

Postharvest of cut flower 'Amsterdam' gladiolus grown under colored shade net

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Abstract

Gladiolus is an important cut flower commercialized on the Brazilian market. These plants are traditionally grown under full sunlight; however, cultivation may also occur under shading mesh in areas where the solar radiation is excessive. Although different environmental conditions can affect the quality and production of gladiolus flowers, there is no information about the condition of shading on postharvest of cut stems. Thus, the aim of this study was to evaluate the postharvest shelf life of gladiolus grown under different shading. For this, plants of gladiolus 'Amsterdam' were grown under three shading nets, thermo-reflective net of metallic coloration, red and blue. The control plants were grown under full sunlight. The stems were harvested with three floret buds showing color, which were standardized to 80 cm in height and placed in individual bottles containing 200 ml of tap water. Daily cuts were made at 0.5 cm from the base of the stems and the water uptake, fresh weight, number of open and longevity of florets were measured. There was no significant difference in water uptake of cut stems grown under different environmental conditions; higher water uptake was observed until the third day of postharvest. The fresh weight of the stems increased until the third day of postharvest and from the fifth day the weight began to decrease. The changes of fresh weight were similar in all treatments. The opening of florets was lower in plants grown in full sunlight with a maximum of 9.6; in the thermo-reflective netting of metallic coloration, red and blue the maximum of 12.2, 12.4 and 11.6, respectively. There was no difference in longevity of the stem flowers. All the treatments had eight days of longevity.