	September	15	15	8	53.33	7	46.67
10	October	29	29	18	62.07	11	37.93
11	November	40	41	22	53.66	19	46.34
12	December	405	412	208	50.49	204	49.51
	Total	1701	1718	875	50.93	843	49.07

Table 2
Influence of type of birth on sex ratio in Madras Red sheep

Sex	Type of birth				Total
	Single	Per cent	Twin	Per cent	
Male	853	50.65	22	64.71	875
Female	831	49.35	12	35.29	843
Total	1684		34		1718

51.98% males and 48.02% females in Nellore and Mandya breeds and Joshi and Sahni (1983) who had reported 51.34% males and 48.66% females in Muzzaffaranagari sheep. While Sundararaman and Easwaran (1991) had reported 49.50% males and 50.50% females in Merino, Nilagiri and Merino-Nilagiri Synthetic breeds, Tailor *et al.*, (2008) had reported 50% males and 50% females in Sonadi sheep.

Of the 1718 Madras Red lambs born, 86.61% were born during the main season and 13.39% were born during the off season. The percentage of male births was highest in both main (50.13%) and off season (56.00%) with the male birth being highest during off season (56.00%) than the main season (50.13%) (Table1). This was found similar to Sundararaman and Easwaran (1991) who had reported highest male births (56.09%) in season II and the same sex ratio in season I.

The percentage of male and female births was found similar in single births but the percentage of male births was higher (64.71%) in twinning (Table 2). The year wise male and female births are presented in Table 3. Out of the 12 years, male births were observed during 7 years (1994-95, 97-98, 99-2000, 2001-2002 to 2004-2005). The percentage of males was found higher in 8 months, except in February, April, May and June, with the highest (62.07%) observed in October (Table 4).

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