

## THE FUTURE

It is hard to envision the implications that tissue culture propagation creates for *K. latifolia*. Rarely has technology provided such a sudden impact on the availability of a previously hard-to-propagate major native plant. Tissue culture, in combination with dramatic improvements in color and form, creates the potential for vastly expanded availability of choice landscape plants unlike any the buyer has ever seen.

We are very excited about the prospects of *Kalmia* finally becoming a major landscape plant. The majority of the plants we grow and sell for the next few years will probably continue to be seedlings and selections. The testing and growing of clones will be expanding and we will offer many named cultivars within a few years. During this time we will be concentrating on properly developing a market to meet the anticipated supply of new forms.

I see three challenges to the nursery industry that are particularly evident with *Kalmia* but really apply to all nursery crops. These are:

(1) Establishing industry-wide standards for evaluation — rhododendrons and roses already have such criteria; a similar set of guidelines should be set up for *Kalmia*.

(2) Setting parameters for landscape performance. Because of the more exact cultural needs of *Kalmia*, our industry has an obligation to let the customer know how to succeed with it in the landscape.

(3) Develop effective marketing to maximize benefits to the consumer as well as the grower. We must have a system to assure that these superior new forms are grown and offered for sale to take best advantage of their virtues and create high customer satisfaction.

### **PROPAGATING AND PRODUCING *KALMIA LATIFOLIA* CONVENTIONALLY**

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We had been experimenting with rooting cuttings of native mountain laurel taken from burned-over areas of our mountains for several years prior to the introduction of the

new selections and Richard Jaynes' book, *The Laurel Book*. We had had enough success to know it was possible to root some clones, but our local demand was very low. Up until recently, most mountain laurel was produced from collected plants that were cut back and transplanted to the nursery, or simply cutback or burned over and then dug in place a few years later. Quality and survival have usually been undependable and variable. There were no named clones available. Prices for this material were relatively low and knowledge of how to grow and landscape with them was limited.

With the publication of Richard Jaynes' book (1) and his development of distinctively colored named clones, my interest in mountain laurel became much greater. Several years ago after an IPPS meeting at Rutgers University, Richard Jaynes sent me my first unrooted mountain laurel cuttings, 'Nipmuck' and 'Quinnipiac,' in a small sandwich bag. I stuck these in with my rhododendron crop and they rooted over 75%; that was very encouraging and I have been taking cuttings of these plants ever since. This year I plan to stick 10,000 cuttings of various mountain laurel clones.

With mountain laurel's increased availability through tissue culture, Kinsey Gardens is buying each of the new clones and evaluating them for rootability, habit, disease and insect resistance, and flower color under our conditions. If we cannot propagate our own by conventional cuttings, we are not interested in the clone.

We incorporate mountain laurel propagation right into our rhododendron production routine. The only difference is that we wait until January to take our cuttings. By this time dormancy requirements will be satisfied and we will have no trouble with the rooted cutting breaking bud uniformly in the spring. Cuttings are collected from the previous summer's last flush of new growth, washed in a Captan and Benlate solution and wounded as we do rhododendron. The cuttings are stuck in a 6 in. deep bench of peat and perlite (1:2,v/v) mix maintained at 72°F by hot air forced through a convection tube under the bench. Cuttings are misted for 10 sec every 10 min. Rooting occurs in 4 to 6 months. The rooted cuttings are then potted into 1-gal containers containing 100% pine bark, plus Staygreen Prostart and sulfur-coated fertilizers, and placed in a shaded house. After acclimation, the shade is removed and the plants are grown in full sun. The plants are sheared at least twice during the summer. Spraying is done every two weeks just as we do with our rhododendron. We generally do not sell 1-gal plants because we need to use them as stock plants for next year's cuttings, and it is difficult to produce a well-branched plant the first year. One-gallon plants are overwin-

tered under poly, and cut back in January for cuttings, and then shifted into 2-gal containers in spring. They are further sheared for uniformity and grown to salable sizes for fall and the following spring. Light shearing is done during that summer to further help branching.

Selections which we are producing conventionally include 'Nipmuck', 'Quinnipiac', 'Sarah', 'Pink Charm', and 'Silver Dollar'. We have had poor success rooting 'Ostbo Red' and 'Goodrich'. This year we will be evaluating 'Bullseye' and 'Elf'.

Another aspect of our mountain laurel production that is just now becoming reality is seed propagation. Seed is collected from native stands and from some red-budded crosses. I understand that red-budded plants come true from seed at a pretty good percentage, so we have planted several red-budded cultivars in close proximity for cross pollination.

Seed is sown in December in flats just as one would sow rhododendron, pieris, or azalea seed. The seeds are sprinkled on the surface of the medium in a flat with a salt shaker and misted in with a fog nozzle. The flat is slid into a white garbage bag which is held off the surface of the mix with bent wires arched into each side of the flat. The surface is sprayed with Captan plus Benlate and the bag is sealed and placed under fluorescent lights in a heated room for germination. Germination occurs in several weeks and the seedlings continue to grow in the bag for several weeks.

Then the bag is opened gradually to harden off the seedlings. The plants continue growing under 24 hr of light until being pricked out and transplanted into a flat of peat and perlite for growing on. While in the flats the plants are fertilized with dilute 20-20-20 liquid fertilizer.

Transplanting is generally done in the spring and by fall the plants are large enough to be potted or put in field beds to produce a heavy well-branched liner for further field transplanting or potting into 2-gal pots.

In closing, many clones of mountain laurel can be propagated successfully and economically by conventional means. I can foresee that as more and more named selections become available, easy to propagate cultivars will gain the greatest popularity.

#### LITERATURE CITED

1. Jaynes, R.A. 1975. The Laurel Book. Hafner Press, New York.

VOICE: What is the concentration of the growth regulator used for rooting?

ED KINSEY: It was 0.8% IBA.

JAMES BOODLEY: What type of lamps did you use, how close were they, and what was the photoperiod?

ED KINSEY: The lamps are ordinary cool-white type and they are placed 12 to 15 in. from the plants. We use a 24 hr light period.

DICK JAYNES: A lot of kalmia growers are having a problem with liners flopping over in the container or the roots not going down. What has been your experience?

ED KINSEY: I have had more of a problem with the tissue-cultured liners than rooted cuttings. As for the roots, we are using a pine bark mix with no problems.

### **Thursday Evening, December 12, 1985**

The thirty-fifth annual banquet was held in the Ballroom of the Biltmore Plaza Hotel, Providence, Rhode Island.

On behalf of the Society, the first research award was presented to Dr. Nina Bassuk, Department of Floriculture and Ornamental Horticulture, Cornell University, Ithaca, New York.

Lawrence Carville made the following Award of Merit presentation:

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

Tonight we are privileged to honor one of our members with the highest recognition the Eastern Region can bestow, the Award of Merit. This award was first given in 1957 and has been awarded annually whenever a deserving recipient is nominated by the membership. The Award of Merit recognizes outstanding contributions to the art and science of plant propagation, either by a practitioner or an academician.

Our recipient this evening has been chosen from the practical field because he is a propagator in every sense of the word. To him, the motto of our Society, TO SEEK AND TO SHARE, is more than words. They are his daily creed.

Our honoree became a member of the Eastern Region in 1962 and presented his first of many papers in Cleveland in 1965. Some of you will recognize him from the title of this paper: "Corylus and Cornus from cutting." His papers appeared