



RESEARCH ARTICLE :

Per se performance in tomato (*Solanum lycopersicum* L.) for yield attributes, yield and quality

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SUMMARY : The present investigation “Studies on heterosis, combining ability and inbreeding depression in tomato (*Solanum lycopersicum* L.)” for yield and quality was carried out during *Rabi* 2010-11, *Kharif* 2011 and *Rabi*, 2011-2012 at Vegetable Research Station, Rajendranagar, Hyderabad to study the genetic parameters, heterosis, combining ability, gene action governing the inheritance of the traits, correlation co-efficient analysis, path co-efficient analysis and inbreeding depression. Ten parents (EC-165749, EC-157568, EC-164838, LE-56, LE-62, LE-64, LE-65, LE-66, LE-67 and LE-68) were crossed in diallele mating design (without reciprocals). The resultant 45 F₁'s were evaluated along with their parents and two standard checks (Siri and US-618) for plant height (cm), number of primary branches per plant, days to 50% flowering, number of fruits per cluster, fruit length (cm), fruit width (cm), average fruit weight (g), fruit yield per plant (kg), number of locules per fruit, pericarp thickness (mm), TSS (°Brix), titrable acidity (%), ascorbic acid content (mg/100 g) and lycopene content (mg 100/g).

KEY WORDS :

Tomato, *Per se*,
Diallele, Yield

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