THE USE OF MORINGA LEAVES (*Moringa oleifera*) IN FATTENING LAMBS RATION

By

Ola Gamal Ahmed Hassan

B.Sc. in Agric., Science (Animal Production), Faculty of Agriculture,
Fayoum University., 2010

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Fayoum University

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ABSTRACT

The present study was carried out at the experimental farm and laboratories of Animal Production Department - Faculty of Agriculture - Fayoum University, Egypt.

Twenty Ossimi lambs averaged 45±1kg body weight and 10 months old were randomly divided into four groups, five animals per each tested ration (R). Protein of soybean meal was replaced by moringa leaves protein at levels 0f 0, 25, 50 and 100% which performed 0, 7.5, 15 and 30% *Moringa oleifera* leaves of the total rations (DM basis), respectively. Results revealed that moringa leaves contained 28.91% DM, 16.52% CP, 11.14% ash and 13.14% CF. The rations (R2, R3 and R4) contained higher OM, EE, CF, NFE, ADF and NDF compared with control ration (R1). No significant differences were found between the tested rations regarding nutrients digestibility except EE digestibility. Nutritive values of R3 were significantly ($P<0.05$) lower than R1 and R2 and superior to R4. Ration three (R3) was the best ration for total and daily gain, where R2 showed the worst one. No significant differences for dry matter and energy intake (SV, TDN and DE). While, values of DCP intake was higher significantly ($P<0.05$), for R1 and R2 followed by R3 then R4. Ration three was superior to other tested rations followed by R1 regarding feed conversion. Results of blood serum analysis showed that moringa supplemented rations improved liver and kidney function compared to control ration. From economical point of view, the best ration was R3 which substituted 50% soybean meal by moringa leaves (15% of ration dry matter). So, R3 is the recommended ration for fattening lambs.

Key words: Fattening lambs, *Moringa oleifera*, nutrients digestibility, feed intake and feed conversion.