

TECHNICAL SESSIONS

Thursday Morning Session

October 15, 1964

The Fifth Annual Meeting of the Plant Propagators' Society, Western Region, convened at 8:00 A.M. at Hotel El Rancho, West Sacramento, with some opening remarks by President Bill Curtis. He then introduced Bob Boddy, Vice-President in charge of program.

MODERATOR for morning session: Dr. Howard Brown.

TEXAS TIPS

JOHN B. ROLLER

President, Eastern Region

International Plant Propagators' Society

At the meeting of the Eastern Region in St. Louis last December, it was decided that since the visiting presidents of the respective regions were more or less a necessary evil, they should do a little something. It provides a reason and an alibi for wanting to come and visit the meeting of the Western Region. Bill Curtis suggested for me a topic titled "Texas Tips." Now, coming to California to give tips on plant propagation and production is like going to Detroit to tell how to build automobiles because California is considered to be a leader in this field. So it caused considerable thought as to what I could say that would be helpful. I came up with two or three suggestions that I hope you will find interesting.

California sends nearly 3 million plants annually to Texas. Among the many varieties sent there are hibiscus, particularly tree hibiscus. Now the tree hibiscus that I noticed in greatest quantities were not necessarily the most beautiful varieties and were on their own roots. I wondered why the best varieties you had were not either budded or grafted onto vigorous upright growing varieties.

I have a few slides to show how this can easily be done. The first slide shows the first step in grafting hibiscus. A simple wedge graft is inserted about 4 to 5 feet on the stem of the understock and tied with a conventional budding strip. The next slide shows a polyethylene bag placed over the graft, gathered tightly at the bottom, and a twistem used to fasten it tightly. Sufficient air can be forced in the bag to prevent it from falling around the graft and possibly injuring it or pulling it from its proper position so that a good union can be made.

The next slide shows a paper bag slipped over the poly bag and stapled on to provide the necessary shade if the grafting is done outdoors; if done under lath shade, the paper bag is not needed.

After the union is made and the graft is ready to grow, the poly bag should be loosened at the bottom to permit air to enter. Or a hole can be torn or cut in both bags in such a position that direct sunlight cannot hit the graft until it has hardened up somewhat, a matter of 3 or 4 days. Bags can then be removed entirely.

The next slide shows the very simple and well known technique of budding. Budding is in my experience the better method in making tree form hibiscus. They seem to grow off faster and are easier to shape. There is only one tip in budding hibiscus to be really successful. The bud must be placed in a tender, growing part of the plant. If it is set on wood that is too old there is a tendency for a heavy corky callus to form that pushes the bud out and union is not made. This slide shows the bud tied with a budding strip as is usually done. After union is made the top is removed usually in about two operations. Side limbs below it are removed about $\frac{1}{3}$ to $\frac{1}{2}$ at a time so as not to force the bud to grow as rapidly. It is weak and must be supported.

Now, so many times in past meetings of the Plant Propagators' there has been much discussion as to the merits of various mist nozzles, discussion of the amount of water needed and, also, how much would be fatal. Some of us get the impression that it does take considerable sums of money to set up the apparatus to successfully propagate plants under mist. It involves time clocks, electronic controls, and decisions as to which of many brands of nozzles to purchase. We over-complicate our problems many times. This slide shows an unique set-up that is extremely economical, extremely simple and very effective if you have a media that will permit its use, pine sawdust. This is a rainbird 25 sprinkler. Underneath this one sprinkler 200,000 plants per season can be propagated, possibly 300,000 plants in California's longer season. These cuttings are stuck 200 per flat in pine sawdust, at least 3 years old, with the flats set upon pallets to provide good drainage. In effect, this gives intermittent mist. Total water volume does not exceed some of the conventional nozzles required for the same number of cuttings. It also permits propagation of desired plants when possibly existing facilities are loaded or inadequate since it can be set up very quickly.

It is painful for the nurseryman to spend his good money to destroy plants that are overgrown and are in the way. The next slides will attempt to show how a potential loss can be turned to a profit. The potential here is just as great as your imagination and ingenuity. (Slides illustrated the practice of pruning evergreens that are old and ready to be destroyed into bizarre shapes). Incidentally these plants sell for two to three times their values before they were messed up, so to speak. They transplant well because the balance between foliage and root systems is good.

