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**IMPACT FACTOR=1.365**



## **THE EFFECT OF DIETARY LINSEED OIL AND ORGANIC SELENIUM ON GROWTH PERFORMANCE AND MUSCLE FATTY ACIDS IN GROWING RABBITS**

**Ahmed A. Saleh**, Tarek A. Ebeid and Yahya Z. Eid\*  
**Department of Poultry Production, Faculty of Agriculture, Kafrelsheikh University,  
33516 Kafr El-Sheikh, Egypt**

### **ABSTRACT**



The present study was conducted to evaluate the effect of a combined in-feed of linseed oil and organic selenium on growth performance and muscle fatty acid profiles in growing rabbits. A total of 4-week-old sixty male growing New Zealand white rabbits (average weight  $531 \pm 5$ g) were collected and equally divided into 3 groups. The control group was fed on a control diet, whereas the treatment groups were fed on diets contained 2.5% linseed oil with or without 0.3 ppm organic selenium. All experimental treatments were provided from 4 to 10 weeks of age. Although feed intake was decreased significantly ( $P < 0.05$ ) by the dietary linseed oil and organic selenium, body weight gain was significantly ( $P < 0.05$ ) increased. Both plasma and muscle total cholesterol decreased with the decrease of abdominal fat. However, plasma concentrations of HDL-cholesterol and glutathione peroxidase were increased significantly ( $P < 0.05$ ) by dietary supplementation of linseed oil and organic selenium. Furthermore, in the muscles, saturated fatty acids were decreased; meanwhile, unsaturated fatty acids were increased that may refer to the use of linseed oil and organic selenium. In conclusion, the present study clearly shows that growth performance was improved. Muscle lipid profile could be modified by a combined in-feed of linseed oil and organic selenium to the growing rabbit's diet.