New York State Flower Growers

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Secretary, Harold B. Brookins, Orchard Park, N.Y.

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SPECIALED SESSIONS

POTTING PLANTS AND BULBS

Moderators: Philip Kurlich Ed. Markham

Q. When and for how long should poinsettias be lighted?

Andreasen: Lights should be applied around the 25th of Sept. and turned off on the 10th-15th of Oct. The date that you turn the lights off is dependent upon when you want your flowers to be ready for sale. Those plants that have the lights turned off on the 15th will be ready for sale 5 days later than the 10th lighting. If you use a $60^{\circ}-65^{\circ}$ F temperature, Oct. 15th lighting, the flowers should be in excellent condition on the 20th of December.

Q. How long does it take to initiate and develop a flower on a poinsettia?

Andreasen: We don't know exactly the number of days for initiation or development. We do know that it varies with each temperature. Assuming a 60°F night temperature, which will produce the fastest flowering, after 40 short days or after Thanksgiving you can work in your greenhouse at night with no fear of destroying the bud set.

Q. Can temperature be used to delay poinsettias?

Andreasen: Yes! We know that a 50° F temperature will delay flowering or a 70° and 80° F temperature will delay flowering. Now, we don't want to use low temperature to delay flowering because of the disease problem. High temperatures may be used as a substitute for lighting. This has been tried successfully by one grower last fall. He raised his night temperature to 70° F on Sept. 25 and dropped the temperature to 60° F around Oct. 10. The results were the same as using lights. The work we did on poinsettias this past fall showed that the higher the temperature, the shorter the day is needed to make the plant initiate flowers. Therefore, except for the fact that high temperature may cause a stretch, temperatures may be substituted for light.

Q. What is the effect of high temperatures after the bracks are formed?

Andreasen: First of all, high temperatures will reduce the color intensity of the bracks. Secondly, high temperature will cause the internodes of the brack to stretch and produce poor brack form.

Q. What happens to the Urea-formaldehyde after soil sterilization?

Andreasen: We don't know! In fact, we don't know what the rate of nitrogen release is at the various temperatures. It is an organic fertilizer and breakdown is dependent on bacterial activity which in turn is dependent on temperature. We do know that the material is not acid stable and is therefore, broken down more rapidly in acid soils.

Q. As we discussed this morning during the tour, the cyclamen require a high temperature and then a

cool temperature to get them into bloom. How can this be done?

Andreasen: The problem with our area is that we get the warm temperature, but not the cool temperature. We do feel that mist may be the answer to getting the cool temperature. This will be tried in the coming year:

Q. Can sawdust be used in a potting mixture?

Bing: Yes, but have to be careful, because bacteria break down the sawdust and in the process use up the nitrogen in the soil; therefore, it is a tricky material to work with. Peat moss would not cause this trouble.

Q. How can the stretch in poinsettia cuttings rooted under mist be reduced?

Langhans: One can use smaller sized cuttings to start with and be sure that these cuttings are receiving full sunlight.

Q. What are the best materials for killing cyclamen mites?

Naegele: 1-2 pts. Endrin plus 2 oz. of Triton TX100 to 100 gals. water. This should be applied 3 times at intervals of 3 weeks. Kelthane at the rate of 1:800 can also be used.

Q. Should Sodium Selenate be mixed with the potting soil?

Naegele: No! It is extremely dangerous for the operator who works with his hands in the soil.

Q. What is the best method to control aphids on Easter lilies?

Naegele: Systox (1 pt. 23% Systox per 1,000 sq. ft. bench surface) watered on the pots has apparently worked well for some. Also, some investigators and growers have presoaked the bulbs before planting. Adequate control can be obtained by regular aerosoling or spraying with lindane or malathion.

Q. Is Systox safe to use on all crops?

Naegele: It has its widest safe use on mums and carnations. There has been some report of damage on cyclamens.

Q. What is a safe spray for mites on Kalanchoe?

Naegele: Kelthane at the rate of 1 pt./100 gals. or 1 1/2 lbs. of wettable powder/100 gals. will give good control. Surprisingly, no injury has been reported from the use of this material on Kalanchoe.

Q. Is it necessary to use a wetter with Endrin for cyclamen mite?

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Naegele: For best control use a wetter with Endrin on cyclamen, Saintpaulia and gloxinia.

Q. If you can't use steam, what is the best chemical for sterilization?

Williamson: Generally, methyl bromide is the best treatment. There are some plants that are very sensitive to methyl bromide. Carnations and salvia are very sensitive. The fumes have damaged leaves of geranium and lilies. It is to be noted for this material that weed seeds can be killed with a dosage of 1 to 2 lbs. /100 sq. ft., but for a thorough job of fungus eradication 3 to 4 lbs. /100 sq. ft. is essential.

Q. Will this new material PCNB or Terrachlor used as a drench kill all root rotting diseases?

Williamson: No! This is a very important point. Terrachlor is an excellent material, but it is very specific. Of the fungi common with pot plants it kills only Rhizoctonia. Soil organisms such as Pythium, Thielaviopsis, Fusarium, etc. are not killed by Terrachlor. If you have a problem with Rhizoctonia, 1 lb. of Terrachlor per 100 gal. for 400 sq. ft. drenched on the soil, will do an excellent job of eradication.

Q. What is the best control for botrytis on Cyclamen?

Dimock: Improve air circulation by staging the plants on inverted pots. Ventilating to improve air circulation and reduce relative humidity. Try spraying crowns with zineb (1 lb./100 gals.) or dusting with 5 to 10% zineb dust. It has never been proven conclusively that a spray or dust will do the job, but it does seem to help. Treat every 10 to 14 days.

Q. Is there any way to spray without a residue?

Dimock: Dusts are usually less conspicuous and can be washed off easier. Additional spreader in a spray also helps.

Q. What do you recommend to reduce geranium diseases?

Dimock: First, keep only the best plants as stock. Grow all stock plants in pots and continuously rogue. As soon as a plant has any signs of disease, throw it out. Break all cuttings with your fingers wherever possible. Some varieties have to be cut because of size, but then use 2 knives. Alternate knives after every cut and keep one knife in 70-90% alcohol. Use only sterilized media and benches for propagation. Sterilize all pots, benches, and soil when potted up. If you carefully carry out this program and rogue poor plants at any stage, you will gradually build up a healthy stock.