Dietary effect of dried bay (Laurus nobilis) meal on rabbit meat quality

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Laurus nobilis (commonly called laurel or bay leaves) is known in the human field especially as food spice, rich in polar compounds such as phenols, flavonols and flavones having antioxidant and antimicrobial effects. The aim of this study was to evaluate the effect of dietary supplementation with dried bay leaves in growing rabbits on chemical composition and fatty acid profile of meat. The experiment lasted 56 days and was performed on 120 rabbits; at weaning (35 ± 2 days of age), the animals were divided into 4 groups (n. 30 per group) based on different dietary treatments. All rabbits were fed a basal diet. The experimental groups were: a negative control (CON) that received the basal diet without supplementation with dried bay leaves; a positive control group (CF) that received a 2.5% fat-enriched diet (pig fat in addition to the 2.6% of crude fat in basal diet); a supplemented group (SB) that received 1 g/kg feed of dried bay leaves meal; a combine-supplemented group (SBF) that received fat-enriched diet and dried bay leaves in the same doses used in CF and SB group. The dietary supplementation with dried bay leaves (SB and SBF) did not affect the gross (moisture, crude protein, ether extract, ash) composition, the pH value, the content in fat-soluble A and E vitamins and lipid oxidative stability of meat, whereas it reduced (p<.05) the cholesterol content in comparison with the positive control (CF). Concerning the fatty acid profile of meat, saturated fatty acids content decreased (p<.001) in the bay leaves groups SBF and SB compared to CON and CF groups; monounsaturated fatty acids were improved (p<.001) in SBF and SB groups compared to CF group, whereas polyunsaturated fatty acids were markedly higher (p<.001) in the experimental SB group compared to CON, CF and SBF groups. In conclusion, the dietary supplementation of dried bay leaves improved the lipid profile, particularly in the contents of cholesterol, and monounsaturated and polyunsaturated fatty acids, without affecting the chemical traits and oxidative markers of rabbit meat.

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