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RESEARCH PAPER

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Effect of different planting geometry on yield and quality of watermelon (*Citrullus lanatus* Thunb.)

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ABSTRACT : A field experiment was conducted at Hi-tech Horticulture Park, Department of Horticulture, Junagadh Agricultural University, Junagadh during Late *Kharif* season in the year 2010 with mulch to study the effect of planting geometry on yield and quality of watermelon. It consists of twelve treatment combinations, comprising of three levels of planting geometry *viz.*, diagonally paired row with 80 cm spacing (G₁), parallel paired row with 80 cm spacing (G₂) and parallel paired row with 40 cm spacing (G₃) were embedded in a Split Plot Design in CRD with four replications. The experiment resulted that with maximum yield and quality attributing characters under study were significantly affected by planting geometry treatments. Highest fruit length (21.25 cm), fruit girth (13.81 cm), yield tons per hectare (44.33 t/ha), pulp weight (1712.57 g), lowest rag weight (610.90 g), total soluble solids (10.98 °B), non-reducing sugars (3.91 %), reducing sugars (1.72 %), total sugars (5.25 %) and ascorbic acid content (7.90 mg/100 g pulp) were recorded under G₁ (Diagonally paired row with 80 cm spacing). While, superior fruit yield in terms of kg per plot (38.38 kg) was found in G₃ (Parallel paired row with 40 cm spacing).

KEY WORDS : Watermelon, Planting geometry, Yield, Quality, Spacing, Mulch

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