

Socio-Economic Status of Dairy Farmers and its Correlation with Management of Reproductive Disorders in Eastern Plain Zone of Uttar Pradesh

Ashoo¹, H C Verma², R K Singh³, Rajesh Kumar⁴, Ramakant⁵, R P Diwakar⁴

Author Affiliation: ¹PG Scholar, ^{2,6}Associate Professor, ¹Department of Veterinary and Animal Husbandry Extension Education, ²Department of Veterinary Gynaecology & Obstetrics, ³Department of Veterinary and Animal Husbandry Extension Education, ⁴Department of Veterinary Gynaecology & Obstetrics, ⁵Department of Veterinary Medicine, ⁶Department of Veterinary Microbiology, College of Veterinary Science & AH, ANDUAT, Ayodhya, Uttar Pradesh 224229, India

How to cite this article:

Ashoo, H C Verma, R K Singh, et al., Socio-Economic Status of Dairy Farmers and its Correlation with Management of Reproductive Disorders in Eastern Plain Zone of Uttar Pradesh. 2021;9(1):9-12.

Abstract

A study was conducted in Barabanki district of Uttar Pradesh to assess socio-economic status dairy farmers regarding the management of reproductive disorders in eastern plain zone of Uttar Pradesh. The information were generated from 120 dairy farmers, twenty dairy farmers from each of six selected villages, who has minimum at least one milking animal at the time of investigation. The information was generated regarding the management of reproductive disorder due to improper feeding, breeding, and healthcare management practices, and was analysed to reproductive disorders faced by dairy farmers in three categories of animals. Reproductive disorders like dystocia, prolapse, abortion and stillbirth were mostly treated by veterinarian; however, remaining reproductive disorders like anoestrus, repeat breeding, uterine infection etc were treated by dairy farmers and quacks through their own experiences by using different type of indigenous technical knowledge. Socioeconomic status like Age, education and more social participation compression to other socioeconomic status have good management of reproductive disorder in study area. There is need to create awareness regarding scientific animal husbandry practices among dairy farmers.

Keywords: Socioeconomic status; Dairy farmer; Management; Reproductive disorders.

Introduction

Animal husbandry and livestock production is one of the major sources of income of Indian farmers and it has an important role in the Indian agricultural economy. The large ruminants namely cattle and buffalo are integral part of livestock sector followed by other small ruminant species. More than 70% Indian rural people rear livestock and a majority of them are smallholders with

less than 5 dairy animals (Birthal and Jha, 2005; Ghuman and Singh, 2009). Reproductive disorders are one of the major causes of poor productive performance in smallholder dairy farms (Dhami *et al.*, 2018a,b; Kumar *et al.*, 2020a; Kumar *et al.*, 2020b; Husain *et al.*, 2020). Among the major reproductive disorders that have a direct impact on economy of dairy farmers are abortion, dystocia, retained fetal membrane (RFM), pyometra, metritis, prolapse (uterine and vaginal), repeat breeder, anoestrus,

Corresponding Author: H.C. Verma, Assistant Professor, Department of Veterinary and Animal Husbandry Extension Education, College of Veterinary Science & AH, ANDUAT, Ayodhya, Uttar Pradesh 224229, India

E-mail: drhukumchandravarma@gmail.com

suboestrus etc (Kumar *et al.*, 2009; Kumar *et al.*, 2011; Hadush *et al.*, 2013; Haile *et al.*, 2014; Parmar *et al.*, 2016). The impaired function of the reproductive system results in failure of a cow to produce a calf yearly and regularly (Shiferaw *et al.*, 2005; Lobago *et al.*, 2006). Many production constraints, mainly reproductive health problems, form a bottleneck in the production process and productivity in the livestock sub-sector. Therefore, this study was planned to generate information regarding incidence of reproductive disorders in cattle and buffalo as well as to assess socio economic status of dairy farmers in Barabanki district (UP) to design the problem oriented management strategies.

Materials and Methods

A study was conducted in Barabanki district of Uttar Pradesh to assess socio economic status dairy farmers regarding the management of reproductive disorders in eastern plain zone of Uttar Pradesh. The information were generated from 120 dairy farmers, twenty dairy farmers from each of six selected villages, who has minimum at least one milking animal at the time of investigation. The information was generated regarding the management of reproductive disorder due to improper feeding, breeding, and healthcare management practices, and was analysed to reproductive disorders faced by dairy farmers in three categories of animals. Reproductive disorders like dystocia, prolapse, abortion and stillbirth were mostly treated by veterinarian; however, remaining reproductive disorders like anoestrus, repeat breeding, uterine infection etc were treated by dairy farmers and quacks through their own experiences by using different type of indigenous technical knowledge

Results and Discussion

Age

The Table 1: Study revealed that majority (58.33%) of the farmers belonged to middle age group (36-50 yrs) followed by the category of old age group ranging from (> 50 yrs) of age and young (<35 yrs) which accounts for 34.84 per cent and 5.83 per cent respectively

Education

Education of dairy farmers showed that 2.5 per cent of the respondents were illiterate, 15.83 per cent were functionally literate, 8.33 per cent were primary level, 10.00 per cent were middle level, 25.83 per cent were educated up to secondary level,

20.83 per cent up to Higher secondary level and 16.67 per cent were graduate and above.(Table1)

Family size

Table 1: showed that majority (59.67%) of the respondents were having low sized family size i.e. up to 8 members followed by the medium size family ranging from 8 to 13 members and high (>13) family size which were 29.67 per cent and 10.66 per cent respectively.

