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Hidden Menace: The Looming Threat of Campylobacteriosis in Cattle and Buffaloes

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Introduction

Campylobacteriosis is a widespread bacterial infection that affects various animals, including cattle and buffaloes. This infectious disease poses significant challenges to livestock industries worldwide due to its impact on animal health and economic consequences. Understanding campylobacteriosis and its implications for cattle and buffaloes is crucial to implementing effective prevention and control measures. In this article, we will delve into the causes, symptoms, transmission, and prevention strategies for campylobacteriosis in these essential livestock animals.

What is Campylobacteriosis?

Campylobacteriosis is a bacterial infection caused by the pathogen *Campylobacter* spp. The most common species affecting cattle and buffaloes are *Campylobacter jejuni* and *Campylobacter fetus*. While these bacteria can infect various animals and birds, they have a particular affinity for the intestinal tracts of cattle and buffaloes.

Transmission and Symptoms

Campylobacteriosis primarily spreads through the fecal-oral route. Cattle and buffaloes become infected by consuming contaminated feed, water, or coming into contact with infected fecal matter from other animals. The bacteria can survive in the environment, especially in moist conditions, allowing for easy transmission within the herd or flock.

Once infected, cattle and buffaloes may not show symptoms immediately. The incubation



period typically ranges from a few days to a week. Common symptoms of campylobacteriosis include:

Diarrhea: Infected animals often experience watery and sometimes bloody diarrhea, leading to dehydration and weight loss.

Reduced Appetite: Cattle and buffaloes infected with *Campylobacter* may display a decreased appetite and lethargy.

Fever: Elevated body temperature is a common sign of infection.

Reproductive Issues: In pregnant animals, campylobacteriosis can lead to reproductive problems, such as infertility, abortion, or stillbirths.

Economic Impact

The economic impact of campylobacteriosis in cattle and buffaloes is significant. Infected animals experience reduced growth rates, decreased milk production, and reproductive failures, leading to financial losses for farmers and the livestock industry as a whole. Additionally, the cost of veterinary treatment and implementing preventive measures can be burdensome.

Prevention and Control

Preventing campylobacteriosis in cattle and buffaloes is essential to safeguard animal health and maintain a profitable livestock enterprise. Here are some key prevention and control strategies:

Biosecurity Measures Implement strict biosecurity protocols on farms to prevent the introduction and spread of the bacteria. Isolate new animals before introducing them to the herd, and maintain hygiene and sanitation standards.

Water and Feed Quality: Ensure a clean and safe water supply and provide uncontaminated, properly stored feed to minimize the risk of infection.

Vaccination: Consider vaccinating cattle and buffaloes against specific strains of *Campylobacter* to reduce the severity and spread of the disease.

Environmental Management: Properly manage manure and waste disposal to limit environmental contamination.

Monitoring and Testing: Regularly monitor the health status of the herd or flock and conduct diagnostic tests to identify any potential cases of campylobacteriosis promptly.

Conclusion

Campylobacteriosis is a significant concern for cattle and buffalo farmers worldwide due to its impact on animal health and economic implications. Understanding the causes, symptoms, transmission, and preventive measures of this bacterial infection is crucial in safeguarding the well-being of livestock and ensuring the sustainability of the livestock industry. By implementing



stringent biosecurity measures, maintaining cleanliness, and monitoring the health of animals, we can minimize the prevalence of campylobacteriosis and secure a healthier future for our cattle and buffaloes.

Reference

- Boonmar, S., Chanda, C., Markvichitr, K., Chaunchom, S., Yingsakmongkon, S., Yamamoto, S., & Morita, Y. (2007). Prevalence of *Campylobacter* spp. in slaughtered cattle and buffaloes in Vientiane, Lao People's Democratic Republic. *Journal of Veterinary Medical Science*, 69(8), 853-855.
- Cipolini, M. F., Jacobo, R. A., Storani, C. A., Martínez, D. E., Martínez, E. I., Cardozo, R. O., & Velásquez, R. (2010). Campylobacteriosis in Buffaloes Cow in Northeastern Argentina. *Revista Veterinaria*, 21(1).
- Gudmundson, J., & Chirino-Trejo, J. M. (1993). A case of bovine mastitis caused by *Campylobacter jejuni*. *Journal of Veterinary Medicine, Series B*, 40(1-10), 326-328.
- KAKKAR, M., & DOGRA, S. C. (1990). Prevalence of *Campylobacter* infections in animals and children in Haryana, India. *Journal of Diarrhoeal Diseases Research*, 34-36.

