

Effect of Micro-Weather Health Indices on Growth and Yield of Rice (*Oryza sativa* L.) under Semi-arid Conditions of Andhra Pradesh

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ABSTRACT

A field experiment pertaining to “Effect of micro-climate on growth and yield of rice (*Oryza sativa* L.) under semi-arid conditions of A.P.” was conducted in *Kharif*, 2014. The experimental site was at the ARI farm of SRTC Rajendranagar. The soil was low in available N (154 kg ha⁻¹) medium in P₂O₅ (41 kg ha⁻¹) and K₂O (209 kg ha⁻¹). The layout was factorial randomized block design. The treatments were a combination of four rice genotypes *viz.*, Tellahamsa, WGL (20471), Jagityala Sannalu (JGL 1798) and Anjana (JGL 1118) and four dates of sowing at 15 days interval from 15th June 1st August. Among the dates of sowing the July 15th sown crop yielded highest . Similarly, the genotypes Tellahamsa performed well over the other three varieties not only in plant grown characters but also in yield attributes and yield owing to favourable trends in micro weather health indices regimes within its canopies. Particularly Absorbed Photosynthetically Active Radiation (APAR) and Radiation Use Efficiency (RUE) values were optimum in 15th July sown crop and Tellahamsa genotype.

Key words: *Growth, Micro-weather health indices, Yield.*