

THESIS TITLE EFFECT OF DIFFERENT DIETARY LEVELS OF *Stylosanthes hamata* cv. Verano ON GROWTH PERFORMANCE OF BRAHMAN CATTLE

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ABSTRACT

Twenty Brahman bulls at an average age of 8 to 11 months with average weights of 178 kg were arranged in a randomized complete block design with 4 replications and 5 dietary treatments. In treatment 1 (T1), cattle were fed with only fresh ruzi grass (*Brachiaria ruziziensis*) *ad libitum*, whereas in treatment 2 (T2) and treatment 3 (T3) fresh verano stylo at the levels of 1 and 2% of BW (DM basis) were supplemented to the ruzi grass fed cattle, respectively. In treatment 4 (T4) only fresh verano stylo was fed to cattle *ad libitum*. Treatment 5 (T5), served as the reference in which ruzi grass fed cattle were supplemented with concentrate at the level of 1% of BW (DM basis). In all treatments except T5, cattle were offered free choice of mineral mixtures.

In a 112 day feeding period, the highest average daily gain (ADG) was obtained from cattle that were supplemented with concentrate (T5). Cattle that were supplemented with verano stylo at the level of 2% BW (T3) gained significantly faster ($P < .05$) than those fed only ruzi grass (T1) or those supplemented with verano stylo at the level of 1% BW (T2), but did not differ from those fed only verano stylo (T4). The ADG for T1, T2, T3, T4 and T5 were 0.169, 0.185, 0.245, 0.209 and 0.504 kg, respectively. The voluntary dry matter intake in terms of kg/h/d or expressed as %BW and the feed conversion (feed/gain) values were also found to be of the same pattern as that found in the ADG values. The voluntary dry matter intake of cattle for T1, T2, T3, T4 and T5 were 4.23, 4.19, 4.59, 4.25 and 5.88 kg/h/d or equal to 2.22, 2.29, 2.40, 2.21 and 2.83% BW with corresponding feed conversion values of 25.01, 22.63, 18.72, 20.38 and 11.70, respectively.

The results of this experiment indicated that supplementing verano stylo at the level of 1 to 2% BW (DM basis) could improve the growth performance of grass fed cattle. It is also suggested that better weight gains can be expected if better quality of verano stylo is used. No incidence of bloat was observed in cattle solely fed with fresh verano stylo.