

SOME OF THE CURRENT PROPAGATION CONSIDERATIONS WITH THE POINSETTIA

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The present techniques used commercially for propagating poinsettias from softwood varies considerably from one part of the country to another. For all practical purposes, it can be said that propagation is practiced either in raised beds or in one of three types of pots — clay, plastic or transplanter peat. The media regardless of what system is being used will range from sand, sand and peat, sand and perlite, perlite alone, peat and perlite, peat and soil or soil and perlite, usually on a basis of 1 to 1 ratio by volume.

Various root-promoting materials are used, but it must be said that the greatest success is usually with materials of mild strength. There have been many cases where strong concentrations have caused unusual swelling, cracking and discoloration of the stem with unusual elongation between the nodes as well as petiole distortion in the form of a corkscrew effect. Various factors, such as daytime temperature and humidity, will play a role in whether or not a given preparation is satisfactory or not.

The nutritional level of the stock plant is also quite important. Should a plant be on the deficient side in N, P or K, it would be normally expected that the cutting would root much slower. It has often been suggested that when the fertility level is too high it is possible that the susceptibility to various unexplained soft-rots is more pronounced. There have been reports from various parts of the country the last few years regarding an unusual soft rot which amounts to complete disintegration of the stem below the media level. This condition usually starts after the third day and is complete prior to the seventh day. Often this unexplained condition occurs at a time of daytime temperature above 85°, with high light intensity during the long days of summer when the humidity is high. Conceivably more alert sanitation procedures could minimize this problem. The disease control on poinsettia propagation is most important and a complete sanitation program is mandatory.

There has been a certain amount of discussion relative to the usefulness of cutting dips but successful propagators are using Agrimycin and Morsodren with good success. The material LF #10 is a formulation, when used as a cutting dip, can like all other chemicals, cause difficulty when used stronger than the manufacturer's recommendations. Terraclor, as a drench on the cuttings in the propagating area, should be used at no stronger rate than 1/4# per 100 gallons. Several years ago, the recommended rate for Terraclor was 1 1/2# per 100 gallons. It has slowly been reduced now to 8 oz. per 100 gallons. There is some thought that overdoses of Terraclor have contributed to blindness on certain blooming crops of poinsettias.

Poinsettias normally can be kept vegetative throughout the year by the use of accepted lighting technique and this practice is generally satisfactory for the regular commercial varieties. The normal propagating season on poinsettias is from June through September.

Mist propagation is now accepted as the standard procedure for propagating poinsettias. The difficulties occur sometimes because propagators have not used the proper timing cycle and the cuttings have been kept too wet. It appears the best rule of thumb, regardless of what system is used, is to keep a light film of moisture on the foliage at all times during the daylight hours. Too much moisture, of course, can enhance the possibility of rot and will certainly elongate the cuttings out of proper proportion. The water quality used, naturally, has a great influence when using the mist system, and the poor quality Colorado River water which is unusually high in total soluble salts is responsible at times for marginal foliage burn.

A factor that has not been given much consideration until recently is air pollution. No doubt, some of the unexplained reasons for the erratic rooting of poinsettias, unnatural leaf loss and similar problems can be correlated to air pollution. There are just too many unexplained problems in the poinsettias propagating program to eliminate the possibility of air pollution being a real factor.

Most of the popular present-day commercial varieties are mutations. There is a certain amount of interest in some new seedling varieties. These have to be handled in an entirely different way. One of the principal problems with many of the new seedlings is that they will form flower buds at odd times of the year. This of necessity requires an entirely different approach to the total handling of the plant material.

In the propagation program it appears that it will be a matter of taking cuttings from shorter shoots, that is, shoots that have not formed as many leaves. There seems to be a correlation between numbers of leaves and the potentiality of forming a flower bud. There is also the possibility that at temperature below 60° the tendency to form a flower bud might be enhanced. It is a known fact that the normal lighting technique to keep poinsettias vegetative during the short days of the wintertime will not always keep these seedlings vegetative. Much research is being conducted at the present time in various experiment stations, universities and commercial establishments in an effort to find out more about this particular annoying problem.

It seems that whenever a seedling has some Ecke White in its genetic make-up, it will rot much faster and much easier. Certain new seedlings have very limited latex. It appears that whenever a plant has no latex at all or a smaller amount than normal, it is much more susceptible to attack by any of the spider mites and it is also a curious thing that certain new seedlings also attract various new unidentified types of worms.

Generally speaking, working with some of these new seedlings is a real challenge to the poinsettias propagator and it appears that a great deal is going to have to be learned before this new crop of poinsettia seedlings can be handled without any problems.

PROPAGATION OF HYDRANGEAS

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The two crops I would like to discuss with you are African Violets and Hydrangeas. Our production of Violets is a six months' program, and of the six months three and a half months are in the propagating house. The steps we take in preparing this house are:

1. Heavy shade in summer with cold-water paint. Winter rains will reduce the shade in the winter, but the glass is never allowed to become bare.
2. Sterilizing with steam all propagating mixes, flats, etc. Good sanitary house keeping procedure should follow.
3. Humidity is kept high by wetting walks and under the benches, but never on leaves.
4. Cuttings should be approximately three inches long and spaces sixty cuttings per flat, which is 23" X 41". They are left in flats until plants are large enough to shift into four inch pans for finishing.
5. Temperature -- 68°, night
80°, days

Water temperature and house temperature never vary more than ten degrees.

Hydrangeas fit well into our program, and will work the same in most flowering pot plant ranges because they do not have to be put into greenhouses for forcing until January. They force easily for Easter and Mother's Day. Our methods of handling Hydrangeas are:

1. Cuttings taken right after Easter. The propagating house has to be heavily shaded.
2. Steam sterilize rooting medium, flat, etc.
3. Mist system for approximately two and a half weeks. Ready for potting in three and a half weeks.
4. Stub cuttings preferred.
5. Potted into 4" pots in May.
Pinched in June.
Field in September.

In order to grow our greenhouse crops efficiently and to maintain quality, it is very important to have planned production of a good assortment of crops so we may keep experienced help twelve months of the year. For example, during the slack Violet season we find Gloxinias and Aphelandra do well under