



Research Paper

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Effect of different transplanting dates and varieties on fruit quality and seed yield of tomato

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ABSTRACT : Transplanting of tomato during 15th of October recorded significantly higher number of fruits per plant (33.31), yield per plant (1.25kg), fruit size (length, diameter and volume), fruit weight (42.63 g), pulp content (54.01%), ascorbic acid (20.81 mg/100 g pulp) and number of seeds per fruit (192.21) over other dates of planting. Among the varieties, maximum number of fruits per plant, yield per plant, titrable acidity, ascorbic acid content, number of seeds per fruit and seed weight per fruit were recorded in Pusa Ruby, whereas Pusa Early Dwarf recorded maximum fruit size, fruit weight, pulp content, TSS and 1000 – seed weight. Among the treatment combinations Pusa Ruby planted on October 15th emerged as the best combination with regard to fruit quality and seed characters.

KEY WORDS : Tomato, Varieties, Transplanting dates, Fruit quality, Seed characters

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Tomato is one of the most important vegetable crops grown throughout the India. It is one of the leading Rabi season grown vegetable in Andhra Pradesh. Transplanting time has tremendous effect on the tomato fruit quality and seed yield because of widely varying agro climatic conditions and intricate crop-weather relationships. Optimum time of planting is one of the non-monetary inputs for increasing the productivity of the crop. With a view to determine the effect of transplanting dates on fruit quality and seed yield for the two varieties of tomato, experiments were carried out to find the suitable time of planting for southern agro-climatic zone of Andhra Pradesh.

RESEARCH METHODS

The experiment comprised of two main parameters viz., transplanting dates and varieties. It was carried out at S.V. Agricultural College, ANGRAU, Tirupati in a well drained red sandy soil. Two varieties of tomato (Pusa Ruby and Pusa Early Dwarf) were planted on six different dates of transplanting viz., D₁ - September 5th, D₂ - September 15th, D₃ - October 5th, D₄ - October 15th, D₅ - November 5th and D₆ - November 15th . The experiment was laid out in a randomized block design with a factorial concept and replicated thrice. The data were

collected on fruit quality and seed characters were recorded.

RESEARCH FINDINGS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarised under following heads:

Effect on fruit characters:

Fruit quality parameters like number of fruits per plant, yield per plant, fruit size (length, diameter and volume), fruit weight, pulp content, TSS and ascorbic acid were significantly influenced by different transplanting dates and varieties (Table 1 and 2). Planting dates x varieties interaction was significant for number of fruits per plant, yield per plant, fruit size (length, diameter and volume), fruit weight, pulp content, TSS and ascorbic acid, while it was non-significant for total soluble solids (TSS) and titrable acidity.

The maximum number of fruits and yield per plant (33.31 and 1.25 kg) was recorded in October 15th planting which was superior to the other planting dates. The lowest number of fruits and yield per plant (19.63 and 0.81 kg.) was recorded in crop transplanted on November 15th (D₆). Remarkable increase in number of fruits and yield per plant might be due to