

Effect of Sources and Time of Phosphorus Application on Growth and Yield of Rice (*Oryza sativa* L.)

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ABSTRACT

A field trial was conducted on sandy clay loam soil of Agricultural College Farm, Bapatla, during *kharif*, 2018 with four sources of phosphorus in combination with two times of application. The results revealed that, among the four phosphorus sources, DAP gave the highest number of grains per panicle and grain yield but had no significant effect on growth parameters. Fertilizer 28:28:0 was next in performance and it was on par with DAP. Regarding the time of application, 60 kg P₂O₅ ha⁻¹ as basal + 25 kg P₂O₅ ha⁻¹ at MT stage recorded the highest plant growth, yield attributes, grain and straw yields (kg ha⁻¹). The study concluded that top dressing of phosphorus at maximum tillering stage by using complex fertilizers especially DAP helps for higher productivity and profitability in rice.

Keywords: *Grain yield, Plant growth, Rice, Sources, Straw yield, Time of application and Yield attributes.*