

Adoption Behaviour of Beneficiaries about Scientific Management Practices of Pregnant Dams and Calves under R.K.V.Y. Project.

Mahaveer Singh¹, Surender Kumar², J.P. Srivastva³

^{1,2}(Ex M.Sc. students SHIATS, Allahabad U.P)

³(Department of Agriculture Extension and Communication), SHIATS, Allahabad (U.P) 211007

ABSTRACT: The sample survey study on “Impact of Scientific Management of pregnant dams and calves programme on its beneficiaries under Rashtriya Krishi Vikas Yojana” covering Sumerpur tehsil, six purposively selected villages and 60 randomly selected respondents to know the scientific management of the respondents as well as its associated correlates. A structured pre-tested interview schedule to measure the variables was prepared in consultation with following standard methodology and review of literature and administered for the collection of primary data from the dairy farmers by using extension personal interview technique. Thus collected data were classified, tabulated, analyzed with application of suitable statistical tests, interpreted and logical conclusions were drawn in the light of objectives set forth. The findings inferred that 80 per cent respondents were middle to old age group, holding medium to large size of land 60.00 % and 70 % of beneficiaries, attended secondary level of education 55 % and 35 % respectively, majority of respondents had medium to large 85 % and 55 % animal husbandry position, 80 % and 45 % respondents had medium to high extension contact respectively, actively social participation, had medium level of mass media utilization, medium to high level of animal husbandry experience 80 % and 70 % of respondents, most of respondents were having medium to high level of risk orientation 80 % respectively, also had moderate to high level of scientific orientation 76.67 %. Education, land holding and animal husbandry experience of beneficiaries showed positive and significant relationship at 0.01 level of probability. The major constraints noticed were high cost of concentrates feed and minerals mixture 80 % and the major suggestion devised was to provide easy affordable interest rates for loans 77.50 %.

Keywords: Adoption, Scientific Management, Project, Impact, Behaviour

I. INTRODUCTION

Agriculture in Indian context is considered as a family tradition and majority of the farmers continue to practice what their forefathers did or their neighbors do. About 53.20 per cent population of our country directly or indirectly dependent on agriculture which provides livelihood sustenance to over 85 per cent of the rural population in India. With the temporal growth in human population over the years, per capita share of land and water resources have been reduced substantially. In spite of different sources of livelihood, the productivity as well as the profitability by all means still is not much in the country. As a result, the rural people are trapped in a vicious circle of unemployment.

India possessed one fourth of bovine population of the world. About 15.28 per cent of country GDP was contributed by agriculture among that 25.60 per cent was shared by the animal husbandry (Agriculture statistics at a glance, 2013-14) and the overall contribution of livestock sector in total GDP is nearly 4.11 per cent at current prices during 2013-14 (Livestock Census). Rajasthan is the second largest milk production state in India. The government executes several initiatives to increase the productivity of milch animals which has resulted in higher milk production from the level of 16934 tonnes in 2014-15 (Directorates of animal husbandry Rajasthan 2014-15).

In Rajasthan animal husbandry is major economic activity contributing 13.00 percent of the State's net domestic product. As against twenty five well defined breeds of cattle and seven buffaloes breeds in the country, the state is endowed with seven breeds with finest drought hardy milch breeds (Rathi, Gir and Tharparkar), dual purpose breeds (Kankrej and Haryana) and the famous draught breeds of Nagauri and Malvi.

The livestock sector of Rajasthan has achieved remarkable milestones with the collective efforts of line department and non-government organizations where farmers' play key role which result in sustainable and steady growth as well as in consumption of livestock products.

In continuation the Central Government has launched Rashtriya Krishi Vikas Yojana (RKVY). The RKVY has been specially started to boost up the agricultural growth at 4.0 percent level. On the line of action and with the assistance of central government. Extension is one of the mandatory activities of defined objectives of RKVY; several projects proposed, got approved and were executed in Rajasthan through KVK. Considering

the objective; to maximize returns to the farmers in agriculture and allied sectors, a project on ‘Promoting scientific management of pregnant dams and calves programme on its beneficiaries under Rashtriya Krishi Vikas Yojana was proposed to government during 2010-11. Keeping there state facts in view the present investigation was taken up in order to assess the level of adoption of scientific management practices of pregnant dams and calves as a restart of the said programme under RKVY.

