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EFFECT OF FEEDING OLIVE CAKE TO RAHMANI RAMS ON REPRODUCTIVE PERFORMANCE

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ABSTRACT

Twenty Rahmani rams about 7 - 9 months old and 46 - 60 kg live body weight were randomly divided into two equal groups (ten rams each) to study the effect of adding olive cake (OC) on feed intake, daily gain, nutrients digestibility, blood parameters and reproductive performance. The rams fed the control diet T1 (60% concentrate feed mixture (CFM) +20% berseem hay +20% rice straw) and T2 (replacing rice straw in control ration with olive cake (60% DM). Animals were fed according to NRC (1984). The experiment lasted for 16 weeks, where a digestibility trial performed at the end. At last month of experimentation, semen sample was collected and evaluated. Results show that the OC contain 7.21% crud protein, 33.5% crude fiber, 6.98% ether extract and 9.4% ash. Significant differences were observed among treatments in DM, OM, CF and NFE digestibilities. The highest values of total gain and daily gain were recorded for T2.

Meanwhile, digestibility coefficients of CF, EE and nutritive value as TDN % were improved with dietary treatment (T2). Number of mounting was significantly ($P<0.05$) lower in (T1) (9.8 mounts) than T2 (16.7 mounts). Reaction time tended to be longer in T2 (46.63) than those in T1 (62.23). Number of ejaculation tended to be numerous in T2 compare to T1 (6.2 vs 4.5). Concentration of total protein, albumin and globulin were significantly ($P<0.05$) higher in treated group T2 than in control group (6.50, 4.1 and 3.9 vs. 4.92, 2.75 and 2.62 g/dl, respectively). The hormone T4 concentration showed slight difference between untreated and treated group (4.80 vs. 4.95 g/dl). Testosterone concentration was significantly higher in treated group (T2) than in control group (11.43 vs. 7.77 ng⁄ml, respectively). The result of the present study indicate that feeding rams on ration containing olive cake (as a forage) had beneficial effect on semen quality with marked change in productive performance and improvement in sexual behavior.

Keywords: olive cake –seminal characteristic - Hormonal profile