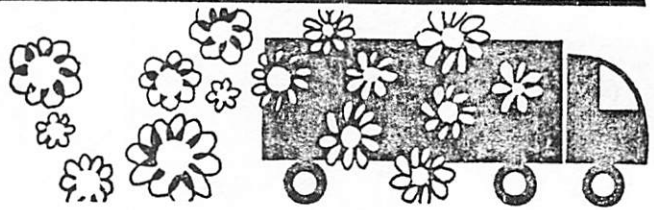


Flower Growing & Marketing



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Cut Flower Handling After Harvest

POST HARVEST
HORT. - OSU

There are many questions on how to handle each flower after harvest. Research has come up with a lot of different chemicals and procedures to increase flower life. There is a maze of useful information and even the research scientists find it difficult to agree on the best procedures. All will agree on the basic principles necessary for maximum cut flower life after harvest:

- 1-Temperature management of the flowers is the most important factor of all. Rapid cooling to remove field or greenhouse heat and keeping each product at its proper temperature and humidity during storage and distribution should be the first goal of all growers and handlers.
- 2-Basic flower quality has a lot to do with cut flower longevity. Quality is affected by production and environmental factors. Stage of maturity when harvested can have a major effect on cut flower life. Injuries from insects, disease, chemicals, gases, or mechanical, generally cause reduced flower life or consumer dissatisfaction.
- 3-Preservative solutions have been demonstrated to improve flower life, particularly if used by all segments of the industry in a "chain-of-life." Use of preservative solutions at the grower level can often make the difference between success or failure of flowers at the consumer level. The following suggestions for various cut flower solutions were developed by consensus of Dr. Anton Kofranek and Dr. Michael Reid at University of California at Davis, along with a visiting scientist, Dr. Yoram Mor, from Israel. This is part of a more extensive article that will soon be published in "Chronica Horticulturae," the bulletin of the International Society for Horticultural Science. No doubt, the suggested solutions may be changed by the committee next year, but it is the best agreement as of August 1980.

Table II. Preservative solutions for cut flowers.

<u>Crop</u>	<u>Bud Opening</u>	<u>Pulsing</u> (for 16-20 hrs)
Roses	None required unless buds cut very tight, then use 1.5% sucrose, 250 ppm 8-hydroxyquinoline citrate, 120 ppm 6-benzyladenine	3% sucrose, 320 ppm citric acid at 4°C and high R.H.

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Table II. Preservative solutions for 'cut Flowers. (CONTINUED)

<u>Crop</u>	<u>Bud Opening</u>	<u>Pulsing</u> (for 16-20 hrs)
Carnations	10% sucrose, 200 ppm Physan-20 ^R	10-20% sucrose, 200 ppm Physan-20 at 20°C
Chrysanthemum	2% sucrose, 75 ppm citric acid 25 ppm AgNO ₃	5% sucrose, 200 ppm Physan-20 ^R at 20°C and high R.H.
Gladiolus	None required, but very tight buds can be opened with the pulsing solution	20% sucrose, 200 ppm Physan-20 ^R , 20°C
Gypsophila	5% sucrose, 200 ppm Physan-20 ^R	10% sucrose, 200 ppm Physan-20 ^R , 20°C

4-Ethylene control is vital to the vase life performance of several cut flowers. A new post harvest treatment, known as "STS," can be used for pulsing carnations or in overnight preservative solutions at the grower level. The "STS" is a complex of one of two types of sodium thiosulfate combined with silver nitrate. An Article "Methods for Preparing and Using the STS Complex" by Michael Reid and Delbert Farnham has been published in the Spring 1980 issue of the California Cooperative Extension newsletter "Flower and Nursery Report for Commercial Growers."

Second Dutch Clock Flower Auction Meeting - September 18

Following the first auction meeting of June 18, (Mr. Tom Muller, United Flower Growers Cooperative, Vancouver, B. C., Canada) this second meeting will be held on Thursday, September 18 at 3:30 P.M. at Niedens Hillside Floral Company, Puebla Street, Encinitas.

This meeting will be divided into two parts:

- 1-Slide presentation (15-30 minutes) of European auctions and flower quality and variety by Seward Besemer, farm advisor.
- 2-Discussion and organization of interested growers who want to participate financially in the legal formation of a market cooperative. We hope to have a lawyer and other resource persons present who have experience with organization of farm cooperatives.

Farm Safety Meeting

A meeting on farm safety, including pesticide handling, for greenhouse and field flower personnel will be held in the Encinitas area from 1:00 to 3:30 P.M. on Thursday, September 25. This meeting is sponsored by San Diego County Farm Bureau. The program and meeting location will be announced later.