



Research Paper

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Effect of sulphosalicylic acid on vase life and water uptake of cut gladiolus spikes

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ABSTRACT : An experiment was conducted to evaluate the effect of sulphosalicylic acid on vase life and water uptake of cut gladiolus spikes of different genotypes. All the vase solution showed superiority over control. The maximum vase life (11.75 and 12.00 days) was recorded in sunayna with salicylic acid (100 ppm) + sucrose (4%) during 2002 -03 and 2003-04, respectively although, maximum uptake of vase solution (89.50 and 90.40 ml/spike) was recorded in case of sunayna with salicylic acid + sucrose (4%) in both the years, respectively.

KEY WORDS : Vase-life, Vase – solution, Salicylic acid, Water uptake, Ssunayna

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Gladiolus is one of the most important bulbous crops in both domestic and international markets. In recent days, gladiolus has gained lot of scope and interest and it had become one of the largest cut flower in terms of commercial production. It is usually the life- span of petals, which determine the effective life of flower. Various chemical treatments including growth hormones increased the vase – life or longevity of cut flower. Vase-life was extended by 19-76% by sucrose alone (Murali *et al.*, 1990). The vase life of cut gladiolus cv. Friendship was extended upto 12.33 days with 4% sucrose + 10.5mm Co compared with 7 days for the spikes held in distilled water (Murali *et al.*, 1990). Sucrose and Co had increased water uptake of spikes. Gowda and Gowda (1990) recorded that the longest vase life (18.3 days) was with 1.0µM aluminium sulphate followed by 3 % sucrose (17 days) and 2% sucrose (15.3 days).

Arora *et al.* (2001) extended the vase life of cut flowers of gladiolus hybrid following treatments with sulphur containing compounds. The vase life of cut flowers spikes was significantly increased by 73% with 100 ppm of 5-sulphosalicylic acid and the flower quality was improved in terms of percentage flowering, fresh weight and water uptake.

Keeping in view the importance of cut gladiolus cultivars, the present experiment was planned with the objective to evaluate the effect of sulphosalicylic acid on vase life and water uptake of cut gladiolus spikes.

RESEARCH METHODS

A field experiment was conducted to study the effect of sulphosalicylic acid on vase life and water of different genotypes at Horticultural Research Farm of C.C.R. (P.G.) College, Muzaffarnagar. The cut spikes of gladiolus were transferred in vase solution. The observations were recorded for vase life and water uptake of cut gladiolus spike during 2002-03 and 2003-04.

Treatments details:

T₁ = Control,

T₂ = STS (1mM),

T₃ = Sucrose (4%),

T₄ = Sulphosalicylic acid,

T₅ = Sulphosalicylic acid (100 ppm) + sucrose (4%)

T₆ = STS+ sucrose (4%).