

Substitution of hominy meal with cassava root meal as a source of energy for growing dairy heifers

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Abstract. An experiment was carried out to evaluate the effect of cassava (*Manihot esculenta*) root meal (CRM) and fish wastes (FW) on the growth of dairy heifers in four rations. The rations were TR₁ (66.5 % HM and 31.5 % CSC) TR₂ (50 % CRM and 48 % CSC) TR₃ (67.5 % HM and 30.5% FW) and TR₄ (51.5% CRM and 46.5 % FW). Twenty Ayrshire heifers (average weight 145±8 kg) were randomly allocated to the four rations in a completely randomized block design. Data was collected on dry matter intake (DMI), weight gain, glucose, Ca, P and protein blood levels. No difference (P>0.05) in weight gain was observed between heifers on TR₁ and TR₃. Heifers on TR₂ showed faster growth rates (P< 0.05) than those in other treatments (i.e. 620 versus 490, 460 and 410 g for TR₁, TR₃ and TR₄ respectively). Correspondingly heifers on TR₂ had superior (P< 0.05) feed efficiency (0.116) followed in a descending order by TR₁, TR₃ and TR₄ (0.097, 0.092 and 0.085 kg gain / kg feed. Heifers receiving diets containing FW had higher (P<0.05) Ca and P than those on CSC. Blood glucose and plasma protein were higher (P<0.05) in heifers receiving TR₁ (97.07g/l and 3.3 mmol/l) than those on TR₂ (94.86 g/l and 3.0 mmol/l). It is concluded that CRM could be used alone as energy source when combined with protein rich feeds like CSC and FW.