Short Communication

On Farm Testing on Effect of Feeding Mineral Mixture and Hormonal Catalyst in Reduction of Calving Interval in Buffaloes

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INTRODUCTION

The relationship between nutrition and reproduction is a topic of increasing importance and concern among dairy producers, veterinarians, feed dealers and extension workers. The interaction between nutrition and reproduction has long been known to have important implications for the reproductive performance. Sharma (2011) has reported that the differences in the feeding practices of dairy animals followed by the farmers account for most variation in reproductive performance between herds and among animals within herds. The level of feeding and the body weight of the animal affect fertility. The major cause of low reproductive efficiency in the buffaloes is relatively late onset of puberty and longer calving intervals. The losses due to prolonged calving intervals are summarized as follows: loss of milk, excessive additional feed cost and delay in replacement stock. Hence, high rate of reproductive efficiency in dairy animals plays a pivotal role in making dairy farming more profitable.

Minerals are important for all physiological processes in animals including reproduction. Mineral deficiencies and imbalances are often cited as causes of poor reproduction. It is evident that adequate amounts of minerals must be provided, but little is known about the effects of marginal deficiencies and imbalances. The same is true of excessive intakes of minerals which may indeed be harmful. The minerals are the essential nutrients bearing a significant role in the animal reproduction because their deficiency produces detrimental effect on the performance of the livestock (Akhtar et al 2009). On mineral supplementation, improvement in the reproductive performance have been reported (Newar et al 1998). The present on farm testing was thus, undertaken to find out the effect of feeding mineral mixture and hormonal catalyst on reduction of calving intervals in Mehsana buffaloes so that dairy farmers can be made aware of these technologies.

MATERIALS AND METHODS

An on farm testing was carried out in the different villages of Mehsana District during the period 2009 to 2013. Every year, twenty one animals were selected from different villages to carry out this study. All the animals were free from physiological and anatomical disorder and recently parturated. Animals were then divided in three groups of 7 animals each. The experimental treatments were Group 1, maintained under normal feeding and animal husbandry practices as per farmer's choice (control group); Group II, supplemented with mineral mixture @ 30 gm per day per animal; Group III, supplemented with mineral mixture @30 gm per day per animal plus hormonal catalyst (Prajana 3 capsules per day for 3 days). Area specific mineral mixture used in the study was prepared by Dudh Sagar Co operative Dairy, Mehsana. For feeding of the animals, green fodder (lucern and oats) and dry fodder (sorghum and wheat straw) were used. The data were recorded monthly during the study period (Table 1).

RESULTS AND DISCUSSION

The data (Table 2) revealed that in treatment group

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CONCLUSION

The findings of present study revealed that the use of mineral mixture and hormonal catalyst in recently calved buffaloes shorten the calving interval. The calving interval in animals under group I, II and III was observed to be 18.3, 16.0 and 14.6 months, respectively. Thus, it was evident that feeding of mineral mixture and hormonal catalyst together helped in reducing the inter-calving period in buffaloes.

REFERENCES


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