



**RESEARCH ARTICLE :**

# Yield, nutrient uptake and agronomic fertilizer use efficiency (FUE) of different varieties of aerobic rice (*Oryza sativa* L.) with different N, P and K fertigation levels

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**SUMMARY :** A field experiment was conducted at Water Technology Centre, College farm, Rajendranagar, Hyderabad during *Kharif*, 2015 to study the “Response of different varieties of aerobic rice (*Oryza sativa* L.) under drip fertigation levels.” The experiment was conducted with three main treatments and four sub treatments. The main treatments were three rice varieties (RNR 15048, MTU 1010 and Anagha) and the sub treatments were four different fertigation levels ( $S_0$ : Control,  $S_{75}$ :90-45-30 kg N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O ha<sup>-1</sup>,  $S_{100}$ :120-60-40 kg N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O ha<sup>-1</sup>,  $S_{125}$ :150-75-50- N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O ha<sup>-1</sup>. Drip irrigation was scheduled once in 3 days based on daily data of USWB class ‘A’ pan evaporimeter at 1.5 Epan. The amount of total irrigation water used including effective rain fall (277 mm) for different varieties were Anagha (9720 m<sup>3</sup>), MTU 1010 (9910 m<sup>3</sup>) and RNR 15048 (10110 m<sup>3</sup>) through drip irrigation. The differences in amount of water used were different for different varieties due to the differences in their crop growth period. The crop growth period noticed was 131, 139 and 151 days for Anagha, MTU 1010 and RNR 15048, respectively. The data on grain yield (kg ha<sup>-1</sup>), straw yield (kg ha<sup>-1</sup>), uptakes of N, P and K at different growth stages were recorded. Along with that agronomic fertilizer use efficiency (FUE) was calculated.

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