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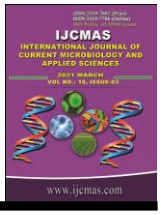

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Study on Knowledge of Owners of Milch Animals about Animal Breeding in Tribal Area of South Gujarat

D. B. Bhinsara*, P. D. Verma, J. J. Pastagia and Hitesh Parmar

Krishi Vigyan Kendra-Narmada, Navsari Agricultural University, Narmada, Gujarat, India

**Corresponding author*

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A B S T R A C T

The present study was conducted to know the knowledge of dairy animal owners in animal breeding practices a field survey in Surat district (Mahuva, Mandvi, Umarpada and Mangrol talukas. From each talukas three villages (60 cattle owners) were selected to take the observation related to the study. The present study revealed that majority of dairy farmers were belonged to middle to old age group, educate up to primary and secondary level, marginal to small land holdings, rearing animals up to 10. Among respondents belonged to medium to high level of knowledge and low to medium level of adoption respectively. Knowledge and adoption were positively correlated with breeding efficiency of animals significantly. That clearly showed the importance of improved practices. In the regression analysis the contribution of all the selected independent variables were up to the extent of 67.86 per cent contributed with breeding efficiency of the animals clearly showed the importance of selected variables under study namely Age, Education, Size of land holding, Total No. of Animals, No of calving, Age of animals, Age at 1st calving, No. of A.I, Knowledge and Adoption. It was observed from the results of this study that the breeding efficiency in tribal areas is very low *ie*73.33 % of the animals having low breeding efficiency.

Introduction

The present study was undertaken to document information regarding breeding practices followed by the tribal farmers of Surat district for providing help in adoption of Animal breeding practices in the area. A field study was conducted to document information on breeding practices followed by the dairy animal owners of Surat district of south Gujarat. Majority of the population in the *taluka* is tribal. While selecting respondents due care was taken to ensure that they were equally distributed in the village and truly stand for animal breeding practices existing in the area. The selected farmers were interviewed and the preferred information was collected with the help of predesigned and pretested questionnaire.

The main objectives of this study include to study the selected characteristics of the respondents. To study the extent and factors of animals breeding problems. To measure the

knowledge of respondent about animal breeding. To identify the problems faced by the farmers in animal breeding and suggestions to overcome the problems.

Materials and Methods

The study was conducted in all tribal dominated talukas of Surat district (Mahuva, Mandvi, Umarpada and Mangrol). Purposively sampling technique was used to select 60 cattle owners. The reason behind small sampling size is that the age at first calving should be known by the cattle owners. From each talukas three villages were selected to take the observation. To know the extent of animals breeding problems prescribed formula suggested by Gillmore and Tomar was used. Knowledge and adoption were measure with 0 and 1 score. The obtained score one of a particular practice was given for knowledge & adoption and zero for no knowledge and non- adoption of a particular technology, respectively. These scores were again converted in to percentage for all the selected improved practice. The information was collected through personal interview methods with the help of well structured schedule. The statistical tools like, correlation, regression were used to interpret the result.

Results and Discussion

Majority of the respondents (Table 1) were belonged to middle to old age group, educate up to primary and secondary level, marginal to small land holdings, rearing animals up to 10. Among respondents belonged to medium to high level of knowledge and low to medium level of adoption respectively.

Table.1 Distribution of respondents as per their characteristics (n=60)

Sr No.	Particular/category	Frequency and %	Sr No.	Particular/category	Frequency and %
1.	**Age:** 1. up to 35 years 2.35-50 3.>50 years	 15(25.00%) 26(43.33%) 19(31.67%)	5.	**Number of AI** 1. One time 2.Two time 3.Three time 4.>Four time	 12(20%) 27(45%) 8(13.33%) 13(21.67%)
2.	**Education:** 1.Illiterate 2.Primary 3.9-12 std 4.>12 std	 7(11.67%) 26(43.33%) 24(40.00%) 3(5%)	6.	**Knowledge:** 1.Low(Up to 40 score) 2.Medium(44 to 64) 3.High>64	Mean-52.51 SD-12.28 5(8.33%) 27(45%) 28(46.67%)
3.	**Size of land holding** 1. Land less 2 marginal 3 Small 4. Medium 5.Large	 10(16.67%) 32 (53.34%) 8(13.33%) 5(8.33%) 5(8.33%)	7	**Adoption:** 1.Low(Up to 28score) 2.Medium(>28 to 52 to) 3.High>52	Mean-40.63 SD-11.88 7 (11.67 %) 44(73.33%) 9(15%)
4.	**Number of animals** 1.up to 5 2.5-10 3.>10	 26(43.33%) 24(40%) 10(16.67%)	8	**Breeding Efficiency** 1.<80 % 2.>80	 44(73.33) 16(26.67)

Table.2 Correlation coefficient between breeding efficiency and independent variables (n-60)

Sr No.	Independent variables	R- Value
1	Age	-0.0190
2	Education	0.1338
3	Size of land holding	-0.1195
4	Total No. of Animals	0.1645
5	No of calving	0.0056
6	Age of animals	-0.4959
7	Age at 1st calving	-0.3301
8	No. of A.I	-0.3497
9	Knowledge	0.6851
10	Adoption	0.8281
Two tail value: 0.2539		

