To study the constraints faced and suggestions made by the cattle rearers in management of milch cattle during transition period

ABSTRACT

The study, conducted in 2023-24 in the Nashik district of Maharashtra, investigates the constraints faced and suggestions made by cattle rearers in management of milch cattle during transition period. The research was carried out in Sinnar tehsil of Nashik district, involving 120 cattle rearers from twelve villages, with data collected through personal interviews using a specially designed schedule. Statistical analysis revealed several significant constraints such as, high veterinary medicine costs, low milk rates, and high feed costs. Additionally, many respondents lacked sufficient information on proper management practices during the transition period. Other notable constraints included difficulties in identifying cattle diseases, high incidence of diseases during the transition period, distant veterinary hospitals and unavailability of government veterinary doctors, lack of knowledge about vaccination schedules and calf care, and inadequate veterinary services.

To address these challenges, respondents suggested providing generic animal drugs in each circle, government regulation on milk adulteration and pricing of feed, medicines, and dairy equipment and on-farm demonstrations of improved management practices. Additional suggestions included linking dairy farmers with agricultural universities and institutions, strengthening agricultural extension services and imparting training.

Keywords: Transition period, Cattle, Cattle Management, Animal husbandry

INTRODUCTION :

Animal husbandry plays a crucial role in the Indian economy by supplementing family income, enhancing nutritional security and generating employment for 22.45 million people. The livestock sector contributes 5.3 percent to India's GDP, with about 150 million people depending on it for their livelihood. India, home to 536 million livestock, including 192.49 million cattle, is the largest milk producer globally with an annual production of 198.4 million tonnes. However, a critical phase in a milch cattle's life cycle, the transition period, significantly influences its productivity, health and overall well-being.

The transition period, spanning three weeks before and after calving, involves immense physiological and metabolic adaptation for the cow. This period marks the shift from a non-lactating, pregnant state to the onset of copious milk production, necessitating a complex interplay of hormonal, metabolic and immunological changes. During this time, cows experience increased energy demands for milk production, often leading to a negative energy balance, where energy intake falls short of requirements. This metabolic stress combined with endocrine and immune suppression, predisposes cows to a range of metabolic and infectious diseases. The transition period is, therefore, a juncture of heightened vulnerability, demanding close attention and meticulous management to ensure the well-being of the cow and her subsequent lactation performance. Failure to manage the transition period effectively can have significant consequences for the farmer's livelihood and the overall productivity of the dairy industry.

Effective management during this critical phase is essential for maintaining the health and productivity of lactating cattle. This study aims to explore the constraints faced by cattle rearers and the suggestions they make for managing milch cattle during the transition period.

METHODOLOGY :

The present study was conducted in Sinnar Tehsil of Nashik district of Maharashtra state. Sinnar Tehsil was purposively selected due to highest cattle population in district.A total of 12 villages were purposively selected from Sinnar Tehsil. From each of these 12 villages, 10 milch cattle rearers were randomly selected, resulting in a total sample size of 120 respondents.

Ex-post facto research design was adopted in this study. The data were collected with the help of pretested interview schedule from the respondents as per their convenience at their home or farms. Statistical methods and tests such as frequency and percentage were used for analysis of data. The constraints faced by cattle rearers during the transition period, along with their suggested solutions, were presented using frequencies and percentages. A rank order was established based on most pressing challenges and prioritize interventions.

RESULT & DISCUSSION

1. Constraints faced by cattle rearers during transition period of milch cattle :

Constraints refer to the difficulties or causes which prohibit cattle rearers to adopt recommended management practices in cattle rearing.

Table 1: Constraints faced by cattle rearers during transition period of milch cattle

Sr. No	Constraints	Frequency (N=120)	Per cent	Rank
1.	High cost of veterinary medicines.	120	100.00	I
2.	Low milk rate	113	94.17	II
3.	High cost of feed	110	91.67	III
4.	Insufficient information about the proper management practices need to be followed during the transition period of milch cattle.	98	81.67	IV
5.	Problem in identification of cattle diseases and disorders.	84	70.00	V
6.	High incidence of diseases and disorders in milch cattles during transition period.	76	63.33	VI
7.	The distant location of veterinary hospitals and non availability of government veterinary doctors.	61	50.83	VII
8.	Lack of knowledge about vaccination schedule and care and management of newly born calf.	55	45.83	VIII
9.	Improper veterinary service	40	33.33	IX

