RALPH SHUGERT: Ladies and gentlemen, before I start my talk I would like to compliment Mr. Martens on probably one of the finest presentations on a plant group that I have ever witnessed—ever been fortunate enough to hear. A tremendous presentation.

PROGRAMMING PROPAGATION RALPH SHUGERT

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One day several weeks ago I had an opportunity to reread the Proceedings of the Seventh Annual Meeting of the National Association of Propagating Nurserymen which was held on June 23, 1926 in the Kentucky Hotel, Louisville, Kentucky. This was the Proceedings of the first meeting, printed and recorded for this astute organization, and showed the interest in plant propagation, as well as the comraderie of propagators some 45 years ago. There were several items of fascinating interest from this meeting and one that immediately came to mind was the adjournment at 11:00 P.M.! Apparently even in the earlier days, plant propagators just did not give up but carried meetings until the last hour. There was also comment regarding planning being relative to practicability, and a direct quote from Professor A.C. Hottes points out this fact.

"Asparagus sprengeri, a common florist plant, as all of you know, was grown in a few garden conservatories for years before anyone thought it might be of value. So many things in life have value as soon as someone has brains enough to see the value in them."

And so we have planning from the viewpoint of creativity and the value of various plant items is there if it will fit into our particular scope of operation. Professor Hottes also made some interesting comments to conclude his talk and I think it is relative today in our much faster moving society and quite apropos.

"I think it is most likely the personal contact you make in places like these meetings that gives you the emotional thrills. You go home thinking that you have had a mighty fine time in spite of everything else that has been wrong. Our lives, then, ought to be practicable, scientific, and emotional."

Perhaps these introductory comments do not pertain to specific programming for propagation, but I did think that Charles Hess might be interested in the concluding sentence of Professor P. W. Zimmerman, then of the Boyce Thompson Institute. Recall please that this was uttered in 1926:

"When the material is properly handled, practically any plant type can be grown from cuttings."

I am sure that virtually everyone in this room today would certainly agree to Professor Zimmerman's astute comment.

So now to the topic on hand, that of Programming Propagation. In reviewing the Proceedings of the I.P.P.S., a habit I cultivate several times each year, discussion on propagation planning is strangely lacking. It is true that each of us engaged in common endeavors is directed by the uniqueness of his individual company. My brief remarks today will concern my company, Spring Hill Nurseries of Tipp City, Ohio which derives some 82 percent of its revenue from the sale of plant material through mail order and cash and carry sales. Each of us are directed in our planning by our own business philosophy. At the Ninth Annual Meeting of the Western Region in Fresno, California, Ralph Pinkus spoke of his planning operation in Texas and, while it is certainly far different than our own, the basic precepts are exactly the same. There also was a comment by another Society member who answered his own question, "How do I know how many plants to grow?" in Volume 19 of our Society Proceedings. There isn't a hard, fast rule, in my opinion, as to planning because it is going to vary with individual company objectives. The propagation planning at Spring Hill is simply predicated on three basic guidelines:

- 1. Previous season's sales, the history of sales information that is compiled by weekly computer reports and terminated with one final sales season report.
- 2. The so-called new plant; this would include recent plant introductions or plants new to our mail order catalog although they may have been introduced many years ago.

and finally,

3. A listing of plants used in other previous catalogs, but omitted for one reason or another due to lack of sales, shortage of supply, and many other factors.

In a nursery community operation handling many varieties of plants, in many sizes, the computer report is almost mandatory. It is certainly expensive, but the immediacy of data information is extremely vital. For example, at Spring Hill our very capable propagator, Mr. Andrew Brumbaugh, can look at a Sales Analysis Report from the previous season, either spring or fall, and determine the propagation scheduling for the coming season. Our reports are set up to give us the following information: catalog number, name of variety, size, sales for the previous week, to-date sales, projected sales (based on the factor that we feed into the computer), last year's sales, the projection of sales from the previous week, wholesale sales, purchased inventory, stocked inventory, and then the last two columns

give us again the projected sales and an end balance. The end balance column is merely the difference between the purchased and stock inventory, less projected sales and wholesale sales. This enables us to know if we are going to have enough items of a variety and size for shipment. It is merely a plus or minus showing a surplus or a deficit in a certain plant. While this is not pertaining necessarily to planning, we also receive vital information on a report given at the conclusion of each season, spring and fall, which enables us to review the replacements and shortages in every item and in every size in the catalog. We enclose a form in every shipment allowing a client to make comment on plants received. These topics cover such things as poor quality, dead on arrival, dry roots, shipped late, etc. We feel that this enables a customer who is not happy upon receipt of shipment to take immediate action and this enables us then to promptly satisfy a customer and bring them back into the fold. The only reason I mention this replacement report is that this enables the plant propagator to carefully study those items which have high replacement percentages. In our particular mail order catalog, reviewing some 1,200 plants and sizes (for example, a particular plant listed in five sizes would be counted individually), our over-all replacement percentage, reported, was 3.01%. If this figure is used as a norm and we find a plant such as Cherokee Dogwood with a replacement percentage of 10% or 12%, then we must take some steps to reduce this unprofitable percentage factor. This can be done with improved packing techniques, or perhaps a better hardening off process, prior to the ultimate distribution of this plant It is a valuable tool for the propagator, because if he is planning to stick 1,000 cuttings to bring off 400 saleable plants, and if his replacement percentage is 10%, then he will naturally, of course, increase his initial sticking. The various reports also enable the propagator to schedule one, two, and three year's production. For example, there could well be several mail order items that would be of sufficient size, if held two years in a mist bed, being hardened off the last six months The harvest would then be from the mist bed rather than from the rooted cutting lined to the field for a two or three year period

