Effects of some thermal and chemical treatments as well as harvesting stages on the longevity and some qualitative characteristics of carnation cut flowers

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Factorial experiments were conducted to study the effect of temperature(0°C ,2°C ,4°C , and room temperature),physiological stages of harvesting (open stages and bud stages) and chemical treatments (su,8-HQ+Ag+STS and water) on the characteristics of carnation cut flowers.In this two years(1993-1994) study, Beljiki standard carnation were grown in the greenhouses of the Department of Horticulture, College of Agriculture, Tehran University,Iran.Cut flower longevity,fresh weight,flower diameter, calyx diameter,rate of decorative (proposed by C.A. Conover 1986), vase life, dry weight, flower opening, soluble solids and calyx splitting were measured and the data were statistically analyzed.

Silver thiosulphat and 8-HQ significantly increased the cut flower longevity, and 2°C was the best storage temperature for cut flowers. Longevity and some other qualitative characteristics of flowers that were cut at bud-stage, were significantly improved.

Interactions were noted to be significant when the flowers were cut at bud-stage and were kept at 4°C and treated with the STS and 8-HQ.

Maximum longevity of cut flowers was obtained by the combination of these treatments.