

# Antibiotic Alternatives at a Glance

The World Health Organization promotes a proactive approach to reduce the need and use of antibiotic growth promoters in animals, especially within the classes of antibiotics used in human medicine. Many organic poultry producers are also investing in antibiotic alternatives. So how do the leading antibiotic alternatives work when it comes to safeguarding bird health?



## BOOSTING BENEFICIAL MICROBES



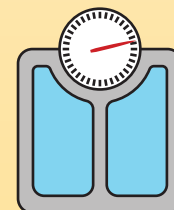
Effectively control pathogen levels in the gut, increasing digestibility, minerals and vitamins absorbability, and more.



May improve metabolism and growth.



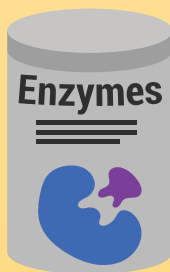
Provides a more balanced microbiota by excluding pathogenic microbes.



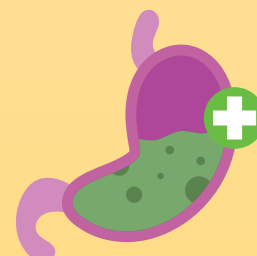
Shown to improve body weight gain and feed conversion ratio.



## PROMISING ADDITIVES



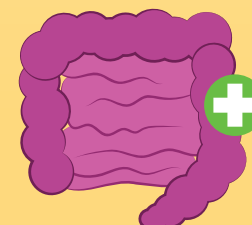
Improves efficiency in the digestive system. Examples include Phytase,  $\beta$ -glucanase, and xylanase



May improve nutrient digestibility and performance.



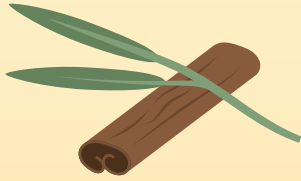
Suppresses microbial activity by blocking the function of crucial microbial enzymes. Examples include Carboxylic acids such as lactic acid, propionic acid, acetic acid, and formic acid



Helps poultry maintain intestinal health, improving livability, feed conversion ratios, weight gain.



# PLANT POWER



- Cinnamon
- Anise Seed
- Thyme
- Sage
- Pepper
- Turmeric



- Thyme Oil
- Cinnamon Bark Oil
- Caeffic Acid



- Mannose
- Galactose
- Derivatives from plants such as conifers.

Reduces pathogenic microbe and parasite populations due to the bioactive components such as tannic acid and saponins. Reduce gut inflammation.



# SOURCES & INFORMATION

This research comes from a 2022 paper published in *Poultry Science*<sup>®</sup>

Source: "Alternatives to antibiotics for organic poultry production: types, modes of action and impacts on bird's health and production," Abd El-Hack M., et al. *Poultry Science*, Volume 101, Issue 4, April 2022, 101696, <https://doi.org/10.1016/j.psj.2022.101696>



Read the full paper by scanning the QR Code.



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