II. MATERIALS AND METHODS

The present study was conducted in the Pali District of Rajasthan. Pali District of Rajasthan was selected purposively for the present study, as Scientific Management of Pregnant Dams and Calves Program under RKVY Project was actively functioning there. There are 9 Tehsils in Pali District out of these Sumerpur Tehsil was selected purposively on the basis of maximum number of RKVY Beneficiaries are available there in. There are 210 villages in Sumerpur Tehsil. Out of these, 6 villages were selected randomly for the present study. 10 beneficiaries were selected from each of the selected village randomly. Similar number of non-beneficiaries were also selected randomly. The sample size constituted 60 beneficiaries. Thus, a total numbers of respondents for present study were 60. An Ex-post-facto research design was used in the present investigation. According to Robinson (1976), an Ex-post-facto design is as, any systematic empirical inquiry in which the independent variables have not been directly managed because they have already occurred or because they identify behaviour phenomenon and explore condition under which a phenomenon occurs. The data was collected personally by the researcher himself through personal interview technique, discussion method the secondary data was also collected through available reports. The researcher personally met to the respondents and explained them about the purpose of the study.

III. RESULTS AND DISCUSSION

This section is devoted to ascertain the adoption of scientific management practices. It is the fulfillment of the second objective setup for the study. The adoption process is the mental process through which an individual passes from first knowledge of an innovation to a decision to final adoption. Thus, adoption is a decision to continue full use of an innovation. With a view to find out the extent of adoption of scientific management practices, the beneficiaries were asked to indicate at what extent they adopted scientific management practices.

3.1 Extent Of Adoption Of Scientific Management Of Pregnant Dams And Calves By Its Beneficiaries Of Project:

This section is devoted to ascertain the knowledge and adoption of scientific management practices. It is the fulfillment of the second objective setup for the study. The adoption process is the mental process through which an individual passes from first knowledge of an innovation to a decision to final adoption. Thus, adoption is a decision to continue full use of an innovation. With a view to find out the extent of adoption of scientific management practices, the beneficiaries were asked to indicate at what extent they adopted scientific management practices.

Table –1: Extent of adoption of scientific management practices

S.No	Practices	Fully adopted	Partially adopted	Not adopted
A.	Breeding practices			
1.	Keeping watch on estrous cycle and heat symptoms of cow/buffaloes	36 (60.00)	24 (40.00)	0 (0.00)
2.	Between 21 and 28 hrs. is the right time of Artificial Insemination (AI)	39 (65.00)	21 (35.00)	0 (0.00)
3.	Practicing A.I. in animal to proper time of heat	42 (70.00)	18 (30.00)	0 (0.00)
4.	Practicing the pregnancy diagnosis between 45 – 90 days of service	39 (65.00)	21 (35.00)	0 (0.00)
B.	Feeding practices			
1.	10 to 15 kg chopped green fodder and 6 to 7 kg chopped dry fodder should be given to a pregnant animal during a day	21 (35.00)	39 (65.00)	0 (0.00)
2.	1.5 Kg. – 2 Kg. conc. Feed + for cow 40 % and for buffalo 50 % of milk additional conc. feed should be given to a pregnant cow / buffalo in the advance stage (7-8 months) of pregnancy.	24 (40.00)	36 (60.00)	0 (0.00)
3.	Newly born calf should be given colostrums for 4-5 days	27 (45.00)	33 (55.00)	0 (0.00)
4.	Quantity of colostrums fed to the calf @ 1/10 % of body weight.	24 (40.00)	36 (60.00)	0 (0.00)
5.	Feeding of milk to the calf up to age of three month.	24 (40.00)	36 (60.00)	0 (0.00)

C. Management practices				
1.	Isolate the pregnant cows or buffaloes	33 (55.00)	27 (45.00)	0 (0.00)
2.	Immediately after the calf is born, all mucus is removed from the nose and mouth.	36 (60.00)	24 (40.00)	0 (0.00)
3.	Cutting naval cord at 2.5 cm distance from body of calf.	39 (65.00)	21 (35.00)	0 (0.00)
4.	First colostrums fed to calf within 1 hour after birth.	36 (60.00)	24 (40.00)	0 (0.00)
D. Health care practices				
1.	Practicing vaccination timely and regularly against the contagious diseases like HS, BQ and FMD	39 (65.00)	21 (35.00)	0 (0.00)
2.	Segregating the diseased animals suffering from Contagious disease	42 (70.00)	18 (30.00)	0 (0.00)
3.	Practicing de-worming in calves for the prevention of parasitic diseases	39 (65.00)	21 (35.00)	0 (0.00)

