GERBERA SELECTION AND POST-HARVEST HANDLING

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Keeping life is an important consideration in selecting gerberas for cut-flower production. Growers' past attempts to market gerberas with minimal vase life may have adversely affected consumer acceptance of these flowers.

An experiment at San Jose demonstrates what can happen when selections are not tested for flower longevity. A commercially selected red Dutch seedling considered to have acceptable cut-flower quality was obtained from a nursery and crossed with a U.C. yellow quilled selection that had good commercial characteristics. Thirty of the resulting 48 seedlings were selected for seedling vigor and allowed to flower. Four of these were further selected as examples of good commercial mother plants. They exhibited night-openness; long, sturdy stems; open growth habit; good flower size and form; production equal to or better than the yellow parent; and a range of color from orange to red. Further evaluation the next year, however, showed that only two of the plants produced flowers that kept as well as or better than the parents (table 1).

Gerberas keep longer when cut during warm, sunny weather. Data for the U.C. selection (table 2) indicate winter is a good time to evaluate flower longevity. A minimum life of 10 days appears to be reasonable, although much greater keeping life can be obtained.

Gerberas keep longer in water containing sugar and silver nitrate than they do in plain water. The stems elongate appreciably when held in the sugar solution, however. A 10-minute stem soak after the ends are cut off, using a solution containing 1,000 ppm silver nitrate, also increases keeping life significantly but without an accompanying stem elongation (table 3). This may be a more desirable treatment if the flowers are to be used in an arrangement.

Further tests with the same U.C. yellow quill cultivar indicate that a dip in 600 ppm sodium hypochlorite (1:100 dilution of 6% Purex®) is as effective as the silver nitrate dip for increasing flower longevity (table 4). Both dip treatments lose their effectiveness when the stems are re-cut. Even so, the treatment may be advantageous for growers shipping to mass market outlets or for florists receiving the flowers for arrangements or bucket sales.

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TABLE 1. Keeping Quality of Flowers From Four Gerbera Seedlings and Their Parents. San Jose, 1972.

Flower Source	Keeping Life (days)[1]
Seedling #1	6.7 b
Seedling #2	12.8 e
Seedling #3	10.4 cd
Seedling #4	4.9 a
U.C. parent	11.2 d
Dutch parent	9.6 c

[1] Average of eight blooms per plant held in deionized water at 70° F. Figures followed by same letter are not statistically different (p = .01).

TABLE 2. Vase Life of U.C. Yellow Quilled Gerbera. San Jose, 1972-1973.

Harvest Date	Days Life[1]
October 6	13.7 b
December 15	11.3 ab
February 14	10.8 a
March 5	12.2 ab

[1] Average of 10 blooms per harvest. Figures followed by same letter are not statistically different (p = .01).