

- answering daily phone calls for all kinds of information--calls from growers mostly, but also calls from other states and overseas asking for information; calls from bankers, etc., etc.
- the same as above for correspondence. I send a lot of information to growers overseas, especially in Australia.
- writing a monthly newsletter with a mailing of 750 people
- occasional radio or television programming
- more frequently, my written materials are found in newspapers and national trade magazines
- writing of research reports, popular articles and shelf publications (185 in 30 years)
- wrote a chapter in a textbook
- proposed the idea, did a feasibility survey for the flower and plant auction
- speak occasionally to college classes, garden clubs, plant societies, service clubs, etc.
- occasionally present a research paper at a national or international science meeting
- a few dozen other things not worth noting.

# # #

STABY

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WHAT'S "STS" ??

It's hard to believe, but growers still ask, "What's STS?" STS stands for the chemical called *silverthiosulfate*. It was first used by Dutch researchers to prevent ethylene injury to cut flowers. STS was better than silver nitrate because STS was absorbed completely up the stem into the flower. STS is in the order of an industry "breakthrough" as its proper use during the postharvest period practically guarantees that flower sleepiness or flower drop (caused by ethylene) can be eliminated as problems in shipping and handling. In other words, if you grow and sell a crop subject to ethylene injury and you don't use STS, you're being sort of stupid! You're also being stupid if you use it on a crop that doesn't need it.

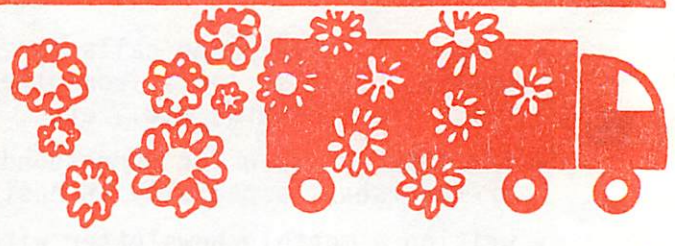
The cut flowers which have ethylene problems are carnations, gypsophila, snapdragons, sweet peas and possibly Sweet William. There may be others. There are also many blooming pot plants which benefit from STS (a spray application). Examples are Christmas cacti (all kinds), fuchsias, calceolarias and bougainvillea.

The simplest way to obtain STS is to buy the prepared liquid concentrate from a supplier. It is most often used at the low rate of one ounce per gallon of water for overnight and longer stem-water treatments. For quick or "pulse" treatments for 10 minutes or a couple of hours, STS is used at a rate as high as four ounces per gallon. For spray of foliage and young flowers of potted plants, STS may be used at two or three ounces per gallon. Each crop can be very specific in the way STS is applied.

The alternative way to obtain STS is to make it yourself from scratch. You must obtain the basic chemicals from a basic chemical supplier. The chemicals are: (1) silver nitrate ( $\text{AgNO}_3$ ), and (2) anhydrous sodium thiosulfate ( $\text{Na}_2\text{S}_2\text{O}_3$ ).

Besemer, S.T. 1986

# Flower Growing & Marketing



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## WHAT DOES A FARM ADVISOR DO?

There are flower growers who have known and worked with me for 25 years who still think I am an inspector with the County Department of Agriculture. That is not so. I am part of Cooperative Extension, University of California. This is a statewide arm of the University and has a cooperative agreement with each county. Except for a few "areawide advisors", most are assigned to a county with a specific responsibility. Each county supplies an office, cars, supplies, and secretaries for the program. Funding is about 30% federal, 55% state and 15% county. My responsibility is to conduct an education and research program for the culture and marketing of floriculture crops. I have been with the University of California for 32 years, and starting my 30th year here in San Diego County.

Joking remarks from industry individuals indicate I have a soft government job. As professionals, farm advisors rarely confine themselves to 40 hour weeks. Fifty and sixty hour weeks are not uncommon. So what do we do with our time? There is hardly a "typical" day since we get involved in so many different areas. Here is a list of typical things I have been doing in recent months:

- establishing field trials on weed control plus taking records
- calling on growers seeking information or help with problems
- attending industry committee meetings--Brown Snail, Pesticide Regulations, Floral Trade Council, Board of Directors of the San Diego Flower and Plant Auction, Education and Research Committee, etc., etc.
- attending San Diego County Flower Association general meetings
- conducting my own educational meetings (8 planned for 1986)
- taking foreign agricultural visitors on tours
- taking groups on tours and arranging local tours for national groups (SAF, ISHS, FTD, etc., etc.)
- working with the "CORF" committee to plan the annual grower short course

To prepare the liquid concentrate (or stock solution): --

1. Weigh out 11 ounces (320 grams) of anhydrous sodium thiosulfate. Another form of this chemical, prismatic sodium thiosulfate pentahydrate can be substituted. If so, use 16 ounces (480 grams) of this chemical.
2. Dissolve this in 2 quarts of water in a clean PLASTIC container.
3. Weigh out 3 ounces (80 grams) of silver nitrate.
4. Dissolve this in 2 quarts of water in a SEPARATE clean PLASTIC container.
5. Prepare the STS stock solution by slowly pouring the silver nitrate solution into the sodium thiosulfate solution (not the other way around). Stir rapidly as the solutions are mixed. Some browning of the stock solution may occur during mixing.
6. Store the STS stock solution in a cool place. Its effective shelf life is between three and four months.

