

# **Response of Blackgram to Residual Phosphorus application to Rice in Rice-Blackgram Cropping System**

**I Usha Rani and V Sankar Rao**

Department of Soil Science, Agricultural College, ANGRAU, Bapatla – 522101

## **ABSTRACT**

A field experiment was conducted during 2004-05 on sandy loam soil at Agricultural College Farm, Bapatla to study the effect of additional dose of phosphorus applied to rice on the yield, nutrient uptake and soil availability status of succeeding black gram. The results indicated that the additional dose of 10, 20 and 30 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> at tillering and 10, 20 and 30 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> at primordial initiation stage significantly increased the dry matter production, seed and haulm yield of black gram over the recommended dose of phosphorus applied as basal. The additional doses also gave significantly higher content and uptake of nitrogen and phosphorus of succeeding blackgram over the recommended dose of phosphorus (60 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>) applied as basal.

**Key words :** Cropping System, Phosphorus Application, Rice