

methods of vegetative propagation. Old is often interpreted as being obsolete. Obsolete is defined as "of a discarded or outmoded type; out of date." It is freely admitted that some root piece propagation has been replaced with more modern methods. It is doubtful that any of those assembled here today will see tissue culture propagation substituted for the rapid and vigorous piece root propagation of hybrid lilacs.

Please note these observations have been made for the U.S. mid-Atlantic states.

### **EASTERN REGION QUESTION BOX**

The Question Box Session was convened on Thursday at 4:45 p.m. and again on Friday at 10:40 a.m. Both sessions were combined and presented here as one. Bruce Briggs and Ralph Shugert served as moderators.

**MODERATOR SHUGERT:** Question for Robert Gouveia. How often and how do you change media in your sunken beds? It seems that it would be quite difficult to do. From our experience, sunken beds like yours are great for ground heat effects but pose some problems when either treating the medium or changing it.

**ROBERT GOUVEIA:** It is pure sand and we change it every two years. We just wheelbarrow it in and out. We are thinking of adding perlite to the medium. We do not treat it chemically but simply remove the top 1 to 2 in. of sand at the end of the first season.

**MODERATOR SHUGERT:** Question for Gary Koller. Why should the horticulture industry concentrate on providing dwarf and slow growing cultivars to customers who typically prefer quick establishment and immediate impact. Homeowner "life expectancy" dictates results in 3 to 5 years. How can your "dreamscapes" be provided at a cost which is not prohibitive?

**GARY KOLLER:** Most homeowners do want quick establishing plants, however, I do see a growing pool of landscape designers and architects who realize that when they put in these rapidly growing plants the quality of their design deteriorates rapidly because they can not afford to provide the horticultural maintenance or find people to provide that maintenance. Therefore they are thinking of transferring some of those dollars from maintenance costs into plant costs and put less into maintenance over the long term. These landscape architects are trying to create effects that last over time, and are the people who are looking for these new plants. It will take some education on our part to convince the homeowners to transfer some maintenance costs to plant costs.

MODERATOR SHUGERT: Question for Chris Rogers. Your savings in costs seem to result more from direct sticking vs. bench cuttings than from use of fog. Any comments?

CHRIS ROGERS: That is true, however you obtain better rooting percentages with fog.

MODERATOR BRIGGS: When is the best time to root *Euonymus bungeana* and *E. europaea* stem cuttings? Can softwoods or semihardwoods be used? In Dirr and Heuser's new book on propagation, examples cite August and November. Why so late?

VOICE: Most any time during the summer time will work. Use semi-hardwood cutting material, 0.8% IBA, and mist. Keep them on the dry side. They will take a little time to root and you can pot them up in the fall.

MODERATOR BRIGGS: On Tuesday I heard about container production in which more than one woody cutting was placed in a container. What happens after this multiple plant is placed in its final site? Two or three plants have to live and compete in the space which should be occupied by one.

BRUCE BRIGGS: On the West Coast highway departments sometimes are concerned if you are putting in seedlings because they might have different growth rates and not all look alike.

ROBERT GOUVEIA: We are just in the experimental stage but more than one cutting is just insurance that you will have something in that container as a backup. If you have three cuttings, which I consider the best, you get a more uniform plant in a container and that container is saleable sooner.

BRUCE BRIGGS: We use multiple cuttings a lot. We put three cuttings because we get a fuller container and it finishes faster. However, it costs more money because you have to take three cuttings.

MODERATOR SHUGERT: Should propagators remove the flower buds from small-leaf rhododendron cuttings prior to sticking?

JIM CROSS: If you are referring to the very dwarf types, such as *R. impeditum*, than you will get damage from disbudding. With the intermediate types, such as the *R. carolinianum* types, we have found better results with disbudded cuttings, especially with the more difficult-to-root forms. The cuttings will also flower and this will be a source of litter to clean and to cause potential diseases.

MODERATOR SHUGERT: Please discuss plant patents. Can I propagate a patented plant and voluntarily reimburse the patent holder? Can I propagate and sell *Ilex verticillata* 'Winter Red' as just *I. verticillata* and not worry about the patent? What happens if I'm caught infringing on a patent?

RALPH SHUGERT: The U.S. is the only country with a plant patent mandated by law. The patent lasts 17 years.