Family education status

Table 1: revealed that large number of the respondents (50.00%) belonged to low (<3.33) status of family education followed by the category of medium (3.33-3.99) and high (>3.99), which were account, 33.33 per cent and 16.67 per cent respectively.

Social participation

Participation of the dairy farmers in various social organization either as a member or office bearer has been analyzed. Among the dairy farmers revealed that 80.00 per cent of the respondents had participation in one organization and 13.33 per cent dairy farmers in more than one organization. But 6.67 per cent dairy farmers were not participation in organizations in the study area. (Table1)

Herd size

Rearing of cattle and buffalo has always remained as a symbol for honor in the farming community. The classification of respondents with respect to total herd size has been presented in table-1. It was clearly enunciated that majority of respondents i.e. 72.50 per cent belonged to small herd size category and were rearing small herd up to 6 animals where as 24.16 per cent farmers reared 6 to 8 animals, and 3.14 per cent farmers had more than 8 dairy animals in their herd. The average herd size was 6 animals but few farmers were rearing dairy animals up to 15 animals. (Table1)

Occupation

The Table1: revealed that 68.33 per cent farmers engaged in agriculture and dairy, 16.67 per cent in agriculture, dairy and service; 7.50 per cent in agriculture, dairy and business; 3.33 per cent in agriculture, dairy and service where as only 4.17 per cent in dairy, service and business.

Annual Income

The results presented in the (Table1) indicate that about 68.33 per cent of the respondents were in medium annual income (Rs. 226939-359420) category followed by low (Rs. <226939) and high (Rs. >359420) income category comprising of 20.00

per cent and 11.67 per cent respectively.

Socio-economic status of dairy farmers

Table 1: Socio-economic status of dairy farmers in eastern plain zone of Uttar Pradesh

Variables	Categories	Frequency	Percentage	
Age (in years) Range(30-65) Mean(48.35)	Young (up to 35)	7	5.83	
	Middle (36- 50)	70	58.33	
	Old (>50)	43	35.84	
	Illiterate	3	2.5	
	Functionally Literate	19	15.83	
	Education	Primary	10	8.33
		Middle	12	10.00
		Secondary	31	25.83
		H i g h e r Secondary	25	20.83
		Graduate & above	20	16.67
Family size (Numbers) (Range :4 - 35) (Mean:8.73)	Low (< 8)	72	59.67	
	Medium(8-13)	35	29.67	
	High (>13)	13	10.66	
	Low (< 3.34)	60	50.00	
F a m i l y Education Status	Medium (3.34- 3.99)	40	33.33	
	High (>3.99)	20	16.67	
	No participation	8	6.67	
S o c i a l - Participation (Range : 0 - 2) (Mean:0.74)	Participation in one organization	96	80.00	
	Participation in more than one organization	16	13.33	
Herd size (A n i m a l Number) (Range : 3 - 8) (Mean:5.55)	Small (< 6)	87	72.50	
	Medium (6-8)	29	24.16	
	Large (>8)	4	3.34	
	Agriculture + Dairy	82	68.33	
	Agriculture + Dairy + Business	20	16.67	
Occupation	Agriculture + Dairy + Service	9	7.50	
	Agriculture + Dairy + Labor	4	3.33	
	Dairy + Service + Business	5	4.17	
Annual Income Rupees (Rs) (85600 to 3814000)	Low (<226939)	24	20.00	
	M e d i u m (226939-359420)	82	68.33	
	High (>359420)	14	11.67	

Thus there is area specific study on cattle and buffalo rearing dairy farmers regarding management of reproductive disorder, Veterinarian involve to treat the animals on the basis general information given by dairy farmer and socioeconomic condition of dairy farmer like age, education, family education status, social participation family size & herd size of above information, dystocia, prolapse and stillbirth is major problems in buffaloes, and abortion, RFM and uterine infections in crossbred cattle. Thus, there is need to create awareness among the dairy farmers about various reproductive disorders, proper feeding, breeding and management system to enhance the reproductive efficiency and to reduce the of reproductive disorders in their animals. Socioeconomic status like age, education and more social participation compression to other socioeconomic status of dairy farmers have good management of reproductive disorder in study area. There is also need to develop problem oriented strategies in particular region to increase reproductive and productive performance of dairy animals and strengthen the agricultural economy of the farmers.

