Dietary acidifier in broilers

ADDCON

Impact of an organic acid blend on feed efficiency and mortality of broilers in Southern India – a performance analysis

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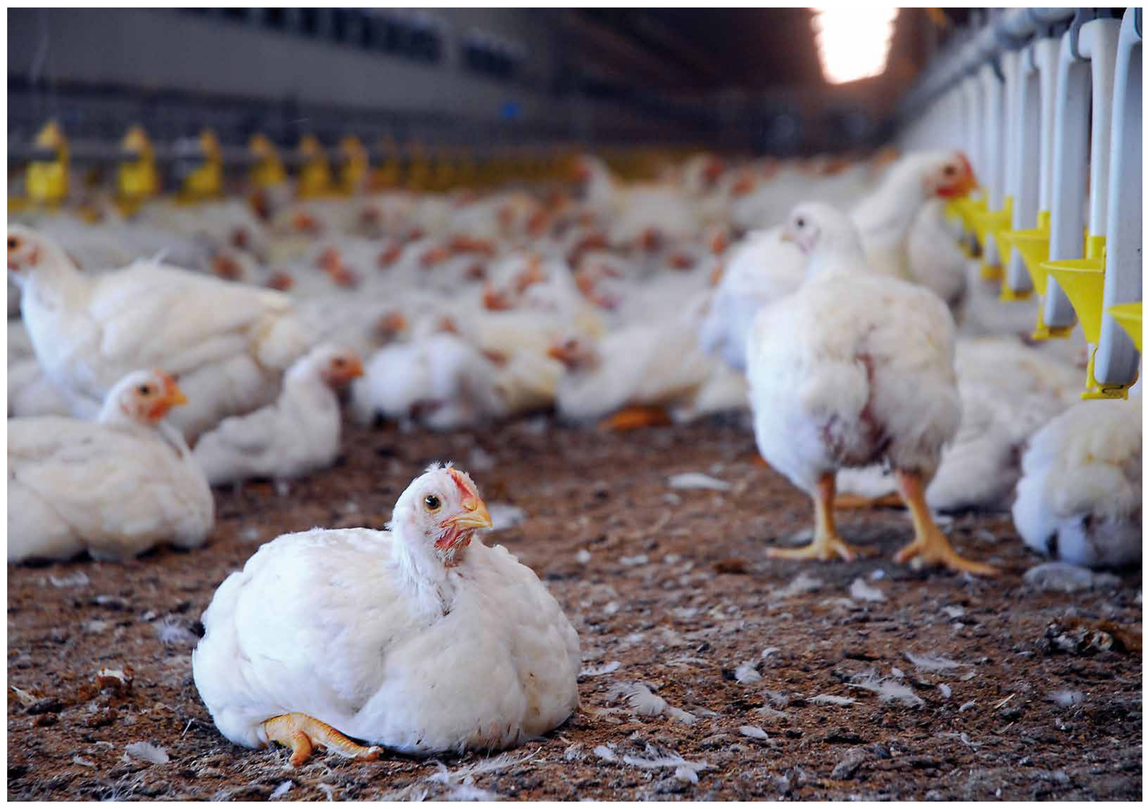
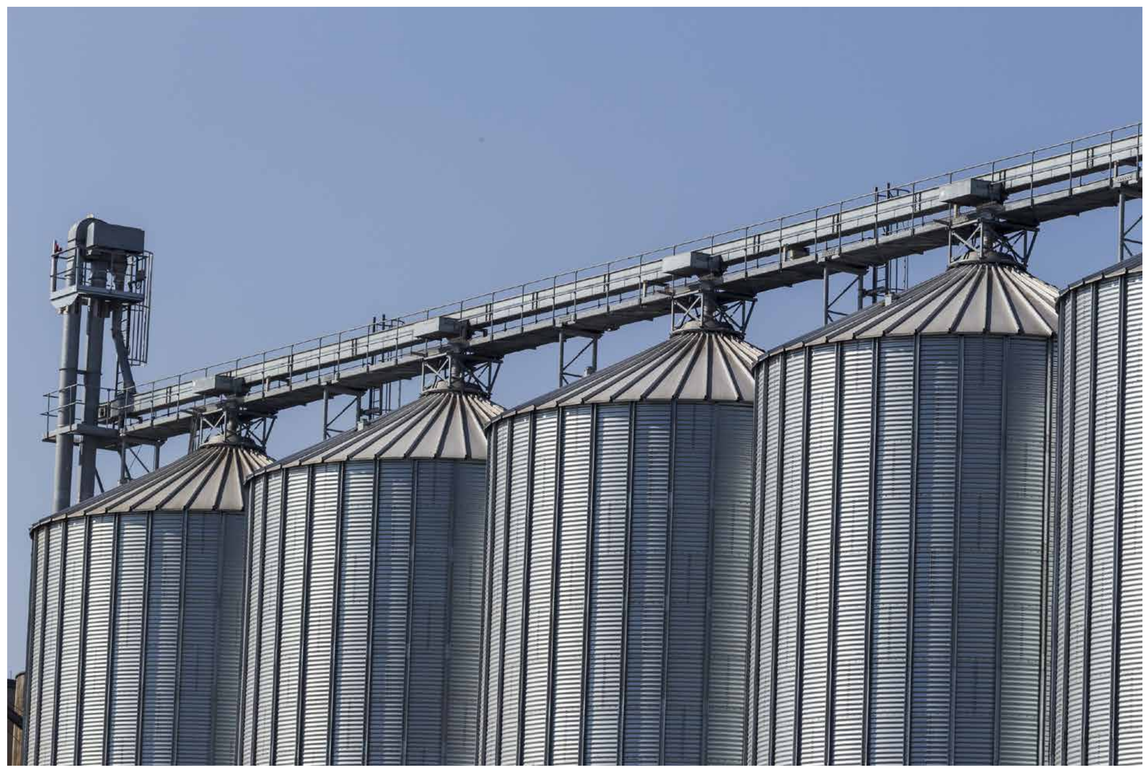
Introduction: Overuse of antibiotics, the development of resistant bacteria and its ill effects on the human population eventually leading to the ban on prophylactic use of antibiotics, is currently the hottest topic of discussion in animal farming. The ban on the prophylactic use of antibiotics in animal farming is well deserved, however, looking at the bacterial challenges experienced here, it is imperative to have a tool to control bacterial infections and improve performance of the farmed animal. Organic acids are looked upon as the most promising alternative to the antibiotics, as, in addition to their anti-bacterial and anti-fungal properties, organic acids provide many extra benefits such as improving overall feed hygiene, optimising the intestinal pH and thereby improving the nutrient digestibility. Organic acids and their salts have been tested in poultry production since the 1980's. The current study investigated the impact of an organic acid blend (OAB – traded as ADDCON FH, ADDCON), consisting of sodium propionate, propionic acid, ammonium formate, formic acid, as well as sorbic acid and a surfactant, developed and previously reported to improve feed hygiene, on its influence on broiler performance in commercial farms in Southern India.





