Correlation and Path Analyses on Yield and Drought Tolerant Attributes Under Drought Stress in Rice (*Oryza sativa* L.)

A Siva Prasad, K V Seetharamaiah, J V Ramana, B Vijaya Lakshmi and V Satyanarayana Rao

Department of Genetics and Plant Breeding, Agricultural College, Bapatla 522 101, Andhra Pradesh

ABSTRACT

Correlation and path coefficient analyses were undertaken on 15 yield attributing and drought tolerant traits utilizing 37 genotypes in rice. Filled grains/ panicle, grains/panicle, relative water content and chlorophyll content index expressed highly positive correlation with grain yield. Selection based on chlorophyll content index and relative water content will bring about simultaneous improvement of all other drought tolerant traits. Path analysis revealed that chlorophyll content index, relative water content and grains/ panicle were major yield contributing traits to be given selection pressure for improving yield in drought stress situation.

Key words: Correlation, Drought, Path Analysis, Rice