The Indian Journal of Veterinary Sciences & Biotechnology ***(2017) Volume 12, Issue 3, 77-80***

ISSN (Print) : 2394-0247 : ISSN (Print and online) : 2395-1176, abbreviated as IJVSBT

http://dx.doi.org/10.21887/ijvsbt.v12i3.7100

Submitted : 25-08-2016 ***Accepted : 11-11-2016*** ***Published : 15-02-2017***

Adoption of Cattle Cross Breeding: A Study of Farmers' Attitude in Bidar District of Karnataka

Prakashkumar Rathod, Siddaling Swamy Hiremath and A.G. Bhanu Prakash

Department of Veterinary and A.H Extension Education

Veterinary College, Bidar-585226, Karnataka State

Corresponding Author: prakashkumarkr@gmail.com

Abstract

An ex-post-facto and exploratory study was conducted to explore the attitude of 200 dairy farmers towards cross breeding and factors affecting its adoption using pretested interview method in Bidar District of Karnataka. The study revealed that majority of the dairy farmers (74.0 %) belong to medium level of favorability followed by high and low level of favourable attitude towards cross breeding. About 85 per cent respondents perceived that adoption of cross breeding would give them better recognition in society and about 74 per cent farmers felt that cross breeding was essential to improve milk production. The results show that there is a need to give greater emphasis to educate the farmers regarding cross breeding for effective adoption and popularization of the technology.

Key Words: Adoption, Attitude, Cross breeding, Karnataka

Introduction

The livestock sector is one of the fastest growing segments of the agricultural economy, particularly in the developing world (Delgado *et al*., 2009). Despite rapid advances in the animal husbandry technologies and their roles in improving livestock sector, productivity of this sector is still very low in India (Chander *et al*., 2010) which may be due to poor adoption and diffusion of new technologies like cross breeding, urea treatment of dry fodder etc (Rathod *et al.,* 2014). Among various livestock technologies, cross breeding technology is considered very promising but, the crossbred cattle population in India is about 16 per cent (GoI, 2012) with huge regional variations in terms of adoption. Hence, attitude of farmers towards any livestock technology and factors affecting its adoption must be highly emphasized. With this theoretical background, the authors have made an effort to study the attitude of dairy farmers towards cross breeding and factors affecting its adoption in Bidar district of Karnataka.

Materials and Methods

Attitude is a mental position related to thinking, feeling or reacting for or against a psychological object. Being a psychological component, the human mind takes sufficient time to evaluate the technology or object. In this context, an ex-post facto and exploratory study was conducted in Bidar District of Karnataka during February to June 2013 to assess the attitude of dairy farmers towards

cross breeding and factors affecting its adoption. A multistage random sampling technique was followed to collect data from 200 farmers using pretested semi structured interview schedule. Within Bidar District, all the five blocks were selected and two villages per block at the sample size of 20 farmers per village were finalized to make total sample size of 200 farmer respondents for the study. Attitude of dairy farmers was studied using 16 statement attitude scale developed by Kunzru and Tripathi (1994) on a three point continuum. The positive statements were assigned the score of 3, 2 and 1 for agree, undecided and disagree and vice versa for the negative statements. Further, based on mean and SD, the farmers were categorized into different categories. The data collected was statistically analyzed using the tools like frequency, percentage, mean, standard deviation (SD), correlation and regression coefficients.

Results and Discussion

Table 1 depicts that about 85 per cent farmers perceived that adoption of cross breeding would give them better recognition in society and about 73 per cent farmers felt that cross breeding was

Table 1. Attitude of dairy farmers towards cross breeding

N=200

S No	Statements	Agree		Undecided		Disagree	
		f	%	f	%	f	%
1	Cross bred cattle generate more income through higher milk production	146	73.0	31	15.5	23	11.5
2	Adoption of cross breeding in cattle result in further in the milk production in the country	124	62.0	68	34.0	08	4.0
3	In dairy farming, cross breeding in cattle is not a sound breeding practice to adopt	65	32.5	80	40.0	55	27.5
4	Only cross breeding in cattle can increase milk production	112	56.0	30	15.0	58	29.0
5	Adoption of cross breeding does not reflect a scientific attitude towards dairy farming	53	26.5	88	44.0	59	29.5
6	It is essential to adopt cross breeding in cattle to provide more milk production	148	74.0	23	11.5	29	14.5
7	Crossbred cows are not better than buffaloes in milk production	98	49.0	35	17.5	67	33.5
8	Adoption of crossbreeding in cattle is not indicative of progressiveness	62	31.0	102	51.0	36	18.0
9	Low per-capita availability of milk can be augmented through the adoption of cross breeding in cattle	103	51.5	87	43.5	10	5.0
10	It is good to adopt crossbreeding in cattle to get recognition as a better dairy farmers	169	84.5	21	10.5	10	5.0
11	Adoption of crossbreeding in cattle is not essential for socio-economic growth of the livestock owners	60	30.0	82	41.0	58	29.0
12	Owning crossbred animals is a status symbol of the livestock owners	120	60.0	27	13.5	53	26.5
13	Adoption of crossbreeding in cattle is not essential for higher milk production	54	27.0	83	41.5	63	31.5
14	I will advise my neighbor to adopt crossbreeding if he seeks my opinion to enhance the milk production	115	57.5	72	36.0	13	6.5
15	Crossbreeding in cattle is one way to earn more and raise the standard of living	117	58.5	49	24.5	34	17.0
16	There is no demand for the crossbred cows in the market	17	8.5	55	27.5	128	64.0

