

**EVALUATION OF PASTURE GRASSES UNDER COCONUT FOR THE DIFFERENT
AGROCLIMATIC ZONES OF SRI LANKA**

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Recommendation of *Brachiaria miliiformis* as a suitable pasture grass to be grown under coconut was based on a trial conducted in the intermediate zone. Due to the increased interest among the coconut growing

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farmers in rearing ruminant livestock, it was necessary to evaluate pasture and fodder grasses that could be in the different agroclimatic zones as that found in the coconut triangle.

Five pasture (*Brachiaria miliiformis*; *Brachiaria brizantha*; *Brachiaria ruziziensis*; *Brachiaria dictyoneura*; *Digitaria decumbens*) and four fodder (*Panicum maximum*—green Panic; *Panicum maximum*—Guinea B; *Setaria sphenocelata*; Pussa Giant Napier) grasses were evaluated at two levels of (25 and 50 kg N/ha) at Dodanduwa-Galle (wet zone), Madampe-Chilaw (intermediate dry zone) and Walpita-Divulapitiya (wet/intermediate zone). The trial lasted for three years and the grasses were harvested on at least 5 to 6 occasions every year. Herbage quality and seasonality of production were studied. on the trial conducted at Madampe and Walpita.

In all the three zones studied, *B. dictyoneura* significantly out yielded all the other pasture and fodder grasses tested. The herbage dry matter yield production at Dodanduwa, Madampe and Walpita were 12.5, 10.9 and 8.6 MT per year, respectively. At Dodanduwa and Madampe, *B. brizantha* produced 10.5 and 9.0 MT of dry matter per year, respectively and ranked second. At Walpita, Guinea B ranked second and produced 7.2 MT of dry herbage per year. Except at Walpita where there was no significant responses to added nitrogen, at the other two locations all varieties produced significant responses.

Herbage quality as measured by the nitrogen content and *in vitro* organic matter digestibility fluctuated with the time of the year. As compared to the other grasses tested, the digestibility of *B. dictyoneura* showed very little changes irrespective of the time of harvest. At Madampe, *B. dictyoneura* produced 5.5 MT of digestible organic matter per year as compared to 3.8 MT to that produced by *B. brizantha*. It is concluded that in terms of herbage dry matter production and quality of herbage produced, *B. dictyoneura* is a better pasture than the presently recommended *B. miliiformis*.