BREEDING PRACTICES IN DAIRY ANIMALS OF RURAL AREA UNDER MILK SHED OF NORTH GUJARAT

R. J. Modi and N. B. Patel

Department of Livestock Production and Management
College of Veterinary Science & Animal Husbandry
SDAU, Sardarkurshinagar- 385 506, Gujarat

ABSTRACT

A survey work on breeding practices followed in dairy animals of rural area in Sabarkantha district of North Gujarat was carried out. One hundred respondents of 10 villages having elite dairy animals were included in the study. Data revealed that 100 per cent farmers observed only mucus discharge and bellowing as a sole symptom of heat detection. Almost all farmers used AI for breeding their crossbred cows, while for buffaloes 13.00 and 5.00 per cent farmers followed AI and nature breeding, respectively, and the remaining 82.00 per cent farmers opted for both A.I. and NS. The AI/NS was followed between 12 and 24 hours after heat detection by all the respondents. Results revealed that majority of cows (82.18%) and buffaloes (90.00%) had = 15 months and 18 months of calving intervals, respectively. Poor result of AI (16.00%) and higher incidence of repeat breeding (22.00%) in buffaloes were the main constraints faced by the farmers. Better awareness of farmers regarding breeding of dairy animals was observed due to co-operative system in the district.

KEYWORDS: Breeding practices, Rural area, Dairy animals

INTRODUCTION

Sabarkantha district of North Gujarat region is one of the most advanced milk shed areas for milk production and animal husbandry. The climatic condition is arid to semi-arid type with average rainfall of 75 cm. The present study was carried out regarding the heat detection, method of breeding, time taken for service after heat detection and calving interval in crossbred cows and buffaloes of milk shed area of Sabarkantha district of Gujarat.

MATERIALS AND METHODS

To fulfill the objectives, 10 villages of 5 talukas of Sabarkantha district were selected as per stratified random sampling. In each village 10 farmers with elite animals (more than 10 kg milk/ day/animal) were interviewed to know the breeding practices followed by them with constraints in breeding. Questionnaire developed for this purpose was used to seek the information. A total of 100 farmers (20 farmers in each taluka) were nterviewed. The farmers were categorized as large (> 10 acres land), medium (5 to 10 acres land) and small (<5 acres land) according to land holding and as large (>10 animals), medium (5 to 10 animals) and small (1 to 5 animals) according to herd size.

RESULT AND DISCUSSION

It was found that 33, 48 and 19 per cent farmers had small, medium and large size herd holding, respectively. Majority of farmers (42 %) preferred medium herd size followed by small (37 %) and large (21 %) herd size.

It was found that 27 per cent farmers reared only buffaloes while 73 per cent farmers kept both crossbred cows and buffaloes. Keeping both crossbreds and buffaloes is a good combination to sale milk uniformly round the year. Data revealed that 100 per cent farmers observed only mucus discharge and bellowing as sole symptom of heat detection. Estrous symptoms were pronounced in morning or cool hours of the day. The results are in accordance to Sahu (2001) who observed that majority of respondents of Karnal and Kurukshetra district of Haryana detected heat in their animals by mucus discharge and bellowing.

Almost all farmers (100%) used artificial insemination (A.I.) for breeding their crossbred cows due to good infrastructure available for easy and timely AI services in villages. Dairy co-operative union and ICDP play important role for the purpose. Similarly, Rao (1987) observed that majority of farmers adopted AI in crossbred

animals.

In buffaloes 13.00 and 5.00 per cent farmers followed breeding by artificial insemination and natural service, respectively, while the remaining 82.00 per cent farmers expressed options for both AI and natural service. These results are however contradictory with Sohal (1985) who observed that AI was not accepted by majority of the buffalo owners of Kurukshetra district of Haryana. Due to better understanding of AI and better results being obtained from AI, farmers in Sabarkanth district of Gujarat preferred artificial insemination. However, easy availability of buffalo bull had some impact on natural breeding of buffaloes in interior places. All respondents bred their female animals by either AI or NS between 12 and 24 hrs of heat detection due to better conception rate they had obtained from long experience of animal keeping.

The calving interval is the most important reproductive trait of dairy animals. For improved efficiency it is desirable to have shorter calving interval to produce a calf every year. Data revealed that 26.02, 56.16 and 17.80 per cent crossbred cows under survey area had 12 to 13 months, 13 to 15 months and more than 15 months calving interval, respectively. The results are similar to the observations of Natchimuthu and Ramkumar (2004) in villages of Pandicherry. Among buffaloes 22.00, 68.00 and 10.00 per cent had 12 to 15 months, 15 to 18 months and more than 18 months calving interval, respectively. It is a good indication of better awareness of farmers regarding breeding of dairy animals. Calving interval in buffaloes was significantly different due to taluka and land holding size; while frequency of service of buffalo by AI or NS or both was highly significantly different between talukas. Trends in other parameters of breeding practices were more or less similar among different talukas, land holdings and herd size.

It was found that only 14, 16 and 22 per cent farmers, respectively, complained for non-availability of improved sire, poor results of AI particularly in buffaloes and repeat breeding problem in buffaloes particularly during summer. The results are similar to the findings of Sohal (1985), Dixit and Narwal (1991) and Rakshe et al. (1988). The constraints of non-availability of improved sire faced by the farmer of a particular area, might be due to less trust in AI and farmers were not economically sound to rear their own breeding bulls.

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