

## **B-64: Soil phosphorus status of some coconut growing soils**

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Coconut is grown in a range of soils and therefore the knowledge on phosphorus status of those soils is important in formulating fertilizer recommendations. The objective of the present study was to assess the phosphorus status of some widespread coconut growing soils.

Soils (0 - 15 cm depth) were collected from 19 sites distributed over 4 agro-ecological regions (WL3, IL1, IL3, and DLI) and analysed for phosphorus

by 4 laboratory methods; viz. (1) Olsen's bicarbonate extraction, (2) 0.1 M  $\text{NH}_4\text{F}$  + 0.025 M HCl extraction (3) 0.005 M  $\text{CaCl}_2$  extraction and (4) 2.5% acetic acid extraction. Percentage increase of height, and total dry matter weight of *Glyricidia* due to phosphorus application to each of those soils was estimated in a pot experiment in a greenhouse.

The % increase of height and total dry matter was plotted against soil P estimated by each laboratory method. Only 2.5% acetic acid extracted phosphorus showed a relationship with plant response fitting to Cate and Nelson (1971) model. High, medium and low levels for soil P extracted by 2.5% acetic acid was determined as  $>4.20$ , 2.25-4.20 and  $<2.25$  mg/kg using the curvilinear relationship between plant response and the soil P. Results indicated that of the soils collected, 11% were of high P status, 26% were of medium P status and 63% were of low P status.