

Title: Estimates of intake and digestibility using n-alkanes in yearling Holstein-Friesian and Hereford heifers grazing on kikuyu (*Pennisetum clandestinum*) pasture

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Abstract

Yearling Hereford and Holstein-Friesian heifers were grazed on kikuyu pasture during summer and the intake and apparent digestibility were estimated using the n-alkane procedure. There were eight animals of each breed. The trial was conducted during the last two weeks of January at the Cedara Research Station in the KwaZulu-Natal mist-belt of South Africa. The animals were on a continuous grazing regime at a stocking rate of four heifers per hectare. Herbage availability was estimated using a disc meter at about 1545 kg dry matter (DM) per hectare. Crude protein (CP), acid detergent fibre (ADF) and neutral detergent fibre (NDF) in hand plucked samples were estimated at 179 g/kg DM, 332 g/kg DM and 667 g/kg DM, respectively. The Herefords had a 22% higher intake ($P < 0.01$) of 113 g DM/100 kg metabolic body weight (BW^{0.75}), compared to the Holstein-Friesians (94 g DM/100 kg BW^{0.75}). There was no difference in apparent DM digestibility ($P > 0.05$), which was on average 0.58.