Acknowledgements

The authors thank Dean, College of Veterinary Science and Animal Husbandry for providing necessary facilities.

Conflict of Interest: None

References

1. Birthal, P.S. and Jha, A.K. (2005). Economic losses due to various constraints in dairy production in India. *Indian J. Anim. Sci.*, 75: 1470-1475.
2. Butani, M.G, Kumar Rajesh, Dhama, A.J., Kavani, F.S. and Killedar A. (2008). Incidence of major infertility problems in crossbred cows and buffaloes under field conditions. *Indian J. Field Vets.* 4(2): 1-4.
3. Dhama, A.J., Parmar, S.C. and Patel, J.A. (2018b). Productive-reproductive performance and problems of dairy animals in arid and semi-arid areas of Kutch and North Gujarat. *Intl. J. Livestock Res.*, 8(1): 121-128.
4. Dhama, A.J., Patel, J.A., Hadiya, K.K., Parmar, S.C. and Chaudhari, D.V. (2018a). Nutritional infertility and ameliorative measures in dairy animals of middle Gujarat. *The Indian J. Vet. Sci. & Biotech.*, 14(3): 5-9.
5. Ghuman, S.P.S. and Singh, J. (2009). A benchmark study on reproductive management assessment of dairy animals under rural smallholder conditions.

- Intl. J. Vet. Med., 8(1): 1-6
6. Hadush, A., Abdella, A. and Regassa, F. (2013). Major prepartum and postpartum reproductive problems of dairy cattle in Central Ethiopia. *J. Vet. Med. & Anim. Hlth*, 5(4): 118-123.
 7. Haile, A., Tsegaye, Y. and Tesfaye, N. (2014). Assessment of major reproductive disorders of dairy cattle in urban and per urban area of Hosanna, Southern Ethiopia. *Anim. & Vet. Sci.*, 2(5): 135-141.
 8. Husain, S., Kumar, R., Singh, B., Srivastava, S., Kumar, R., Kumar, P., and Srivastava, A. (2020). Influence of Different Therapy on Hematological Markers and Fertility Response in Anestrus Sahiwal Cows. *Ind J Vet Sci and Biotech*, 16 (2,3,&4): 76-80.
 9. Kumar, J., Srivastava, S., and Kumar, R. (2020a). Effect of Herbal, Homeopathic and Hormonal Drug on Hematology, Ovarian Cyclicity and Conception Rate in Postpartum Anoestrus Cows. *Ind J Vet Sci and Biotech*, 16(1):17-21.
 10. Kumar, R, Butani, M.G., Dhama, A.J., Kavani, F.S., Shah, R.G. and Killedar Ankita (2011). Management of anoestrus and suboestrus cows using hormonal and nonhormonal drugs. *Indian J. Anim. Reprod.*, 32(1): 24-26.
 11. Kumar, R., Butani, M.G., Dhama, A.J., Kavani, F.S., Patel, M.D. and Shah, R.G. (2009). Progesterone, metabolites and minerals in anestrus, subestrus, repeat breeding and cyclic cows. *Indian J. Anim. Reprod.*, 30 (2): 19-22.
 12. Kumar, R., Butani, M.G., Kavani, F.S. and Dhama, A.J. (2020b). Hormonal Interventions to Augment Fertility and its Effect on Blood Biochemical Profile in Crossbred Cows. *Haya Saudi J Life Sci.* 5(9): 176-181.
 13. Lobago F, Bekana M, Gustafsson H, Kindahl H. (2006). Reproductive performances of dairy cows in smallholder production system in Selalle, Central Ethiopia. *Trop. Anim. Health. Prod.*, 38(4): 333-342.
 14. Modi, L.C., Patel, P.A., Patel, S.P., Joshi, A.H. and Suthar, D.N. (2011). Prevalence of reproductive problems in buffaloes in Mehsana milk-shed area of Gujarat. *Intl. J. Agril. Vet. Med. Sci.*, 5: 424-428.
 15. Parmar, S.C., Dhama, A.J., Parmar, C.P. and Chaudhary, M.M. (2016). Animal husbandry practices and problems of dairy farmers in Coastal areas of South Gujarat. *The Indian J. Vet. Sci. & Biotech.*, 12(2): 12-17.
 16. Selvaraju, M., Veerapandian, C., Kathiresan, D. and Chandrahasan, C. (2005). Incidence of bovine reproductive disorders. *Indian Vet. J.*, 82: 556.
 17. Shiferaw, Y., Tenhagen, B.A., Bekana, M. and Kassa, T. (2005). Reproductive disorders of crossbred dairy cows in the central highlands of Ethiopia and their effect on reproductive performance. *Trop. Anim. Health Prod.*, 37: 427-441.