

## **Regrowth and Nutritive Value of Hybrid Napier and Brachiaria Cultivars Harvested at Sixth and Eight Weeks in Low Country, Dry Zone**

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The influence of harvesting interval on regrowth, yield and nutritive value of Pakchong-1 (*Pennisetum purpureum* cross), Red Napier (*Pennisetum purpureum* cross) and Koronivia grass (*Brachiaria humidicola*) in low country, dry zone was studied. The experimental design was complete randomized design with three replicates. The forage plots (25 m<sup>2</sup>) were randomly selected from the forage fields at the Ridiyagama Farm of National Livestock Development Board. An equalization cut was made for selected forage plots at the beginning of Maha season. Plots were manually weeded, and urea fertilizer was applied at 150 kg/ha and 100 kg/ha for Napier and Brachiaria cultivars, respectively. Plant growth of the forage were weekly measured until 8 weeks from the equalization cut and they were harvested at 6 and 8 weeks. The nutritive value and yield were estimated. The height, leaves number and basal node diameter of the forage were increased ( $p<0.05$ ) during the growth period. However, Pakchong-1 and Red Napier reached the maximum ( $p<0.05$ ) number of shoots by 3 and 4 weeks, respectively. The dry matter (DM), organic matter (OM), neutral detergent fiber (NDF) and acid detergent fiber (ADF) contents of the forages were greater ( $p<0.05$ ) at 8 weeks. Contrarily, the crude protein, ash, OM digestibility and metabolizable energy (ME) levels were lower ( $p<0.05$ ) at 8 weeks. As a result, the fresh matter, DM, digestible OM and ME yields were greater when the forage was harvested at 8 weeks. As expected, the DM and OM yields of Red Napier (9.45 and 7.97 MT/ha) and Pakchong-1 (9.20 and 7.69 MT/ha) were greater ( $p<0.05$ ) than Koronivia grass at 8 weeks. Red Napier recorded the highest ( $p<0.05$ ) digestible OM (4.34 MT/ha) and ME (75.12 GJ/ha) at 8 weeks. The study recommends to cultivate Red Napier and Pakchong-1 cultivars and harvest at 8 weeks in the low country, dry zone.

**Keywords:** Composition, Digestibility, Metabolizable energy, Yield

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