THIRD SESSION

THE RESPONSIBILITIES OF THE PROPAGATOR

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The management of a nursery cannot be entirely separated in function from the propagator or other staff, as their interest is common, namely the production of plants or seeds of economic or ornamental merit for sale — albeit the one for profit and the other for livelihood. The management alone initially determines the type of enterprise to be capitalised although many influences in the course of time will alter the original concept, not least the advice of the propagation staff.

The present business of F. Toynbee, Ltd., comprises a wide and complex pattern of wholesale trade despatch, contract supply, landscaping and retail sales. The choice of plants grown here is partly determined by the advice of the propagator.

The management must decide wheather to grow an increasing number of different kinds of plants or reduce to a few hundred which have a guaranteed minimal annual sale. Whichever choice is made, an estimate of plant quantities is required, close to actual sales, and an acceptable limit of over-production must be determined. This is certainly hard work with a wide range of stock but it is essential for the proper survival of the business and to provide the propagator with a working level.

Another prerogative of management is capital expenditure, and its use provides tangible limits of production in land, buildings, machines and plant stock available, encompassing all the efforts of the enterprise. In other ways the propagator controls his employment as being the first active principle in the practicalities of nursery work. He must assume considerable responsibiltiy for maintaining successful methods of production, for the use of work-study principles to improve the efficiency of his operations, and he must be receptive to new techniques.

A vitally important part of the propagator's skill is his ability to recognise plant material and to identify his stock with the correct name, which he learns from close handling. Confusion in nomenclature abounds in many genera and groups of genera, furthered by extensive synonymity and a general haphazard attitude in many areas of the nursery world. Any trip around a general nursery will reveal discrepancies in names. A legal obligation now exists in the Trade Descriptions Act, 1968, to describe goods true to description. This cannot always be fulfilled perhaps, because of ignorance or unwittingness, but occasionally even blatant frauds may occur. A little more honesty is required in the frequent substitutions which occur and in catalogue descriptions.

The use of vegetative means of propagation is surely desirable when seedlings of some plants are noticeably diverse in quality, and when fine selections exist which are not excessively difficult to propagate vegetatively. For example, *Magnolia grandiflora* and *Chimonanthus praecox* are plants which are still frequently seed-grown but are far too variable for this method to be recommended. Likewise a clonal form of *Cercis siliquastrum* seems desirable. Trueness-to-name may be mentioned again and it is to be hoped that, by now, all nurseries have discarded *Hydrangea* listed only as pink, red or blue. Seedbeds and first planting-out rows must be scanned to rogue inferior plants and to select occasionally the outstanding plant, which may be set aside for several years for its qualities to be assessed; in this way improved clonal forms may be introduced into commercial channels. The work of the research stations in providing, and in propagating in the first instance, virus-free clonal material merits consideration here.

During the last few years some lines of imported material have declined in quality from past standards. Whatever the reason for this deterioration, and presumably demand is a major contributory cause, prices of first quality material are bound to rise owing to continued demand and to increased costs of production and transport. The increases must be passed on to the buyer so that, to maintain efforts at price stability at home, the nurseryman is increasingly likely to ask his propagator to further his propagation to include more of those plants previously bought in. The propagator's status will then be increased when his knowledge brings success.

Further co-operation between growers seems essential to reduce the over-production of the easier trees and shrubs. One nursery might easily grow a series of little-used plants for distribution to nearby nurseries without any increase of work during the initial propagation period; another propagator might raise larger numbers of common shrubs by agreement.

The position of propagators, like that of the nursery industry as a whole, would be enhanced if the gardening habits of the public were changed by inclination or persuasion towards less permanent garden design and more frequent replanting. The Horticultural Trades Association is the body to provide the persuasion on a national scale. Years of trade would come if the owners of four million untended gardens could be persuaded to take an interest, or if the numerous featureless gardens could have even the occasional tree to add immeasurably to their character and to the value of the site.

The industry should now become insistent upon evidence of some academic ability in its new entrants from school in the hope of sifting out the least suitable and raising the overall level of the quality of incoming staff. With the encouragement of further education facilities and given sound and broad training in the nursery, their understanding of plants and their basic skills will improve. Institutes, colleges and universities

should raise their level of entry requirements and standards of attainment required for the overall benefit of the industry and for the art of propagation, which many graduates enter.

To summarise, the propagator is a responsible person in the management and practice of the nursery industry, possessing several skills, but essentially a committed person with a life-long task which cannot but satisfy.

THE PROPAGATION OF ALPINES

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There are many snags in propagating alpine plants. Some of the high mountain species of *Androsace*, which produce tight rosettes of minute leaves, can only be raised from seed which is rarely produced in quantity and the seedlings grow very slowly.

Raising plants from seed is of considerable importance to the propagator of alpine plants who must be prepared to meet a range of spcialised requirements. *Primula whitei, P. edgeworthii* and *P. gracilipes* and their relatives of the Petiolaris section produce seeds which rapidly lose their viability. They must be sown as soon as they are ripe, with the seeds taken directly from capsule to seed-pan. Some people, however, have been led to the mistaken conclusion that all species of *Primula* should be so treated. In fact, the greater number of species respond far better to a spring-sowing programme; in this way they grow and develop and are ready to enter the normal resting period when winter arrives.

The seeds of *Gentiana verna* and *Lewisia cotyledon* hybrids benefit from a period of low temperatures under moist conditions without such treatment germination is likely to be sporadic and generally unsatisfactory. Seeds sown in containers in early March usually germinate freely when taken indoors into a heated glasshouse.

There are, however, many species of alpine plants which can be sown in a warm glasshouse in spring; e.g. *Aquilegia pyrenaica, Ramonda myconii* and the dwarf members of the Ericaceae.

Jankaea heldreichii can be propagated by separating offsets from the parent rosette; *Phlox nana* (*P. triovulata*) can be propagated by root-cuttings, but the rate at which these plants produce vegetative propagules, (to use an American term), is alarmingly low. Indeed, this is one of the major problems in raising a range of alpine plants for which the demand is greater than the supply. Most intelligent nurserymen use the plants of this category as bait for the considerable connoisseur custom which exists in this field.

It is perhaps in the next group of plants where real commercial possibilities exist. These are plants which offer some