Considering the aspect of breeding 60.00 per cent of beneficiaries fully adopted the practice of monitoring estrus cycle and heat symptoms. Majority of beneficiaries 70.00 % had fully adopted the AI practice at proper time of insemination. 65.00 per cent of beneficiaries practiced pregnancy diagnosis between 45 to 90 days of service considered the aspect of feed, practiced 65.00 per cent of beneficiaries partially adopted the right quantity of fodder given to pregnant animal. 60.00 per cent of beneficiaries had partial analyze of quantity of colostrums to be fed. Regarding management practices 55.00 per cent of beneficiaries had full adopted isolation of pregnant cow or buffalo. Majority of beneficiaries 65.00 per cent fully adopted the practice of cutting naval cord 2.5 cm distance from the body. 60.00 per cent of beneficiaries fully adopted the practice of feeding colostrums to calf within one hour of birth. Regarding the aspect of health care management 65 per cent of beneficiaries practiced vaccination timely and regularly against contagious disease. 60.00 per cent of beneficiaries fully adopted the practiced of de-worming in calves.

3.2 Overall extent of adoption of scientific management of pregnant dams and calves by its beneficiaries of project:

About the overall adoption the beneficiaries were grouped into three categories viz., I) low (0 to 30 score), ii) medium (31 to 60 score) and iii) high (above 60 score). The data in this regard are presented in Table- 2 and Fig- 1.

Table – 2: Overall extent of adoption about scientific management practices:

Sr.	Categories of overall adoption	Beneficiaries		Non beneficiaries	
		Frequency	Percent	Frequency	Percent
1.	Low (0 to 30 score),	0	0.00	35	58.34
2.	Medium (31 to 60 score)	19	31.70	20	33.33
3.	High (above 60 score).	41	68.30	5	8.33
	Total	60	100.00	60	100.00

Beneficiaries: Mean= 2.877, S.D= 0.342. **Non Beneficiaries:** Mean= 1.533, S.D= 0.676

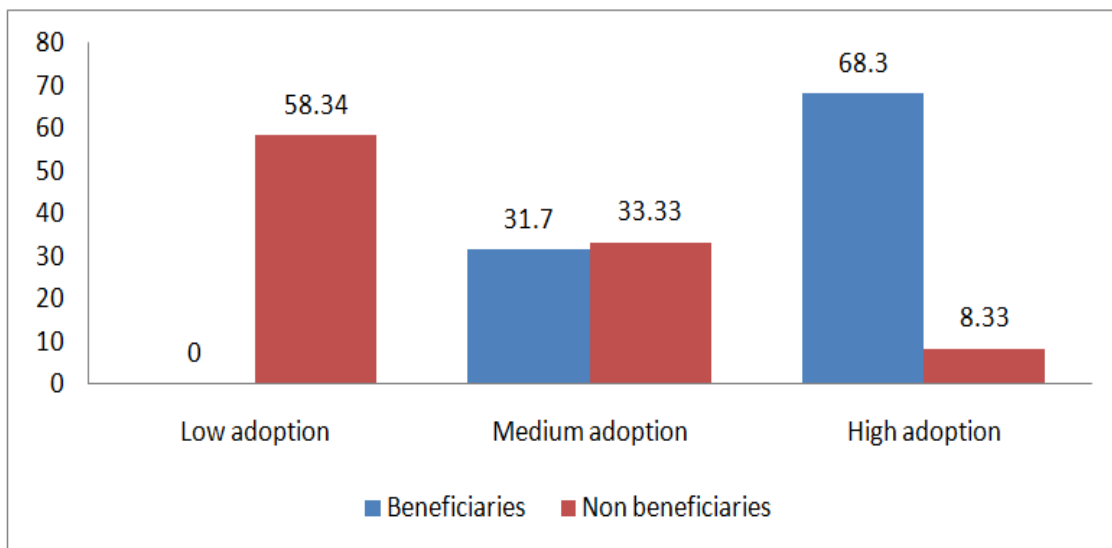


Fig- 1: Distribution of beneficiaries and non-beneficiaries according to their overall extent of adoption:

It is observed from Table- 2 and Fig- 1 that overall extent of adoption, majority 68.30% of the livestock beneficiaries fell in the category of higher extent of adoption followed by 31.70 per cent beneficiaries. while none of beneficiaries fell in the lower category of extent of adoption about scientific management practices.

