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A Study On Common Animal Husbandry and Hygiene Practices Among Dairy Cattle Breeding Farmers

V.Sastry Ch[1*], S.V.M.Vardhan[2],V Bhaskara Reddy[3]

1.Department of Statistics, KRU Dr. MRAR College of PG Studies, Nuzvid, A.P, India

2. Department of Biochemistry, KRU Dr. MRAR College of PG Studies, Nuzvid, A.P, India

3. Department of Humanity and Science, St. Ann's College of Engineering and Technology, Chirala A.P, India.

ABSTRACT

The objective of this work was to develop, use and present a detailed questionnaire for the evaluation of health management in dairy small ruminants; it includes the questions organized in five sections: Socio Economic conditions (general), Feeding Management, Financial Participation, Breeding of milk animals and Health care & Livestock Management. In this study a adoption level of scientific dairy farming practices by dairy farmers of study region, the dairy farmers who were the regular members of Milk Producers' for the last 3 to 5 Years. In this study 80% of small and medium Live stock holders. The experience of the investigator, the primary language of farmers and asking clarifications by the farmers affected the duration of the interview. In accord with the needs of a particular study, it can be modified, by adding more specific questions or omitting others deemed of less importance. Moreover, it can also be used for routine monitoring purposes, as a useful means to record. To the best of our knowledge, the questionnaire is the most extensive and detailed one available internationally for dairy small ruminants.

Keywords: Livestock, animal husbandry, small scale farmer, calf management, field study, health management, infrastructure, nutrition, questionnaire, survey.

*Corresponding Author Email: svenkatmsc08@gmail.com

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INTRODUCTION

In most developing countries, including India, the rural population makes up the majority of the productive labor force. Dairying contributes greatly to a nation's agricultural development even if it is a secondary industry in India. Nearly 5% of India's GDP comes from animal husbandry, which also accounts for nearly 4% of the country's agricultural GDP.

Over the past five years, the sector has grown at an excellent compound annual growth rate of 8%. For many in the industry, livestock income serves as both their main and secondary source of income, as does the rural farming community. In addition to providing nutrition through goods like milk, eggs, and meat, among other things, the sector assumes enormous importance in income creation and job opportunities due to its vital role in the rural economy.

The health and wellbeing of animals depend on proper diet. High animal productivity levels are required by agricultural production technologies. The speed at which animal husbandry and production systems are developing has increased. This requires continuous modification in management and nutritional practices to ensure animal well-being, health, and production.

The dairy sector plays an important role in strengthening India's rural economy. Create self-employment opportunities, increase incomes for landless and marginalized smallholder farmers, and provide much-needed nutrition to people [1-5]. It has the potential to serve as a tool for bringing about socio-economic change. The Government of India is making great efforts to increase milk production through the Farm Flood Program, and farmers are recognizing the importance of dairy farms as a potential source of additional income and employment [6-8]. In reality, however, profits from livestock farming remain unequally distributed across the country.

The compare to urban people the rural people are actively participating in various dairy farming practices including harvesting and bringing of fodder from field, care of sick animal, feed preparation, feeding the animal, cleaning of animal shed, milking, cow dung collection and cake making, etc. [9].

Dairy cattle breeding farmers know knowledge regarding scientific management of livestock, ownership, decisions regarding sale and purchase of animals, marketing of dairy products etc.[10]. Dairy farming in India not only provides livelihoods to millions of rural families but also plays a crucial role in meeting the population's nutritional needs.

Animal diseases involve complex interactions between the host, pathogen, and environment. Biosecurity addresses strategies for both disease prevention (eradication) and control (limiting the impact of infection)[18]. Therefore, eradication and biosecurity are the pillars of exotic disease control.

The Central Government of India has launched various schemes and initiatives to further strengthen this sector and ensure sustainable growth [11-17].

The government of India has launched different schemes to promote dairy sector:

The Rashtriya Gokul Mission (RGM): The primary objective of conserving and developing indigenous cattle breeds.

