

Fatty Acid Profile of Meat from Lambs Fed on Diets Containing Mulberry Hay

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Abstract : The aim of this trial was to evaluate fatty acid profile of meat from lambs fed on diets containing 0, 12.5 and 25.0% mulberry hay as a substitute for the concentrate. Twenty-four feedlot Ile de France lambs (average weight of 15kg and average age of 60 days) were randomized to receive the different diets and slaughtered at 32kg body weight. Increases were observed in the concentrations of the saturated pentadecanoic, heptadecanoic and arachidic fatty acids; of the monounsaturated nervonic fatty acid and of the polyunsaturated α -linolenic, γ -linolenic and eicosapentaenoic fatty acids. Increased conjugated linoleic acid (CLA) was also found in the meat of lambs fed on 12.5% mulberry hay. In addition, the omega-3 composition was augmented, while the omega-3/omega-6 ratio was decreased in mulberry hay-fed animals. In conclusion, a more desirable fatty acid profile was observed in lamb meat following the substitution of mulberry hay in the concentrate of fed, resulting in improved nutritional characteristics of the meat.

Keywords : alternative food, fatty acids, feedlot, sheep meat

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