3.3 Correlation between personal profile with extent of adoption of respondents about scientific management of pregnant dams and calves.

The information about correlation between independent characters and extent of adoption is in Table- 4.4.2.

Table- 3. Correlation between independent variables with extent of adoption of beneficiaries and non beneficiaries about scientific management:

Sr. No.	Independent variables	Coefficient of correlation (r)
		Beneficiaries
1.	Age	0.0852 ^{NS}
2.	Education	0.3337**
3.	Animal husbandry position	0.2813*
4.	Extension contact	0.2838*
5.	Social participation	0.2605*
6.	Animal husbandry experience	0.3305**
7.	Risk orientation	0.1699 ^{NS}
8.	Scientific orientation	0.2959*

Significance Levels 0.01 (1 %) **

Significance Levels 0.05 (5 %) *

NS – Non Significant

The data indicated in Table- 3 revealed that the education, animal husbandry experience of beneficiaries showed positive and significant relationship at 0.01 level of probability, whereas animal husbandry position, extension contact, social participation, and scientific orientation showed positive and significant relationship at 0.05 level of probability with their adoption about of scientific management, The remaining two variables namely age and risk orientation did not establish any significant relationship with their adoption of scientific management.

IV. CONCLUSION

Based on the major findings it is concluded that majority of the livestock beneficiaries were in middle and old age groups, above secondary level of education. Majority of respondents had active social participation, medium and higher level of mass media categories, medium to higher level of animal husbandry experience, risk orientation and scientific orientation. Majority of the livestock beneficiaries had high level of adoption about scientific management practices. Majority of the livestock non beneficiaries were in middle to old age groups, secondary to illiterate level of education, small to medium size of animal husbandry possession, belonged to low to medium level of extension contact categories, low active social participation, low and medium level of mass media categories and low to medium level of livestock experience. Majority of the livestock non beneficiaries had low level of adoption about scientific management practices. Out of various constraints perceived. The major constraints were high cost of concentrates feed and minerals mixture and the suggestions were to provide easy affordable interest rates for loans.

REFERENCES

- [1]. **Abubakar, B. Z., Ango, A. K., Buhari, U. (2009).** The Roles of Mass Media in Disseminating Agricultural Information to Farmers in BirninKebbi Local Government Area Of KebbiState. *Journal of Agricultural Extension Vol. 13* (2) December 2009.
- [2]. **Aulakh, G. S. and Singh, R. (2012).** Adoption of recommended management practices by the buffalo owners. *Ind. J. Dairy Sci., 65*(5): 431-434.
- [3]. **Biradar, N., Desai, M., Manjunath, L. and Doddamani, M. T. (2013).** Assessing contribution of livestock to the livelihood of farmers of Western Maharashtra. *J. Hum. Ecol., 41*(2): 107-112.
- [4]. **Desai, M. D., Biradar, N., Manjunath, L., Doddamani, M. T., Mulla, J. A., and Kataraki, P. A. (2012).** Live region of livelihood profile of farmers in western Maharashtra. *Karnataka J. Agril. Sci., 25*(2): 217-220.
- [5]. **Jhamtani, A., Sharma, J.P., Singh, R., Sing, A.K. and Chhibber, V. (2003).** Entrepreneurial orientation of educated unemployed rural youth. *Indian Journal of Extension Education, 39*(3 & 4): 124-132.
- [6]. **Kumar, R., Singh, S. P. and Chauhan, S. V. (2009).** Comparative analysis of knowledge of dairy farmers in assured and less irrigated area regarding improved dairy husbandry practices. *Ind. Res. J. Ext. Edu., 9*(2): 85-88.
- [7]. **Mohapatra, A. S., Behera, R. and Sahu, U. N. (2012).** Constraints faced by tribal entrepreneurs in dairy farming enterprise. *IJPSS, 2*(7): 171-184.
- [8]. **Patil, A. P., Gawande, S. H., Nande, M. P. and Gobade, M. R. (2009).** Constraints faced by the dairy farmers in Nagpur district while adopting animal management practices. *Veterinary World, 2*(3):111-112.