Material and methods: This study analyzed the average impact from all studies carried out in Southern India on the effect of the additive on the performance parameters feed efficiency and mortality. The final data-set contained the results of 23 farm trials with 0.1% OAB-inclusion and covered 224,000 broilers (Vencobb). Results are expressed as percentage difference from the negative control. Data were subjected to statistical analysis and a significance level of 0.05 was used in all tests.

Results and discussion: The performance of broilers based on feed efficiency was improved highly significantly by 2.8% (P=0.009); the FCR itself changed from 1.76 to 1.71, saving almost 26 t of feed across all farms. Furthermore, mortality was significantly reduced on average by 14.3% (P=0.025) – it dropped from 7.8% to 6.7% among 224.000 birds, thus almost 2500 more birds survived. This is in full agreement with previous reports on the impact of this "feed hygiene enhancer" on broiler performance.

Table 1: Performance analysis of 23 South Indian trials with broilers fed diets containing 0.1% OAB (ADDCON FH), expressed as an average percentage difference from negative control

Dosage	FCR	Mortality
0.1%	-2.8	-14.3
P-value	0.009	0.025

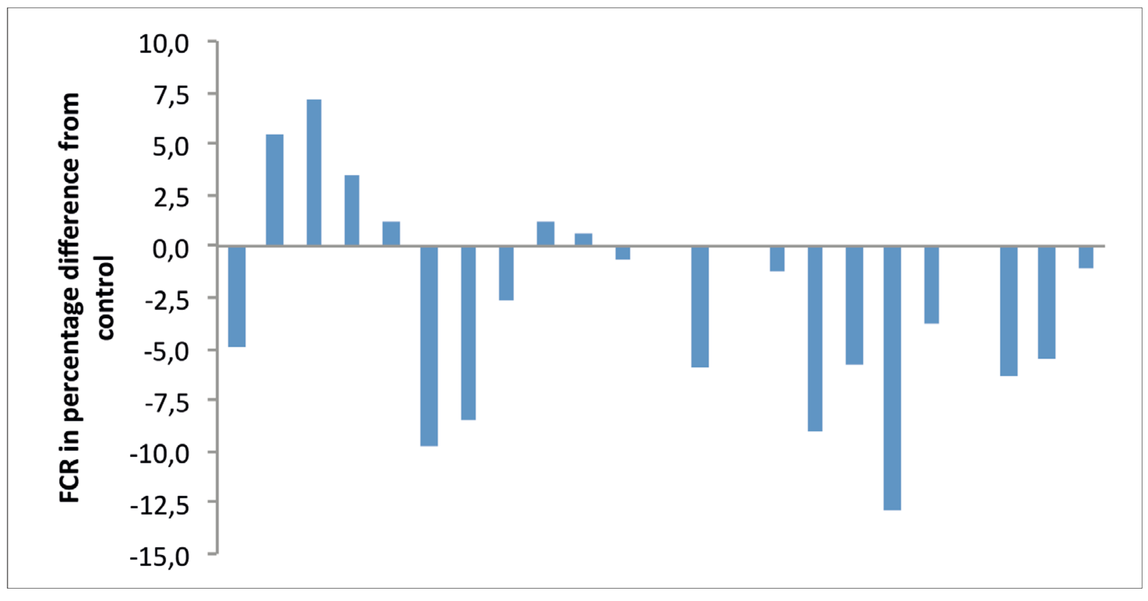


Fig. 1: Feed conversion ratio of 23 OAB-trials in % difference from the negative controls

It is therefore concluded that ADDCON FH can, next to its beneficial effects on feed hygiene, also have a beneficial impact on broiler production under Indian conditions.