ABSTRACT

The growth was compared of twenty one supplemented grade Holstein heifer calves on pangola herbage reared under day-grazing, night-grazing and indoor regimes. No significant differences were found due to treatment during a 118-day period in any of the variables measured (liveweight, heart girth, body length and withers height). Differences may have been affected by the variability of the groups.

A study was designed to compare the growth and development of grade Holstein calves as affected by level of supplementation and sex. Twelve pairs of steer and heifer calves were allocated acoording to weight and age to treatments with Six replicates and rotationally grazed on pangola pastures from 6 months until a year of age. Results showed that increased supplementation (3 vs $4\frac{1}{2}$ lb./dy.) significantly improved growth in liveweight ($P<0.01$) and body development (heart girth $P<0.05$; body length $P<0.01$) during 180 days. Growth was depressed during the initial stages on pasture. This was overcome by accelerated (compensatory) gains subsequently. Supplementation had a buffering effect on growth depression. High nutrient intake during later pasture periods resulted in subsequently greater liveweight gains and better overall development. There were no significant differences due to sex. Supplementation significantly improved the overall digestibility of the diet. Herbage intake decreased, total feed intake and total digestible O.M. intake increased non-significantly . Supplementation did not significantly influence time spent grazing.

Results showed improved growth rates were closely related to the influence of supplementation on the feeding value and degree of utilization of the herbage.