INTERRELATIONSHIP AND PATH ANALYSIS OF DIFFERENT TRAITS UNDER COASTAL SALINITY IN RICE (*ORYZA SATIVA* L.)

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Abstract: An investigation was carried out using 17 rice genotypes for grain yield and contributing characters to understand the association among yield components and their direct and indirect influence on the grain yield under saline condition. Analysis of variance revealed considerable variability among the genotypes for all the characters. Character association of the yield and its attributing traits revealed that significant positive association of grain yield plant^{-1} with productive tillers hill^{-1}, length breadth ratio, straw yield, harvest index, number of grains panicle^{-1} and 1000-grain weight. The salinity related traits *viz.,* Na+: K+ ratio and chlorophyll content as well as days to 50% flowering expressed significant negative association with grain yield plant^{-1}. Investigation on path coefficient analysis showed that straw yield plant^{-1} had highest direct positive effect on grain yield plant^{-1} followed by harvest index, plant height, Na/K ratio, days to 50% flowering, 1000 grain weight, days to maturity, productive tillers hill^{-1}, number of grains panicle^{-1}, chlorophyll content. Hence, selection based on these traits could help to bring simultaneous improvement of yield and yield attributes characters under saline condition.

Keywords: Chlorophyll, Grain, Rice, Soil

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