



Article history :

Received : 10.04.2016

Revised : 27.04.2016

Accepted : 06.05.2016

Effects of Rhizobacteria strains in prolonging vase life of gladiolus cv. AMERICAN BEAUTY

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ABSTRACT : Gladiolus is one of the popular cut flowers that demonstrates postharvest problems which cause shorter vase life and loss of quality. The present study was undertaken to compare the efficiency of different rhizobacteria strains application on vase life of gladiolus. A significant improvement was observed in all the parameters related to vase life with the application of *Azotobacter*, *Azospirillum*, *Bacillus* and *Pseudomonas* strains as biofertilizers. Maximum vase life 18.22 days was observed under T₇ (*Pseudomonas* sp. CPS20), which was at par with T₆ (*Pseudomonas* sp. CPS63) i.e. 18.17 days. The maximum spike weight (73.67 g) was noticed under T₁ (*Azotobacter chroococcum* Mac27) and highest transpirational loss was recorded on 8th day of vase life (27.33 g) whereas, minimum under control on 2nd day of vase life (9.67 g). Wilting of floret was delayed by 4.56 days under *Pseudomonas* sp. CPS20. Among all the vase solutions of biofertilizers, *Pseudomonas* sp. CPS20 was found to be the most effective, followed by *Pseudomonas* sp. CPS63 for improving vase life of cut spikes of gladiolus.

KEY WORDS : Gladiolus, Biofertilizer, Rhizobacteria, Vase life, Spike, Floret

HOW TO CITE THIS ARTICLE : Singh, Yogesh (2016). Effects of Rhizobacteria strains in prolonging vase life of gladiolus cv. AMERICAN BEAUTY. *Asian J. Hort.*, 11(1) : 136-140, DOI : 10.15740/HAS/TAJH/11.1/136-140.