Zimbabwe, the leaves harvested at 12 weeks after an initial harvest and dried at 70°C for 48 h. The CP and acid detergent fibre content of CC, FC and SS were 212.6 and 165.3; 193.7 and 300.9; 251.6 and 99.4 g/kg DM respectively. The DMD for CC, SS and FC were 0.671, 0.972 and 0.633 respectively while the CPD for CC, SS and FC were 0.57, 0.97 and 0.58 respectively. The condensed tannins in CC, SS and FC were 27.4, 0.4 and 60 g/kg DM respectively. Lectin activity was only seen in CC and was similar to that of Phaseolus vulgaris. It is notable that CC and FC had similar OMO and CPO (0.671, 0.972 and 0.633 respectively while the CPO for CC, SS and 0.013) and 0.11 (s.e. 0.014) per h for 1, 2 and 4 months, respectively. A high proportion of the N was rumen-degradable. Neither accession nor cutting frequency had substantial effects upon rumen degradability.

206. Comparison of the in vitro rumen fermentation of forage legumes Sesbania rostrata and Sesbania aculeata

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A study was performed using a continuous batch culture (CBC) technique to examine the digestibility of tropical forage legumes, Sesbania rostrata (SR) and Sesbania aculeata (SA), grown in Bangladesh. Compared with SA, SR is a newly introduced, high yielding and vigorous variety of Sesbania. Samples were cut at normal (first cut) and regrowth stage (second cut) and sun or oven dried. Chemical analysis showed no significant differences in crude protein, ether extract and acid detergent fibre content between SA and SR. In CBC over six sequential transfers and consecutive incubations mean DM losses (g/kg) were similar (P > 0.05) for both sun dried and oven dried samples of SA (518.0 ± 537.6 respectively) whereas DM losses from oven dried SR were significantly lower (P < 0.01) than that in sun dried samples (491.8 ± 552.3 respectively). DM losses from second cut samples of both varieties were higher (P < 0.01) than from first cut samples (555.6 ± 499.9 for SA and 543.5 ± 500.6 for SR respectively). There were no significant differences in total volatile fatty acid (VFA) concentration in the supernatant liquid between sun dried and oven dried samples of SA or SR. Similarly, cutting had no effect on VFA concentration from SA or SR. Ammonia concentration (mmol/l) was higher (P < 0.05) for oven dried samples (23.9) than sun dried (20.4) in SA but not in SR, however, first cut samples of SR had higher (P < 0.05) values than second cut samples. Irrespective of drying method or cutting stage, DM losses and VFA concentration were strongly correlated for both SA and SR (r = 0.822 and 0.893 respectively). DM losses and gas production were highly correlated for SR (r = 0.957) but not for SA (r = 0.347). There was no correlation for both varieties between DM loss and ammonia concentration (0.399 and 0.040 for SA and SR respectively). These results suggest that there is little difference in nutritive potential of the two varieties of Sesbania.

207. Milk production and rumen measurements in crossbred cattle fed napier grass ad libitum supplemented with two levels of leucaena and maize bran

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Crossbred (Ayrshire X Sahiwal) cattle were offered napier grass ad libitum, alone (N) or supplemented (dry matter (DM) basis) with 1 kg (LL) leucaena, 2 kg leucaena (LH) or 2 kg leucaena and 1 kg maize bran (LM). Food intake, milk yield and diet digestibility were measured using eight cows in early lactation (initial live weight, 384 (s.e. 41) kg in two 4 × 4 Latin squares. Intake and rumen fermentation were measured using four rumen fistulated steers weighing 352 (s.e. 12) kg in a 4 × 4 Latin square. Food intake...