It was observed from Table no.1 that, the most significant constraint, affecting all respondents (100%), is the high cost of veterinary medicines, indicating that veterinary care is a major financial burden for cattle rearers. The second most common issue is the low milk rate, with 94.17% of respondents affected, suggesting that the economic returns from milk production are not satisfactory for most cattle

rearers. The high cost of feed ranks third, with 91.67% of respondents facing this issue, highlighting the critical impact of feed costs on overall profitability. Additionally, 81.67% of respondents lack sufficient information about proper management practices during the transition period, emphasizing the need for better education and resources for cattle rearers. Problems in identifying cattle diseases and disorders are significant for 70.00% of respondents, underscoring the importance of early detection and treatment for maintaining cattle health. The high incidence of diseases and disorders during the transition period affects 63.33% of respondents, indicating a need for improved disease management practices. The distant location of veterinary hospitals and the non-availability of government veterinary doctors is a constraint for 50.83% of respondents, highlighting the necessity of accessible veterinary services. Lack of knowledge about vaccination schedules and care of newly born calves affects 45.83% of respondents, pointing to the importance of proper vaccination and care for calf health and growth. Lastly, improper veterinary service is the least common constraint, affecting 33.33% of respondents, suggesting that while veterinary services are available, their quality may not always meet the required standards.

2. Suggestions made by cattle rearers to overcome the constraints :

The suggestions given by the cattle rearers to overcome constraints depicted in table 2

Table 2 Suggestions made by farmers to overcome the constraints

Sr. No	Suggestions	Frequency (N=120)	Per cent	Rank
1.	Generic animal drugs should be provided in each circle.	120	100.00	I
2.	Government should make strict regulation regarding milk adultration and pricing of feed, medicines and dairy equipments.	107	89.17	II
3.	Conduct on farm demonstration of improved management practices.	95	79.17	III
4.	Link dairy farmers with agricultural universities, KVK and other institutions.	87	72.50	IV
5.	Strengthening agriculture extension service.	78	65.00	V
6.	Training should be imparted	55	45.83	VI

It was observed from Table no. 2 that, the most frequent suggestion (100.00%) is to provide generic animal drugs in each circle. This highlights the critical need for accessible and affordable veterinary medicines, aligning with the previously identified challenge of high medicine costs. The second most common suggestion by 89.17 per cent of respondents emphasizes the need for government regulation regarding milk adulteration and pricing of feed, medicines, and dairy equipment. This reflects the economic pressures faced by farmers due to low milk rates and high input costs. The third major suggestion (79.17%) calls for on-farm demonstrations of improved management practices. This directly addresses the knowledge gap regarding proper management during the transition period.

Other suggestions include linking dairy farmers with agricultural universities and institutions (72.50%), strengthening agricultural extension services (65.00%) and imparting training (45.83%).

These suggestions highlight the key areas where cattle rearers believe improvements are necessary to enhance their practices and overall productivity.

CONCLUSION :

The challenges faced by cattle rearers during the transition period are multifaceted. Economic pressures stemming from high veterinary costs and unfavorable market conditions create significant obstacles. Additionally, a lack of knowledge regarding proper management practices, disease identification and vaccination schedules further compounds these challenges. The limited availability of veterinary services and the remoteness of veterinary hospitals exacerbate the difficulties in ensuring optimal animal health and productivity. The suggestions provided by the respondents highlight the urgent need for interventions that address both economic and knowledge-related constraints faced by dairy farmers. Ensuring accessible veterinary medicines, regulating milk prices and input costs and providing on-farm demonstrations of improved management practices are crucial steps in empowering farmers to overcome these challenges. Furthermore, establishing stronger connections between farmers and agricultural institutions along with strengthened extension services and training programs, can contribute to knowledge transfer and skill development, fostering a more sustainable and profitable dairy sector.

RECOMMENDATIONS :

Based on the constraints and suggestions provided by cattle rearers during the transition period of milch cattle, the following recommendations are proposed :

1. **Provide Generic Animal Drugs**: Ensure the availability of generic animal drugs in each circle to make veterinary care more accessible and affordable.
2. **Government Regulation**: Implement government regulations regarding milk adulteration and the pricing of feed, medicines, and dairy equipment to stabilize the market and ensure fair prices for farmers.
3. **On-Farm Demonstrations**: Conduct on-farm demonstrations of improved management practices to address the knowledge gap among cattle rearers.
4. **Collaboration with Institutions**: Link dairy farmers with agricultural universities, KVK, and other institutions to facilitate knowledge sharing and access to the latest research and innovations in cattle management.
5. **Strengthen Agricultural Extension Services**: Enhance agricultural extension services to provide timely advice, support, and training to farmers.
6. **Training Programs**: Implement training programs to equip cattle rearers with the necessary skills and knowledge for effective cattle management during the transition period.

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1.

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