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Performance of different types of forage in the dry zone of Sri Lanka

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In the dry zone of Sri Lanka, there was limited availability of grass land which leads to shortage of forage which results in low milk production. In addition, no reports were available on the performance of different pastures in the dry zone of Sri Lanka. In this context, a study was carried out to evaluate the performance of *Brachiaria brizantha* (Signal grass), *Pennisetum purpureum* (Napier), CO1, CO2 and CO3 with the application of cow dung as an organic fertilizer in the Livestock Farm, Eastern University, Sri Lanka. Each treatment was replicated four times in Randomized Complete Block Design. Totally 48 plants of three-noded single stem cuttings were planted at the spacing of 60 cm x 60 cm for each forage. Cow dung was applied at the rate of 10 tons/ha as basal application. The plant height, number of tillers, number of leaves and leaf/stem ratio were measured at two weeks interval. The percentage of establishment was estimated after two weeks of planting. The plants were harvested after 45 days at 15 cm above the ground level to evaluate the fresh yield and the dry matter content. Napier showed higher value (2.15 m) for plant height while the type CO2 showed lowest value (0.75 m) among others. Significantly higher ($P>0.05$) value for the fresh yield per plant was observed in both CO1 (397.5 g) and Signal grass (306.43 g) compared to others. The Signal grass showed significantly higher ($P>0.05$) dry matter content (15.28%) while the lowest (14.6%) was observed in CO2. Furthermore, the highest mean values for the number of tillers (46), the number of leaves per plant (161) and the number of pseudostem per plant (46) were observed in CO3 compared to others. Leaf/Stem ratio was found to be higher in CO1 and Napier grasses while it was lower in CO2 grass. However, the establishment percent was significantly higher in CO1 (84%) while it was lower in the CO3 (66.7%). Therefore, it can be concluded that the Signal grass and CO3 have a potential to cultivate in the dry zone but more extensive studies are needed in few seasons

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