

Research Article

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# Residual effect of different sources of nutrients on P content in maize at different growth stages in rice fallow maize cropping system

■ Mohana Rao Puli and P.R.K. Prasad

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MEMBERS OF RESEARCH FORUM:

**Corresponding author :**  
**Mohana Rao Puli**, Department of  
Soil Science and Agricultural  
Chemistry, Agricultural College,  
**Bapatla (A.P.) India**  
Email: [mohanpuli007@gmail.com](mailto:mohanpuli007@gmail.com)

**Summary**

A Doctoral Research was conducted for two consecutive years (2011-2012 and 2012-2013) on fine texture soils of agricultural college farm, Bapatla to find out the residual effect of different sources of nutrients applied to preceding rice on P content in maize at different growth stages. The experiment was laid out in a Randomized Block Design in *Kharif* season with four treatments. The treatments consisted of M<sub>1</sub> (RDF - Control), M<sub>2</sub> (10t FYM ha<sup>-1</sup> + RDF), M<sub>3</sub> (1.5t vermicompost ha<sup>-1</sup> + RDF), M<sub>4</sub> (Green manuring + RDF). During the immediate *Rabi*, the experiment was laid out in a split-plot design without disturbing the soil for succeeding maize with the four treatments given to *Kharif* rice as main plot treatments and each of these divided into five sub-plots to receive five levels of fertilizer NPK application viz., N<sub>1</sub> - 75% NPK, N<sub>2</sub> - 100% NPK, N<sub>3</sub> - 125% NPK, N<sub>4</sub> - 150% NPK and N<sub>5</sub> - 175% NPK for succeeding maize. Data collected on P content in maize at different growth stages was significantly increased with the application of 100% NPK in combination with FYM @10t ha<sup>-1</sup> to preceding rice crop, irrespective of the NPK levels applied to succeeding maize crop. However, it was on par with that of green manuring together with 100% NPK during both the years of the study.

**Key words :** FYM, Green manuring, Vermicompost, P content

**Co-authors :**

**P.R.K. Prasad**, Department of Soil  
Science and Agricultural Chemistry,  
Agricultural College, **Bapatla (A.P.)**  
**India**

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