

It is clear that this is not something to buy by the carload and start spraying on with a big tank. It is critical in the amount needed and I think that the timing will be important in relation to the effect by the end of the year. If we just want to slightly slow down the plant and get a bud on it, then we are going to have to very carefully choose our time and our strength. Some varieties which normally grow in a fairly compact manner I don't think need it at all or if they do, they need a very, very light dose.

We are going on with treatments and testing next year, but only on a very small scale.

MODERATOR HILLENMEYER: Thank you, Mr. Wells. We have an important announcement. Mr. Louis Vanderbrook.

SECRETARY VANDERBROOK: There will be a meeting of the Executive Committee and the Membership Committee tonight up in 516 and 518 immediately after the conclusion of the question box period.

MODERN HILLENMEYER: Our next speaker this morning is Professor F. L. O'Rourke, from Michigan State University, East Lansing, who will speak on the subject of Propagation in the Pacific Coast Area. Professor O'Rourke!

## **PROPAGATION IN THE PACIFIC COAST AREA**

F. L. S. O'ROURKE

*Michigan State University  
East Lansing, Michigan*

Mr. Moderator, Fellow Members: I had long wanted to visit the Pacific Coast and see the horticulture that we heard so much about. This past summer and fall I spent about two months out there and I was literally amazed at the growth of some of the plants which I saw. I know quite a number of you folks have been there and you know what I mean.

It is an area of wholesale growing for America as well as production for their own locality. The coast of Oregon and Washington is quite rainy. It is an area where holly, rhododendron, and other broadleaf plants grow exceptionally well. There are some nurseries there which are making quite an effort to produce these in quantity, and I have found out that some rhododendrons which were being grown within 100 yards of the Pacific Ocean are shipped as far east as New York City. Amazing but true.

In deciduous material, quite a bit of emphasis is put on fruit and shade trees in the interior valleys. In these areas water is limited, but they do seem to have sufficient irrigation to supply the needs of these plants. Most of the irrigation is by gravity, although in the Willamette valley around Portland they are bringing in some overhead irrigation.

It is really amazing to see the growth of these plants in one year. The shade trees are usually budded in August or in late summer, cut

back the following spring and in one year's time they may obtain a whip of anywhere from 8 to 15 feet, depending upon species and so forth. Some of them are cut back again to a single bud at the end of the first growing season in order to get a larger shoot at the end of the second year. It seems as if this is the area where fruit trees and shade trees can be grown most economically even though the transportation to the east is expensive.

They have their problems there as well as elsewhere. One is virus, particularly in fruit trees. It has meant that a great many of the nurserymen have had to establish isolated orchards as seed sources and for budwood, and have the trees inspected periodically by the plant pathologist of the state concerned in order that they can keep them free of virus. I found the nurserymen cooperating very heartily in such a program. It is expensive, but it is necessary.

I believe that this virus problem may spread to other plants, other than fruit. Perhaps we will have to think of the same isolated plots in respect to budwood, seed sources, and propagating material of shade and ornamental plants. The conifers are grown in large numbers but I didn't find there was anything too impressive in that line, somewhat about the same as in the east.

There is one thought that I would like to make, and that is where should we develop new clones of all kinds of nursery stock? Should it be done out there in the production section of the west or should it be done in the east where we can more readily observe the growth and performance of the trees?

Now, as you know, the automobile industry creates new forms, and so forth, at Detroit, and then impresses its dealers with the need of selling these to the public. I don't think that it is quite the same with nursery stock. If a tree developed very well in Portland, Oregon, that doesn't necessarily mean that it would be good for Nashville, Tennessee or Sandusky, Ohio. All of us all over the United States should be alert for better forms and propagate these into clones and perhaps send our budwood to the Pacific Coast for growing. You will probably find that it can be done more economically there and you will get a better tree in a shorter space of time than you can in the east. That is something to keep in mind. There are a great many contract growers out there. They produce 50,000 or 100,000 or any other thousand of trees to your specifications if you send them the budwood.

It is amazing the quantity of plants in one nursery. I looked over the field in one nursery in which they told me they had 19 million apple and pear seedlings. I took their word for it. I couldn't count them.

While I am speaking I would like to have your indulgence to make a few comments on the talk so ably presented by Peter Vermeulen just a few moments ago. I heartily endorse what he said, in fact, I would go further and I would say that the Plant Propagators' Society should reserve an entire day for members to make short presentations. As Bill Flemer so aptly pointed out last evening, not even a great many college graduates can write, and I don't think it is neces-



sary that a man need to write to give out some information. He can make a demonstration. He can show something, and he can talk in his own way to give this information out to others. Why couldn't we have a whole day devoted to membership presentations, five or ten minutes for each?

I have attended every meeting of the Plant Propagators' Society since 1951 when we started, except when I was overseas, and my personal experience is that we have derived more information from the rather short speaker-exhibitor talks than from any other feature of the program. So let's try to encourage participation among the membership-at-large.

MODERATOR HILLENMEYER: Thank you very much, Professor O'Rourke.

Our next speaker is Roy Nordine, The Morton Arboretum, who will speak to us on the subject of Juniper Species. Mr. Nordine!

### A FEW LOW JUNIPERUS SPECIES AND CULTIVARS

ROY M. NORDINE  
*The Morton Arboretum*  
*Lisle, Illinois*

Although the Juniper collection contains a great many species and clones, we will confine this discussion to a number of junipers that remain low in stature. We plan to quote the age and dimensions of these plants, information that should have some value whenever plants are considered for landscape use — especially when used in foundation plantings. All plants receive only a very small amount of trimming during their early years in the nursery rows; once they are placed in their permanent locations, the plants are allowed to grow and develop into their natural form and shape.

The late Prof. Maney raised a number of seedlings from *Juniperus chinensis* var *sargentii*. Four plants were selected and named; they are frequently called the Iowa Junipers, and they are the first four plants to be registered under the program instituted by the American Association of Nurserymen in 1947. *Juniperus chinensis* 'Ames' at 14 years old has a pyramid shape, being 4' wide at the base and tapering to a point about 9' tall. There are some sharp or juvenile needles among the dusty green foliage, and a few berries are present. 'Iowa' and 'Story' are much alike in general shape, 'Iowa' being 4' wide and 10' high; 'Story' is 3' wide and 12' high, and they both maintain a uniform width to a point past the middle before tapering off to the top. Both plants have only soft or adult foliage, of a gray-green color. 'Iowa' is a female. 'Story' is a male plant with less branches and foliage than either 'Ames' or 'Iowa.' 'Maney' is a wide-spreading, irregular shaped plant about 7' high and 12' wide; several large branches have broken from heavy snow loads. Both types of foliage are present, although the sharp foliage predominates; the color is a fine dark blue, and the plant is a female. All four plants are the same age; they were grafted in 1948.