

B-109: Effectiveness of perennial legumes as a source of nitrogen for coconut

M N Dias, I R Wickramananda
(Coconut Research Institute, Lunuwila)

A manurial experiment was conducted at Ratmalagara Research Station, Madampe, to find the effectiveness of the substitution of artificial fertilizers by 2 types of green manures i.e. *Gliricidia maculata* and *Pueraria phaseoloides*.

Soil samples were taken 2 years after application of treatments (Urea, *Gliricidia*, *Pueraria*, and *Pueraria* + *Gliricidia*) at 3 distances from the bole of the palm and at 3 depths at each distance. Leaf samples from the 14th frond were also taken from the same palms from which soil sampling was done. Total nitrogen in soils and leaf samples was analysed. Average yield data for 2 years of each treatment was considered.

There was a significant increase of total soil nitrogen by *Gliricidia* treatments over artificial fertilizer. *Pueraria* had no such trend. Leaf nitrogen neither had differences among treatments nor correlation with total nitrogen in soil.

In general, imposed organic nitrogen treatments had a greater effect in increasing the copra out-turn in coconut. However, the treatments showed no effects on the number of nuts per palm.