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البحث الرابع

Mousa, G.A., **Allak, M.A.**, Shehata, M.G., Hashem, N.M and Hassan, O.G.A. **(2022)**. Dietary supplementation with a combination of fibrolytic enzymes and probiotics improves digestibility, growth performance, blood metabolites, and economics of fattening lambs. Animals, 12, 476.	**البحث الرابع**
مشترك مع آخرين داخل وخارج التخصص– منشور فى مجلة دولية متخصصة Q1	**4**

Title	**Dietary Supplementation with a Combination of Fibrolytic Enzymes and Probiotics Improves Digestibility, Growth Performance, Blood Metabolites, and Economics of Fattening Lambs.**
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ABSTRACT

This study was conducted to evaluate the effects of adding different levels of the combination of fibrolytic enzymes and probiotics (a mixture of bacteria and yeast) on the performance of fattening lambs. Thirty-two male Ossimi lambs (weighing 39 ± 0.24 kg) were divided into four groups randomly (eight animals each). The first group (control ration, G1) was fed on a ration of 60% concentrate feed mixture (CFM), 20% Egyptian clover (EC), and 20% wheat straw (WS). The second (G2), third (G3), and fourth (G4) groups were fed a control ration supplemented with Calfo Care® at concentrations of 0.5, 1, and 2 kg/ton diet of dry matter (DM). Results showed that the G2 and G3 rations significantly ($p \leq 0.05$) increased the DM, organic matter, crude protein, crude fiber, and ether extract digestibility compared with the G1 and G4 rations. Moreover, the G2 and G3 rations increased ($p \leq 0.05$) the percentages of total digestible nutrients (TDN), starch values (SV), and digestible crude protein (DCP) compared with the G1 and G4 rations. Both the G2 and G3 rations significantly ($p \leq 0.05$) increased the TDN, SV, and DCP as kg/day or g/kg $w^{0.75}$ and kg or g/100 kg body weight compared with the G1 and G4 rations. Conversely, the G1 ration significantly decreased the feed conversion of DM, TDN, SV, and DCP compared with the experimental groups. Furthermore, the G2, G3, and G4 rations significantly ($p \leq 0.05$) increased the total weight gain by 25.34%, 52.20%, and 3.79%, respectively, compared with the G1 ration. The G2, G3, and G4 rations also ($p \leq 0.05$) increased the concentrations of most hematological parameters, including triiodothyronine, total protein, albumin, and glucose, compared with the G1 ration. Finally, the best net profit was recorded with the G3 ration, followed by the G2, G4, and G1 rations.