Review

Study on the management practices of the farmers rearing Jersey x Sahiwal cows in Chittoor District of Andhra Pradesh

A. Reddy Varaprasad¹, T. Raghunandan², M. Kishan Kumar³ and M. Gnana Prakash⁴

¹Sri Venkateswara Veterinary University, Tirupati, India.
²Livestock Research Institute, College of Veterinary, Science, Rajendranagar, Hyderabad, India.
³Dairy Experimental Station, LRI, College of Veterinary Science, Rajendranagar, Hyderabad, India.
⁴Department of Animal Genetics and Breeding, College of Veterinary Science, Rajendranagar, Hyderabad, India.

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The study on the managerial practices followed by the farmers rearing Jersey x Sahiwal cows revealed that 25.8 and 56.3% of the farmers were feeding green fodder ad libitum and in limited quantity, respectively. Majority of the farmers that is, 77.4% were feeding dry fodder ad libitum. Only 5.3% farmers were feeding optimum level of concentrate feed while majority of the farmers (81%) were feeding restricted concentrate feed. Regular feeding of mineral mixture was practiced by 63.7% of the farmers. All the farmers were aware of heat detection in cows and artificial insemination. Present study revealed that on an average, 2.43 inseminations were required for each conception. Most of the farmers (91.68) provided kutcha housing to animals while 27.9% farmers had manure disposal pits. Average hygiene levels were observed in most of the cases. All the dairy farmers allowed suckling by their calves before and after milking and followed regular twice a day full hand milking. Weaning of calves was not followed. Mastitis was the major health problem faced by the farmers followed by theileriasis and FMD. Prevalent reproductive problems were repeat breeding, anoestrus and retained placenta. Most of the farmers (89%) were vaccinating the animals by the vaccines provided by animal.

Key words: Jersey x Sahiwal cows, managerial practices, farmers, Chittoor, Andhra Pradesh.

INTRODUCTION

Chittoor District of Andhra Pradesh has 1.10 million cattle, out of which 0.56 million are Jersey X Sahiwal crosses. Progeny Testing Programme (PTP) was started in the year 1987 in Chittoor district and at present most of the cattle are stabilized at 50% Jersey X Sahiwal blood level. This breed is considered to be drought and disease resistant, average milk yielder and well accepted to the Chittoor district. In the present study an attempt has been made to find out the management practices followed by the farmers rearing Jersey x Sahiwal cows.

MATERIALS AND METHODS

A total of 190 farmers from 8 mandals in and around Chittoor where the Progeny Testing Programme is going on since two decades were interviewed, for collection of data on the management practices followed by the farmers in rearing Jersey X Sahiwal cattle. Twenty three villages are selected for the study according to the services offered by the Animal Husbandry department. 63.2, 26.3 and 10.5% of the farmers in the selected mandals are covered by Veterinary Dispensary, Rural Livestock Unit and gopalamitras, respectively.

RESULTS AND DISCUSSION

Most of the farmers are feeding concentrates (86.32) with supplementation of mineral mixture (63.68) in the daily ration. Though the district is drought prone and there is difference in the level of feeding green fodder, the farmers are maintaining good milch to dry ratio indicating the dependence of farmers on income from sale of milk.
In the present investigation, it was observed that 25.79% farmers are feeding green fodder *ad libitum*, 56.32% farmers are feeding restricted green fodder and remaining 17.89% are not feeding green fodder at all. This may be due to lack of sufficient irrigation facilities to the farmers in Chittoor. Lack of green fodder is mostly substituted by grazing. It was observed that all the farmers are feeding dry fodder to their cattle and landless farmers purchasing paddy straw to feed their cattle. This observation is in agreement with the findings of Malik (1992) who concluded that landless and small farmers depend largely on grazing and provide less concentrate to their cattle. It was further observed that no farmer is providing additional allowance of feed and fodder during pregnancy. Garg et al. (2005) also reported that majority (95.62%) of the farmers are not providing additional feed and fodders during pregnancy in general and during advanced pregnancy in particular. Only 5.3% of farmers are feeding optimum concentrates, majority of the farmers that is, 81% are feeding concentrate at restricted level and 13.7% are not feeding concentrate at all. Among the farmers 63.68% are providing mineral mixture daily and remaining 36.32% are not providing mineral mixture. In agreement with the present findings, Kamboj and Tomar (2000) and Sahu (2001) reported that farmers were not feeding or feeding minimum amount of concentrate feed to their cattle. Dwaipayan et al. (2005) and Garg et al. (2005) reported that 62.5% of farmers are not feeding mineral mixture to their dairy animals. However, in the present study it was observed that both the concentrate feeding and mineral mixture supplementation are practiced by most of the farmers. This indicates the awareness of the farmers about the benefits of feeding concentrate and mineral mixture. Moreover, concentrate feed and mineral mixture was provided under Progeny Testing Programme as incentives by the Animal Husbandry department. Urea treatment of paddy straw is not practiced in the study area while Arora et al. (2008) reported that the farmers of Uttarakhand are practicing urea treatment to roughages as a low cost practice. About 40% of the total crossbred population of Andhra Pradesh was present in this district. The findings of the present study indicated that all the farmers are aware of heat detection and artificial insemination. The number of artificial Inseminations conducted in the year 2008 to 2009 was 5.91 lakhs which is the highest in Andhra Pradesh (Integrated sample survey report 2008 to 2009 of Animal Husbandry Department, Government of Andhra Pradesh). It was also observed that on an average, 2.43 inseminations were required per animal for each conception. Sohal (1985), Rao (1987), Dhiman et al. (1990), Arora et al. (2008) and Meena et al. (2008) reported lower levels of awareness about Artificial back. Special Livestock Breeding Programme (SLBP) was implemented in Chittoor district and under this, the calves born through Artificial Insemination were provided with concentrate feed up to its first calving at subsidized cost through Animal Husbandry department. This scheme really helped the farmers and brought awareness among the farmers about the artificial insemination. Among selected farmers 91.6% farmers provided housing and the remaining 8.4% did not provide sheds. Among livestock sheds, 55.8% were covered with thatched roof, 33.63% were with asbestos roof and the remaining 3.2% were pucca sheds. With regard to flooring, 12.1% sheds were with cement flooring and the remaining 87.9% houses were with kutcha flooring only. Shrivastava and Promila (1983), Lal (1999), Singh and Singh (2000) and Sah et al. (2003) also reported similar type of houses for animals with majority of farmers. On the contrary, Sohi and Kherde (1980) reported in their study that large number of dairy farmers had pucca sheds for their animals as they were commercial dairy farmers and the results of present study differed with the findings of the said authors as this study was taken up in rural areas. On observation, the floor is dry in 26.8% and wet in 73.2% of sheds. Regarding manure disposal, only 27.9% farmers were having manure disposal pits, 68.4% farmers were heaping the dung on the land surface without dumping into any pit and the remaining 3.7% were not following proper management in manure disposal. Similarly, 27.4% animals were maintained hygienically, 69.0% had average hygiene levels and remaining 3.6% are maintained under poor hygienic conditions.

