PROBIOTIC APPLICATION IN A POST-ANTIBIOTIC ERA

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Introduction:
To reduce the use of antibiotics in poultry production, alternative strategies must be developed.

Methods:
It is widely accepted that achieving good gut health is an important component to producing antibiotic-free meat. Without the antibiotic line of defense there is a diversion of energy away from growth to fight disease. This is compounded by accelerated production life cycles, which allow little time for gut maturation, making the first 21 days a critical time for gut development and bird performance.

Results:
This increased pressure has opened the door to rising and unpredictable pathogen challenges, leading to poor flock performance and liveability. Probiotics have shown great promise in helping to achieve good gut health. Over recent years there has been significant advances in our understanding of the mode of action of probiotics in broilers. Several modes of actions have been identified including; microbiota development, competitive exclusion, reducing the growth of non-beneficial microorganisms, supporting immune development, immune regulation and supporting gut structure.

Discussion:
Understanding their modes of actions and their implications will help inform users of the most appropriate applications to achieve optimal gut health and bird performance.

Keywords: Probiotics, Antibiotic, Health, Microbiota, Bird performance

Citation: