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A STUDY ON THE PROBLEMS FACED IN DAIRYING BY DAIRY FARMERS OF ALAPPUZHA DISTRICT

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ABSTRACT

The present study entitled problems faced in dairying by dairy farmers of Alappuzha District was taken up with the objectives of work out, To study the feeding, breeding, health care and veterinary services problems faced by dairy farmer, to study the livestock manage mental constraints faced by dairy farmer and to study the marketing of milk constraints faced by dairy farmer. To achieve the above objectives a sample of 160 households were selected randomly from Alappuzha district. The present study random sampling method was adopted. Alappuzha district was selected as the universe of the present study. Questionnaire survey was used to collect primary data from the dairy farmer. The questions asked regarding the type of breed, feeding practices, housing, water availability, marketing of milk, land available for cultivation of fodder crops and veterinary services etc. A target sample size for the study was 160 dairy farmer having more than two milch animals. The respondents were selected randomly in Alappuzha district.

Key words: Feed and Fodder, livestock management, Veterinary service, feeding, breeding

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INTRODUCTION

Livestock is a major source of livelihood for the world‟s poor and it is the main source of animal protein for the population. The global dairy industry helps to sustain the lives of people and their communities through supply of products that deliver essential nutritional building blocks and through the provision of employment in both rural and urban communities. Today the dairy world serves over seven billion consumers and provides a major livelihood for approximately one billion people engaged in dairy farming. The most successful factor in the dairy industry is the price the farmer receives from it. From the past recent years, it has been identified that the volatility of milk price is very high which leads to a fluctuating revenue for the farmers around the globe (IBIS World Industry Report 2019). The animal husbandry in Kerala is one of the fastest growing economic development sectors. For the feeding requirements of cattle, the farmers depend on agricultural by products like residues of all typesof cereals and grains, oil cakes from coconut and groundnuts and so on. There is a close relationship between dairy development in the nation and the overall agricultural development of the country. The dairy development has provided the firm foundation stone for green revolution;therefore, all the dairy development programmes are much popular among the anti –poverty programmes laid by the Government of India. The share of agriculture and allied sector in Kerala‟s Gross Value Addition was 9.5 per cent in 2017-18 at a growth rate of 1.7 per cent and later declined by -0.5 per cent in 2018-2019 due to the shift in employment, but the agricultural sector provides sixth largest employment in the state (share of employment in agriculture sector was 16.7 per cent in 2018).The animal husbandry started in Kerala only after the introduction of Key Village Schemes, which later merged with Intensive Cattle Development Projects.

NEED AND SIGNIFICANCE OF THE STUDY

The demand for milk and milk products also increases due to urbanization, increase in per capita income and population growth. To make use of this opportunity dairy owners and farmers should adopt the improved dairy management practices in order to improve the dairy productions which will significantly increases animal performance and milk production. The most of the farmers practicing the old methods for there milk production. Thus quality of milk produce is of poor standards. Good dairy farming practices (GDFP) were used all over world. Which help the farmers to produce safe quality milk, market to fulfil the standard of quality

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milk and milk products to food industry and consumers. The main motto behind use of GDFP was to produce the safe, hygienic milk on the dairy farm itself from the healthy animals.

STATEMENT OF THE PROBLEM

In the present study, it was found that local animals in all categories gave the negative returns and its cost of milk production was found very high because we have calculated all the factors and analysis of feed and fodders. They are keeping those animals for draught powers as well as for some other secondary purposes instead of generating income from it.

OBJECTIVES OF THE STUDY

1. To study the feeding, breeding, health care and Veterinary services constraints faced by dairy farmer.
2. To study the livestock manage mental constraints faced by dairy farmer.
3. To study the marketing of milk constraints faced by dairy farmer.

RESEARCH METHODOLOGY

Research Design

Descriptive research design was used for this study.

Data Collection

Questionnaire survey was used to collect primary data from the dairy farmer. The questions asked regarding the type of breed, feeding practices, housing, water availability, marketing of milk, land available for cultivation of fodder crops and veterinary services etc.

Sample of Respondents

A target sample size for the study was 160 dairy farmer having more than two milch animals. The respondents were selected randomly in Alappuzha district. Possessing land holding was not considered as the main criterion but owning livestock was the main criterion used to select the respondents. Target population of 160 was calculated using sample size calculation formula with 95% confidence level and 4% error of margin.

Sampling Design

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 12, Dec 2022

Random sampling techniques was used for this study.

