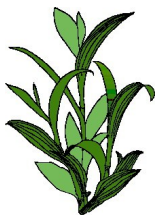
Practical Post-Harvest Handling of Cut Flowers

Authors: Molly Nakahara, Ag Program Representative, and
Cindy Fake, Horticulture & Small Farms Advisor, Nevada & Placer Counties

Publication Number 31-034C
(Sept. 2015)

Placer County 530.889.7385 Nevada County 530.273.4563
http://ucanr.edu/sites/placernevadasmallfarms/

A goal for all produce and flower growers is to deliver the highest quality product to the customer. For flowers, this means an extended vase life once flowers are brought home from market. If properly cared for, flowers should last for one week after purchase. Follow these steps at harvest to ensure maximum vase life:



- Harvest at the correct stage of maturity.
- Harvest when temperatures are cool.
- Use clean shears, buckets, and water.
- Strip lower stems of leaves.
- Chill cut flowers immediately after harvest.

Each cut flower has its own optimum stage of maturity for harvest. Additional research as well as your own field trials will help you identify the correct stage for each type.

General guidelines to follow:

- Harvest spike-type flowers when 25% of the individual florets are open.
- Harvest daisy-type flowers when the petals are lifting off of the center disk and less than 30% of disk flowers are open.
- Harvest umbel-type flowers when 50% of the flowers are open and the stem below the umbel is rigid.

Flowers should be harvested when their cells are the most turgid, or full of water. Irrigate 12-24 hours before harvest to maximize the turgor. Turgidity decreases as air temperature and evapotranspiration rates increase so harvest in the early morning and evening.

Pruning shears and snips can transfer diseases between plants and also introduce bacteria to cut stems, decreasing vase life. Clean buckets and equipment with warm, soapy water and sanitize by spraying or wiping with undiluted hydrogen peroxide (3% U.S.P) or a chlorine bleach solution (1 tsp. per gallon of water) and allowing to air dry.

At harvest, strip the flower stem of any vegetation that may be submerged in water. Leaves in vase water will increase the rate of decay and decrease vase life. Use a gloved hand or pruning shears to clean the stems of any plant material below the vase water level.

Place cut stems into cold, well or treated water, not irrigation water which may contain bacteria. Water uptake by stems is higher with acidic water. Use an acidifying floral preservative or citric acid if your water has a high mineral content. Move freshly harvested flowers to a cooler held at 35-40 degrees Fahrenheit with a relative humidity of 80-90%.

Resources

"The Three C's: A check list for Optimal Postharvest Handling of Cut Flowers and Foliage." November 1997. ***Perishables Handling Quarterly. Issue No. 92***. University of California, Davis. http://ucanr.edu/datastoreFiles/234-77.pdf

***Post Harvest Handling of Fresh Cut Flower and Plant Material*.** 1997. Kansas State University Cooperative Extension Service. Publication number MF-2261. http://www.bookstore.ksre.ksu.edu/pubs/MF2261.pdf

Development of this information is funded in part by grants from the USDA Risk Management Agency