B-22 : RESPONSE OF RICE (VARIETY BG 34-8) TO FOUR PHOSPHATE FERTILIZER MATERIALS

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A pot experiment was conducted to study the growth and yield of rice (BG 34-8) as affected by four phosphatic fertilizer materials incorporated into a submerged Low humic gley soil from Pilimathalawa. Two locally available materials, viz: Eppawela rock phosphate (ERP) and filter press mud (FPM, from Sevanagala Sugar factory) were compared with triple superphosphate (TSP) and an imported rock phosphate (IRP, from Jordan).

Growth characteristics were measured. Dry mater accumulation in tops was not significantly different due to treatments. However, dry matter accumulation in roots of TSP and FPM treated plants were significantly higher compared with the other treatments. There was a very highly significant effect of treatments on grain weight. Grain weight from TSP and FPM treated plants were significantly higher than those from IRP and FPM treated plants and the control. There was no difference between grain weights of ERP treated plants, and the control. There were also no differences between IRP, FPM and ERP treated plants in grain weight. Total phosphorus uptake in both tops and roots from P treated plants were significantly higher than from the control. There were no differences in total N and K as affected by treatments.