Table.3 Multiple regression analysis between Breeding efficiency and independent variables (n-60)

Sr No.	Independent variables	Regression coefficient Value	t' Value
1	Age	-0.2535	-1.624
2	Education	0.2393	0.579
3	Size of land holding	-0.4216	-0.356
4	Total No. of Animals	-0.0037	-0.015
5	No of calving	3.1340	0.974
6	Age of animals	-0.2463	-1.568
7	Age at 1st calving	0.1693	1.025
8	No. of A.I	0.1194	0.101
9	Knowledge	0.0203	0.083
10	Adoption	1.1786	4.298**
r2 =0.67.86(67.86 %)			

The respondents were facing the problems in successful AI as most of the respondents were in the category of 2-4 times AI of their animals. The association(Table 2 and 3) between yield dependent variable and selected independent variables indicated that age of animals, age at first calving and number of AI were negatively correlated with breeding efficiency significantly. however, knowledge and adoption were positively correlated with breeding efficiency significantly which clearly showed the importance of improved practices. In the regression analysis the contribution of all the selected independent variables were up to the extent of 67.86 per cent contributed with breeding efficiency of the animals clearly showed the importance of selected variables under study.

The major constraints faced by the respondents were anoestrus and repeated breeding, poor veterinary services in general and AI particular, timely pregnancy diagnosis, irregular availability of concentrate and mineral mixture, scarcity of green fodder, Kaccha shed and lack of technical know-how, availability of good quality animals .

The suggestions offered by the respondents were timely veterinary services including AI and Pregnancy diagnosis, require financial help to make of pucca shed more number of awareness and training programme must be organized at village level.

It is concluded from the result of this study that the breeding efficiency in tribal areas is very low ie 73.33 % of the animals having low breeding efficiency. Rearing animals up to 10.Respondents belonged to medium to high level of knowledge and low to medium level of adoption respectively. Knowledge and adoption were positively correlated with breeding efficiency of animals significantly. In the regression analysis the contribution of all the selected independent variables were up to the extent of 67.86 per cent contributed with breeding efficiency of the animals clearly showed the importance of selected variables under study namely Age, Education, Size of land holding, Total No. of Animals, No of calving, Age of animals, Age at 1st calving, No. of A.I, Knowledge and Adoption.

Therefore following recommendations have been made to improve the reproductive potential of dairy animals in tribal areas.

Cattle owners are advised to take care of heifers as the weight gain should be up to 230-280 kg as early as possible with in a period of 18 to 24 months of age.

Cattle owners are advised to follow the milk teeth replacer method to know the age of animals.

Extension functionaries are advised to create the awareness about how to judge the age of animals, reduction of calving interval as well as the age of first calving to improve the breeding efficiency of dairy animals.

Extension functionaries are advised to aware the cattle owners about myth of early pregnancy of animals resulted in to low milk and reducing milking days is not scientifically true.

References

Anonymus, (2011). 29th survey report on estimates & major livestock products for the years 2011-12 Guj. State, Directorate of Animal Husbandry, Gandhinagar and Livestock Census 2007.

Dhami, A.J., Parmar, S.C., Parmar, C.P. and Chaudhary, M.M., 2016. Animal husbandry practices and problems of dairy farmers in Coastal areas of South Gujarat. The Indian journal of veterinary sciences and biotechnology, 12(02), pp.12-17.

Patel, N.B., Saiyed, L.H., Rao, T.K.S., Ranjeetsingh, R., Modi, R.J. and Sabapara, G.P. 2013. Status and constraints of dairying in the tribal households of Narmada valley of Gujarat-India. Animal Science, 7(3), pp.31-37.

Sabapara, G.P., Desai, P.M. and Kharadi, V.B., 2013. Knowledge of dairy animal owners in improved dairy husbandry practices in tribal area of south gujarat. Asian Journal of Dairy & Food Research, 32(4).

Sabapara, G.P., Desai, P.M., Ranjeet Singh, R. and Kharadi, V.B., 2010. Breeding and health care management status of dairy animals in the tribal area of south Gujarat. *Indian Journal of Animal Sciences*, *80*(11): 1148.

Sabapara, G.P., Desai, P.M., Ranjeet Singh, R. and Kharadi, V.B., 2012. Constraints of tribal dairy animal owners of South Gujarat. Indian Journal of Animal Sciences, 82(5): 538.

Sabapara, G.P., Fulsoundar, A.B. and

Kharadi, V.B., 2014. Knowledge of dairy animal owners in improved dairy husbandry practices in Surat district of south Gujarat. International Journal of Farm Sciences, 4(3), pp.165-173.

Sing, R.R., Rao, T., Patel, N. and Kharadi, V.B., 2019. Array of existing breeding and health care management practices followed by dairy animal owners of coastal area of south Gujarat. Indian journal of animal production and management, 35(3-4): 11-14.

Singh, R., 2018. Existing Animal Husbandry Practices in Narmada District of Gujarat in India. Technology, 2(2): 23-29.

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