The Effect of Feeding Regime on the Performance of Nili Ravi Buffalo Cows and Calves

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Abstract

A field experiment was conducted to study the effect of low-cost suppliments to a feeding regime of buffalo cows and calves in a small farm at Thanamalwila Area. A preliminary study was conducted t develop a regression equation to estimate the actual body weight (Y) by using weight band weight (X). The actual body weight using livestock scale and weight band weights were collected from seventy six cross bred buffaloes (39-250kg). The regression equation Y = 0.7909X = 4.5302, had a significant R^2 value of 0.8881. Above equation was used to estimate the body weight of buffaloes in follow-up experiments.

Four NiliRavi buffalo cows (501.84kg±26.7) and four NiliRavi buffalo calves (92.43kg±19.03, 7.5±0.577 months of age) were fed four feed ration separately. The treatments were; Pre bloom stage of Guinea A (Pre S) (50.15kg/h/d±2.65) for milking cows and 7.68kg/h/d±1.6 for calves) + Gliricidia (G) (25kg/h/d±1.33 for milking cows and 3.8kg/h/d±0.79 for calves) + Gawa Thriposha (GT) [750 g/h/d for milking cows and 200g/h/d GT were fed for calves – (rice bran 30%, molasses 40%, urea 10%, mineral mixture 0.08% **-T1**], late blossom stage of Guinea A (Late S) +G + GT + **T2**; Pre S + Farm made concentrate (F) – **T3**;, Late S + F – **T4**. The experiment design was 4*4 Latin Square Design (4 animals*4 feeding periods).

Feed intake of both milking buffaloes and calves was higher ($p<0.05$) when GT supplemented with tree fodder, as compared to the other two treatments. Highest ($p<0.05$) milk yield was observed with cows in T1 (Pre S+G+GT) followed by cows in T2 (Late S+G+GT) showed actual benefits of feeding of Gliricidia and the highest effect ($p<0.05$) on milk fat, total solids and milk N. If the quality of the roughages were not good, feeding of tree fodder compensated to get a good milk output. Average Heart girths, daily weight gains and length gains of buffalo calves were highest when GT sullied with tree fodder, as compared to the calves in T3 (Pre S+F) and T4 (Late S+F) even during a short period of time.

The results conclude that, when the quality of roughages was not adequate, desirable benefits could be obtained by feeding tree fodder and Gava Triposha. Above supplements could reduce the amount of supplements and the cost of feeding. Therefore it is necessary that the farmers should be aware of the actual benefits of using low cost supplements and tree fodder in improving production standard of buffaloes. Similarly it is very much important to aware of the farmers to feed the animals according to the animals' requirements.

Keywords: feed intake, heart girth, Gliricidia, Guinea A, milk fat, milk N, milk total solids, milk yield, NiliRavi buffaloes, regression