1. The National Programme for Dairy Development (NPDD): The Govt. of India plan to enhance quality of milk and milk products and also share of organized milk procurement.
2. The Dairy Infrastructure Development Fund (DIDF): The aim is enhancing milk processing and chilling capacities to reduce milk spoilage, improve product quality, and increase dairy farmers' income.
3. National Livestock Mission (NLM): The focus of the scheme is on Breed Development of Livestock & Poultry, Feed and Fodder development and Extension and Innovation.
4. The Animal Husbandry Statistics (AHS): It implemented collaboration with State Animal Husbandry Departments. The objective of this scheme is Livestock Census and Integrated Sample Survey". Here Two units are there i.e., Livestock Census (LC) & Integrated Sample Survey (ISS).
5. Animal Husbandry Infrastructure Development Fund (AHIDF): This executes the department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying. It has been approved for incentivizing investments by individual entrepreneurs, private companies, MSME, Farmers Producers Organizations (FPOs) and Section 8 companies to establish (i) the dairy processing and value addition infrastructure, (ii) meat processing and value addition infrastructure and (iii) Animal Feed Plant.
6. Livestock Health and Disease Control (LH&DC): Under this scheme to prevention & control, subsequently eradicating the diseases, increased access to veterinary services, higher productivity from animals, boosting up of trade in livestock and poultry, in livestock and poultry products and improving socio- economic status of livestock and poultry farmers. To improve the animal health is the intent scheme.
7. National Animal Disease Control Programme (NADCP): It aims at vaccinating livestock including cattle, buffalo, sheep, goats and pigs against the FMD and also aims to female bovine calves annually in its fight against the brucellosis disease. Under this scheme, Central Government to 100% of funds shall be provided the States / UTs.
8. Supporting Dairy Cooperatives and Farmer Producer Organizations (SDCFPO) engaged in dairy activities:

A Scheme named "Supporting Dairy Cooperatives and Farmer Producer Organizations engaged in dairy activities". Implementation:

- In order to overcome the crisis caused by extremely unfavorable market conditions or natural disasters to assist the State Dairy Cooperative Federations by providing soft working capital loans
- To provide stable market access to the dairy farmers.
- To enable State Cooperative Dairy Federations to continue to make timely payments of dues to the farmers.
- To enable the cooperatives to procure milk at a remunerative price from the farmers, even during the flush season.

The present investigation was designed to study the participation and role of people in decision making regarding dairy farming activities. The present study was conducted to investigate the socio – economic profile of dairy farmers in Nuzvid Revenue Division of Eluru district of the Andhra Pradesh state where actively involved in dairy farm activities.

In this study area dairy farmer landless farmers were the poor economic condition and mainly based on feeding of roadside grasses and leftover agricultural waste.

MATERIALS AND METHOD

The study was conducted during the year May to August, 2023. A total of 250 respondents. Finally by using random sampling technique in the structured interview schedule keeping in view the objectives of the study was prepared.

The data were collected by personal interview technique through a structural schedule. Involvement of farm decision making regarding measured in all the categories. *i.e.* feeding, breeding, health care and milk and milk product practices. After measuring the level of knowledge, the data was tabulated and interferences were drawn.

RESULTS AND DISCUSSION

The distribution of respondents according to their personal, social and economic traits included in the study is presented in Table 1. Different sections of Animal husbandry operations their responses of my study are shown in the Table 2. The Animal husbandry operations responses vs Livestock holding the ANOVA Test was conducted and results carried in the Table 3.

It is concluded that the dairy farmers categories in Livestock holding is Small, Medium and Large. Participation in animal husbandry is: Distributions is Feeding Management, Breeding of milk animals, Financial Participation, and Health care & Livestock Management. The data was subjected to ANOVA with a view to ascertain whether the differences in Livestock holding

(group) to Participation in animal husbandry individual categories responses. The results of the ANOVA are presented in Table 3.

