Effects of boldenone undecylenate on growth performance, maintenance behaviour, reproductive hormones and carcass traits of growing rabbits

H.H. Mohammed¹, M.E. Badawi², M.S. El-Tarabany³, M. Rania²

¹ Dept. of Veterinary Public Health  
² Dept. of Nutrition and Clinical Nutrition  
³ Dept. of Animal Wealth Development, Faculty of Veterinary Medicine, Zagazig University, Egypt

Abstract

The present study was done to evaluate the effect of boldenone undecylenate (BOL) on growth performance, maintenance behaviour, reproductive hormones and carcass traits of male rabbits. Sixty apparently healthy New Zealand White male rabbits, 5 weeks of age, were allotted to 3 equal groups. Each group was subdivided into 5 replicates, where the first group is control. The second group (B₁) comprised rabbits that received 2 intramuscular injections of BOL (5 mg/kg) with 3 week intervals (9 and 12 weeks of age), while the third group (B₂) included rabbits that received 3 intramuscular injections of BOL (5 mg/kg) with 2 week intervals (8, 10 and 12 weeks of age). The end of the trial was after 4 weeks from the last injection (16 weeks of age). The results revealed that the treated groups had a significant increase in total body weight, daily gain and feed efficiency, with a significant decrease in feed conversion ratio (FCR). Ingestive, locomotion and grooming behaviors were significantly higher in treated groups. Lateral pasture and exploratory behaviors were significantly higher in the control group. Administration of BOL resulted in a significant increase in dressing % and a significant decrease in testes %. Groups treated with BOL had a significantly (P<0.05) decreased serum testosterone level, simultaneously with a significantly increased estradiol level. The results indicate that BOL improves performance and carcass traits. Furthermore, there are hormonal-behavioral correlations through enhancement of ingestive and locomotion behaviors of treated animals.

Key words: boldenone, performance, behaviour, carcass traits, rabbit

Introduction

In recent years, domestic rabbits have been identified as an economy livestock for solving the problem of meat shortage in high human population developing countries including Egypt. Rabbit meat has a very good nutritive value, being comparatively high in protein, low in fat, calories and sodium, and so could bridge the wide gap in dietary protein intake (Adeyinka et al. 2007). Anabolic steroids are a class of steroid hormones based on the androgen testosterone and are recognized for their effects on building up muscle and are used as performance enhancing drugs (Thienpont et al. 1998). However, there is insufficient

Correspondence to: H.H. Mohammed, e-mail: heshamvet_hosny@yahoo.com, tel.: 00 201 110 270 847