



Research Article

ASSOCIATION BETWEEN ASPECTS OF DAIRY FARMERS AND THEIR OVERALL ANNUAL INCOME

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Abstract: The present study was conducted in Gwalior division that stands third rank in milk production and seventh rank in livestock population among all the division of Madhya Pradesh. Since their wide gap between both production and livestock population, hence were in order to achieve the above-mentioned objectives Gwalior division was purposively selected for the present study. The result reported that class (0.150), education (0.222), milk production (0.147), extension contact (0.130), and mass media exposure (0.145) were positive and highly significant related with overall annual income of the dairy farmers.

Keywords: Annual income, Dairy farming, Constraints, Suggestions

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Introduction

Madhya Pradesh has six positions of profoundly milk creation states in India. The state represents more than six percent share in the absolute milk creation in the nation. M.P. has 7 dairy agreeable that represents most extreme measure of milk acquisition in the state. These dairy agreeable works under Madhya Pradesh State Cooperative Dairy Federation Limited which is associated with acquisition, handling, selling and quality control of dairy items in the state. The production of milk in M.P. state is 8.838 million ton. Milk production every day for cows of neighbourhood breed is 1.20, for crossbred dairy animals are 5.91 and for bison are 3.00. In Gwalior division of Madhya Pradesh have third position in milk creating division. The absolute milk creation of Gwalior division is 1573.31 thousand ton the fundamental wellspring of milk creation is bovines and buffalo. The specific objectives are to: (i) To assess the relationship between aspects of dairy farmers and their overall annual income through dairy farming. (ii) To know the constraints encountered by dairy farmers while applying indigenous technical knowledge and suggestion for enhancement of the popularization of indigenous technical knowledge.

Material and Methods

Multistage sampling was employed for constructing sampling plan of the study. Among the five districts of Gwalior division Shivpuri, Gwalior and Guna districts were selected. These districts stand first, second and third position in milk production. Among the districts of Gwalior division respectively the milk production in Shivpuri, Gwalior and Guna were 496.14, 399.75 and 277.74 thousand tonnes, respectively. This clearly indicates the important of dairy farming in the area. Among the three selected districts of Gwalior division their and eight, four and five blocks in Shivpuri, Gwalior and Guna, respectively. A separate list of blocks of each selected district were prepared and with the help of officials of respective districts, three blocks (two blocks having highest dairy farmer and one block having lowest dairy farmer) was identify for the selection of blocks. The last stage of sampling process, the block wise list of dairy farmers was prepared for each selected block. Overall, 300 dairy farmers were selected as respondents with the help of simple random sampling without replacement under proportional scheme.

Result and Discussion

Overall annual income

[Table-1] inspected that the widely held 63.67 percent of the dairy farmers comes in medium category of overall annual income instead, 25 percent high and 11.33 percent comes in low category of overall annual income.

Assess the relationship between aspects of dairy farmers and their overall annual income:

[Table-2] spectacle that the independent variables viz., class (0.150), education (0.222), milk production (0.147), extension contact (0.130), and mass media exposure (0.145) were positive and highly significant related with overall annual income of the dairy farmers at 0.01 level of significance while, herd size (0.117), and social participation (0.096) were positively significant related with overall annual income of the dairy farmers at 0.05 level of significance. At the end of age (0.076), land ownership (-0.075) and milk consumption (-0.079) were found to be not significant.

Constraints encountered by dairy farmers while applying ITKs

Farmers have to face many chief problems while doing indigenous treatment, which is described in the decreasing order as follows; ITK takes long time to cure the animal's disease (66.33%), government officials and educated people give less recognition to this knowledge, without ascertaining its importance (60%), many herbs that are suitable for the treatment of animals are becoming extinct; hence no attention is paid to their protection (57.66%), many ITKs are becoming extinct due to lack of practice by the younger generation and over-reliance on chemical medicines (54.33%), preparation of medicine is time consuming (50.33%), lack of sufficient number of required plants for treatment and their unavailability, especially in summer (47.66%), ITK is not a complete panacea for maintaining animals (46.66%), farmers not interested in indigenous treatment due to the easy availability of allopathic medicines in the market (44%), incompatibility of ITK with modern techniques (38.66%), lack of ability to identify right plants (37%), in the present time, animals have many new diseases for which no traditional treatment is available (35%) and non-availability of certified written documents with ITK (33.33%) [Table-3].

Table-1 Distribution of the dairy farmers according to their overall annual income

SN	Category	No. of dairy farmers	%
1	Low (< Rs. 1,50000)	37	12.34
2	Medium (Rs. 1,50000-2,50000)	186	62.00
3	High (> Rs. 2,50000)	77	25.66
	Total	300	100

Table-2 Relationship between selected aspects of dairy farmers with their overall annual income

SN	Variables	Correlation coefficient 'r' value	P value	't' value
1	Age	0.076	0.0946	1.316 ^{NS}
2	Class	0.150	0.0046	2.619 ^{**}
3	Education	0.222	0.00005	3.930 ^{**}
4	Land ownership	-0.075	0.097	-1.298 ^{NS}
5	Herd size	0.117	0.0214	2.033 [*]
6	Milk production	0.147	0.0053	2.565 ^{**}
7	Milk consumption	-0.079	0.086	-1.368 ^{NS}
8	Social participation	0.096	0.048	1.665 [*]
9	Extension contact	0.130	0.012	2.263 ^{**}
10	Mass media exposure	0.145	0.005	2.529 ^{**}

^{**}Significant at 0.01 level of probability, ^{*}Significant at 0.05 level of probability, NS= Non significant