Tools used for analysis

- Percentage analysis
- Chi-square test

LITERATURE REVIEW

Farid et.al, (2018) studied constraints in general management practices, breeding and feeding constraints, constraints related to health and selling milk activities in Dera Gazhi Khan district of Pakistan. The case of constraints faced by dairy farmers in general management practices (47.86%) of the respondents faced problem due to lack of availability of loan (42.14%) with 2.13 mean score, lack of advisory services (66.43%) and 2.52 mean score, lack of training facilities (50.71%) and mean score 2.22 while high cost of labour was 23.57% with mean score 1.77. Breeding constraints were unavailability of AI services was highly faced constraint with (61.43%) and 2.39 mean followed by unavailability of quality crossbred bulls, improper detection of heat with (50%) (35.71%) and 2.27, 2.06 mean respectively. In the feeding constraints fodder cutting and growing were major constraints followed by inadequacy of green fodder round the year, use of mineral mixture, high cost of concentrate feed with 50.71%, 42.86% and 47.14% having mean 2.08, 2.05 and 2.01. The obstacle faced in healthcare were unawareness of veterinary services, lack of veterinary services in hospitals, non availability and high cost of medicines followed by unavailability of veterinary doctors in emergency , unavailability of vaccination at proper time, improper deworming practices were other constraints 26.43%, 47.14%, 52.14%, 51.43% and 35% respectively. The selling constraints were low milk prices , lack of transport facilities, payment issues and market competition were 30%, 50%, 46.43% and 38.57% with 1.88, 1.99 and 1.95 mean.

Rathod et.al, (2017) livestock service delivery by Dairy Cooperatives in developing countries like India is getting attention from the past decade. However, due to competitive market players, these cooperatives are able to handle only about 17 per cent of the marketable milk surplus. Hence, there is an urgent need to study the factors hindering availability and effectiveness of livestock service delivery. Keeping this in view, an earnest effort was made to study the perceived constraints of farmers and cooperative staff in livestock service delivery of Dairy Cooperatives in Western Maharashtra. To obtain the suggestions in this regards, the

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study also summarized the Strengths, Weaknesses, Opportunities and Threats (SWOT) of Gokul Dairy Cooperative. A pretested interview schedule was used to collect data from 150 dairy producer members and 35 cooperative staff which included veterinarians, para veterinarians and secretaries of village level cooperatives. The study reported that Gokul Dairy Union delivered 46 livestock services under seven heads, viz. animal health care, breeding, production and management, feed and fodder production, extension, marketing and other services. Dairy farmers and cooperative staff perceived that constraints in livestock service delivery included human resource, financial, policy related and administrative constraints. Among various constraints, high cost of concentrates, non remunerative price for milk, procedural complications for insurance and subsidy and high cost of medicine and treatment were the major constraints in service delivery. SWOT Analysis revealed that, the cooperative had strong and weak sides with respect to livestock service delivery. Hence, to expand proven initiatives and strengthen good practice there is a need to improve upon the quality of the services and reduction in cost of services delivered so that farmers would be more content with the services of dairy cooperatives.

Singh et.al, (2017) a study was conducted to find out the constraints faced by dairy farmers in adopting good dairy farming practices in Uttar pradesh in 160 respondents from two districts namely Raebareli and Varanasi. The study was done in six constraints as major group i.e. animal health practices, hygienic milking practices, feeding and animal welfare, environment and socio-economic management practices constraints. In the animal health care constraints non availability of timely treatment facilities and lack of knowledge of common contagious diseases, prevention and control measures were 72 and 71 mean score followed by inadequate vaccination schedule and non availability of medicine at veterinary hospitals were 63,66 and 47 respectively. Good hygienic milking practice constraints consists lack of knowledge about hygienic milk production, ignorance of cleaning milking area, cleaning of animals, unavailability of appropriate utensils required for quality milk production and inadequate knowledge about proper cleaning of utensils were 72,70,68,65 and 58 mean scores. Whereas animal welfare practice constraints lack of scientific housing and milking facilities was a major constraint with mean sore 72. Lack of ability to identify animal need and take appropriate action was least score 30. Good environment practices constraints were lack of knowledge about waste disposal practices, irregularly disposal of dung and animal waste, unavailability of facilities for recycling animal waste were 67, 66, 65 found by the farmers. Where constraints

ISSN PRINT 2319 1775 Online 2320 7876

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related to socio-economic management practices were lack of knowledge of record keeping, lack of resources for providing scientific housing, poor availability and access to profitable market, non remunerative price of milk and lack of labour with 70, 69, 68, 65 and 62 mean score.