Table 1: Respondents according to their personal, social and economic traits

S.No.	Characters	Frequency (250)	Percentage
1	**Gender**		
	Male	125	52%
	Female	115	48%
2	**Age**		
	16-29 years (Young)	60	25%
	29-42 years (Middle)	96	40%
	42-55 years (Old)	84	35%
2	**Education**		
	Illiterates	190	79%
	Literates	50	21%
3	**Occupation**		
	Agriculture	91	38%
	Labour	60	25%
	Home makers	77	32%
	Jobs	12	5%
4.	**Livestock holding**		
	Smal1	121	50%
	Medium	72	30%
	Large	47	20%

Table 2: Distribution of farm according to their participation in animal husbandry

Animal husbandry operations	Frequency	Percentage
Feeding Management		
Enrichment of dry fodder	27	11.25
Soaking of concentrates	187	77.92
Offering concentrate mixture	218	90.83
Feeding young calf`	197	82.08
Storage of concentrates	189	78.75
Watering the livestock	189	78.75
Financial Participation		
Maintenance of farm records	32	13.33
Involvement in Dairy Co-operative	148	61.67
Taking loans	79	32.92
Insurance of animals	30	12.50
Breeding of milch animals		
Carrying out AI	56	23.33
Castration of male calves	188	78.33
Care during pregnancy	222	92.50
Care at the time of calving	220	91.67
Care of new born calf	222	92.50
Weaning management of calf	232	96.67
Health care & Livestock Management		
Care of sick animals	234	97.50
Disposal of infected litter material	235	97.92

Grooming, cleaning and bathing buffalos/cows	196	81.67
Vaccination	181	75.42
Milking & preparing milk products	147	61.25
Cleaning milk vessels	184	76.67
Sale through co-operative dairy society	239	99.58

Table 3: ANOVA Table to Livestock holding to all Animal husbandry Operations

Animal husbandry operations	Significance result
Feeding Management	
Enrichment of dry fodder	Not Significance
Soaking of concentrates	Highly Significance
Offering concentrate mixture	Significance
Feeding young calf`	Significance
Storage of concentrates	Highly Significance
Watering the livestock	Significance
Financial Participation	
Maintenance of farm records	Not Significance
Involvement in Dairy Co-operative	Significance
Taking loans	Significance
Insurance of animals	Not Significance
Breeding of milch animals	
Carrying out AI	Significance
Castration of male calves	Significance
Care during pregnancy	Significance
Care at the time of calving	Significance
Care of new born calf	Highly Significance
Weaning management of calf	Highly Significance
Health care & Livestock Management	
Care of sick animals	Significance
Disposal of infected litter material	Highly Significance
Grooming, cleaning and bathing buffalos/cows	Significance
Vaccination	Highly Significance
Milking & preparing milk products	Significance
Cleaning milk vessels	Not Significance
Sale through co-operative dairy society	Not Significance

CONCLUSION

Based on the various findings of this investigation. A detailed questionnaire to evaluate health management in small ruminant dairy farms has been developed, assessed and presented. The questionnaire can be used for research work in the field, to record details in the farms under study. It was observed that the work regarding majority of Livestock holding (80%) are small and medium. Major responses (More than 60%) of Animal husbandry operations. In Feeding Management: Soaking of concentrates, Offering concentrate mixture, Feeding young calf, Storage of concentrates, Watering the livestock. In Breeding of milch animals: Involvement in Dairy Co-operative. Financial Participation: Castration of male calves, Care during pregnancy, Care at the

time of calving, Care of new born calf, Weaning management of calf. Health care & Livestock Management: Care of sick animals, Disposal of infected litter material, Grooming, cleaning and bathing buffalos/cows, Vaccination, Milking & preparing milk products, Milking the animals, Cleaning milk vessels, Sale through co-operative dairy society.

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