REMEMBER

John Erwin
University of Minnesota

1) This September we had cooler and cloudier weather than usual. That means the following:

a) The pH of our media probably increased more than in previous years. We often start with a media pH of approximately 5.2. The media pH usually increases over time due to the high pH of your water (usually 7.8). After we reach a pH of 6.8 we have to acidify to maintain a pH between 6 and 7 for the remainder of the production time. This year many poinsettia crops were still at a pH of 5.5 in early October. The end result is that we have had to increase media pH with hydrated lime. Make sure you have soil tests done to see where you are at!

b) Ammonium levels have tended to increase rapidly this September among growers who use ammonium based fertilizers. This is primarily due to the cooler greenhouse temperatures we have had and the resulting slower rate of plant growth. Be careful to check your ammonium levels! Ammonium toxicity is characterized by a general decrease in the vigor of the plant, a general yellowing of the leaves starting on the leaf margin and a burning of the root tips. The best solution is to leach.

c) Growers have not been careful in maintaining their greehouse temperatures during September. Too many growers heat based on the time of year and not the need!!! The end result has been the reduction in the leaf number prior to flower initiation on poinsettias this year with many growers. This results in a decrease in overall plant quality. Because of the lower leaf number, some of your crops may seem shorter than usual. As a result, you may have to reduce your growth retardant applications and/or increase your day temperatures to deliver a higher DIF to your crop to achieve the final height you desire.

2) Watch for *Botrytis* problems on geraniums and roses. Apply Benlate as needed.

3) Remember that when we have unusual weather that your watering and fertilizing practices change. As a result, you will need to watch your media more closely. The reduction in watering this September has resulted in a number of major pH problems throughout the area.

4) Optimal poinsettia bract expansion occurs at approximately constant 72-74°F. Therefore, try to maintain day and night temperatures around these temperatures when the leaves which constitute your bract are expanding. Bract expansion usually occurs the last 2 weeks in October and the first week in November.

5) The optimal temperature for initiating Thanksgiving cactus is 68°F. Flowering will be delayed and/or inhibited entirely if night temperatures exceed 74°F.

6) The Easter lily crop is late this year. Most harvesting is going on 1 to 2 weeks later than normal. As a result, the schedules for forcing will need to be shifted. It is very important that you watch for premature sprouting this year. A late harvest or older bulbs tend to result in a greater potential for premature emergence. Watch your crop. Pop a couple of plants out of the pot from time to time to make sure that you do not have early emergence. If you do have early emergence, you will have to light your crop in the cooler to inhibit stem elongation.

Long 'rooting in' periods would not be a wise move this fall. Do not root in for more than 2 weeks. You will definately be asking for early emergence problems!

7) Based on the weather conditions and the condition of the bulbs, it appears as though the leaf count this year will be average, i.e. approximately 80 leaves after flower initiation. This will probably translate into an average forcing temperature of around 65°F.

8) Remember to fungicide drench your poinsettia and Easter lily crops this fall. It is critical that you drench your poinsettia crop with fungicides for *Rhizoctonia* and *Pythium* control prior to dropping temperatures to color your poinsettia crop up. It is equally important to drench your Easter lily crop prior to cooling.

9) Do not apply any ammonium based fertilizers from now until next spring! This is especially important on crops which you are growing in a medium which contains soil and if you are growing a crop at lower temperatures for extended periods of time.

Watch for *Botrytis* problems on geraniums and roses. Apply Benlate as needed.

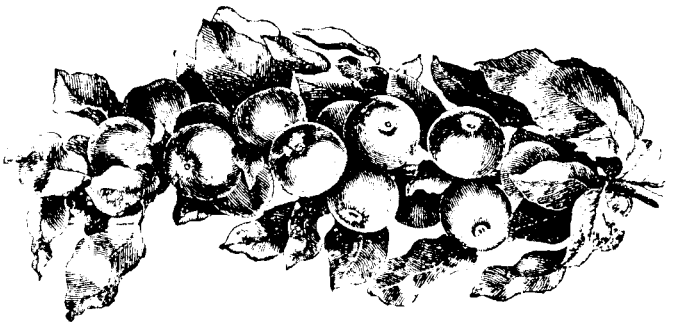
Remember that when we have unusual weather that your watering and fertilizing practices change.

Optimal poinsettia bract expansion occurs at approximately constant 72-74°F.

The optimal temperature for initiating Thanksgiving cactus is 68°F.

Remember to fungicide drench your poinsettia and Easter lily crops this fall.

This bulletin was compiled and edited by Dr. John Erwin, Assistant Professor and Floriculture Specialist, and Debra Schwarze, Extension Floriculture Assitant, Department of Horticultural Science, University of Minnesota, 1970 Folwell Ave., St. Paul, Minnesota 55108. Phone: 612-624-9703 or 612-624-0736, FAX: 612-624-4941. Opinions and opposing comments regarding the contents of this bulletin are welcome and encouraged. This bulletin is published in cooperation with the Minnesota Commercial Flower Growers Association and the University of Minnesota Extension Service. The bulletin is distributed to members of the Minnesota Commercial Flower Growers Association. Questions regarding membership in this organization should be directed to Mark Whitman, Len Busch Roses, Inc., 4045 Highway 101, Plymouth, Minnesota 55446. Phone: 612-478-6077.



Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Patrick J. Borich, Dean and Director of Minnesota Extension Service, University of Minnesota, St. Paul, Minnesota 55108.

MINN. COMMERCIAL FLOWER GROWERS ASSN.
MINNEAPOLIS, MN. 55404

BULK MAIL
U. S. POSTAGE
PAID
ST. PAUL, MN
PERMIT NO. 4170