The Effect of Concentrate Supplementation on Growth of Steers Grazing Natural Pastures

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Abstract

Thirty-six Boran steers were allotted into three weight groups Low (L), Medium (M) and High (H) and randomly assigned to three levels of supplementation: 0, 2 and 4 kg per head per day. Supplement A and B were given during the green season (Phase I) and dry season (Phase II), respectively. For each season, supplementation lasted for 6 months. The amount of forage on offer and its crude protein content decreased (P<0.05) from 6,000 to 2,000 kg dry matter per hectare and 6.5 to 3.0%, respectively. Dry matter content approached 98% and a shift towards the less palatable pasture species emerged in Phase II. Average daily live weight gains ranged from 0.29 to 0.54 and 0.12 to 0.38 kg in Phase I and II, respectively. Supplemented steers gained at a higher (P<0.05) rate than those unsupplemented. Rate of weight gain by the animals on 2 and 4 kg of supplemental feed was similar in both Phase I and II. Overall, the supplemented steers gained weight at a faster rate (P<0.05) than the unsupplemented group. However no significant (P>0.05) difference was exhibited between weight groups. The results suggest that supplementation at 2 kg per head per day may be the most economical at Lanet which is situated in Ecozone IV (dry woodland).