PRE-WEANING MORTALITY PATTERN IN OSMANABADI CROSSBRED GOATS

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ABSTRACT
Total 298 kids out of total 1463 of different Osmanabadi cross breeds died out of total 1463 kids born during the period of January 1985 to December 1999. The pre-weaning mortality of these kids was studied to see the influence of sex, age, and breed on mortality trend. All the factors had significant effect on mortality trend. In general the mortality was more in males than females. Similarly among the age group the kids of below one month of age were more victims of death than of later age groups.

Kid mortality is one of the major obstacles in goat farm management under Indian conditions. Pre-weaning kid mortality in goat is serious, as two third total losses take place in this particular period. Loss due to kid mortality not only affects economy of goat farming, but also reduces scope for improvement through selection. Apart, from diseases, the other factors like temperature variation, improper management, age of the kids, etc; also play an important role in kid’s mortality. In present study the efforts have been made to investigate the mortality in different Osmanabadi cross breds due to some factors.

The data for the study was available from Goat unit, Department of Animal Husbandry, and Dairying, Agril. College, Parbhani (M.S.). Out of total 1463 kids born during the period of January 1985 to December 1999 the mortality of 298 kids was considered for the present study. The crossbreds under study were Beetal x Osmanabadi, Sannen x Osmanabadi, Alpine x Osmanabadi, Jamunapari x Osmanabadi and Barbari x Osmanabadi. The animals maintained at farm were on complete grazing. The kids born were allowed for suckling up to weaning age and then they were let loose for grazing. The data considered for the mortality was statistically analysed by applying Chi-square Test (Fedrer, 1967).

Kids mortality has been analysed and depicted in Table 1 according to sex, age and breed. Out of total kids 1463 born, the total mortality was 298, which was found as 20.37 %.

Effect of sex of kids: Out of total 298 deaths, the mortality percentage of the males was 58.38% and for female 41.62%. The mortality in male kids was significantly higher than females. Similar observations have also been made by Joshi et al (1989); Sudhan and Risam, (1991); Peer et al. (1998) and Mohanty et al. (2002). However, Singh and Singh (1970) in Rahmai and Rambouillet breeds of sheep and Lodh et al. (1993) in Black Bengal goat, reported non-significant influence of sex on kids mortality.

Effect of age: Data presented on the basis of age wise mortality in the kids revealed that, the significantly highest kid mortality (60.40 %) was recorded in 0-1 month age group, than both 2-3 month (13.76 %) and 1-2 month age (25.84%) age group. These findings are corroborated by the findings of Lal Krishnan et al. (1979); Peer et al. (1998) and Mohanty et al. (2002).This could be attributed to low nutritional status of pregnant and lactating dams, which might have led to low levels of globulin. The possible association of low nutritional status of pregnant and lactating dams may have some relation to increase the mortality in young ones. This is in confirmation with the present investigation, as all the doe’s
Table 1. Effect of different factors on kid’s mortality

<table>
<thead>
<tr>
<th>Cross breed</th>
<th>Breed</th>
<th>Sex</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>No. Mort.</td>
<td>Male (%)</td>
</tr>
<tr>
<td>B x O</td>
<td>817</td>
<td>134</td>
<td>16.40</td>
</tr>
<tr>
<td>S x O</td>
<td>294</td>
<td>72</td>
<td>24.98</td>
</tr>
<tr>
<td>A x O</td>
<td>195</td>
<td>51</td>
<td>26.15</td>
</tr>
<tr>
<td>J x O</td>
<td>88</td>
<td>22</td>
<td>25.00</td>
</tr>
<tr>
<td>Br x O</td>
<td>69</td>
<td>19</td>
<td>27.53</td>
</tr>
<tr>
<td>Total</td>
<td>1463</td>
<td>298</td>
<td>-</td>
</tr>
</tbody>
</table>

Calculated
\[ \chi^2 = 147.99^{**} \]
\[ \chi^2 = 8.38^{**} \]
\[ \chi^2 = 105.466^{**} \]

i.e. pregnant or lactating were let loose for grazing only and they were not supplemented with any concentrate feeding.

Effect of breed: Among the different crossbreds of Osmanabadi goat, the higher mortality trend was observed in Beetal cross, and lowest was in Barbari cross. The differences among the breeds were significant. The significant effect of breeds on mortality has also been reported by Vihan et al. (1982); Sudhan et al. (1990) and Peer et al. (1998).

REFERENCES