EVALUATION OF Calliandra calothyrsus PROVENANCES AS A FORAGE FOR RUMINANTS

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Forage yield and nutritive value of seven Calliandra calothyrsus provenances were tested in the low country wet zone of Sri Lanka. Dry matter vield (DMY) from leaves and edible immature twigs (DMY kg/ha/cut) were significantly different (P<0.05) among the seven provenances tested. Madium (147/91) had the highest DMY of 29,600 kg/cut followed by Georgisiville (48/92) and Union Jaurez (50/92) kg/cut for each provenance. La Puerta (109/94) had the lowest DMY (14.800 kg/cut). The average dry matter content of seven provenances were different (P<0.05) and ranged from 32.47% (Union Jaurez) to 36.33% (La Puerta) Crude protein contents (CP) ranged from 17% (La Puerata) to 21.36% (Union Jaurez), with an average of 19.98% for all provenances. NDF, ADF and ADL contents ranged from 37.25% to 43.04%, 29.32% to 35.14% and 12.65% to 17.13%, respectively while leaf: stem ratio ranged from 0.89 to 1.47. Dry matter digestibility (DMD) was fairly low with an average of 36.33%, ranging from the highest (42.85%) for La Puerta and the lowest (31.0%) for Union Jaurez. Crude protein and digestible dry matter yields were related positively to DMY ($r^2 = 0.89$). Considering the most important yield and quality criteria, the best provenance was Madium followed by Georgisville and Union Jaurez. However, the high DMY and relatively high CP content of all the tested provenances indicate the potential of C. calothyrsus as a forage supplement in ruminant rations. In order to obtain maximum yield and nutritive value, further studies on agronomic and nutritive evaluations are required.