

starting to make sense. So I hope some day to have all the problems worked out and come up with the right combination and report to you and share my information. If somebody is also doing such work, I really would like to hear from them.

PROPAGATING EXPERIENCES

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This "Propagating Experiences" panel we have embarked on now will likely turn out to be the surprise package of our annual meeting since it is open to so many interpretations.

It took our moderator, Zoph Warner, who was responsible for arranging this discussion, a great deal of persuasion to convince me that I ought to participate on this panel. Not only do I suffer from a liberal amount of stagefright when it comes to giving a talk, but I simply could not get excited about the subject: Propagating Experiences—Old and New.

I could not help but think that here we have a highly successful Plant Propagators' Society, which for the last 20 years has made great strides in promoting and discussing the newest techniques in the field of ornamental horticulture, and here am I trying my darndest just to keep up with them. How in the world can I tell you good people something that's really new in plant propagation?

And as far as old propagating experiences are concerned, here again it is all well and good to sit down and reminisce about the good old days, especially when one is in a slightly sentimental mood while in the company of fellow nurserymen and with the help of a tall glass of beer to refresh the old memories.

But in this Society which is so geared for the exchange of new ideas, dwelling on obsolete practices of years ago is somewhat irrelevant to say the least. However, I then happened to look over the list of names of the participants in this discussion and I changed my mind somewhat. It struck me that all the growers on this panel at one time or another received their training in Europe. One can say that this is a mere coincidence. I prefer to think that there is some significance.

Each one in this group got his horticultural education and training in those so-called old days that we are supposed to touch upon this afternoon. They became thoroughly familiar with the then existing propagating techniques and the hard ways of growing nurserystock with limited mechanical means and without the help of hormone substances, mist systems, polyethylene and peat pots—just to mention a few. They certainly had to have a great deal of motivation and spunk

to see those years of training through and, judging by what each of them has accomplished since then, they used it to their best advantage and no doubt each of them feels now, looking back, that the education and that hard practical training was vital in their becoming good propagators and successful nurserymen.

Some of the listeners in this audience might by now wonder why I am deviating somewhat from the actual subject: I feel that there are a few valid reasons for it. Let's take a quick look at our nursery industry. It has been prosperous and steadily expanding since World War II; and especially now, at the beginning of the seventies with the big boost of the ecology wave, it looks like there is no limit to how far we can go in the near future. Yet at the same time, we are facing severe bottlenecks threatening this future growth.

Here I would like to dwell for a moment on the key factors mentioned before: education and training. Our large and medium sized nurseries have relatively few problems filling their management positions. There is a reasonably good supply of horticultural college graduates to fill those spots. The real rub is in the education and training of the middle-management or the supervisory employees. This category, by the way, also includes the people that ought to fill the propagator and assistant propagator slots.

The way the majority of the nurseries are trying to solve this problem at present is by the "hit and miss" method of training on the job. I say "hit and miss", because when we start out with this method we never know what the end result will be and especially whether the employee after the long and involved training will stick it out with us for a reasonable length of time.

In short, it is and has been my strong conviction for quite some time that this inadequate type of training on the below college-level is incompatible with the healthy growth of our industry which we can anticipate through the seventies and beyond. I realize that this Society has been aware of this problem for a long time and actually has discussed it several times in the past. At the same time, it has done a tremendous job of gathering, disseminating and publicizing propagation and growing know-how in a truly impressive way which, in essence, is a vital part of education. It has, in the process, gained a first class reputation and a prestige that few other horticultural organizations can match.

But, in my humble opinion, the time has come for a slight change in emphasis. Our industry is rapidly becoming more specialized, more complicated and more demanding; we will have to come up with a more comprehensive and uniform training-system for our future fulltime employees. I do not profess to have any of the answers to this vexing problem but I do know that, for instance, the federally subsidized vocational horticultural training program within the

metropolitan highschool systems, with a number of notable exceptions, has turned out to be less than a successful undertaking.

Whenever in the past our Society decided to support a new important endeavor, it has always succeeded. Within our organization we have an education committee. I feel strongly that if we decided to energetically start promoting the instituting of schools, like the one in Farmingdale, or the one we visited during our Toronto meeting in the Niagara Parks System, in various parts of this country we would be well on our way to overcome the training bottleneck mentioned before.

The panel that is sitting in front of you here this afternoon is living proof that it has been done in the past, that it is getting done at present in Canada and across the Atlantic all the time. A progressive and prosperous nursery industry in our United States can afford no less! I know that I have touched on a sensitive subject, but keeping in touch with the close intermediate training that is taking place in Holland, Denmark and especially West Germany, I feel we cannot afford to fall so far behind.

VIBURNUM DENTATUM AS AN UNDERSTOCK FOR VIBURNUM CARLESII OR V. CARLESII 'COMPACTUM'

CASE HOOGENDOORN

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As we all know, everyone all these years has used *Viburnum lantana* as a viburnum understock, either for budding or grafting. However, over 30 years ago we stumbled into using *Viburnum dentatum*. The reason? We did not have any *V. lantana* that year, but did have *V. dentatum*—so we used it hoping for the best. We not only found it satisfactory, but far superior to *V. lantana*. When we used *V. lantana*, we were always bothered with black spot, which develops about mid-August. Naturally, we had heavy leaf drop which weakened the plants. Ever since we have used *V. dentatum* we have not been bothered with black spot, consequently we have stronger plants and better growth.

Now a word about the *V. dentatum* seedlings that we use. We always try to get a strong 1-year seedling, grafting size. The reason is that a 1-year seedling does not have as many sucker buds as a 2-year seedling or transplant. Before we start potting these seedlings we trim them and start to eliminate the danger of suckers by carefully going over the neck of the root and through the root itself and cut out whatever buds we can find. We pot these in the winter and graft them by the end of August, or beginning of September, under double glass. When we graft these we cut the understock off to about 1½ inch above the pot. After about 4 weeks they are ready to be picked up. Now if