

CONSTRAINTS FACED BY LIVESTOCK FARMERS IN ADOPTION OF DAIRY FARMING TECHNOLOGIES IN BHAVNAGAR DISTRICT OF GUJARAT

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ABSTRACT

India has apex position in livestock population and milk production in the world, but per capita milk production is low due to certain reasons. In India, most of livestock farmers belong to small house hold farming community and carrying out traditional practices. This study was carried out to know the main constraints faced by the livestock farmers in adopting dairy farming technology at grass root level. Study was limited to only 20 villages of the Mahuwa taluka of Bhavnagar district in Gujarat. From each village, 10 farmers were randomly interviewed, and thus it comprises of total 200. The study was carried out by using an ex-post facto design. About half of the farmers belonged to middle age group and had primary level education. Most of them had large family size and belongs to joint family. Majority of livestock farmers kept buffalo as a livelihood source. Nearly half of them had small land holding with medium (Rs.80, 001 to 2, 50,000) annual income. Major constraints found during this study were high cost of technology, high expenses in other inputs of livestock farming, low profit in dairy farming, poor economic condition and small herd size.

Keywords: *constraints, livestock farmers, adoption, dairy farming technology*

INTRODUCTION

India is one of the most important milk producer countries in the world. The livestock sector alone contributes nearly 25.6% of value of output at current prices of total value of output in Agriculture, Fisheries & Forestry sector. The overall contribution of Livestock Sector in total GDP was nearly 4.11% during 2012-13 (Livestock Census, 2012). Dairy development in developing country like India has played a major role in improving income level in rural areas, generating employment opportunities and improving the nutritional standards of the people, especially for small and marginal farmers. Small-holder dairy production is becoming increasingly important and it contributes magnificently to the improvement of the livelihoods of rural people. Thus, to increase the milk production existing dairy technology should be adopted in the small household dairy farms.

Gujarat has highest growth rate (15.36%) in livestock population in India as per the 19th livestock census. Besides this Gujarat also posses prime position in dairy industry in India, although the adaptation of latest technologies at farm level is not much satisfactory. In Saurashtra region of Gujarat state, usually, small scale livestock farmers are not adopted to use all kinds of improved technologies in dairy farming. But,

high level of technology adoption has a direct impact on milk yield and household's income generation as well as dairy development, poverty alleviation and availability of animal protein. This study was carried out to find out real the causes/ constraints of poor adoption of livestock farm technologies in Saurashtra region of Gujarat.

OBJECTIVE

To know the constraints faced by livestock farmers in adoption of dairy farming technologies in Bhavnagar district of Gujarat

METHODOLOGY

The study was conducted in 20 villages of Mahuwa taluka of Bhavnagar district of Gujarat state. 10 farmers were selected randomly from each village for the survey and total 200 farmers were interviewed. Interview schedule was prepared to know the profile of livestock farmers. Constraints were designed by review of the scientific articles and opinions of local farmers. Ex-post facto research design was used. Total 16 constraints were sorted out; each carried three point continuums as per their importance (1 for less important, 2 for medium important and 3 for most important constraint).

The per cent, mean score and rank were used as statistical tools.

RESULTS AND DISCUSSION

The findings of the frequency of different attributes surveyed and the constraints faced by 200 livestock farmers in adoption of dairy farming technologies are shown in Table 1 and 2.

Table 1: Distribution of livestock farmers according to their personal and socio-economic characteristics n=200

Sr. No.	Attributes	Classification	Frequency	Percent
1	Age	Young (Up to 35 years)	31	15.50
		Middle (35 to 50 years)	93	46.50
		Old (Above 50 years)	76	38.00
2	Education	Illiterate	63	31.50
		Primary (Up to VII th std.)	84	42.00
		Secondary (VIII th to XII th std.)	46	23.00
		Graduation	07	03.50
3	Family size	Small (Up to 5 members)	27	13.50
		Large (Above 5 members)	173	86.50
4	Type of family	Joint	156	78.00
		Nuclear	44	22.00
5	Herd size	Small (2 to 5 animals)	83	41.50
		Medium (6 to 10 animals)	71	35.50
		Large (Above 10 animals)	46	23.00
6	Type of animal	Indigenous cattle	24	12.00
		Crossbred cattle	13	06.50
		Buffalo	163	81.50
7	Land holding	Landless	39	19.50
		Small (up to 1.5 ha.)	92	46.00
		Medium (1.6 to 3.5 ha.)	37	18.50
		Large (Above 3.6 ha.)	32	16.00
8	Annual income	Low (Up to ₹ 80, 000)	64	32.00
		Medium (₹ 80, 001 to ₹ 2,50,000)	98	49.00
		High (Above ₹ 2,50,000)	38	19.00

