

EFFECTS OF VARIETIES AND PLANT HORMONES ON GROWTH AND YIELD OF HEAT TOLERANT TOMATO

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ABSTRACT

The experiment was conducted at IBSc Field Laboratory of ACI, Rajshahi University Innovation Center, Jamalpur, Rajshahi. during the month from May to August 2015. The research laid out in two factorial Randomized Completely Block Design (RCBD) with 3 replications. Two different factors were considered, Factor A: Variety (V1, BARI Tomato- 4; V2, BARI Hybrid Tomato- 4) Factor B: Hormone Concentration (Treatment (T0): Control/ no plant hormon, Treatment (T1): 4-CPA 20 ppm, Treatment (T2): 4-CPA 40 ppm, Treatment (T3): GA3 10 ppm, Treatment (T4): GA3 20 ppm). The higher fruit set percentage (42.52%) was recorded from BARI Hybrid Tomato-4 which was also higher in case of pollen viability (42.75%) and yield per plant (460.02g). Better performance was observed in spraying of 4-CPA at 40 ppm concentration in respect of percent fruit set (45.38%), number of fruits per plant (16.45) and yield (39.19 t/ha) under high-temperature condition. In combined treatment, BARI Hybrid Tomato-4 with 40 ppm 4-CPA (chlorophonoxy acitic acid) performed a significant role in yield per plant (621.68 g), yield per plot (15.23kg) and above all fruit yield (50.79 t/ha).

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