RESULT AND DISCUSSION

FEEDING CONSTRAINTS

In the present study the feeding constraints were found in which less knowledge of techniques of fodder preservation is major constraint with 94.99 %, followed by loss of fodder due to non use of chaffing machine 86.24%, the other constraints were high cost and less availability of concentrate feed and unavailability of green fodder around the year 54.37, 50.62% respectively. While less availability of dry fodder and unavailability of land for fodder production was rejected by the respondents

Null hypothesis: 'Feeding constraints among farmers is not different'

Table 5.24
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1377.58. (a)	4	.000
Likelihood Ratio	1241.715	4	.045
Linear-by-Linear Association	.126	1	.123
N of Valid Cases	160		

Analysis

At 4 df and 5% level of significance, the p-value of chi square test is .000 and the calculated value of chi square test is 1377.58. Hence the p- value of chi square test is less than alpha value and hence null hypothesis is rejected and hence null hypothesis is rejected. Null hypothesis 'Feeding constraints among farmers is not different' is rejected and alternative hypothesis 'Feeding constraints among farmers is different' is accepted.

BREEDING CONSTRAINTS

ISSN PRINT 2319 1775 Online 2320 7876

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In the present study elite buffalo bulls for natural service , unavailability of pure breed / improved bulls for breeding and less % of conception rate through A.I. as compare to natural service were the prominent constriants found while lack of knowledge of heat detection, incideences of reproductive disorders and unavailability of A.I. facility in time were not the constriants as per respondents data

Null hypothesis: 'Breeding constraints among farmers is not different

Table 5.21
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1047.75 (a)	220	.000
Likelihood Ratio	690.948	220	.123
Linear-by-Linear Association	1.392	1	.138
N of Valid Cases	160		

Analysis

At 4 df and 5% level of significance, the p-value of chi square test is .000 and the calculated value of chi square test is 1047.75. Hence the p- value of chi square test is less than alpha value and hence null hypothesis is rejected. Null hypothesis 'Breeding constraints among farmers is not different' is rejected and alternative hypothesis 'Breeding constraints among farmers is different' is accepted.

VETERINARY SERVICES AND HEALTH CARE CONSTRAINTS

In veterinary service and health care constraints less knowledge of metabolic diseases, less knowledge of integrated parasite control, inadequate facilities at veterinary dispensary/ clinic and high occurrence of mastitis were the major constraints found while cost of treatment, unavailability of doctor and vaccine in time were other constraints.

***Null hypothesis**: 'Veterinary services and Health care constraints among farmers is not different*

Table 5.22
Chi-Square Tests

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 12, Dec 2022

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2076.60 (a)	4	.000
Likelihood Ratio	1322.391	4	.107
Linear-by-Linear Association	3.412	1	.065
N of Valid Cases	166		

Analysis

At 4 df and 5% level of significance, the p-value of chi square test is .000 and the calculated value of chi square test is 1047.75. Hence the p- value of chi square test is less than alpha value and hence null hypothesis is rejected. Null hypothesis 'Veterinary services and Health care constraints among farmers is not different' is rejected and alternative hypothesis 'Veterinary services and Health care Constraints among farmers is different' is accepted.

IN THE MANAGEMENT PRACTICES CONSTRAINTS

Lack of use of milking machine due to inadequate knowledge and lack of knowledge about use of disinfectant and sanitizers were major constraints. While unavailability of labor, lack of knowledge about built of dairy shed and less knowledge about record keeping were other constraints found. While inadequate space for housing was rejected by farmers of Alappuzha district.

Null hypothesis *'Management practices constraints among farmers is not different*

Table 1
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1182.86 (a)	4	.000
Likelihood Ratio	129.302	4	.101
Linear-by-Linear Association	.101	1	.435
N of Valid Cases	160		

Analysis

At 4 df and 5% level of significance, the p-value of chi square test is .000 and the calculated value of chi square test is 1182.86. Hence the p- value of chi square test is less than alpha value and hence null hypothesis is rejected. Null hypothesis 'management practices constraints

ISSN PRINT 2319 1775 Online 2320 7876

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among farmers is not different' is rejected and alternative hypothesis 'management practices constraints among farmers is different' is accepted

THE MARKETING OF MILK RELATED CONSTRAINTS

Pressure of production of quality milk continuously, payment of milk irregular and delayed were major constraints while unavailability of Govt. / co-operative union, unavailability of preservation facility of milk and inadequate knowledge of clean milk production were minor constraints in marketing of milk. The less availability of transport facility in all season were rejected as marketing of milk constraint

