



[Afr. J. Agric. Res.](#)

[Vol. 2 No. 11](#)

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African Journal of Agricultural Research Vol. 2(11), pp. 558-564, November, 2007  
ISSN 1991- 637X© 2007 Academic Journals

*Full Length Research Paper*

## Empirical assessment of short-term preferences of tropical forages by crossbred bull calves

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Accepted 11 April, 2007

## Abstract

Short-term preference studies were carried out with growing calves based on diets of local grass forages found in Turiani division, Morogoro, Tanzania. Four intact crossbred male calves aged 7 - 8 months and weighing 82.75 kg were used. Four grass species were provided either singly [*Panicum maximum* (T1), *Panicum trichocladum* (T2), *Pennisetum purpureum* (T3) and *Rottboelia cochinchinensis* (T4)] or in combinations of two forages in equal proportions [*P. maximum* + *P. trichocladum* (M1), *P. maximum* + *R. cochinchinensis* (M2), *P. trichocladum* + *R. cochinchinensis* (M3) and *P. purpureum* + *P. trichocladum* (M4)]. The single grass species and mixtures were respectively fed for four days. Animals were simultaneously observed while each animal was feeding on one of the four treatments in sequential periods of 15 min each in random orders (1, 2, 3 and 4) every test-day. The amounts of herbage eaten were estimated by differences between offered and left feed. The intake rate of 15.72 gDM/min, bite rate of 5.31 bites/min and bite mass of 3.11 g/bite for T3 was significantly higher ( $P < 0.05$ ) than other single grass forages. There was no significant difference ( $P > 0.05$ ) between intake rate of T1 (9.78 g/min) and T2 (9.36 g/min). Total DM intake of M3 and M4 of 224.54 and 232.52 g/15 min respectively were significantly ( $P < 0.05$ ) higher than that of M1 and M2. All grass mixtures had bite mass significantly different ( $P < 0.05$ ) from each other although that of 3.34 gDM/bite M4 was the highest thus suggesting that whether singly or in

mixture *P. purpureum* was the most preferred grass forage in the study area. It is concluded that in order to optimize DM intake farmers should consider the type of grasses and their level of inclusion in grass mixture depending on their preference by cattle.

**Key words:** Preference, calves, *Panicum*, *Pennisetum*, bite rate, intake.

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