

EFFECT OF ASCORBIC ACID SUPPLEMENTATION ON GROWTH PERFORMANCE, CARCASS TRAITS, SOME PHYSIOLOGICAL PARAMETERS AND SOME BLOOD CONSTITUENTS OF GROWING LAMBS UNDER THE SUMMER EGYPTIAN CONDITIONS

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ABSTRACT

This study was carried out on twenty weaned commercial male lambs of 4 months old and weighing on average 17.04 ± 2.33 Kg live body weight at 150 days old. The lambs were allotted at random into four similar groups (5 males each). The first group was served as control while, the second, third and fourth were fed the control diet supplemented with ascorbic acid at the rates of 500, 750, and 1000 mg per kg diets, respectively.

The results showed that, the final live bodyweight and daily body gain were significantly ($p < 0.01$) increased. The daily feed intake and feed conversion were significantly ($p < 0.05$) improved. On the other hand, daily water intake, rectal temperature and respiration rate were not affected. The final growth margin, hot carcass weight, abdominal fat weight, liver weight, kidney weight, head weight, tail weight, heart weight, lung weight and eye muscle weight were improved when growing lambs treated with ascorbic acid at all the rates of 500, 750, and 1000 mg per kg diets.

Serum total proteins, albumin, globulin, urea-N, AST, ALT and creatinine were not significantly affected, while, the T3 and T4 levels were significantly ($P < 0.05$) increased with increasing ascorbic acid doses comparing with the control group under the summer heat stress.

Key words: *lambs, ascorbic acid, heat stress, growth, carcass, blood components*