

- 2 Enight, L. J. 1958 Response of *Magnolia grandiflora* and several species of Berberis to root promoting chemical treatments Proc. Pl Prop Soc. 8:67-69
- 3 March, S. G. 1962 Excerpts from question-answer period Proc Pl Prop. Soc 12:127

MODERATOR TUKEY: Our next speaker comes from Oklahoma. Mr. Henry Walter is from the Park Department, Oklahoma City, and he will talk about "Propagation of *Hibiscus rosea-sinensis*".

PROPAGATION OF CHINESE HIBISCUS

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The Oklahoma City Park Department yearly grows about 3000 Chinese hibiscus plants which are used as annuals in its parks. Being not only concerned with the propagation and production, the behavior of the plant in the parks is also of primary importance. After testing well over 150 varieties of Chinese hibiscus, a few have been selected which are produced in the above mentioned quantities. Ease of propagation, vigorous growth, abundance of flowers, as well as all-summer performance, are the key factors used in variety selection. Over 100 varieties are still grown in the display gardens and the testing continues as new selections become available. Most of the so-called "show varieties" are produced on a two year basis; that is approximately nineteen months from a cutting to a planting sized hibiscus. We will limit our remarks to the varieties that are produced in one growing season.

Washed sharp sand is used as a rooting media. This is placed in a well drained propagating bench with thermostatically controlled bottom heat. Tests seem to indicate that a mixture of 1/3 sharp sand, 1/3 peat moss and 1/3 Perlite gives excellent results. Additional tests will be conducted with this media. Cuttings are made in September. The condition of the cutting wood determines how early in the month propagation is started. Tip cuttings are used and these are usually 6 to 8 inches long, depending on the vigor of the plant. All flower buds are removed. Usually about 2/3 of the lower leaves are stripped and the final cut is made just below a bud. Wounding by removing a one inch sliver on one side of the cutting promotes a better root system as these plants are callus rooting. The cuttings are treated with Hormodin No. 2 powder prior to insertion in the sand where they are packed tightly in place. The use of Hormodin No. 3 is often desirable on some of the more difficult to root varieties. Tests are also being conducted with Jiffy-Gro which to date are promising. It is usually necessary to cover the cuttings with paper during the day for a few days. This is especially true if the weather is extremely bright and hot. A minimum temperature of 65 de-

grees is maintained in the propagating bench. Very often the cuttings are rooted before it is necessary to apply this heat. Frequently short cold snaps necessitate artificial heat. The effects of an application of Ferti-lome Root Stimulator (16-36-11 plus some trace elements) when rooting first starts is being investigated, and while the results are encouraging, not enough data has been accumulated to warrant a recommendation one way or the other. Those varieties that are grown in large numbers usually root in from eight to ten weeks at which time they are potted in 3½" pots in a potting mixture of 3 to 4 parts of loam and one part of Canadian peat. The tops are pinched at potting time. The young plants are grown in raised benches with a minimum temperature of 60 degrees. By mid-January the young hibiscus are ready to be shifted into 5" pots in which they are carried until planting time, the last week in April. The growing plants are pinched four or five times as new growth reaches a length of 2 to 3 inches. This insures well branched stocky plants that produce a good crop of flowers all through the growing season. Once the plants are in 5" pots, and incidentally they are well spaced on the bench, they are fed with liquid plant food approximately every four to six weeks, depending on how they are developing. It is realized that the cost of producing plants of the quality described would not be profitable for a commercial grower, but in park work the Chinese hibiscus in Oklahoma City is an excellent choice and will give a good display until it freezes, which is usually about November 1.

Hibiscus can be successfully veneer grafted, and this method is desirable when one or two scions of a new variety are obtained. They are handled in a grafting case the same as magnolias, hollies and junipers. T-budding can also be employed, but it takes some time to develop a usable plant by this method.

The Chinese hibiscus lends itself to growing as standards and in areas where they are not killed by freeze, these make wonderful accent plants. Interesting and conversation pieces can be secured by T-budding several varieties into the top of a standard. Best results are obtained if the terminal of the standard is cut out once it has reached the desired height and the budding is done on the resulting side branches. One caution — be sure that varieties selected for budding are of about equal vigor as a strong growing variety can often dwarf the weaker growers on the same standard.

MODERATOR TUKEY: At this time we have an opportunity for questions on the propagation of hibiscus, magnolias and viburnums.

MARTIN USREY: Have you compared grafting and budding of magnolias with the rooted cuttings? We bud and graft ours in California.

RICHARD STADTHERR: No, we have not made any comparisons. We feel that the rooting of cuttings is much more eco-

nomical than budding and grafting. Also, you avoid the problems of stock-scion interactions by the use of cuttings.

MARTIN USREY: We find that we have better and faster results with our plants when they are budded and grafted and when we grow them from softwood cuttings.

VOICE: I would like to ask John DeVisser about his experiences using the peat pot. We have had very good success with it.

JOHN DEVISSER: This has not been only our experience but a lot of the local people have had similar results. If you do not rip off the top of the peat pots when you plant them out in the field, the sun will heat the pots and damage the root system. Also, the roots do not seem to go through the pots and the roots just do not look healthy. The performance of the plants in peat pots was not equal to that of the plants that had been grown in clay pots.

JIM WELLS: I believe your problem with the peat pot is that you treated the peat pots the same as you treated the clay pots. You cannot do that. You have to learn how to handle the peat pots or jiffy pots in order to get good results. What works for one will not necessarily for the other.

CASE HOOGENDOORN: Does it make any difference as to where you obtain your peat pots? There are quite a number available and I question whether they all perform in the same way. We have had one batch of peat pots that after the plants were in them became covered with a white mold. What do you make of that?

PETE VERMEULEN: We have had the same experience, Case, and although it is a little frightening, we found that it did not effect the plants in anyway. Some years we have it and other years we do not. We have not had it the last few years. I would like to make a comment on Mr. DeVisser's problem with the peat pots. I do not believe that the problem is one of heat, rather I think it is evaporation. The rim of the peat pots sticking above the soil acts as a wick and all of your moistures evaporated out of the pot. If you plant the pot deeper so that the rim is below the soil level, you will not have any problem.

MODERATOR TUKEY: Our next speaker comes from Pennsylvania, The Conard Pyle Company, and will speak on a complete system for producing rhododendrons. He is Mr. Richard Vanderbilt.