**BILL FLEMER:** No you can not propagate a patented plant and voluntarily reimburse the patent holder. You can apply to the patent holder for a license to propagate. If you are caught infringing on a patent, you can be sued for triple damages which can amount to a lot of money. I know of one case that settled for \$100,000 and another over \$300,000.

**ROBERT ADAMS:** Both the plant and name I think are patented and therefore it would not be legal to propagate *I. verticillata* 'Winter Red' as *I. verticillata*.

**MODERATOR SHUGERT:** Has anyone experienced problems with the use of fresh cedar shingle tow for the storage of bareroot cuttings? Should it be aged before use?

**BILL FLEMER:** We use it fresh in storage and feel that it has fungistatic properties. It is not good for propagation because the same compounds that give it fungistatic properties inhibit rooting and root growth. It should not be aged.

**MODERATOR BRIGGS:** Has anyone experienced inhibition of rooting when using Banrot as a propagation medium drench? Especially in plug production in soilless media?

**VOICE:** We have used it as a drench with *Vinca minor* with good results. With the idea that if a little is good a lot is better, a couple of years ago we incorporated the granular form in our peat:perlite:bark mix and also did a drench. I have not yet decided if that cost me 35 or 40,000 dollars. We got very little rooting.

**MARK RICHEY:** I have used it on many different softwoods and taxus cuttings and found that as long as the medium is well aerated there was no problem. A poor draining or aerated medium showed some rooting inhibition.

**BRUCE BRIGGS:** When trying something new try it on a small scale first.

**MODERATOR BRIGGS:** Can methyl bromide be used to sterilize/sanitize a propagating house? Will it damage plastic mist lines or poly covers?

**BRUCE BRIGGS:** Don't do it because you would be opening up many problems.

**PETER ORUM:** We have used formaldehyde (1:100 ratio) and simply spray the plastic house. Use a mask and seal the house after spraying for a few days.

**VOICE:** One comment on the use of formaldehyde. It is a known carcinogen.

**MODERATOR BRIGGS:** What can be done to control algae in a mist house?

**TOM KIMBLE:** We obtained good results with a bromide product, I believe it is called Aqua Brome and is used in swimming pools.

**BRUCE BRIGGS:** We have used the same product and find it to work. We were looking at it for control of liverworts and mosses. It

looks good in the range of 2 to 3 ppm. We tried chlorine, since there is no residue.

TOM McCLOUD: We have used chlorine too, but it has no residual action. I noticed that Ball Seed Co. was using rock salt in the stone areas under the benches to control weeds and fungus gnats.

MODERATOR BRIGGS: How do you treat *Hamamelis virginiana* seed so that it germinates the first spring? I've tried 60 days warm, then 120 days cold, and have gotten 5% germination the first spring.

(EDITOR'S NOTE: The key is breaking the leather-hard seed coat down. Work in England (IPPS Proc. 34:334-342) showed that 2 months warm/2 months cold/2 months warm/4 months cold produced 88% germination).

MODERATOR BRIGGS: Is there any great difference between *Pinus densiflora* 'Oculus Draconis' and *P. thunbergiana* 'Oculus Draconis'? Which does better in the midwest.

HARRISON FLINT: Yes, they are two different species. *P. thunbergiana* should be hardier.

MODERATOR BRIGGS: What are the chilling requirements for seed of *Trillium grandiflorum* and *T. sessile*?

(EDITOR'S NOTE: Seeds of *T. grandiflorum* and probably other species are noted for their "double dormancy". Two cold periods are required. The first removes a block to root growth. The first cold period is followed by a warm period for root growth that is followed by a second cold period which removes the block to shoot growth. The need for a second cold period may not be needed if the seeds are sown fresh, without being allowed to dry.)

## **THURSDAY EVENING, DECEMBER 10, 1987**

The thirty-seventh annual banquet was held in the Grand Ballroom of the Sheraton International Hotel at O'Hare, Chicago, Illinois.

On behalf of the Society—Eastern Region, the annual Research Award was presented to Timothy J. Smalley and Dr. Michael Dirr, Department of Horticulture, University of Georgia, Athens, Georgia. The title of their study was "Regulation of Photosynthesis During Rooting of *Acer rubrum* 'Red Sunset'."

### **EASTERN REGION AWARD OF MERIT**

Leonard Savella made the following Award of Merit presentation:

The Award of Merit is the highest award the Eastern Region of the I.P.P.S. can bestow. To receive this award is indeed a great honor.