

Southern California. The climates are very similar and there would be a lot of possibilities for exchange of plant materials. We have invited Wes Humphrey to be here with us today to tell us what he saw in nursery production and propagation in New Zealand and Australia. So Wes, would you take over?

WHAT'S NEW DOWN UNDER

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Nursery production in Australia and New Zealand is undergoing change. Container nursery production of woody plants for landscape is rapidly coming into use and replacing field growing. One of the first items that catches a person's eye is the type of container used. Frequently seen is a heavy gauge flexible plastic one-gallon size container, in contrast to the rigid container which is typically used in nurseries in the United States. The "down under" nurseryman finds this satisfactory as he is less concerned with the problem of moving large numbers of plants considerable distances.

The advent of container production has seen the use of light-weight soil mixes being adopted as a regular practice. Arrangement of the nurseries often appears quite similar to those viewed in the western United States. Overhead sprinkler systems are installed and utilized by the nurserymen. Liquid fertilizer programs are used, but particularly in New Zealand with the major part of the production concentrated on the north island, considerable use is made of controlled release fertilizers. Rainfall in most of the areas on the north island of New Zealand (where there is considerable nursery production) may run as high as 80 inches per year with it spread out well through the year, necessitating use of the overhead sprinkler system only occasionally. With this situation, nurserymen have found the controlled release fertilizers a satisfactory method of supplying nutrients.

Sanitation appears good in many nurseries visited. The practice of steam-air treatments of the soil mix was observed at several Australian nurseries. The standard treatment with the steam-air mix is to use 140° F for a period of 30 minutes. Nurseries usually are not of the size seen in the California area, making it easier to handle the volumes of soil with the steam-air treatment; methyl bromide gas, commonly used locally, is considerably more expensive in Australia and New Zealand than in the United States. It was also observed that some nurseries use a steam-air combination for treatment of certain seeds that may carry disease organisms.

Temperatures used may vary from about 125° F to 130° F for ten minutes. Experience has indicated what specific requirements are for each of the seeds being treated, and considerable work has gone into developing such information.

Vegetative propagation is often similar to that observed in nurseries in the western United States. One major difference in the propagation of Australian native plants is to put the cutting directly into a plastic tube four inches long with a 1½-inch diameter. Some of the Australian native plants are difficult to transplant from a cutting bench to a liner pot. Putting the cutting directly into the tube and rooting it there reduces the transplanting problem and saves a step in the growing process.

This method is also used for other plants considered difficult to transplant, including several members of the protea family. Noticeable in a number of the nurseries growing woody plants was the propagation and growing on of native Australian plants. Australians are becoming much more aware of the wealth of native plant material they have, and it is being grown and used considerably more in their developed landscapes. New Zealanders also grow a reasonable range of native Australian plants and have made good use of them in their landscapes.

One finds less specialization in nurseries than typically seen in California, particularly southern California. However, the trend is for more specialization, especially so in the areas of major urban population concentration. The total market in either Australia or New Zealand is considerably less than is available to United States nurserymen and makes specialization more difficult. There is a strong interest in bringing new plants and cultivars to the attention of their customers to keep them coming back to the nurseries. Australian nurserymen have started a national plant promotion program. A plant is selected each year and promoted as the plant of the year by the national nurserymen's association.

A major difference noted is little production of what we commonly call specimen trees. A few nurserymen are beginning to produce in containers some of the larger-sized plant material. Some unique containers are being used. An unusual one was a heavy gauge wire basket with a paper liner that could easily be taken apart and removed when planting.

Both Australians and New Zealanders are most interested in what is taking place in nursery production particularly in the western United States. It seemed to me that they get somewhat the best of two worlds in that many of them are well aware of what's taking place in England and Europe as well as the United States.

PRESIDENT MAIRE: Thanks for a most interesting presentation, Wes. Are there any questions?

HUDSON HARTMANN: Wes, did you see the Waratah plant over there? Do you think it has possibilities for commercial use here on the West Coast?

WES HUMPHREY: Yes, about the Waratah plant, *Telopea speciosissima*; in the right conditions here, I think could be a winner. I could have shown you a slide of a beautiful bouquet of that Proteaceous plant. It has a beautiful, big red flower head — an excellent plant for cut flower use. It stands up just like many of the Proteaceous things, but we need more information on how to grow it. I've found that people were concerned about it having a mycorrhizal relationship and yet, in talking to one of the nurserymen in the Auckland area he said, "Forget it, grow it like any other plant." They talk about it needing a high phosphate soil; he said, "Forget it, treat it like any other plant." George Rainy of the Auckland area, a very excellent nurseryman, is having good success in growing them under his conditions.

VOICE: Did you see the hybrid proteas?

WES HUMPHREY: Yes, but I don't know that we were any more impressed by those than we were by the native *Telopea speciosissima*. It seemed to me that if grown right — Wham! It really hits you in the eye.

PRESIDENT MAIRE: We always like to announce the new members who have been approved at the beginning of the meeting so they can sit in on this meeting as members. So, Jiro, as chairman of the Membership Committee, would you come up and give us a list of those who have been approved and then tell us where you are on evaluating the rest of the applicants?

JIRO MATSUYAMA: First, I would like to say to any guest here who wants to join the International Plant Propagators' Society that you can pick up a membership blank at the registration desk. Then when you get it filled out, you can turn it in to a member of the membership committee. I'll mention those on the committee so you will know who they are. Leslie Clay, Harold Clarke, Edsal Wood, Howard Brown, Gene Bacui, Ralph Pinkus, and Bob Warner — or you can turn it in to myself or to Curtis Alley. After you fill in these forms, please return them before tomorrow.

I'll call out the names of approved new members. Will you please stand?