Normally, STS is used as a separate treatment. It can be followed up with sugar and a biocide. Every carnation flower should be treated with STS solution, and especially during warm weather. If you have questions about STS, call your local farm advisor. (In San Diego County--619/565-5379)

#### HOW TO MAKE BETTER FLOWER BUNCHES

Grading and bunching flowers requires training and does become a special skill. A flower grader must be concerned with the goals of grading, and conscientious at all times. Unfortunately, the goals of each grower vary according to their marketing manners. Common industry manners are to make bunches larger (or upgrade) in slow demand periods and reduce bunch size (or downgrade) in strong demand periods. Many growers instruct their graders to place the shorter or crooked stems in the center of the bunch--now this is really cheating!

Most flowers are bunched by stem lengths, flower size, uniform color, maturity, healthy foliage and healthy flowers (free from all kinds of injuries). Stem strength, sleepiness (as with carnations) and other factors can be important with specific flowers.

In the case of "primary" flowers like roses and carnations, the idea of bunching by grades is to get all the stems exactly alike. Roses vary in their "openness" of flower buds. All the tightest buds should be bunched together; then the medium tight in a second group, and the most open buds in the third group. This should be independent of stem lengths. Of course, crooked stems, stems with "hooks", and blemished stems of flowers should be all put into a "junk" grade (your neighbors will love them and the PR will be cheap).

Although I will be outvoted, I have always believed that pompon chrysanthemums should be bunched in either 5 large stems or 10 smaller stems and these should be two different grades. I know, 10-ounce bunches are what everyone says they are, with varying numbers of stems. But who weighs their pompon bunches?

Orchids are fairly easy to grade. Basically, the flowers have to be spotless, and size and color and form of the flowers are very important.

Field flowers of the branching type are where a lot of grading and bunching problems develop. This group includes gypsophila, Geraldton Waxflower, leptospermum, and Diosma. There is definite blending of many sizes of stems and often a blending of flower maturities. Here again, as with pompons, I believe an A grade should contain a multiple of 10 stems, such as 20 good size stems, or 40 small stems, but each should have a definite conforming weight. In Europe, this is the way it would be done to satisfy the Dutch auctions. But I am not really saying we Americans have to be that strict. I am saying that we can improve the uniformity of our grades and bunches by doing some simple procedures.

### IDENTIFYING YOUR PRODUCT

My ordinary farmer hosts in Holland which I would classify as typical Dutch consumers don't speak about "roses" but they say 'Sonia', or 'Red Success', or 'White Butterfly'. They know most flowers by cultivar, and they know the proper Latin names of many potted plants and flowers. How does the typical floral consumer know these specific names? Through advertising, flower shows, gardens, magazine and newspaper articles, television, and other places where flowers are identified-- often by labeling.

Labeling wholesale bunches by cultivar likely does little good because the wholesalers and retailers seldom pass these labels on or display the names to their consumers. But labeling of all consumer bouquets and potted plants should be standard practice. People take a greater interest in products, like close friends, when they know them by name!

### UPCOMING MEETINGS

- (1) May 22, 1986 "NEW CUT FLOWERS" by our own Fred Meyer, Rancho del Mundo, Escondido. Fred will show us some of his own hybrids and selections which have been developed or brought from South America, South Africa, Australia, New Zealand, or the Mediterranean.  
PLACE: San Diego County Flower and Plant Auction, 6060 Avenida Encinas, Carlsbad.
- (2) June 6 & 7, 1986 "CORF" FLOWER GROWERS SHORT COURSE.  
All day, both days A great program with a timely variety of subjects, a field tour, and trade fair. Early registration saves money! CALL MARILU JOHNSON AT 619/753-5727.
- (3) June 24, 1986 WEED CONTROL IN FIELD FLOWER CROPS  
1:30 - 4:30 PM Dr. Clyde Elmore, Extension Weed Control Technologist, UC-Davis, will cover the weed problem and controls for the primary field flowers and answer specific questions on the secondary crops. This meeting is timed to coincide with the summer planting season.