

Mr. K. Patterson at the above establishment is acknowledged. The provision of facilities and the encouragement of Mr. R. Ware of Plant Productions Ltd., Napier, is gratefully acknowledged. The interest and provision of plant material by various growers is also acknowledged.

### LITERATURE CITED

1. Bailey, F.L. 1952. Culture of feijoa trees. *N.Z. Jour. Agr.* 84:291-296.

## FASTER BULKING UP NEW INTRODUCTIONS OF FRUIT CROPS

D. MCKENZIE

*Fruit Research Orchards, D.S.I.R.,  
Havelock North, New Zealand*

The most pressing problem facing the nursery industry is the need for new methods to speed the bulking up process with new introductions. At present, using ordinary outdoor nursery techniques, it requires at least four years to propagate 1,000 plants from one source plant that is moderately difficult to grow, like most fruit trees. We need to reduce this time to one year — so that we can make faster progress in introducing:

- (1) new rootstocks, e.g. BAC 29, 'Colt' cherry, Aotea selections
- (2) new cultivars from quarantine, e.g. 'Red Fuji', 'Jonagold', 'Gloster'
- (3) new hybrids from breeding
- (4) new virus-free selections
- (5) new colour sports, e.g. 'Red Delicious', 'Royal Gala', 'Braeburn'
- (6) new kinds of fruit, e.g. Nashi pear, persimmon, loquat

The New Zealand Tree Crops Association has recognized the problem in the development of new kinds of walnuts, hazelnuts and chestnuts and, in order to find some solution to this frustrating delay, they have decided to establish a special trust fund that would be used to support research and development of new rapid propagation methods, including laboratory and glasshouse production of meristematic tissue culture, micro-grafting, nurse-root grafting and very small softwood cuttings. The Nurserymen's Association is also studying a similar project and finds the tax-free aspect of trust funds attractive (since individuals may legally invest up to \$1,000 and companies 3% of profits).

It is possible that since the fruitgrowing industry is vitally concerned with speeding up the introduction of new material, that the N.Z. Fruitgrower's Federation should consider similar

action or perhaps the N.Z. Apple and Pear Marketing Board could use some of its Levy Fund and cooperate with these other groups, and perhaps the government would subsidize a concerned effort from the combined forces of horticulture.

It will be necessary to consider some of the existing organisations that may be prepared to undertake propagation studies:

Nursery Research Institute at Massey

Ministry of Works Propagation Unit at Aokoutere

Forest Research Institute at Wakarewarewa

Plant Physiology Division at Palmerston North (research only)

Plant Propagators Ltd. (private firm at Havelock North)

Levin Horticulture Research Division

Each of these entries could undertake research in propagation methods and some could take the process a stage further and produce commercial quantities of plants on a cost basis. Once the methods of propagation had been developed, it would probably be necessary for private specialists to apply them commercially. It may be necessary for the combined nursery trade to support one such firm and regularly place contracts for the rapid bulking up of new introductions. Once established the specialists could also accept contracts from people outside the nursery trade, e.g. government research units, plant breeders and private individuals (e.g. a grower with a new red sport).

We desperately need this sort of fast bulking up service.

## **PEAT AS A PROPAGATING MEDIUM IN NEW ZEALAND**

**D.S. ANDERSON**

*Smith Soil Industries Limited  
Mangere, Auckland, New Zealand*

Smith Soil Industries of Auckland, New Zealand, began trading as E.R. Smith Ltd. in 1960. It was then an owner-operated business involved mostly with the supply of various grades of metal to the building industry, and screened topsoil to the horticultural trade. The Company operated from a quarry at Mangere.

The move into the topsoil business was the first step towards forging links with the horticultural trade and with the forming of N.Z. Peat Ltd., a wholly owned subsidiary company, whose purpose it was to mine peat at Ngatea on the Hauraki Plains. Following this the step to blending mixes of a U.C. type became apparent.

Using the Hauraki peat and mixing with a suitable grade