

**EFFECT OF CHROMIUM PICOLINATE SUPPLEMENTATION ON
GROWTH PERFORMANCE, CARCASS TRAITS, BIOCHEMICAL
PARAMETERS AND BLOOD CONSTITUENTS OF GROWING LAMBS
UNDER THE SUMMER EGYPTIAN CONDITIONS**

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ABSTRACT

This study was carried out on twenty four weaned commercial male lambs of 5 months age and 19.85 Kg body weight. The lambs were allotted at random to four groups each of 6. The first group was served as control, while the second, third and fourth ones were fed the same diet supplemented with chromium picolinate at doses of 50, 75 and 100 mg per kg diets, respectively.

The results obtained for growing lambs showed that the final live body weight and daily body gain increased significantly ($P<0.05$), also the feed efficiency, final margin and the dressing percentage were improved when treated growing lambs with chromium picolinate at doses of 50, 75, and 100 mg per kg diets. The rectal temperature, respiration rate and daily water intake were not affected by using the previous treatments, while the feed intake, fat tail weight and abdominal fat weight decreased significantly ($P<0.05$). The best results obtained for growing lambs were in the group fed on the diet supplemented with 100 mg chromium picolinate per kg diet.

Serum total proteins, albumin, globulin, urea-N, alkaline phosphates, AST, ALT and creatinine were not significantly affected, while the cholesterol level and triglycerides significantly decreased ($P<0.05$) in lambs treated with chromium picolinate comparing with the control group under the summer heat stress. RBCs, Hb, MCV%, MCH%, hematocrite, neutrophils, and Lymphocyte%, were not affected by using the same previous treatments, while WBCs, platelets count, basophil%, and eosinophils were affected by using chromium picolinate as supplementation on diets.

Keywords: lambs, growth performance.