

Prevalence of repeat breeding in cattle

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ABSTRACT

The prevalence of repeat breeding syndrome in 973 cattle in Patna, Bihar, was analysed. The overall prevalence of repeat breeding recorded was 12.02 %. Months and seasons did not have any significant influence on the occurrence of repeat breeding condition.

Key words : Repeat breeding, prevalence, cattle.

The prevalence of repeat breeding in cows is changeable under various managemental conditions. The nature and magnitude varies with month, season, age, parity, lactation and breed wise. The overall incidence of repeat breeding was 17.79 % at Military Dairy Farm, Bareilly (Dhale *et al.*, 1996). Pargaokar and Bakshi (1987), examined 354 Red Kandhari and 192 crossbred cows with 50 % Jersey inherited and found the incidence of repeat breeding 8.00 and 3.00 %, respectively.

The present investigation was carried out at outdoor clinics of Department of Animal Reproduction, Gynaecology and Obstetrics, Bihar Veterinary College, Patna. From 973 cases of infertility, a total of 117 cases of repeat breeder Holstein Frisian crossbred cows were observed. The repeat breeding cows were evaluated on the basis of anamnesis and special gynaeco-clinical for the colour of mucus membrane, genital discharge, cervical relaxation, uterine tone, follicular and luteal status of the ovary and other close observation were also recorded. All the experimental animals were free from external parasites and dewormed with analgon 1.5 gm. bolus/ 300 kg b wt. The cows belong to individual owners and were maintained under diverse husbandry and managemental condition from August 1998 to July 1999.

The overall prevalence of repeat breeding in cattle was recorded as 12.02 % (Table 1). The present result is in agreement with those earlier results of Sharma *et*

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al. (1991) that the crossbred cattle were of H.F.X Local, Jersey X Local in Chotanagpur region of Jharkhand state having an overall incidence of repeat breeding of 15.79%. However, low incidence of 4.2 % was found in (H.F. X Deoni 50 %) by Narladkar *et al.* (1994). Francos (1974) reported the incidence in repeat breeding Holstein-Frisian cows to be 5.00%. Rao and Kotayya, (1980) found the incidence of this syndrome as 8.98 % in crossbred cattle of Andhra Pradesh. The variation in result might be due to differences in breeds of cattle and agro-climatic condition. In the present study, the highest prevalence (16.67 %) was recorded during the month of January and the lowest (6.89%) during May (Table 1).

Season wise prevalence of repeat breeding condition was also studied and it was seen that the maximum percentage (13.50%) being recorded in Winter (November to January) and minimum (10.45%) during Summer (May to July) (Table 2), however this difference was nonsignificant, showed that the season has not much influence on the repeat breeding condition. Sinha (1978) and Rao and Kotayya (1980) also reported nonsignificant effect of season on the incidence of repeat breeding.

Parity wise prevalence of repeat breeding was also analysed. The influence of sequence of calving on prevalence of this condition was highest (25.33%) in cows of second calvers and lowest (10.67%) in fifth

Table 1. Month wise prevalence of repeat breeding in crossbred cows.

Months	Total No. of infertility cases	No. of repeat Breeder cows	Monthwise prevalence of repeat breeding (%)	Calculated Chi-square value at 11 df
August	101	14	13.86	10.82 ^{NS}
September	73	9	12.33	
October	91	8	8.79	
November	115	17	14.78	
December	87	8	9.19	
January	72	12	16.67	
February	84	10	10.84	
March	96	12	12.5	
April	53	6	11.32	
May	58	4	6.89	
June	87	12	13.79	
July	56	5	8.93	
Total	973	117	10.02	

Table 2. Seasonal prevalence of repeat breeding in crossbred cows.

Seasons	Total no. of reproductive disorders	No. of repeat breeder cows	Seasonal prevalence of repeat breeding (%)	Calculated Chi-square value at 3 df
Autumn (Aug.-Oct.)	265	31	11.69	1.97 NS
Winter (Nov.-Jan.)	274	37	13.5	
Spring (Feb.-April)	233	28	12.02	
Summer (May-July)	201	21	10.45	
Total	973	117	12.02	

Table 3. Parity wise prevalence of repeat breeding in crossbred cows.

Parity of cows	No. of repeat Breeder cows	Paritywise prevalence of repeat Breeding (%)	Calculated Chi-square value at 4 df
1 st Partum	16	21.33	4.65 ^{NS}
2 nd Partum	19	25.33	
3 rd Partum	17	22.66	
4 th Partum	15	20	
5 th and Onward Partum	8	10.67	
Total	75	100	

and onwards calvers (Table 3). Hafez (1987) and Dhoble (1996) also recorded maximum incidence during second partum and minimum during fifth partum. Maximum incidence of repeat breeding in second partum might be due to lactational stress, metabolic as well as hormonal imbalance.

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