

## BENEFITS TO THE NURSERY INDUSTRY

Apart from the direct benefits to be gained from the availability of a pool of well-trained nursery staff we feel that this development can provide other substantial help to the industry. A fund of specialized knowledge will be available at the college to help overcome the problems of the industry and, we hope, lead the way forward with the introduction of new techniques. We intend to organize a series of field days at which growers can see a range of production techniques and discuss problems with other growers and with college staff. The college staff will also be available for consultation with individual growers and a two-way interchange of ideas and information will develop to our mutual advantage.

## CUTTING-GRAFTS OF CAMELLIA RETICULATA

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*Camellia reticulata* has been propagated in this nursery for many years by cleft grafting. However the numerous disadvantages — use of four-year-old understocks, no buds formed in the first season after grafting, single stem with few or no lateral branches for the first year — made a cutting-graft seem worthwhile trying.

A side veneer graft carried out in the summer has worked well. The procedure is as follows.

*Camellia hiemalis* 'Kanjiro' is used as the understock. A vigorously growing plant that has made stout shoots on the top is selected. Understock cuttings are prepared about 5 inches long with 2 or 3 leaves. A single sloping cut about 1/2 inch long is made into the stem about 1½ inches from the base. This is where the wood is thickest and the possibility of cutting right through is minimized.

The scion of the desired cultivar is prepared by cutting to approximately 3 inches in length with two leaves at the top and the base is shaped into a wedge about 1/2 inch long. The scion is inserted into the cut in the understock and tied at this point. If the scion and the understock are exactly the same diameter there is no problem at all, but in most cases it is necessary to line up the cambium layer on one side only and overlap or underlap the other side as required. Where the scion is grossly oversized trim down one side to approximately understock size and proceed as before. For best results tie with a rubber band

but packing tape will do and is cheaper.

Place the newly prepared cutting into a normal cutting medium to a depth that will cover the graft union by about one inch. Treat as for a cutting until roots have emerged from the base of the understock. By this time callusing of the stock to the scion should have taken place. When the cutting-graft is removed from the growing medium roots may also have emerged from the union. Simply cut these off. The next step is to cut off the portion of the understock above the union but as close to the union as possible and from then on simply treat as a cutting and pot up.

Advantages of the cutting-graft system are:

1. There is no need to grow understock for 4 years and then cut it off.

2. There is no need to keep the plant for a further year or two before releasing it for sale.

3. The cutting-graft is at least as reliable as the traditional graft but, if it is unsuccessful, the loss is not that of a plant that has been grown for 5 years.

4. Preparing the cutting-graft is more time consuming than making ordinary cuttings but not as time consuming as the traditional graft.

5. The cutting-graft plant can be released for sale after 3 years compared with at least 5 for the traditional graft.

6. Whereas the traditional graft rarely has flowers when it is released as a first year graft, the cutting-graft usually has several flowers so the customer can actually see what he is getting.

7. Finally, and most importantly for both the consumer and the nurserman, the cost is lower.