essential to improve milk production. Interestingly, 9 per cent respondents reported that there was no demand for the crossbred cows in the market while 27 per cent farmers felt that adoption of crossbreeding in cattle was not essential for higher milk production. Further, various statements along with the responses of dairy farmers is indicated in Table 1.

The study (Table 2) revealed that majority of livestock farmers (74.0 %) belong to medium level of favourability followed by 13.0 per cent each for high and low level of favourable attitude towards cross breeding. Almost similar findings were reported by Quddus (2012).

Table 2. Categorization of dairy farmers based on attitude towards cross breeding

Mean-35.705 SD- 4.36 N=200

S. No	Category/Scale (Favorability)	Frequency	Percentage
1	Less Favorable (25-31.34)	26	13.0
2	Favorable (31.35-40.06)	148	74.0
3	More Favorable (40.07-45.0)	26	13.0

N= Number of Observations

The attitude of dairy farmers towards cross breeding was found to be significantly correlated with education, social participation, innovativeness, information seeking behaviour, decision making ability, scientific orientation and economic orientation in the study region.

Table 3. Relation between socio-economic and personal characteristics with attitude of dairy farmers towards cross breeding.

Sl. No	Independent Variables	Corr. Coeff (r)	Reg. Coeff.(b)	SE	p-Value
X_1	Age	-0.094	-0.017	0.021	0.396
X_2	Education	0.172*	0.001	0.289	0.995
X_3	Major occupation	-0.100	0.112	0.247	0.651
X_4	Social participation	-0.247*	-0.145	0.125	0.245
X_5	Landholding	-0.007	-0.006	0.006	0.329
X_6	Annual income	0.118	0.0009	0.002	0.645
X_7	Livestock size	0.071	0.031	0.106	0.766
X_8	Livestock innovativeness	0.415*	0.079	0.040	0.049*
X_9	Information seeking behaviour	0.438*	0.131	0.090	0.146
X_{10}	Decision making ability	0.459*	0.287	0.081	0.0005**
X_{11}	Scientific orientation	0.367*	-0.033	0.175	0.850
X_{12}	Economic orientation	0.381*	0.374	0.238	0.118
Multiple R: 0.5654	R Square: 0.3197	Goodness of fit: 31.97 %			

*Significant @ 5 % level of significance **Significant @ 1 % level of significance

Co-efficient of determination (R^2) of the independent variables was 0.3197. It means that 31.97 per cent of total variation in the attitude towards cross breeding was explained by 12 selected independent variables. The F value was found to be highly significant in the study.

Conclusion

The study conducted in Bidar district of Karnataka revealed that majority of dairy farmers belong to medium level of favorability and hence, there is a need to give greater emphasis to create awareness and educate the farmers regarding the importance of cross breeding technology for its effective popularization and improved productivity.

Conflict of Interest: All authors declare no conflict of interest.

References :

Chander, M., Dutt, T., Ravikumar, R. and Subrahmanyeswari, B. (2010). The Indian J. Anim. Sci., **80**:1115–25.

Delgado, C., Rosegrant, M., Steinfeld, H., Ehui, S. and Courbois, C. (2009) Livestock to 2020. The next food revolution. IFPRI Publication, Washington, USA.

GoI (Government of India) (2012) Report of working group on Animal Husbandry and Dairying on Twelfth five year plan (2012-17), DAHDF, Government of India, New Delhi.

Kunzru, O.N and Tripathi, H. (1994) Research in Animal Science: Measurement Techniques. ICAR-Indian veterinary Research Institute, Izatnagar (U.P), India.

Quddus, M. A. (2012) Bangladesh J. Anim. Sci.*,***41**:124-135.

Rathod, P., Hiremath, S., Manjunathachar, H. V., Balaraj, B. L. and Bangar,Y (2014). The Indian J. of Field Vet., **9**:62-65.

❑