Thank you for your time and it has been a real pleasure to visit and talk with you.

[*Editor's note:* Mr. Roller left the meeting at close of talk. Following comments were from a later questions and answer session.]

DR. WALTER LAMBERTS: Mr. Roller made the statement that the Hibiscus could be grafted and budded on root stock and I got the impression that this could increase vigor. What was the control to compare increased vigor and why will it do it for Hibiscus whereas it will not do it to any marked degree for roses?

DR. BROWN: He was talking about standard hibiscus, and perhaps he meant that it would not be more vigorous as a result of the budding or grafting, but certain stocks would make the standard quicker and then you graft the desired variety on to that. We've done a little work on the hardiness of Hibiscus at the college. We're in an area where Hibiscus is marginal for some sections of the campus even. We find that if we use the variety Agnes Galt as a root stock, then we can graft or bud some of the Hawaiian varieties and the Florida varieties that normally would not tolerate our winter temperatures. It seems to impart a certain hardiness for if we do get a severe frost that kills them back, it kills them only to the graft union; and tree hibiscus can be budded or grafted again that same year and you don't lose the entire plant.

MR. RALPH PINKUS: I asked him a similar question. He said that he used Anderson Red as the understock because it was so very vigorous. It didn't give any thing to the top but it provided that long stalk. He was growing standards four feet tall until he got the Anderson Red up high and then he would top-work another variety on top just to get the height. He wasn't trying to improve that variety, just trying to get it up in the air.

MR. STANLEY SPAULDING: I would like to point out a problem on the tree Hibiscus that develops from a semi-dormancy which is induced by a cool spring season. The top of the plant becomes quite dormant and with the resurgence of growth the lower buds on the stem are activated. The plant is no longer a standard as it grows into the spring of the year. I might compare this with the problem of developing oleander standards. However, with oleander we have suckers from the base of the plant. From the Hibiscus, the buds along the stem come to life and debudding is necessary.

MR. E. J. JELENFY: Some mention was made by Mr. Roller on sawdust for rooting mediums. Would some one like to comment on that please? How much used, or how much work has been done with sawdust?

DR. BROWN: Would anyone in the audience care to comment on this?

MR. DON DILLON: We've tried this with some of the citrus

cuttings in flats, not in pots. One problem is roots, so many roots you can't get them apart.

DR. BROWN: Was this redwood sawdust, Don?

MR. DON DILLON: Redwood sawdust, untreated, just off the pile, thrown in the flats.

DR. BROWN: So the problem was overrooting almost; this might be corrected by proper timing. I might mention too that some people have recorded an antibiotic quality in sawdust as a rooting medium. This of course would be very desirable from the standpoint of rooting cuttings here because it cuts down on the disease.

MR. ART MYHRE: We tried some easy-to-root rhododendrons in fir sawdust and they made wonderful roots, nice white roots, but you have to have the right nitrogen combination in the medium.

MR. STEVE FAZIO: Most of our sawdust from Arizona comes from the Ponderosa Pine, and in some of it having a high pitch content we did run into a toxicity problem. Some batches we would get excellent results. Those with a high pitch content, we did run into a toxic condition.

DR. BROWN: In regard to the redwood, some growers recommend leaching it very heavily before using it, yet Don Dillon reports no bad results from taking it just the way it comes from the saw mill.

DR. WILLIAM LIBBY: My comment comes from reading the Australian literature yesterday. They were commenting on pine sawdust. They mentioned toxicity in the first year and very favorable results after letting it rot for a year.

MR. EARNEST JENSEN: I think one thing that may be we are overlooking about John Roller's setup is the fact that he used fairly copious amounts of water and provided for excellent drainage through the sawdust which might be part of the answer to why he didn't get into trouble. In that particular area they'll have a mixture of soft wood and hard wood in their sawdust.

COMPARISONS: EUROPEAN AND AMERICAN PROCEDURES IN HORTICULTURE

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With the enthusiasm of "Youth" and the optimism of a "Freshman," I started on my sabbatical leave with the idea of comparing "Horticultural Procedures in Central Europe with those in the United States."

My colleagues had given me names and addresses, and by contacting the Ministeries of Agriculture and Education, I was able to make appointments and have interviews at 28 schools,