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PREFERENCE STUDIES AND SHORT-TERM INTAKE OF BROWSE MIXTURES BY CATTLE

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ABSTRACT

Three studies involving different browses and their mixtures were carried out during the dry season in Southern Guinea Savanna zone of Nigeria with Bunaji bulls. The first trial involved preference studies of five different browses offered both as fresh (fed within 30 minutes of cut) and dry to either young or adult bulls simultaneously. The 2nd and 3rd trials involved short-term intake of combination of Khaya senegalensis mixed with either *Gliricidia sepium* or *Gmelina arborea* at different ratio. The three browses were selected from the preference trial (based on their preference and crude protein content.). The different browse combinations were fed to 16 young bulls at 3kgDM/2h for 7 days in their fresh or dry form. The over all order of preference of the browses by the bulls were *Khaya senegalensis > Leucaena leucocephala>Gmelina arborea >Ficus thoningia >Gliricidia sepium. Khaya senegalensis* was most preferred by both the young and adult bulls and in its fresh and dried forms *Gliricidia sepium* was not consumed at all by all categories of bulls. The dried form of the browses were most preferred than the fresh form. Dry matter intake of mixtures of *Khaya senegalensis* and *Gmelina arborea* were highest (0.78kgDM/2hrs for fresh sample and 1.56kgDM/2hrs for dry samples when the browses were mixed at ratio 1:1 and least (0.45kgDM/2hrs for fresh sample and 1.33kgDM/2hrs for dry sample) when *Gmelina arborea* was fed alone. Dry matter intake of mixtures of *Khaya senegalensis and Gmelina arborea* decreased, significantly ($P<0.05$) as the levels of *Gmelina arborea* increased in the mixture. DM intake of *Khaya senegalensis* and *Gliricidia sepium* decreased significantly ($P<0.05$) with increasing level of *G. sepium* in the mixture. However, when *Gliricidia sepium* alone was fed, the animals did not consume it. In both cases, the dried form of the browse was consumed more than the fresh form. The result was discussed in relation to anti nutritional factors and physical characteristics of the browse.

Keywords: Browse, Cattle, Intake and Preference.