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Response of vase solution on keeping quality of cut spikes of gladiolus cv. PRISCILLA

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Abstract : The present investigation entitled response of vase solution on keeping quality of cut spikes of gladiolus cv. PRISCILLA was carried out during the year 2008-2009 in the research farm of Department of Floriculture and Landscaping, College of Horticulture and Forestry, Jhalawar (Rajasthan). Among all the pulsing treatments *i.e.*, T₁- Sucrose 5 per cent, T₂- Sucrose 5 per cent + 8 - HQC (300 ppm), T₃ - Sucrose 5 per cent + 8- HQC (600ppm), T₄ - Sucrose 5 per cent+ Al₂(SO₄)₃.16H₂O (100 ppm), T₅ - Sucrose 5 per cent +Al₂(SO₄)₃. 16H₂O (300 ppm), T₆ - Sucrose 5 per cent +AgNO₃ (100 ppm), T₇ - Sucrose 5 per cent + AgNO₃ (200 ppm) and T₈ - Control (with distilled water), treating of cut spikes of gladiolus with Sucrose 5 per cent +8-HQC (600ppm) was found superior to other treatments for most of the floral traits.

Key words : Gladiolus, Germicide, Spike, Sucrose, Vase life

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Gladiolus is the most popular ornamental bulbous plant, grown for its fascinating spikes, which open gradually from base to the top. Its elegant flower spikes, which have rich variation of colours, are the main reason for its ever-increasing demand. Though, the crop has a wide scope but still the contribution is meagre in the international market. This may be due to the lack of authentic information on post harvest management. The spikes last for only 6-7 days when they are placed in water (Murali and Reddy, 1993) which is too less a post harvest life for marketing of gladiolus for distinct market. Enhanced vase life of cut flowers depends on their water retention and retarding rate of senescence, which can be achieved by using certain chemicals. Therefore, the present study was conducted to test the effect of three floral preservative chemicals in combination with 5 per cent sucrose on vase life of cut spikes of gladiolus cv. Priscilla.

RESEARCH METHODS

The experiment was conducted in the research farm

of Department of Floriculture and Landscaping, College of Horticulture and Forestry, Jhalawar during 2008-09. The crop was raised under standard uniform cultural conditions planted in October 2008. The spikes were harvested early in the morning when lower most 1-2 florets started showing colour and were brought to the laboratory immediately for placing them in bucket containing water. The maximum and minimum laboratory temperatures fluctuated between 23-26°C and 17-20°C, respectively and relative humidity was 65-75 per cent during the course of investigation.

The basal 2 cm portion of the spike was re-cut in water to expose fresh tissue and the spikes were put in vase solutions containing sucrose (5%) in combination with different chemicals and compared with control (distilled water). The experiment was laid in completely randomized design (CRD), consisted of 8 treatments *viz.*, T₁- Sucrose 5 per cent, T₂- Sucrose 5 per cent + 8 - HQC (300 ppm), T₃ - Sucrose 5 per cent + 8- HQC (600ppm), T₄ - Sucrose 5 per cent+ Al₂(SO₄)₃.16H₂O (100 ppm), T₅ - Sucrose 5 per cent +Al₂(SO₄)₃. 16H₂O (300 ppm), T₆ -