

KOLIN PLUS[®]: Ensures Optimum Carcass Quality

Choline is a vital nutrient in the vitamin B complex and essential for the optimum performance of poultry birds. The farmers widely use synthetic choline chloride (CC 60%) in the diet of the birds as a rich source of choline.

However, CC 60% exerts many drawbacks due to its corrosive, hygroscopic, and irritant nature. In addition, it leads to rising feed cost. Hence, finding an alternative to CC 60% with minimum adverse reactions has become mandatory.

KOLIN PLUS is a proprietary polyherbal formulation (PHF) produced by M/s Natural Remedies Pvt Ltd, Bengaluru, India. It is a synergistic combination of plant-derived polyphenols that serve as antioxidants and show lipotropic effects by lipid metabolism and transport.

KOLIN PLUS has ample evidence of improving carcass quality in broiler birds. After 42 days, the study results demonstrated that supplementation with both KOLIN PLUS and CC 60% led to optimal weights in thigh muscle, wing, and breast muscle.

This indicates that KOLIN PLUS effectively contributes to fat mobilization and muscle growth (Table 1).

Table 1: Effect of KOLIN PLUS on muscle growth

Day 42	Thigh Muscle (g)	Wing (g)	Breast Muscle (g)
Normal diet (ND)	424.5±12.87	133.06±3.20	564.38±25.87
ND + CC 60%	441±8.96	140.06±2.78	559.43±11.48
ND + KOLIN PLUS	463±9.44	143.06±2.75	611.06±31.35

In trial II, the Cobb broilers were randomized in 3 groups viz. Normal diet (ND) without CC 60%, Choline deficient diet (CD) and CD + KOLIN PLUS. KOLIN PLUS revealed the optimum liver weight, abdominal fat even in CD condition (Table 2).

Table 2: Effect of KOLIN PLUS on liver weight and abdominal fat

Day 39 (Cobb)	Liver Weight (g)	Abdominal Fat (g)
Normal diet (ND) without Cc60%	47.00 ± 2.32	25.51 ± 1.82
Choline deficient diet (CD)	49.02 ± 2.86	29.85 ± 2.24
CD + KOLIN PLUS	46.80 ± 1.81	27.84 ± 1.61

In both the trials, KOLIN PLUS evidenced the ability of lipid utilization and transport among the broiler birds. Furthermore, KOLIN PLUS exerts its efficacy in low dosage as compared to CC 60%. Thus, it is cost effective and a greener alternative of synthetic CC.

References

- 1. Selvam R, Saravanakumar M, Suresh S, Chandrasekeran C V., Prashanth D. Evaluation of polyherbal formulation and synthetic choline chloride on choline deficiency model in broilers: Implications on zootechnical parameters, serum biochemistry and liver histopathology. Asian- Australasian J Anim Sci. 2018;31(11):1795-1806. doi:10.5713/ajas. 18.0018
- 2. D'souza, P., & Selvam, R. (2022). Evaluation of polyherbal formulation in broilers fed high energy diet: Implications on zootechnical parameters, fat accretion, and serum L- carnitine levels. Journal of Advanced Veterinary and Animal Research, 9(1), 166.
- 3. Prashanth D'Souza, Saravanakumar Marimuthu, Arigesavan Kaninathan, Ramasamy Selvam. Modulatory effect of Kolin PlusTM, a polyherbal formulation on muscle growth development in choline deficient diet model of broilers: a genomic analysis using microarray. Int J Sci Rep. 2019 Dec;5(12): 344-350.