Data in Table 1 indicate that 46.50 per cent of respondent belonged to middle age and 38.00 per cent of belonged to the old age group, followed by young age with 15.50 per cent. Slightly more than two fifth (42.00 %) of the respondent were educated up to primary and nearly one third (31.50 %) respondents were illiterate. 23.00 and 03.50 per cent of them had secondary and graduation level of education, respectively. Majority (86.50 %) of respondent belonged to large sized family and 13.50 per cent of them had small size of family. Majority (78.00 %) of respondent belonged to joint family and rest (22.00 %) of them had nuclear type

of family. More than two fifth (41.50 %) of the respondents had small herd size, followed by 35.50 per cent and 23.00 per cent with medium and large herd size, respectively. Majority (81.50 %) of the respondents kept buffaloes, whereas 12.00 per cent and 6.50 per cent respondents had indigenous and crossbred cattle, respectively. 46.00 per cent of respondents possessed small land, followed by 18.50 and 16.00 per cent with medium and large land holding, respectively, whereas about one fifth (19.50 %) of them were landless. About half of them had medium annual income (₹ 80001 to 250000), whereas about one third (32.00 %) of respondents had low

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annual income (up to ₹ 80000). Rest (19.00 %) of respondents had high annual income (above ₹ 250000).

Table 2: Constraints faced by livestock farmers in adoption of dairy farming technologies

n=200

Sr. No.	Constraints	Mean score	Rank
1	Lack of information about improved livestock technologies	2.30	11 th
2	Unable to purchase modern equipments	1.71	18 th
3	Lack of operating skill	2.38	7 th
4	Poor knowledge about improved technology	2.41	6 th
5	Irregularity in electric supply	1.30	20 th
6	High cost of technology	2.73	1 st
7	Risk of operating modern instruments	1.63	19 th
8	Lack of technicians at local area	2.22	13 th
9	Complex system of government to obtain subsidy	2.26	12 th
10	Poor economic condition	2.54	4 th
11	Low return from investment in livestock production technology	2.17	15 th
12	Unavailability of skilled labour for livestock farming	2.33	9 th
13	Low profit in dairy farming	2.58	3 rd
14	Problems in obtaining loan from bank	2.33	10 th
15	Less priority to livestock farming	2.20	14 th
16	Costly inputs of livestock farming	2.61	2 nd
17	Lack of veterinary service	2.37	8 th
18	Poor knowledge in management of livestock farm	1.80	17 th
19	Unavailability of space for livestock farming	1.12	21 st
20	Small herd size	2.45	5 th
21	Not compatible in existing environment	2.06	16 th

Table 2 discloses the constraints faced by livestock owners in adoption of dairy farming technologies. Major constraints found during this study were high cost of technology (2.73 MS), costly inputs of livestock farming (2.61 MS), low profit in dairy farming (2.58 MS), poor economic condition (2.54 MS) and small herd size (2.45 MS). Other important constraints are poor knowledge about improved technology (2.41 MS), lack of operating skill (2.38 MS), lack of veterinary service (2.37 MS), unavailability of skilled labour for livestock farming (2.33 MS), problems in obtaining loan from bank (2.33 MS), lack of information about improved livestock technologies (2.30 MS), complex system of government to obtain subsidy (2.26 MS), lack of technicians at local area (2.22 MS), less priority to livestock farming (2.20 MS), low return from investment in livestock production technology (2.17 MS), not compatible in existing environment (2.06 MS), poor knowledge in management of livestock farm (1.80 MS), unable to purchase modern equipments (1.71 MS), risk of operating modern instruments

(1.63 MS), irregularity in electric supply (1.30 MS) and unavailability of space for livestock farming (1.12 MS).

CONCLUSION

It was concluded that about half of the respondents belonged to middle age group and had primary level education. Most of them had large family size and belonged to joint family. Majority of them kept buffalo as a livelihood source. Nearly half of them had small land holding with medium (₹ 80,001 to 2,50,000) annual income. Major constraints found were high cost of technology, costly inputs of livestock farming, low profit in dairy farming, poor economic condition and small herd size. For proper adoption of livestock farm technology, farmers should be given vocational training regarding proper use of the technology. Due to poor economic condition, majority of farmers were unable to expand livestock enterprise and couldn't afford large herd size.

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