Null hypothesis: *'Constraints related to marketing of milk among farmers is not different*

Table 5.25
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	965.58 (a)	4	.000
Likelihood Ratio	465.58 429.302	4	.101
Linear-by-Linear Association	.101	1	.435
N of Valid Cases	160		

Analysis

At 4 df and 5% level of significance, the p-value of chi square test is .000 and the calculated value of chi square test is 965.58. Hence the p- value of chi square test is less than alpha value and hence null hypothesis is rejected. Null hypothesis 'Constraints related to marketing of milk among farmers is not different' is rejected and alternative hypothesis 'Constraints related to marketing of milk among farmers is different' is accepted.

FINDINGS AND CONCLUSION

To study the feeding constraints in dairy farming faced by the famers of Alappuzha district, eight constraints are considered and according to that questionnaire were prepared. From statistical analysis of survey data, we analyze that, among the eight constraints four feeding constraints are accepted whereas four feeding constraints are rejected. Less knowledge of

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techniques of fodder preservation is prominent feeding constraint and unavailability of land for fodder production constraint is strongly rejected.. They also reject less availability of dry fodder feeding constraints. To study the breeding constraints in dairy farming faced by the famers of Alappuzha district, five constraints are considered and according to that questionnaire were prepared. From statistical analysis of survey data, we analyze that, among the five constraints three breeding constraints are accepted whereas three breeding constraints are rejected. Unavailability of pure breed/ improved bulls for breeding is also considered as a major breeding constraints faced by dairy farmers of Alappuzha district. To study the veterinary services and health care constraints, nine constraints are considered. From statistical analysis of survey data, we analyze that, among the nine constraints seven veterinary services and health care constraints are accepted whereas only two veterinary services and health care constraints are rejected. Inadequate knowledge about metabolic diseases is prominent constraint and lack of knowledge about symptoms of various diseases constraint is strongly rejected. Less knowledge about integrated parasite control and inadequate facilities at veterinary clinics/dispensaries are also considered as a major veterinary service and health care constraints. They also reject lack of knowledge about deworming constraint. Remaining four constraints i.e. High occurrence of mastitis, Cost of treatment is High, Unavailability of Veterinary Doctor in time and Unavailability of vaccine in time are strongly accepted constraints.. To study the livestock management constraints faced by dairy farmer. To study the livestock management constraints in dairy farming faced by the famers of Alappuzha district, eight constraints are considered and according to that questionnaire were prepared. From statistical analysis of survey data, we analyze that, among the eight constraints seven Management practices constraints are accepted whereas only one Management practices constraints is rejected. Lack of use of milking machine due to inadequate knowledge is prominent constraint and lack of adequate space for housing constraint is strongly rejected. Lack of knowledge about use of disinfectant and sanitizer and unavailability of labor are also considered as major Management practices constraints. To study the marketing of milk constraints faced by dairy farmer. To study the marketing of milk constraints in dairy farming faced by the famers of Alappuzha district, eight constraints are considered. From statistical analysis of survey data, we analyze that, among the eight constraints five marketing of milk constraints are accepted whereas three marketing of milk constraints are rejected. Pressure of production of quality milk continuously and payment of milk is irregular & delayed are

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prominent whereas less availability of transport facilities in all weather constraint is strongly rejected. Unavailability of Govt./ Co-operative union, unavailability of preservation facilities of milk and sanitizer and Inadequate knowledge of clean milk production are also considered as major marketing of milk constraints faced by dairy farmers of Alappuzha district. Demand of milk depends upon season constraint is rejected whereas grading of milk is done with faulty system and cheating by milk collection centre is marginally rejected.

RECOMMENDATIONS

- Field Level Demonstration to make aware famer about importance and use of chaffing machine and subsidy on chaffing machine should be increased.
- To make available pure breeds of the buffalo and bulls for natural breeding at village level for improved milk yield.
- Technical training and awareness program should be conducted related to metabolic diseases, integrated parasite control and mastitis for para-veterinary staff and farmers.
- Provide latest technologies, facilities, staff and supply of vaccine at veterinary dispensary.
- Training and demonstration on handling milking machine, use of sanitizers and disinfectant at dairy farm.
- To overcome unavailability of labor automation at dairy farm should be increased also the training and demonstration on preparation of vermicompost.
- Make availability of easy to handle mobile based (android) software to maintain the records of individual dairy animal.
- Payment of milk by milk collection center on bazaar day (weekly payment) must be mandatory.
- Provide milk preservation facilities at block level.

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