It is observed that 100% farmers were following regular milking intervals and milk their animals twice daily. The weaning of calves which is an important management practice is not being followed by the farmers in the study area. Majority of the farmers followed full hand milking (82.1%) while a few farmers (17.9%) followed knuckling. Milking machines were not found to be used by any farmer in the present study. Meena et al. (2008) also observed that a majority of the farmers follow full hand milking. It was observed that the mean milking time ranged from 5 to 15 min with an average of 9.03 min for complete milking of one animal.

An attempt was made to study the incidence of important diseases affecting dairy cows. Mastitis was a major affliction in dairy cows as expressed by 50.3% farmers followed by theileriasis (31.9) and foot and mouth disease (11.6). The incidence of theileriasis might be due to the fact that crossbreds but not indigenous cattle are more prone for tick born diseases. Though vaccine is available for theileriasis prevention, maintenance of cold chain and cost make its wide spread use prohibitive. Similar reports of incidence of theileriosis were reported by Thirunavukkarasu and Prabhaharan (1992) and Rajendran and Prabhakaran (1993). On the reproductive problems faced by the animals in the study area, 45.3% farmers expressed the problem of repeat breeding, 41.6% anoestrus and remaining 13.1% farmers expressed the problem of retained placenta in the
livestock they owned. Among the selected farmers 89.0% were vaccinating the animals by the vaccines provided by the State Department of Animal Husbandry while the remaining 11.0% farmers were not vaccinating their animals. None of the farmers was s following the complete recommended vaccination schedule to protect their animals. Meena et al. (2008) and Lal (1999) reported similar level of adaptation in vaccination of cows. Some of the elite farmers (8.42%) are following deworming schedule for dairy animals, 66.8% farmers follow need based deworming and 24.7% were not aware of deworming in large animals. Hazarika and Anand (1988) reported similar results in deworming of adult cattle. This is due to lack of awareness of the farmers about the vaccinations and deworming. As the area is under the Progeny Testing Program, the government veterinary services provided were great. It was observed that 63.2% farmers were provided with the services of a graduate veterinarian, 26.3% farmers with a para veterinarian and remaining 10.5% with Gopalamitras (lay inseminator) under the supervision of a graduate veterinarian.

Conclusion

The study revealed that 25.8 and 77.4% of the farmers were feeding green and dry fodder ad libitum, respectively. Only 5.3% farmers were feeding optimum level of concentrate feed. Regular feeding of mineral mixture was practiced by 63.7% of the farmers only. All the farmers were aware of heat detection in cows and Artificial Insemination. Present study revealed that on an average, 2.43 inseminations were required for each conception. Most of the farmers (91.6) provided kutcha housing to animals. Only 27.9% farmers had manure disposal pits. All the dairy farmers allowed suckling by their calves before and after milking and followed regular twice a day full hand milking. Mastitis was the major health problem faced by farmers followed by theileriasis and FMD. Prevalent reproductive problems were repeated breeding, anoestrus and retained placenta. Most of the farmers (89.0%) were vaccinating the animals by the vaccines provided by Animal Husbandry Department.

REFERENCES


