Response of Growing Buffalo Calves to Dietary Supplementation of Caraway and Garlic as Natural Additives

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Abstract:

Abstract: The current study was conducted to examine the ability of using natural additives to manipulate rumen fermentation, improve nutrient utilization and animal performance in growing male buffalo calves. Sixteen buffalo calves of 12-14 months of age weighing 170 ±9.6 kg were divided into 4 groups, 4 animals / each. Caraway seed and garlic powder were added to calves basic diet (control) at levels of 2 g caraway seed (CS,T1), 2 g dried garlic (DG,T2), 2 g caraway and 2 g garlic (T3) / kg diet and were fed for 6 months experimental period. Blood metabolites were monthly determined. Before the end of the experiment a digestibility trail was performed and rumen liquor was collected. Daily feed consumption was recorded. The results showed that feeding caraway garlic, or both significantly increased (p<0.05) in calves fed both caraway and garlic (T3) than other groups. In addition, caraway and garlic improve rumen fermentation parameters in terms of increasing total volatile fatty acids, increasing rumen pH and decreasing rumen ammonia. Moreover, calves fed the treatment diets had greater (P

Keywords:

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