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Effect of adding Flaxseed oil to Friesian calves feeds on growth performance and carcass characteristics and quality

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Abstract

Thirty Friesian calves were randomly divided into 3 groups, in G1 (control), animals fed basal diet, while in G2 and G3, they were supplemented with 2% and 4%FSO, respectively, for 8 months. The obtained results revealed that calves fed diet supplemented with 2% (G2) and 4% (G3) FSO had significantly higher TDN and DCP intake ($P < 0.01$) and average daily gain ($P < 0.05$) than G1. Additionally, G3 showed significantly higher hot carcass weight ($P<0.001$), dressing % ($P<0.05$), fat weight ($P<0.05$), boneless meat weight ($P<0.001$), 9-11th ribs cut weights ($P<0.05$), DM ($P<0.01$), CP ($P<0.05$), and CF ($P<0.05$) in eye muscle, and general cooked meat quality ($P<0.05$) than G1. However, meat of G3 had significantly ($P<0.05$) lower water-holding capacity than G1. Meat of G3 had higher concentration of unsaturated fatty acids as well as omega-3 followed by G2, while G1 had the lowest values. With these results, we could conclude that flaxseed oil supplementation in calves diets could improve growth performance, and carcass qualityand increase omega-3 FA in animal meat.

Keywords: Friesian bulls; carcass traits; meat quality; fatty acid profile.

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