

Preserving Cut Flowers

by Dr. H. Marc Cathey

MY FIRST JOB after graduating from North Carolina State University in 1950 was as a manager of a florist's greenhouse in Mooresville, North Carolina. Our closest wholesale florist was located 40 miles away in Salisbury. Three times a week a refrigerated, bucket-filled truck visited our shop to supply us with fresh cut flowers for our business. The roses that came from Salisbury were grown by John Hanford, the father of Elizabeth Dole, who is our current Senator for North Carolina and my second cousin. The only way to offer truly fresh cut flowers in those days was to transport them directly from greenhouse to market.

Looking back over the past 54 years, it's amazing to realize how all the research and marketing information developed since then has greatly expanded the potential of the commercial florist industry. An astonishing variety of cut flowers—as well as foliage, berries, seedpods, and mosses—are now grown in South America, Africa, Asia, Australia, and New Zealand, not to mention North America and Europe, and then shipped around the world.

Now that the cut-flower industry has become a global business, every new flower introduction comes with specific protocols for production and post-production care. As has happened with fruits, commercial cut flowers are no longer “seasonal” because they can be held in controlled atmospheres and conditioned with chemicals, such as ethylene, that keep them looking fresh far longer than I ever would have dreamed. The technical details of this process are now incredibly complex, but who can argue with success? Cut roses can now last as long as 16 to 25 days (compared with five days 50 years ago) and carnations can last 35 to 45 days.

FEED FOR FRESHNESS

Despite all the advances in the commercial side of the industry, the key ingredients and techniques that home gardeners need to keep flowers looking fresh are



Dr. Cathey and a young guest get a close look at one of his floral arrangements at church.

still basically the same as they were 50 years ago. These ingredients—the same ones florists provide in those little packets they distribute—are sucrose (table sugar) and citric acid.

That's why lemon-lime soda, which contains both those key ingredients, makes great cut flower food if you don't have one of those packets handy. This simple mix works because the sugars help supply the cut flowers with food, and the

low pH of the acid helps to keep the plant's vascular system unclogged and open for water and food uptake. With this food, the life of the flower's chlorophyll and retention of its colorful pigments will last for a longer period of time. Without it, the vascular system is open to attack by a variety of microorganisms and soon becomes impassable.

CLEAN MATTERS

Another important technique for extending cut flower life at home is to use clean, sharp pruners to cut your flowers and then immediately get the stems into a bucket of cool water and recut the stems underwater on an angle. This keeps the plant's cut stems from initiating natural defenses and clogging up with cells meant to protect and heal the cut surface.

Disinfect your pruners from time to time by dipping them in a 10 percent solution of household bleach in water.

The secrets for success with cut flowers at home wouldn't come as any surprise to John Hanford, but I wish he were around to see what has happened to his favorite roses. He would be amazed at how long they stand proud with straight stems, vivid color, perfect foliage, and fine fragrance.

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