

Provenance variation in forage value of *Calliandra calothyrsus*

Forage value of seven *Calliandra calothyrsus* provenances were tested under the low-country wet zone of Sri Lanka. The first harvest was done 15 months after the establishment at a height of 1 m above the ground level. Fodder samples weighing approximately 1000 g from both edible (including leaves, petioles and tender stems) and non-edible (woody) material, was dried at 80 °C for dry matter estimation. Proximate analysis from and cell wall constituents and *In - sacco* dry matter digestibility were determined from the dried edible samples. The non-edible dried samples were used to determine the leaf/ stem ratio.

Provenance La Puerta (109/94) had the highest DM content (36.33%) while Union Jurarez (50/92) had the lowest of 32.47%. The CP content of the tested provenances ranged from 17.10% (Union Jurarez) to 21.36% (La Puerta). Provenances La Puerta and Bonito Oriental (8/95) were superior ($P < 0.05$) in CP content as compared with the other five provenances. The neutral detergent fiber (NDF) and the acid detergent fiber (ADF) and the acid detergent lignin (ADL) contents were also different ($P < 0.05$). The NDF% was least (37.25%) in prov. Alotenango (16/91) and highest (43.04%) in prov. Georgisville (48/92).

The % ADL was highest (17.13%) in prov. Georgisville and lowest in prov. Chilon (37/93). The leaf stem ratio (LSR) was also significantly different ($p < 0.05$) and ranged

from 0.8688 in prov. Alotenango to 1.47 in prov. Ocosingo (36/93). The *in sacco* dry matter digestibility (DMD) was low with an average of 36.83%. Prov. La Puerta had the highest DMD (42.85%) while Union Jurarez had the lowest (31.0%).

Results suggest that, tested *C. calothyrsus* provenances had higher Dm and CP contents than most common forges. However, the average DMD of seven provenances were lower than the comm. forges due to the presence of high tannin contents. The low DMD would have been partly due to low leaf stem ratios as well. Presence of high tannin contents. The low DMD would have been partly due to low leaf stem ratios as well. Presence of large proportions of petioles and tender stems in edible material, which are high in lignin, could have reduced the digestibility. These results indicate that provenance La Puerta was the best amongst the tested.