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Influence of Plant Growth Promoting Rhizobacteria (PGPR) on Growth and Yield of Strawberry (*Fragaria x ananassa* Duch.) cv. Chandler

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Abstract: The effect of five strains of plant growth promoting rhizobacteria (PGPR) (*Bacillus licheniformis* CKA 1, *Bacillus subtilis* CB 8 A, *Bacillus* sp. RG1, *Bacillus* sp. S₁ and *Bacillus* sp. S₂) was observed on plant growth and yield of strawberry. The treatments resulted in increased plant growth and yield as compared to control. The maximum plant height and spread were recorded from *Bacillus licheniformis* CKA 1, whereas, leaf area and plant biomass were maximum in *Bacillus* sp. S₂ treated plants when these strains were applied through root dip + foliar application methods. The number of crowns and the number of runners per plant were highest in plants treated with *Bacillus* sp. RG1 and *Bacillus* sp. S₁ respectively. Application of *Bacillus* sp. S₂ through root dip + foliar application method resulted in earliest flowering, harvesting and maximum flowering duration. The harvesting duration was longest in *Bacillus subtilis* CB 8A treated plants. The number of fruits and yield per plant were maximum in *Bacillus* sp. S₂ treated plants application method. The study revealed beneficial effect of plant growth promoting rhizobacteria (PGPR) on plant growth and yield of strawberry.

Key Words: Bacillus sp., Growth, Plant Growth Promoting Rhizobacteria, Strawberry, Yield