Correlation and path analysis of grain yield with yield contributing and grain quality characters in aerobic rice (*Oryza sativa* L.)

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Correlation and path coefficients were studied in thirteen yield contributing characters and nine grain quality characters with grain yield of aerobic rice genotypes on vertisol. The experimental materials consist of fifty promising genotypes along with three checks i.e. Basmati 370, Parag and Avishkar were evaluated for grain quality characters. The analysis of variance revealed that there were significant differences among the genotypes for all the characters studied. Correlation analysis of yield contributing characters indicated that all the characters were significantly and positively correlated with grain yield plant-1 except days to 50% flowering and days to maturity at both genotypic and phenotypic levels. In present investigation, the value of correlation was less than one in all cases which is an indication of lesser effect of environment. Path coefficient analysis showed that number of effective tillers plant-1 exerted the highest positive direct effect followed by number of grain panicle-1 and 1000 grain weight on grain yield plant-1. Almost all the yield contributing characters exerted negative indirect effect on grain yield plant-1. It can be concluded that direct selection is most effective for seed yield plant-1.

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