



Research Paper

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Effect of plant growth regulators on growth and yield of nagpur mandarin (*Citrus reticulata* Blanco.)

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ABSTRACT : An investigation was carried out at Fruit Research Farm, Department of Fruit Science at College of Horticulture and Forestry, Jhalawar during July, 2012 to April, 2013 to study the individual effect of plant growth regulators on growth and yield of Nagpur mandarin (*Citrus reticulata* Blanco.). The results revealed that application of GA₃ @ 100 ppm showed superior results with respect per cent increase in plant spread (20.59%) and crown volume (38.42%) over control on 150 days after treatment. The physical characters of fruit like maximum increase in diameter (horizontal and vertical), weight, volume and number of sacs per fruit, minimum days taken to first harvesting and complete harvesting was recorded with the spray of 100 ppm GA₃, which was closely followed by 30 ppm 2,4-D. The minimum peel thickness, number of seeds per fruit and average seeds weight per fruit was recorded with 30 ppm 2,4-D treatment. The maximum number of fruit per tree, fruit retention per cent and yield per plant and per hectare was recorded with the spray of 30 ppm 2,4-D which was significantly higher to control.

KEY WORDS : NAA, GA₃, 2,4-D, Triaccontanol, Plant growth, Physical characteristics of fruits, Yield

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