

Analysis of direct and indirect effects of various components on tomato (*Lycopersicon esculentum* Mill.) fruit yield by correlation and path co-efficient analysis

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ABSTRACT

Genetic studies were conducted for yield and physiological traits in F_2 generation involving six crosses. The parameters statistically analyzed were correlation and path analysis to study direct and indirect effects of various components on fruit yield. From the correlation studies, it was revealed that the trait plant height followed by dry matter accumulation and number of fruits per plant showed the highest positive and significant relationship with fruit yield. The path analysis in F_2 cross combination concluded that plant height, number of fruits per plant and flowering duration had the highest direct contribution than other component of yield in all the six crosses. If emphasis would be given for selection of these traits in breeding programme, it will automatically increase fruit yield per plant.

Key words : Correlation, Path analysis, F_2 generation, Direct and indirect effects, Tomato