

Using Plant Oils in Total Mixed Ration on Voluntary Feed Intake and Blood Metabolize of Crossbred Thai Native X American Brahman Cattle

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Abstract : The aim of this study was to evaluate the effect of soybean oil, palm oil and sunflower oil supplementations in total mixed ration on voluntary feed intake, dry matter (DM) digestibility and blood metabolize in crossbred Thai native x American Brahman Cattle. Three Thai native x American Brahman cattle, one-year-old with liveweight of 116 ± 22.59 kg, were randomly assigned according to a 3 x 3 latin square design. Each period of feeding lasted for 21 days to receive three dietary treatments were soybean oil, palm oil and sunflower oil supplementation at 5%. During the experimental periods, all cattle were fed a diet with total mixed ration containing roughage to concentrate ratio of 40:60 and rice straw was used as a roughage source. Based on the present study, the results revealed that voluntary feed intake (kgDM/head/day) and %BW DM intake were not affected ($P > 0.05$), whereas percentage of dry matter digestibility was greater with the soybean oil supplementation ($P < 0.01$). It was also found that blood glucose, blood urea nitrogen, cholesterol, triglyceride, high density lipoprotein and low density lipoprotein in plasma were similar among treatments. Based on this study, supplementing 5% soybean oil in total mixed ration (TMR) diets was suitable in beef cattle without any effect dry matter digestibility and blood metabolites.

Keywords : plant oils, feed intake, blood metabolize, crossbred Thai native x Brahman cattle

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