Unquestionably at this time there are, no doubt, several of you in the audience saying that this is all well and good to have computer reports, but my operation does not warrant an overhead investment of this nature. I would be the first to agree! The computer fits any business only to the extent of its logic in cost and the data that one wishes to derive from it. It is an old saying, but certainly very true, that the computer is only as good as the data that is fed to it. The only thing the previous comments have pointed out, or at least attempted to point out, is the importance of record keeping. There are very, very few plant propagators who do a sufficient job in keeping records. I think it is vital and, in fact, almost mandatory that we keep careful,

careful records from the time we take the cutting until the time that plant is harvested for sale. We all have been exposed to the individual who invariably receives a 100% stand on any batch of cuttings he sticks, any grafts he might make, or any buds in the field. All of us in this room know, of course, that a 100% catch across the board is an impossibility. We must know the shrinkage from the time the cuttings are stuck in the bench until the time that block of plants is ready for harvest. These are the percentage figures that are vital, so I urge all of you in planning propagation to put record keeping at the top of the list. Experiment, inquire, and investigate the techniques and procedures that are used at other nurseries. There is also a good possibility of borrowing an idea or two on record keeping from concerns outside our own nursery community. The mere fact that we have a so-called perishable item, and that we might be anywhere from two to ten years away from harvest is immaterial. We must, good friends, and I cannot stress this strong enough, have ample data to support us when we plan next year's propagation. If we have a good history of past performances of particular plant varieties we are headed on the right track. I cannot accept the negative attitude, which I have heard, in that there is no need of keeping records because something could happen to that particular block of plants and the records would be meaningless. It is true that so-called "Acts of God" can occur, but it certainly is not an economic nor a reasonable approach to a very scientific industry. There was a sentence that struck my eye in a recent newsletter which said, "Drowning problems in an ocean of information is not the same as solving them", and I think that this quotation is certainly applicable in this regard. No one can stand at this lectern and tell each of you how to plan your propagation. As I mentioned earlier, it is going to vary with each individual company, dependent upon management's goals. But each of us, as plant propagators, whether we are employee or employer, have an obligation to our parent organization to fulfill their production requirements. Some of us will do a better job of this than others, but the ones who are reasonably successful will be those individuals who have labored hard to do the best job possible, and at the same time do a better job in record keeping and, in the interpolation of the data, which these records afford them.

And now to sum up the brief remarks that have been uttered, I am quite aware that I have outlined nothing particularly specific for anyone to take home from this meeting. But I do hope that I have been able to at least motivate some thinking to the extent that we all must do a better job in reducing costs, and trying to grow the finest plant humanly possible. Some of the words uttered by Samuel Taylor Coleridge, one of the great gifted poets of the English romantic movement in the early 1800's, echoed some philosophy that has always been quite interesting to me.

"As a fruit-tree is more valuable than anyone of its fruits singly, or even than all its fruits of a single season, so the noblest object of reflection is the mind itself, by which we reflect. And as the blossoms, the green and ripe fruit of an orange tree are more beautiful to behold when on the tree, and seen as one with it, than the same growth detached and seen successfully, after their importation into other country and different climate, so it is with the manifold objects of reflection, when they are considered principally in reference to the reflective power, and as part and parcel of the same."

What Mr. Coleridge is saying here in his philosophic treatise is, of course, that we need a connection between the various facets of our life and, in this same light, we need the communication and, most certainly, the connection between production and sales. This can be manifested only by strong communication channels between the production and sales department of any company whether it have two employees or 2,000.

This is what we are on the face of the earth for — to communicate, to understand, and to love one another. When we accomplish this goal, we truthfully will have become a full and complete human being. It could be finally summated with one sentence: Let the states of equilibrium and harmony exist in perfection, and the happy order will prevail throughout heaven and earth, and all things will be nourished and flourish.

WEDNESDAY EVENING SESSION

October 6, 1971

NEW IDEAS AND INNOVATIONS— William J. Curtis, Moderator

MODERATOR CURTIS: Who will be the first one to present an idea or an innovation? Who would like to come forward and present it to this group?

JOLLY BATCHELLER: Bill, I saw something just last week that I think is most interesting. At the California nursery convention in Palm Springs I saw a new type of pot which I think is excellent. I'm not boosting a product but it answers questions that some of us have. Many of us use a "spaghetti" system for watering and there are many different ways to attach the end of the tube to the container. They vary from a little lead weight you drop in—to a spike that you put the tubing over; and these cost money. The tubing itself isn't too expensive but the little plugs are. Someone has come up with a better idea. I think it's real good. They have taken a plastic pot and they have made a bulge on the side of it. My perspective in drawing these is a little bit difficult, but taking a view from the top, here is a normal pot and on the edge