



Research Paper

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Influence of plant growth regulators on growth, yield and quality of strawberry (*Fragaria x Ananassa* Duch.) under U.P. Sub tropics

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ABSTRACT : A field experiment was carried out during 2005-2006 to study the influence of plant growth regulators on growth, yield and quality of strawberry under U.P. sub-tropics. Results of the investigation revealed that strawberry was very responsive to the application of plant growth regulators. GA₃ @ 80 ppm gave the best results in terms of vegetative growth, runner production, ascorbic acid and acidity of strawberry, whereas CCC @ 500 ppm showed higher number of flowers, fruits per plant, yield, specific gravity, total soluble solid and total sugar of strawberry.

KEY WORDS : Strawberry, PGRs, Yield, Quality

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Strawberry is one of the most delicious and nutritious among soft fruit of the world. Basically, it is herbaceous perennial and short day plant grows predominantly in the temperate climate. Its fruits are rich source of vitamin and minerals. Strawberry is known for its pleasant aroma. The modern cultivated strawberry (*Fragaria x ananassa* Duch.) is a hybrid of two largely dioecious octoploid species, *Fragaria cheloensis* Duch and *Fragaria virginiana* Duch. It is amongst the few crops, which give quick and very high returns per unit area on the capital investment, as the crop is ready for harvesting within six months of planting. Investigation on impact of plant growth regulators on growth, yield and quality has indicated that strawberry is very responsive to the application of plant growth regulators. GA₃ has been found to increase the vegetative growth of strawberry. Cycocel and NAA improved the yield and quality of strawberry (Thakur *et al.*, 1991). As strawberry is a temperate fruit, its production in tropical and subtropical region is

drastically low and the market price high. Due to these bottlenecks, the poor people cannot afford it and also the farmers seldom go for its cultivation. Keeping this in view, the present studies were carried out at Research Farm Department of Horticulture, Allahabad Agricultural Institute-Deemed University, Allahabad to see the influence of various plant growth regulators on strawberry so as to ascertain the treatment, which can increase its production and provide opportunity to the farming community to grow it commercially.

RESEARCH METHODS

The experiment was conducted during 2005-2006 at Research Farm Department of Horticulture, Allahabad Agricultural Institute-Deemed University, Allahabad to test the influence of plant growth regulators on growth, yield and quality of strawberry (*Fragaria x ananassa* Duch.) under U.P. sub-tropics. Experiment was laid out in a randomized block design with ten treatments consisted of control (no application