

## **CURTIS J. ALLEY WESTERN REGION AWARD OF MERIT**

Presented by Mr. Ed Kubo, President of the IPPS Western Region, at the annual banquet, Sheraton Santa Barbara Hotel.

This year the Curtis J. Alley Merit Award recipient is a person we all admire and respect because of his vision, his "young ideas," compassion, understanding, and leadership.

He is a charter member of The International Plant Propagators, Western Region, serving as President of the Western Region in 1967, and International president in 1970.

He has served on many committees, including the Finance Committee, Long Range Planning and Nomination Committee, Site Committee, Research and Scholarship Committee, Education Award Committee, and the Awards Committee.

When I was told who the recipient of this award would be, I was thrilled and honored that I was going to make this presentation. He is a man that I admire and respect, a man that showed me how to seek and share, who questioned my decisions and made me think again. He was a pioneer in the development of the U.C. system of growing plants and he is well known as the man that developed the 'Santa Anita Race Track' pansy. He has owned Union Nursery and Tropico Nursery Sales. This man is Mr. Henry Ishida.

## **INNOVATIONS IN AIR LAYERING**

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Air layering seems to be one of the least used methods of propagation. I think that this is largely due to the fact that air layers are messy, awkward, and may be dangerous to apply. Imagine standing near the top of a 16-ft. orchard ladder holding a wad of wet peat moss around a branch with one hand and wrapping it with binder twine with the other. A sudden breeze and some sweat burning your eyes may make tissue culture sound pretty good.

At our nursery, air layering has been a great help in building the inventory of many rare or slow-growing trees. Along the way we have picked up a number of ideas that have helped to make this method more effective and safe. It is used primarily in the propaga-

tion of litchi, longan, mango, macadamia, and guava. We can produce a well developed and saleable tree in less than a year where other methods could take 2 or 3 years.

Following are refinements that have been of assistance to us:

1. To remove the bark section in the girdling process, we have found a regular pair of pliers works very well. The bark is literally torn away. When the bark is very stringy as with mango trees, it is necessary to make two circular cuts with a hooked knife before removing the bark section.
2. We apply 8,000 IBA ppm concentrate to the distal end of the girdled section. Because IBA is believed to be a possible carcinogen, the person applying the air layer should avoid contact with the solution. The best applicator we have found is the type used for PVC cement. The half-pint size is best—easier to carry and if dropped, less concentrate is lost.

The alcohol and IBA mixture is very corrosive and rusts through the metal in a few weeks. If a coating of the PVC cement is left inside the can, the can will last much longer.

3. The air layer bag is formed by loosely filling a 4 mil 10 × 6 in. poly bag. After filling with moist peat or sphagnum moss, the open end is closed and securely tied with jute (binder twine). The jute tie material is cut so that a 4-ft. and an 8-in. end is left for later tying.

The desired number of bags can be made well ahead at a convenient time. It is done by less skilled (and agile) workers. We have also had some made on a piece work basis at the employee's home.

4. After the branch has been girdled and the hormone applied, the air layer bag is ready to go on. The bag is slashed with the same hook knife from top to bottom and squeezed in place on the branch. Being loosely filled, the cut edges of the bag can be overlapped to help prevent the contents from drying out. The longer jute "tail" is then wound around the bag securely. First from the top down and then back up again and tied to the shorter length.

Jute is preferred because it will deteriorate in a year or so in case the air layer is overlooked and not harvested.

In spite of our best efforts, some species root poorly or not at all. These include cherimoya, star pine, *Thevetia thevetioides*, *Casimiroa edulis*, and jaboticaba.