Table-3 Constraints encountered by dairy farmers while applying ITKs

SN	Constraints	f	%	Rank
1	ITK takes long time to cure the animal's disease	199	66.33	I
2	Government officials and educated people give less recognition to this knowledge, without ascertaining its importance	180	60.00	II
3	Many herbs that are suitable for the treatment of animals are becoming extinct; hence no attention is paid to their protection	173	57.66	III
4	Many ITKs are becoming extinct due to lack of practice by the younger generation and over-reliance on chemical medicines	163	54.33	IV
5	Preparation of medicine is time consuming and more remunerative	151	50.33	V
6	Lack of sufficient number of required plants for treatment and their unavailability, especially in summer	143	47.66	VI
7	ITK is not a complete panacea for maintaining animals	140	46.66	VII
8	Farmers not interested in indigenous treatment due to the easy availability of allopathic medicines in the market	132	44.00	VIII
9	Incompatibility of ITK with modern techniques	116	38.66	IX
10	Lack of ability to identify right plants	111	37.00	X
11	In the present time, animals have many new diseases for which no traditional treatment is available	105	35.00	XI
12	Non-availability of certified written documents with ITK	100	33.33	XII

Table-4 Suggestion for enhancement of the promotion of ITKs

SN	Suggestions	f	%	Rank
1	Veterinarians and researchers should see indigenous technical knowledge as a new opportunity and evaluate it appropriately	261	87.00	I
2	Strict rules should be implemented to check indiscriminate deforestation to save extinct valuable medicinal plant	253	84.33	II
3	Informing local people about publishing their documented innovations in newsletters/journals with the identity of the innovator	239	79.66	III
4	Low cost and indigenous technical knowledge technologies should be demonstrated on dairy farmers fields	231	77.00	IV
5	The dairy farmers practicing indigenous technical knowledge should be made partners with research scientists for evolving appropriate technologies	208	69.33	V
6	Indigenous technical knowledge should be disseminated among farmers with the recommendation of effective suitable dosage	176	58.66	VI
7	Knowledge disseminating system and scientists should make frequent contract with the dairy farmers and rural youth for promoting indigenous technical knowledge practices	151	50.33	VII
8	To promote indigenous technical knowledge, plant materials should be conserved and disseminated among farmers	127	42.33	VIII
9	Conducting peripatetic group meetings in order to promote awareness and to motivate local people to share ITK	112	37.33	IX
10	Using extension teaching methods and aids to educate local people about the significance of ITK and hence documentation	99	33.00	X
11	Location specific programmes such as peripatetic group meetings, awareness campaign etc. should be organized in order to develop proper interaction among dairy farmers and extension functionaries on location specific need based ITKs	85	28.33	XI
12	literatures on different practices of indigenous technical knowledge should be made available to the dairy farmers from all the source	76	25.33	XII
13	Demonstration of tested ITKs along with frontier technologies should be conducted	63	21.00	XIII

Suggestion for enhancement of the promotion of ITKs

If a problem is seen negatively, then it appears to be a problem, on this basis, they were asked by the dairy farmer about the solution to their problems, due to which many important solutions were kept in view of the very important for future which are displayed clearly in [Table-4].

Farmers have to experienced based many solution given for enhancement of the promotion of ITKs, which is described in the decreasing order as follows; veterinarians and researchers should see indigenous technical knowledge as a new opportunity and evaluate it appropriately (87%), strict rules should be implemented to check indiscriminate deforestation to save extinct valuable medicinal plant (84.33), informing local people about publishing their documented innovations in newsletters/journals with the identity of the innovator (79.66), low cost and indigenous technical knowledge technologies should be demonstrated on dairy farmers fields (77.00%), the dairy farmers practicing indigenous technical knowledge should be made partners with research scientists for evolving appropriate technologies (69.33%), indigenous technical knowledge should be

disseminated among farmers with the recommendation of effective suitable dosage (58.66%), knowledge disseminating system and scientists should make frequent contract with the dairy farmers and rural youth for promoting indigenous technical knowledge practices (50.33%), to promote indigenous technical knowledge, plant materials should be conserved and disseminated among farmers (42.33%), conducting peripatetic group meetings in order to promote awareness and to motivate local people to share ITK (37.33%), using extension teaching methods and aids to educate local people about the significance of ITK and hence documentation (33.00%), location specific programmes such as peripatetic group meetings, awareness campaign etc. should be organized in order to develop proper interaction among dairy farmers and extension functionaries on location specific need based ITKs (28.33%), literatures on different practices of indigenous technical knowledge should be made available to the dairy farmers from all the source (25.33%), and demonstration of tested ITKs along with frontier technologies should be conducted (21.00%).

Conclusion

Income plays an important role in decision making, prior experience, attitude, resources available to it and new ideas in an individual's economic development. It is very difficult to estimate the average annual income of each person, as they do not keep these records. But the record of income from animal husbandry was available with all dairy farmers; hence an attempt was made to collect annual income from the respondents through discussion and interpretation from various angles. During the survey, it was found that about two-third dairy farmers comes in medium overall annual income.

Application of research: The suitable causes for this are that the farmers have indigenous breed of animals, lack of adequate milk production, medium extension contact and low education. Also, do not take care of balanced diet of animals, animal shelter is not well maintained and animals are to be left open during summer season.

Research Category: Agricultural Extension and Communication

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Study area / Sample Collection: Shivpuri, Gwalior and Guna

Cultivar / Variety / Breed name: Dairy Animals

Conflict of Interest: None declared

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.
Ethical Committee Approval Number: Nil

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