HIGH MILK FEEDING SYSTEMS IN DAIRY CALVES: A MODERN APPROACH TO CALF REARING

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Introduction

Effective feeding practices in new born dairy calves are crucial for their growth, health, and overall productivity in the dairy industry. Among various feeding methods, high milk feeding has gained attention for its potential to enhance calf performance. The volume of milk feeding to dairy calves could affect physiological, immunological, behavioural and economic traits. The quantity of milk given to dairy calves during the preweaning stage affects their growth, health, and consumption of dry feed

Benefits of High Milk Feeding in Calves

- Accelerated growth rates leading to earlier breeding and entry into the milking herd.
- Improved immune function and reduced susceptibility to diseases.
- Enhanced lifetime productivity and profitability in the dairy operation.

Effect of High Milk Feeding on Growth Performance of Calves:

High milk feeding plays a crucial role in the growth performance of calves by providing essential nutrients necessary for optimal development. The high milk feeding regimen ensures that calves receive adequate amounts of proteins, fats, carbohydrates, vitamins, and minerals, which are vital for supporting rapid growth and metabolic processes during the early stages of life. By meeting the calf's nutritional requirements through high milk feeding, farmers can promote higher growth rates, leading to earlier attainment of target weights and sizes. Additionally, the increased nutrient intake from high milk feeding facilitates efficient muscle and skeletal development, resulting in stronger, healthier calves. Overall, high milk growth performance in calves, laying the foundation for their long-term productivity in the dairy industry.

Effect of High Milk Feeding on Feed & Nutrient Intake of Calves

High milk feeding has a substantial impact on the feed and nutrient intake of calves, influencing their growth and development. By providing calves with a high volume of milk, rich in essential nutrients, they are more likely to achieve higher overall feed intake compared to calves on restricted milk diets. This increased milk consumption not only satisfies their energy needs but also contributes to the intake of essential proteins, fats, carbohydrates, vitamins, and minerals crucial for growth and metabolic functions. Consequently, calves receiving high milk feeding tend to exhibit improved nutrient utilization and absorption efficiency, leading to enhanced growth rates and overall performance. Moreover, the early exposure to a nutrient-rich diet through high milk feeding may positively influence rumen development, facilitating a smooth transition to solid feed intake and promoting long-term productivity in dairy operations.

Effect of High Milk Feeding on Behaviour and Health of Calves

High milk feeding significantly influences the behaviour and health of calves, positively impacting their overall well-being. Calves receiving high milk feeding often exhibit contentedness and satisfaction, displaying reduced instances of non-nutritive sucking behaviors and increased social interactions. This contentedness contributes to lower stress levels and improved welfare outcomes. Additionally, the nutrient-rich milk provided

through high milk feeding supports optimal immune function, reducing the incidence of diseases such as diarrhea and respiratory infections. Improved immunity and overall health result in fewer veterinary interventions and medication requirements, enhancing the sustainability of calf rearing operations. Furthermore, the positive behavioural and health outcomes associated with high milk feeding contribute to the long-term productivity and profitability of dairy farms.

Effect of High Milk Feeding on Economics of Calf Rearing

High milk feeding in calves can have a significant economic impact on dairy operations. While the initial investment in high-quality milk replacers or whole milk may be higher compared to lower feeding rates, the long- term benefits often outweigh the costs. Calves fed with high milk volumes typically experience accelerated growth rates, reaching target weights and sizes earlier, which translates to reduced rearing costs and shorter rearing periods. Additionally, improved health outcomes associated with high milk feeding, such as lower incidence of diseases and reduced veterinary interventions, result in decreased treatment costs and higher calf survival rates. Moreover, the enhanced growth performance of calves fed with high milk volumes contributes to earlier entry into the milking herd, increasing overall milk production and profitability over the lifetime of the cow. Thus, while high milk feeding may entail higher initial expenses, its economic advantages in terms of improved growth, health, and productivity make it a valuable investment for dairy operations in the long run.

Conclusion

In conclusion, implementing high milk feeding practices in dairy calves offers a comprehensive approach to optimizing calf rearing outcomes. This strategy enhances growth performance by accelerating growth rates and promoting early attainment of target weights, while also facilitating increased feed and nutrient intake, supporting efficient nutrient absorption and rumen development. Additionally, high milk feeding contributes to improved health outcomes, reducing disease incidence and veterinary intervention costs, while fostering positive behaviours and overall welfare. Despite initial investment costs, the long-term benefits of high milk feeding, including reduced rearing expenses, shorter rearing periods, and enhanced lifetime productivity, underscore its significance as a sustainable and profitable investment for dairy operations.

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