ABSTRACT

The objective of this study was to determine the performance of indigenous cattle grazing natural herbage under coconut with supplementation of straw and low levels of urea, molasses rice bran and minerals.

A randomized complete block design (RCB) with three replicates and three treatments *viz.* control (G) simulating traditional system of continuous grazing of natural herbage under land limiting conditions (6 heifers /ha), control plus unprocessed rice straw *ad libitum* (GS) and GS plus supplements (GSS). Heifer calves were 59.1 Kg ± 10.6 (X ± SD) and mean age of 6 months (range 5-8 months).

Supplements (g/head/d) were rice bran and minerals, 125 and 15 during first year and 500 and 30 g thereafter, respectively. Urea and molasses were dissolved at the rates of 25 and 125 g in 0.2 l of water and sprinkled per 1 kg of rice straw during the first year and 25 and 200 g , respectively thereafter.

Average daily gains (g/head/day) and total weight gains (kg/ha/year) of animals over the 18 months experimental period increased ($P < 0.05$) from G (22.1 and 48.4) through GS (65.5 and 134.2) to GSS (130.96 and 286.79) , respectively. Total herbage Dry matter (DM) yields (kg/ha/year) increased significantly ($P < .01$) from G (3074) through GS (3749) to GSS (4436) while the straw DM intake (g/head/day) was higher ($P < .05$) in GSS (1470.9) compared with GS (701.5).

It is concluded that in a low input output integrated system that straw alone or straw plus low levels of critical supplements significantly increased dry matter intake of rice straw and the overall live weight gains.