

# Low Productivity of Indian Dairy Animals: Challenges & Mitigation Strategies

Arjun Kumar Rao

Department of veterinary Anatomy, College of veterinary & animal sciences,  
Lala Lajpat Rai University of veterinary and animal sciences, Hisar.

\*Corresponding Author: [radhekrishna3198@gmail.com](mailto:radhekrishna3198@gmail.com)

India, renowned as the 'Land of Milk', has one of the world's largest dairy industries. Despite its tremendous resources and potential, the country confronts a significant challenge in increasing the production of its dairy cattle. This is a multidimensional issue that is impacted by a variety of factors, including genetics, diet, management techniques, and infrastructure. Understanding and tackling the underlying reasons of poor productivity is critical to sustaining and strengthening the Indian dairy sector.

The poor productivity of Indian dairy animals presents multiple problems for the dairy sector, yet there are various mitigation methods that may be used to solve these concerns.

## Challenges

**1. Genetic Limitations:** Indigenous dairy breeds in India may have lesser milk production capacity than exotic types. Many indigenous Indian cattle breeds have lower milk production potential compared to exotic breeds like Holstein-Friesian. These indigenous breeds are adapted to local conditions but may not produce milk at the same levels as high-yielding breeds.

**2. Nutritional Deficiencies:** Poor feed quality and restricted access to supplements might reduce milk output. Poor nutrition can greatly impact milk production. Inadequate feed quality or quantity, lack of proper supplementation, and insufficient access to clean water can all hinder the productivity of dairy animals.

**3. Health Issues:** Diseases including mastitis, foot-and-mouth disease, and metabolic abnormalities can impact dairy animals' health and production output. Diseases, parasites, and poor veterinary care can affect the health of dairy animals, leading to lower milk production. Inadequate vaccination, lack of proper hygiene, and limited access to veterinary services contribute to these health issues.

**4. Poor management practices:** Inefficient or improper management practices, such as lack of proper housing, poor breeding management, inadequate reproductive health care, and suboptimal milking techniques, can all contribute to lower productivity.

**5. Climate Stress:** Extreme weather conditions, such as heat stress in tropical climates, can negatively impact milk production. Additionally, overcrowding and poor ventilation in animal housing can exacerbate stress levels in dairy animals.

**6. Economic factors:** Limited access to credit, high input costs, low milk prices, and inadequate infrastructure for milk collection and processing can discourage farmers from investing in improving the productivity of their dairy animals.

Addressing these issues needs a multifaceted strategy that includes improved breeding programs, better nutrition management, improved veterinarian care, best management practice training, and investment in dairy farmer infrastructure and support services.

## Mitigation Strategies

**1. Selective breeding** methods can boost the genetic potential of indigenous breeds by crossbreeding with high-yielding alien breeds or within them.

**2. Improved Nutrition:** Providing balanced and nutritious feed, such as high-quality pasture, concentrates, and mineral supplements, to fulfill dairy animals' calorie and protein requirements.

**3. Healthcare Management:** Provide regular veterinarian care, vaccinations, and disease management methods to prevent and control productivity-reducing illnesses.

**4. Enhanced Management Practices:** Improving housing facilities, implementing cleanliness and sanitation measures, and adopting excellent management practices to maximize dairy animal health and production.

**5. Climate Resilience:** Taking steps to reduce heat stress, including shade, ventilation, and availability to cold water, as well as changing feeding and management practices during extreme weather conditions.

**6. Training and Education:** Providing dairy producers with best practices in animal husbandry, nutrition, and healthcare management to increase production and profitability.

**7. Market Linkages:** Improving access to markets and value-added services, such as milk collection and

processing, to assure fair prices for dairy products and encourage investment in productivity.

By tackling these difficulties via focused mitigation techniques, the productivity of Indian dairy animals may be greatly raised, resulting in better livelihoods for dairy farmers and greater supply of healthy dairy products for consumers.

### Conclusions

In conclusion, addressing low production in Indian dairy cows demands a diversified strategy.

India can fully realize its dairy industry's potential by resolving genetic restrictions, increasing nutrition and healthcare, upgrading management methods, and investing in infrastructure and market access. Collaboration between government agencies, research institutes, non-governmental groups, and the corporate sector is critical for implementing sustainable solutions and guaranteeing the dairy industry's long-term sustainability. With sustained efforts and targeted interventions, India may achieve its goal of becoming a global dairy production leader.

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