

**STUDY ON BREEDING MANAGEMENT PRACTICES OF BUFFALOES IN  
RELATIONSHIP WITH SELECTED TRAITS OF RESPONDENTS IN JAIPUR  
DISTRICT OF RAJASTHAN (INDIA)**

D.S. Manohar, Basant Bais, S.C. Goswami, A.K. Jhirwal, D. Choudhary

Department of Livestock Production and Management

Apollo College of Veterinary Medicine, Jaipur

Received 7-3-2013 Accepted 20-11-2013

Corresponding author : [devendrasingh12@hotmail.com](mailto:devendrasingh12@hotmail.com)

**ABSTRACT**

A field survey was conducted to collect the first hand information on the breeding management practices of buffalo farmers in Jaipur district of Rajasthan. Only 30 per cent of the respondents adopted A.I. Majority (82.50 per cent) of the respondents used crossbred ( Khumbi,) and a small fraction of indigenous bull (17.50 per cent) for natural service of their buffaloes. 62.50 per cent of the respondents practiced pregnancy diagnosis of their buffaloes. The size of herd was found significantly ( $p \leq 0.01$ ) correlated with all the breeding management practices namely, breeding method, type of breeding bull, heat detection, pregnancy diagnosis, treatment of repeat breeders etc. Education was significantly ( $p \leq 0.05$ ) correlated with all the breeding management practices.

**KEY WORD:** Survey, breeding management, Buffalo, Interview schedule

**INTRODUCTION**

Livestock rearing and crop husbandry are the two important components of mixed farming which influence agricultural economy leading to sustainable agriculture and are complementary to each other. Livestock sector plays a crucial role in shaping the rural economy of India. Buffalo is the principal dairy animal of India. Buffalo holds the greatest promise for food security and sustainable development in the 21<sup>st</sup> century as these animals form an integral part of the typical farming system in India. It is a major continuous income generating activity for the rural households. An efficient management needs a strong database. Therefore, it is imperative to obtain first-hand information on the existing buffalo breeding management practices being followed by the buffalo keepers.

**MATERIALS AND METHODS:**

A field survey was conducted to collect the information on breeding management practices adopted by buffalo rearers from four villages of two tehsils of Jaipur district of Rajasthan (INDIA) and 20 respondents were selected randomly from each village consisting 160 respondents. The data were collected through personal interview technique from each selected respondents. An interview schedule was prepared with the help of College of Veterinary and Animal Science Bikaner, Rajasthan Cooperative Dairy Federation, District Animals Husbandry Department and experts on the subject of extension education.

The respondents were categorized on the basis of herd size of buffaloes possessed by them. The adult buffalo units were considering milch, dry, pregnant buffalo or buffalo bull one adult unit and, heifer and buffalo calf were assumed as 0.5 & 0.25 adult unit, respectively. Respondents were classified as Small (up to 3.5 units), Medium (from 3.6 to 5.5 units) and Large (above 5.5 adult buffalo units) group. Five traits i.e. age, herd size, family size, education and land holding of respondents were identified and statistically correlated with existing breeding and health care management practices by using Chi Square ( $\chi^2$ ) analysis as per Snedecor and Cochran (1994).

## RESULTS AND DISCUSSION

The results of the present study indicated that only 30 per cent of the respondents adopted A.I and 70 per cent adopted natural service. This may be due to wrong notion among livestock owner for A.I. and also due to lack of A.I. facility in the study area. The present results of A.I are in accordance with the results observed by Malik and Nagpaul (2000), Kumar *et al.* (2006), Tiwari *et al.* (2009) and Rathore *et.al.* (2010). Majority (82.50 per cent) of the respondents used Khumbi (crossbred of Murrah and non descript ) and a small fraction of pure indigenous breed (17.50 per cent) bull for natural service of their buffaloes. Similar findings were observed by Singh *et al.* (2004).

The percentage of respondents followed practice of insemination at early, mid and late stage of heat was 63.75, 36.25 and zero respectively. It was noted that all the respondents observed their buffaloes for heat symptoms regularly. 62.50 per cent of the respondents practiced pregnancy diagnosis of their buffaloes, whereas 37.50 per cent did not practice pregnancy diagnosis. These results are almost similar as observed by Sabapara *et al.* (2010). The results indicated that all the respondents treated their buffaloes for anoestrous and repeat breeding. 75 per cent of the respondents properly treated their problematic buffaloes with the help of veterinary doctor and stockman(livestock assistant). The present findings recorded in text are well supported by Malik *et al.* (2005). Only 25 per cent of the respondents were dependent on quacks for the treatment due to ignorance. Thus, it is quite evident from the emerging results of various breeding practices followed by the buffalo keepers in the study area that majority of the respondents were adopting the recommended breeding practices. There was a wide gap in adoption of A.I. practices may be due to lack of awareness or proper conviction about the practice.

The present finding indicated that relationship between selected traits and adoption of buffalo breeding management practices regarding herd size of the respondents, was significantly ( $p \leq 0.01$ ) related to adoption of breeding practices. Herd size shows the economic status of the farmers, higher the economic status, higher is the risk taking capacity, so higher status farmer takes risk and adopt the practice earlier. Size of land holding, age and family size were non significantly related to adoption of breeding management. Whereas education was significantly ( $p \leq 0.05$ ) related to breeding management practices.

## REFERENCES

- Kumar, U., Mehla, R. K., Chandra, R. and Roy, B., (2006). Studies on managerial practices followed by the traditional owners of Sahiwal cows in Punjab. *Indian J. Dairy Sci.* **59**(2): 100-105.
- Malik, D.S. and Nagpaul, P.K., (2000). Breeding and health management of Murrah buffaloes in rural areas of Haryana. *Indian J. Anim. Prod. Mgmt.* **16**(4): 144-145.
- Malik, B.S., Meena, B.S. and Rao, S.V.N., (2005). Study of existing dairy farming practices in Uttar Pradesh. *J. Dairying. Foods & H.S.* **24**(2): 91-95.
- Rathore, R. S. Singh, R. Kachwaha, R. N. and Kumar, R., (2010). Existing management practices followed by the cattle keepers in Churu district of Rajasthan. *Indian Journal of Animal Science* **80** (8): 798–805.
- Sabapara, G. P., Desai, P. M., Kharadi, V. B., Saiyed, L. H. and Singh, R. R., (2010). Breeding and health care management status of dairy animals in the tribal area of south Gujarat. *Indian J. Anim. Sci.* **80** (11): 1148–51.
- Singh, P. R., Singh, M., Jaiswal, R.S. and Raikwar, R., (2004). Feeding of existing concentrate mixture to dairy animal in the Kumaon hills of Uttaranchal. *Indian J. Anim. Res.* **38**(2): 147-149.
- Snedcor G.W. and Cochran, W.G. (1994). Statistical methods, 8th Edn., Oxford and IBH Publishing Co., New Delhi.
- Tiwari, R., Sharma, M.C. and Singh, B. P. (2009). Animal feeding and management strategies in the commercial dairy farms. *Indian J. AnimSci* **79** (11): 1183–1184.

□