

PRE-WEANING MORTALITY PATTERN OF NELLORE LAMBS IN AN ORGANIZED FARM

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ABSTRACT

The information on pre-weaning lamb mortality of Nellore Sheep was calculated from the available records and analyzed on the basis of season, month, sex and type of body system involved in diseased conditions. The results indicated that during the study period 1752 births and 110 deaths were noticed. Majority of the lambs were died during winter season (59.1%) followed by summer season (30.9%). Respiratory system (37.27%) and Digestive system (31.82%) related diseases were the main reasons of lamb mortality.

Key Words : Preweaning, mortality patterns and Nellore lambs.

Andhra Pradesh ranks first in the country with 26.39 millions of sheep population accounting for 40.57% of total India's sheep population². Nellore sheep is the tallest and popular mutton breed in India with three strains namely Jodipi, Palla and Brown and fetches good profit. In sheep rearing Pre-weaning mortality is a common problem among the shepherds and causes high economic losses. A study was conducted to ascertain the information on different causes of lamb mortality before weaning at 3 months of age and also to guide the farmers to undertake suitable measures for controlling mortality, since today's lamb is tomorrow's adult animal.

MATERIALS AND METHODS

The study was conducted at the Livestock Research Station, Palamaner, Chittoor district,

Andhra Pradesh, situated at an altitude of 680 meters above mean sea level on 79p longitudes and 13p altitudes. The average temperature recorded was 30pC (19-40) and average humidity was 40 % (21-92). Andhra Pradesh has got Summer (March-June), Rainy (July-October) and Winter (November-February) seasons and which influences the performance of animals. Livestock Research Station, Palamaner is maintaining Nellore Jodipi sheep under semi intensive rearing system with a routine herd health measures included regular vaccination and deworming. The lambs were weaned at the age of 3 months. Data on pre-weaning mortality of lambs of both sexes was collected from the records of the farm dispensary from April, 2007 to March, 2014. Data on total lambs born, died, post-mortem sheets, Histopathological and microbiological examination results were collected. The pre-weaning mortality percentage during different months was estimated on the basis of total deaths. Analysis of lamb mortality was carried out on the basis of months,

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sex, season and system of body involved in the disease condition. The data was analyzed as per the standard statistical methods⁴.

RESULTS AND DISCUSSION

The results of present study of Pre-weaning mortality pattern on lambs on the basis of months and season was presented in Fig 1 and 2. It is evident that during the study period a total of 1753 lambs were born and 110 lambs were died and constituted an overall mortality percentage of 6.27. Out of the total deaths high mortality was noticed in the month of February (23.64%) followed by December (16.36%), January (13.64%). There was no mortality recorded in the month of August but 0.91 per cent, mortality was observed during June and July months (Fig.1).

There was a high mortality (59.1%) during winter season which may be attributed to the low temperatures, cold breezes that led to respiratory diseases particularly pneumonia whereas less mortality was recorded in rainy season (10.0%) which may be due to availability of good grazing material. During Summer season 34 lambs were died (30.9%) due to digestive system related diseases and poor grazing material availability and high temperatures. As per the sex wise there was high mortality observed in male lambs (59.1%) and less in female lambs (40.9%) which may be due to some hormonal and individual variations, stress factors and some sex linked determinants which have not yet been identified⁵.

The births of lambs from 2007-08 to 2013-14 in Livestock Research Station, Palamaner indicates that during rainy season, winter season and summer season number of births were 840 (47.92%), 912 (52.02%) and 1 (0.06%) respectively. Due to scarcity of greens and grazing material

during summer season most of the animals have not tugged and only after receiving early rains during June and July months many of the animals were mated and also maintained on good pastures/greens during the succeeding season.

The information on different causes of mortality, involvement of bodily systems which was arrived based on pathological, post mortem reports indicates that among the total mortality majority (37.27%) of lambs died had suffered with respiratory diseases especially pneumonia which may be due to the season (i.e. winter) effect on lambs followed by Digestive system disorders (31.82%) especially enteritis, diarrhoea, similar results were found in Pak-Karakul and Thalli sheep in Pakistan¹ and Muzaffarnagari sheep³. Among the others (16.36%) majority deaths were due to low birth weight, lambs born to disowning ewes, poor weight gainers, orphan lambs and those with poor adaptability to the farm managemental practices, a little mortality was observed due to reasons like urogenital problems (4.55%) and nervous system problems (10.0%). After lambing some of the dams fails to recognize and give milk to its lamb due to non separation of pregnant ewes while lambing, other animals roaming in the vicinity of the lambing which disturbs the dam so the lamb will become off fed with mother's milk which could be the major reason for the lamb to become weak and debilitated.

The overall births and mortality percentages were presented in table 3 which indicated that there was high mortality percentage during 2007-08 (14.97%) and during 2011-12, 2010-11, 2009-10, 2008-09, 2013-14 and 2012-13 it was 8.56, 6.45, 6.17, 4.91, 3.57 and 1.8 per cents respectively. The variations among different years may be due to availability of breeding stock, grazing material, disease out breaks and abiotic factors etc.

Pre-weaning mortality of Nellore lambs

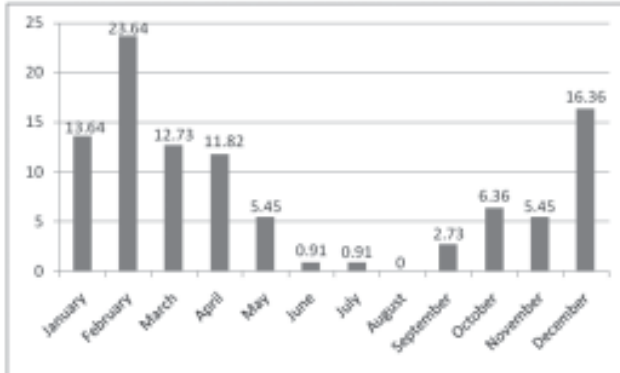


Fig.1: Month wise Pre-weaning lamb mortality

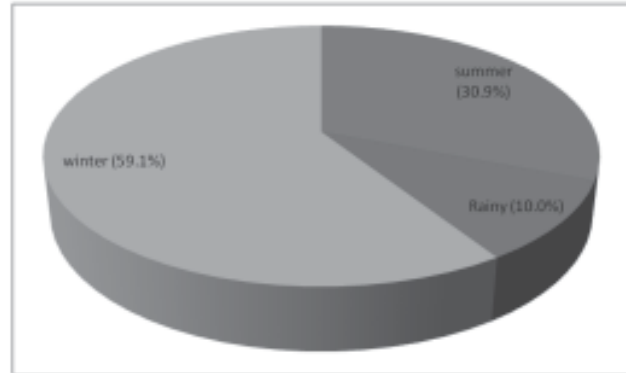


Fig.2: Season effect on Pre-weaning lamb mortality

CONCLUSION

The present investigation had revealed that the winter and rainy seasons have crucial role in lamb survivability. Respiratory problems like Pneumonia and digestive system disorders mainly

enteritis, diarrhoea were the main causes of lamb mortality. A little attention to the lambs born during night hours and providing privacy to the ewe during lambing will eliminate the problem of disowning which could result in enhancing the survival rate of lambs.

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