

PREVALENCE OF REPRODUCTIVE DISORDER AND FEEDING PATTERN FOR DAIRY ANIMALS IN BHILWARA DISTRICT OF RAJASTHAN

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ABSTRACT

In Bhilwara district of Rajasthan state, reproductive disorder and feeding pattern based survey was conducted on dairy animals. To find out the feeding of dairy animals was based mainly on either wheat, Barley, Jowar, Urad and Gram straws with Cotton seed cake and Til cake as a basic ingredient of the ration and some farmers incorporated concentrate mixture and wheat bran additionally, while only a few farmers fed some quality of green fodder i.e. locally available green lucern and green sorghum. The reproductive status of dairy animals highlighted the anestrus followed by repeat breeding and retention of placenta. From the above studies it may be concluded that there was shortage of both major as well as minor nutrients in both species of animals under existing feeding pattern and thus multiple nutrient deficiencies in the ration of dairy animals could be probable cause of anestrus repeat breeder, retention of placenta and prolapse of uterus reproductive disorders.

INTRODUCTION

India has emerged as the largest milk producer in the world, but the productivity of the dairy animals is still dismally low. Many pre and post parturient disorders and low milk production in Indian dairy animals has been attributed to several reasons. However, inadequate nutrition is the largest factor responsible for low milk production, metabolic and reproductive disorder in the well defined breeds of dairy animals (Blood and Radostitis, 2007). Heifers suffer significant economic losses due to various reproductive problems. Other factors associated with anestrus are energy deficiency (Ling et al., 2007). The nutrition deficiencies also fail to prevent many pre and post parturient disorder in dairy animals (Kundu et al. 2005). In Bhilwara district of Rajasthan, reproductive disorder (retention of placenta, prolapsed of uterus, repeat breeder, post partum anoestrus) are common in crossbred cows and buffaloes under field conditions which is most likely due to under feeding and non availability of balanced ration and follow traditional feeding practices. Therefore, it is in the light of above observations an

attempt was made to study the existing feeding pattern and reproductive disorder of dairy animals.

RESEARCH METHODOLOGY

A survey was conducted in 8 villages of Bhilwara district, which covered eighty farmers for each species (cattle and buffalo) of dairy animals. Parameters for the reproductive status of animals included age at first calving, calving interval and the common reproductive disorder like anestrus repeat breeder, retention of placenta and prolapse of uterus. The available feeds wheat and barley straw, maize stover gram and urad straw, moong straw, jowar stover, wheat bran, maize cotton seed cake, urad churi and concentrate mixtures were also available in the study area. The data were compiled and expressed on percentage basis for interpretation of the results.

RESULTS AND DISCUSSION

The results of the average status of reproductive disorder of dairy animals (Table I) the results indicated that anestrus was the most prevalent reproductive disorder 29.25% in buffaloes and 28.44% in crossbred cows. The incidence of repeat breeding

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and retention of placenta were more among the cross-breed cows as compared buffaloes, while prolapse of uterus was higher in buffaloes (6.12%) The average age at first calving was 4.92 ± 0.03 years and calving interval was 18.42 ± 0.31 months for buffaloes, while for crossbred cows average age at first calving 4.67 ± 0.07 years and calving interval was 16.86 ± 0.18 months (Table I)

The feeding pattern for the dairy animals of Bhilwara district (Table II) was mainly based on the use of straw, Til cake, Cotton seed cake, Wheat bran and Concentrate mixture. Nearly one third of the farmers (37.5%) used wheat straw, cake and concentrate mixture and gram churi was used up to the extent of 5.62% of the farmers only. The Cotton seed cake was

the only oil seed cake being used as the ration of dairy animals and some farmers used til cake in the dairy ration. It has also been reported that prolonged in adequate protein intake reduce the reproductive performance of cattle (Blood and Radostitis, 2007.)

CONCLUSION

It may be concluded from the above studies that the available feeds being used in the ration of dairy animals were mainly the agricultural by-products. In which inadequate of macro and micro nutrients, and these multiple nutrient deficiencies may be a probable cause of prevailing reproductive disorder in this region. Hence supplementation of nutrients for dairy animals of Bhilwara may be a beneficial approach for getting optimum reproductive efficiency.

Table 1: Status of reproductive disorders of dairy animals

No. farmers of	No. of animals	Age at Calving (Years)	Calving Interval (Months)	Anestrous cases	Repeat Breeder	Retention Placenta	Prolapse of Uterus	
Buffaloes	80	147	4.92 ± 0.03	18.42 ± 0.31	43 (29.25)	13 (8.84)	10 (6.80)	9 (6.12)
Crossbred Cows	80	232	4.67 ± 0.07	16.86 ± 0.18	66 (28.44)	28 (12.06)	27 (11.63)	6 (2.58)

Table 2: Feeding pattern of dairy animals

No. of farmers	WS+CSC +CM	WS+TC+ Maize grain	WS+WB+ CM	MS+CSC +WB	MS+TC+ Urad churi	GS+BS+ CSC	JS+WB+ CM	WS+TC +GC
160	60 (37.5)	23 (14.37)	10 (6.25)	16 (10.0)	18 (11.25)	8 (5.0)	16 (10.0)	9 (5.62)

WA=Wheat straw, TC=Til cake, CM = Concentrate mixture, CSC=Cotton seed cake, WB=Wheat bran, GS=Gram straw, BS=Barley straw, JS=Jowar Stover, GC=Gram churi, MS=Maize Stover

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