



**RESEARCH ARTICLE :**

## Effect of phosphorus management through rock phosphate application to preceding crops on growth and yield of groundnut under organic condition

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**SUMMARY :** Field experiment was carried out during 2014-15 and 2015-16 at Main Agricultural Research Station, UAS, Raichur to study the impact of varied levels of rock phosphate application to preceding sunhemp and bajra crops on growth and yield of groundnut [*Arachis hypogaea* (L.)]. The two years pooled data indicated that significantly higher pod yield of groundnut recorded with soil application of higher levels of rock phosphate at 150 and 200 kg ha<sup>-1</sup> to preceding sunhemp (1826 and 1859 kg ha<sup>-1</sup>, respectively) and preceding bajra (1774 and 1810 kg ha<sup>-1</sup>, respectively) and these treatments were at par with treatment receiving RDF + FYM (1871 kg ha<sup>-1</sup>) to both bajra and groundnut crops in the system. Number of pods per plant was significantly higher with the treatment of RDF + FYM application to both the crops in bajra-groundnut system and it was at par with treatments receiving rock phosphate @ 150 and 200 kg ha<sup>-1</sup> to preceding sunhemp. The yield parameters such as number of pods per plant and pod weight per plant were higher with higher levels of rock phosphate application. Significantly higher plant height, number of primary branches per plant, leaf area index and dry matter production were recorded with application of RDF + FYM and it was at par with the application of rock phosphate at 150 and 200 kg ha<sup>-1</sup> to preceding bajra and sunhemp crops.

**KEY WORDS :**

Rock phosphate, Sunhemp, Preceding crops

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