

Effects of Dietary E on Semen, Hormonal Profile and Testicular Biometry in Teddy Goat Bucks

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Abstract : The use of vitamins has significant effects on the reproductive system of mammals. The present study was conducted to investigate the useful effects of vitamin E on reproductive functions of Teddy bucks. For this purpose, 8 adult Teddy bucks were randomly divided into two treatment groups viz; A (control) and B (vitamin E with dose of 200 mg/kg BW/day). These treatments continued for 12 weeks. Semen quality parameters (volume, motility, sperm morphology and sperm DNA integrity) of experimental bucks of each group was evaluated on weekly basis, while testicular measurements (length, scrotal circumference and weights) were recorded at 0 and 12th week of experiment. Serum concentrations of male sex hormones (testosterone, LH, FSH) and cortisol were recorded fortnightly. Similarly, body weights of bucks were also measured fortnightly until completion of the study. The data were subjected to two-way analysis of variance, followed by Duncan test for multiple mean comparisons. Supplementation of vitamin E improved significantly ($P < 0.05$) the semen quality parameter, body weights, testicular measurements and serum levels of sex hormones. However, there was no effect on serum cortisol. It was concluded from the present study that dietary supplementation of vitamin E has beneficial effects on the semen and hormones in male reproductive system.

Keywords : hormones, semen, teddy bucks, testicular measurements

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