



Lactic Acid Bacteria from Animal Microbiota as Natural Inhibitors of Mycotoxin-Producing Fungi

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INTRODUCTION

Mycotoxins in animal feed pose serious risks to livestock health, leading to reduced productivity and economic losses. Certain lactic acid bacteria (LAB) offer a natural solution by inhibiting mould growth and binding mycotoxins, which helps reduce their harmful effects. This study explores LAB isolated from domestic animal microbiota as potential biocontrol agents to enhance feed safety, promote animal well-being, and reduce reliance on chemical treatments in livestock farming.

METHODOLOGY

Isolation of LAB



Antifungal Activity of LAB Against Mould in Culture Medium





RESULTS

Streptococcus alactolyticus (pig isolate) and Enterococcus gallinarum (bison isolate) tested against Aspergillus flavus (ZT41), Aspergillus clavatus (B9/6), and Penicillium digitatum (pd).











CONCLUSIONS

This study underscores the promising capabilities of lactic acid bacteria from animal microbiota as natural agents to combat fungal contamination in animal feed. The strong antifungal activity observed in specific strains, particularly *Streptococcus alactolyticus* and *Enterococcus gallinarum*, suggests these microorganisms could play a key role in future biocontrol strategies. Their application may not only enhance feed safety but also offer a cost-effective and environmentally friendly alternative to synthetic preservatives in livestock production systems.

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