B-137: The effect of frequency of defoliation on digestible dry matter yield of palisade grass (*Brachiaria brizantha*)

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High quality grass is a must to obtain maximum livestock production from tropical pastures. Therefore the digestible dry matter (DDM) yield is more important than the DM yield *per se* in pasture production. The objective of the present study was to investigate the best frequency of defoliation to obtain a maximum DDM yield in *Brachiaria brizantha*. Local strain (Ru 139) of *B. brizantha* was grown in a randomized complete block design with 3 replicates. Fourteen different frequencies of defoliation were used as treatments (2,3,4,5,6,7,8,9,10,11,12,13,14 and 15 weeks). The plot size was 2m x 2m. Grass tillers were hand planted at spacing of 10cm. Recommended fertilizer rates were applied. After an initial equalizer cut, subsequent harvests were done at the assigned harvesting intervals to each plot for a period of one year. Samples were collected from 1.6m x 1.6m quadrat in each plot. DM yields and *in vitro* dry matter digestibility (IVDMD) were recorded. The data was statistically analysed according to GLM in SAS package.

DM yield per cut increased with increasing regrowth period. The maximum dry matter yield per year was recorded at 10 weeks regrowth period. IVDMD was consistently decreased with the increasing regrowth period. The DDM per cut reached its maximum value at the 12 weeks of regrowth period. However, optimum regrowth period to obtain highest digestible DDM yield per year was 8 weeks. Therefore, to obtain maximum production of good quality pastures, *B. brizantha* should be harvested at 8 weeks intervals in the farms of the low country wet zone.