**APPC**

TOWARDS OPTIMAL USE OF GUT HEALTH SUPPORTING FEED ADDITIVES

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Gut health is important for maximizing the health and performance of poultry. In the last decades, functional additives that can improve intestinal development and function, have therefore received considerable attention. While it has become clear that several classes of these additives have been documented to be able to exert beneficial effects in terms of gut health and animal performance, many questions regarding their optimal use still need to be addressed.

In a series of experiments, we aimed to investigate how 2 families of additives, butyrate and botanicals, can be designed and applied to give maximal results in terms of broiler performance.

Exp.1: 784 Cobb 500® male chicks (4 treatments x 7 replicates x 28 chicks) were fed Precision Delivery Coated Butyrate (PDCB, ADIMIX®Precision) at 0, 0.5, 0.75, and 1 kg/t in starter diets. Exp. 2: birds were fed 0,50 and 0,25 kg/T PDCB or a 0,15 kg/T botanical additive (BO, APEX®5) in grower and finisher diets, following PDCB supplementation to starter diets (1kg/T).

The results are in line with the hypothesis that animal performance can be boosted by enhancing gut development through ADIMIX®Precision-supplementation in the starter feed, and that these results could be further improved by stimulating digestion and gut microbial activity through the application of APEX®5 in the grower and finisher.

Trials like these demonstrate that apart from providing feed additives with excellent quality/functionality, feed additive producers and farmers can learn from investigating the optimal use of different feed additives, either applied separately or in combination.