



## Addressing the Management of Antibiotic Overuse in Dairy Animals

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### Introduction

Overuse of antibiotics in dairy animals has become a growing problem in recent years. While antibiotics play a vital role in the treatment and prevention of disease, their misuse and overuse can lead to the development of antibiotic-resistant bacteria, posing a significant threat to both animal and human health. It is essential for dairy farmers and industry stakeholders to adopt responsible management practices to ensure judicious use of antibiotics in dairy animals.

### Understanding the problem

The dairy industry often relies on antibiotics to treat and prevent various infections in animals. However, misuse and overuse of antibiotics can have harmful effects. When animals are continuously exposed to



antibiotics, bacteria can develop resistance, rendering these drugs ineffective in treating infections. This can lead to prolonged illness, increased mortality and higher treatment costs for farmers.

In addition, antibiotic-resistant bacteria can be transmitted to humans through consumption of contaminated dairy products or direct contact with infected animals. This poses a significant public health risk because it limits the effectiveness of antibiotics in treating human infections, which can lead to more serious illnesses and increased health care costs.

### Implementing responsible antibiotic stewardship

1. **Veterinary Guidelines:** Dairy farmers should work closely with veterinarians to develop comprehensive herd health management plans. Veterinarians can provide advice on disease prevention strategies, proper antibiotic use, and alternative treatments to reduce antibiotic dependency.
2. **Disease prevention:** Implementing robust biosecurity measures can help prevent the spread of infections in the herd. This includes maintaining clean and sanitary stables, proper hygiene practices and regular animal health checks.
3. **Vaccination programs:** Vaccinating dairy cows against common diseases can significantly reduce the need for antibiotics. Regular vaccination protocols tailored to the specific needs of the herd can help prevent infections and minimize the use of antibiotics.
4. **Correct diagnosis:** Accurate diagnosis of diseases is essential to avoid unnecessary use of antibiotics. Farmers should ensure that diseases are correctly identified before administering antibiotics. Diagnostic tests such as bacterial cultures and susceptibility testing can help determine the most effective treatment options.
5. **Record keeping:** Keeping detailed records of antibiotic use is essential to monitor and evaluate their effectiveness. This information can help identify patterns of abuse and guide decisions about alternative treatments or preventive measures.
6. **Education and training:** Ongoing education and training programs for dairy farmers and workers are essential to promote responsible antibiotic use. These programs should focus on proper administration techniques, dosage calculations and the importance of following veterinary recommendations.

### Conclusion

Management of antibiotic overuse in dairy cows is a critical issue that requires immediate attention. By implementing responsible management practices, dairy farmers can help mitigate the development of antibiotic resistance, protect animal health, and protect public health. Collaboration between farmers, veterinarians and industry stakeholders is essential to ensure the judicious use of antibiotics and to promote sustainable dairy farming practices.