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**Determine the nutritional value and digestibility of diets containing different levels of sugarcane molasses and vinasses**

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**Abstract**

This experiment was conducted to determine the chemical composition of molasses of vinasses, as well as comparison of metabolizable energy and nutrients digestibility of rations containing different levels of molasses and vinasses in male lambs in a completely randomized design with 5 treatments and 5 replications. The experimental diets included: diet 1) basal diet + 20% molasses + 0% vinasses (control), diet 2) basal diet + 15% molasses + 5% vinasses, diet 3) basal diet + 10% molasses + 10% vinasses, diet 4) basal diet + 5% molasses + 15% vinasses, and diet 5) basal diet + 0% molasses + 20% vinasses. Based on the results, vinasses have dry matter lower than molasses. Although vinasses crude protein, which is mainly non-protein nitrogen, was far more than molasses. also ash and minerals of vinasses higher than molasses. But molasses water soluble carbohydrates higher than vinasses. The results showed no significant differences were observed for digestion of DM in response to vinasse addition ( $P>0.05$ ). Digestibility of crude protein at the level of 20% vinasses was lower than that of other groups ( $P<0.01$ ). Ether extract digestibility decreased at the level of 10% Vinasses compared to control, and increased in other diets ( $P<0.01$ ). Digestibility of NDF at level of 15% Vinasses was higher than that of other levels ( $P<0.01$ ). In general, more studies are needed to determine the possibility of using vinasses in the diet of lambs for livestock and to determine the most appropriate replacement rate with molasses

**Key words** :molasses, vinasses, nutritional value, chemical compounds, digestibility