

A SIMPLIFIED ENTRY INTO TISSUE CULTURE PRODUCTION

LYDIANE KYTE and BRUCE BRIGGS

Briggs Nursery
Olympia, Washington 98501
(see page 90 — Western Region)

PAUL READ: Would you comment on stock plant manipulation and cultivar differences?

BRUCE BRIGGS: I feel that you should bring the stock plant into a greenhouse and give it the best growing conditions. Do not water the tops so as not to contaminate the new growth. This is the best we have devised to get the plant into the proper condition. In conifers they have taken mature tissue and grafted it onto juvenile understock. After they get that to grow they put it in tissue culture. There is, considerable cultivar differences in rhododendrons. Cytokinins appear to be the factor most influencing success.

DICK JAYNES: Do cuttings from tissue cultured plants propagate more readily than cuttings from older plants?

BRUCE BRIGGS: Yes.

COMMERCIAL APPLICATION OF TISSUE CULTURE IN FRUIT PRODUCTION

JOHN GANZER

Stark Brothers Nurseries and Orchards Company
Louisiana, Missouri 63353

Why are we interested in tissue culture? Our interest is based on the need for virus-free plant material, for the rapid buildup of new cultivars and rootstocks, and as a means for propagation of difficult-to-root plant materials. For many years we have conducted our own heat-treating program to get cultivars virus free. It is a slow process to build up this material once it is clean. Tissue culture will give us the tool to produce sufficient quantities for our needs. Another use will be for the buildup of new cultivars as we find them. At present it takes as long as 5 to 7 years to get into full production with a new cultivar. Rootstocks take as long. The third use is to propagate difficult-to-root plants. An example would be selected strains of Carpathian walnut, such as 'Lake's'.