

Libido and Sperm Quality of the Etawah Cross-Breed Fed Urea Moringa Molasses Multinutrient Block Supplement

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Abstract

Moringa leaves contain high and complete nutrients, so they can be used as a constituent for multi-nutrient blocks to increase libido and sperm quality. This study aimed to evaluate the effect of Moringa leaf flour in a multi-nutrient block on libido and sperm quality of the Etawah Cross-Breed (PE) goats. This study used a two-sample t-test on 8 PE goats aged 18.50 ± 1.00 months, body weight 32 ± 1.49 kg, kept in individual pens for 8 weeks, given the swamp forage ad libitum. A total of 4 animals were supplemented with *urea molasses multi-nutrient block* (UMMB) as a control, and 4 animals were supplemented with *urea moringa molasses multi-nutrient block* (UMMMB) as a treatment. Libido and semen quality were measured from week 4 to week 8. Measurement of scrotal circumference and blood sampling were performed at weeks 0, 5, and 8. The concentration of testosterone in plasma was analyzed using the ELISA technique. The measured variables were compared using the independent sample t-test. UMMMB supplementation did not significantly ($p > 0.05$) increase scrotal circumference and testosterone levels. UMMMB supplementation did not significantly ($p > 0.05$) decrease reaction time, but significantly ($p < 0.05$) decrease mount (24.20 ± 4.30 vs 12.93 ± 1.58 min) and ejaculation (25.60 ± 4.11 vs 13.97 ± 2.23 min). UMMMB supplementation did not significantly ($p > 0.05$) increase semen volume and sperm concentration, but significantly ($p < 0.05$) increased total sperm motility (69.67 ± 0.76 vs $74.67 \pm 1.46\%$) and sperm viability (80.37 ± 0.68 vs $86.48 \pm 1.74\%$). It can be concluded that UMMMB supplementation markedly increased libido, total motility, and sperm viability of PE goats.

Keywords: libido, sperm quality, moringa, multi-nutrient block, Etawah cross-breed.