

B-135: Effect of cutting height and sward type on the nutritive value of *Panicum maximum* cv. VRI 435

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Panicum maximum cv VRI 435 when grown as pure and mixed swards with *Gliricidia sepium* and *Erythrina lithosperma* were tested at 2 cutting heights (10 and 15 cm above ground level), in field plots using a randomized complete block design with 3 replicates.

Type of sward had a greater effect than the height of cutting on the quality of the grass in general. Mixed swards resulted in significantly higher ($p < 0.05$) crude protein (CP) and digestible dry matter yield (DDMY) while CP percentage, *in vivo* dry matter digestibility (IVODMD) and neutral detergent fibre (NDF) also tended to favour mixed compared to pure swards. Out of the cell wall components, only the NDF (%) was significantly ($p < 0.05$) affected due to treatments. Mixed swards had lower contents, except for the pure swards cut at 15cm. Lower but not significant ($p < 0.05$) contents of acid detergent fiber (ADF), cellulose and hemicellulose also were in favour of mixed swards, indicating a better quality in grass. Between the 2 legume species, *Erythrina lithosperma* tended to be superior ($p < 0.05$) resulting in higher yields of CP, DDMY and IVODMD in *P. maximum*.

Indications are that the grass has benefited by the associate effects of the legumes (symbiotic nitrogen fixation, shade for the shade tolerant grass, high nitrogen leaf mulch etc.) as forage crop in this 3 year study.