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standardized phytomolecules successfully replace growth promoter antibiotic (avilamycin) in commercial-like situation

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Plant extracts have shown inconsistent results when compared to Antibiotic Growth Promoter (AGP) in research stations, limiting their interests for livestock industrials. The objective of this trial was to evaluate if blends of standardized phytomolecules could efficiently replace AGP in broilers housed in commercial situations.

Day-old-broilers Cobb 500 (n=1080) were allotted to 3 groups of 360 birds and assigned into 6 replicates for 42 days. Pens were allocated into a broiler commercial farm. Following feed treatments were applied: CONTROL - No supplementation; AVILAMYCIN - Avilamycin at 100 g/t; XTRACT® - days 1-21 XTRACT® Nature (4% capsicum + 4% turmeric oleoresins) at 100 g/t and from days 22-42 XTRACT® 6930 (5% carvacrol, 3% cinnamaldehyde, 2% capsicum oleoresin) at 100 g/t. Zootechnical and histological parameters were measured. Data were analyzed using mixed model of XLSTAT®.

Broilers from XTRACT® group performed better than broilers from CONTROL and AVILAMYCIN groups. From 0 to 42 days, they had significantly lower Feed Conversion Ratio in comparison to CONTROL (P = 0.047) and numerically lower than AVILAMYCIN. Final Body Weight (BW) of XTRACT® broilers was heavier (2.589 kg) than final BW of CONTROL broilers (2.527 kg; P = 0.071) or AVILAMYCIN broilers (2.568 kg). Enterocytes integrity of XTRACT® broilers were significantly improved in the jejunum (P = 0.047) and the ileum (P = 0.012) in comparison to the other groups.

These findings confirm that standardized phytomolecules, used at the right dose and at optimal physiological stage could efficiently replace avilamycin in broiler housed in commercial like conditions.