DISCUSSION GROUP REPORTS
CAMELLIA PROPAGATION

Chairman - Bruce MacDonald

The Group was fortunate in that amongst its contributors there were some authorities, not only on propagation, but on nomenclature and the merits and limitations of the camellia cultivars generally grown in commerce. Discussion was mainly directed towards the propagation of *Camellia japonica* cultivars. The Chairman opened the proceedings by outlining the different propagation techniques used, and then proceeded to take, in turn, the various aspects for discussion.

PROPAGATION FROM SEED

Propagation from seed was confined to the raising of *Camellia japonica*, *Camellia saluenensis* and *Camellia reticulata* for use as rootstocks. Germination was said to be vastly improved by collecting the seed before the seed coat had hardened and subsequently sowing immediately under glass. The practice of placing the seed initially into water at a temperature of 180°F (82°C) and then leaving to soak for 24 hours, seemed to have little benefit. The prechilling of camellia seed had been practised with success at Oakover Nurseries whereby they were carefully sown just as the radical emerged from the seed coat. Seeds were discarded before sowing where the radical had failed to emerge.

A major factor contributing to the variations in vigour of the seedling progeny was thought to be due to the difference in size of seed one obtained in a purchased seed sample.

PROPAGATION BY GRAFTING

The rootstocks used for grafting were reported to be *Camellia japonica*, *Camellia saluenensis*, and *Camellia reticulata*. It was observed that when cultivars of *Camellia japonica* were grafted upon *Camellia reticulata*, symptoms of delayed incompatibility often occurred around the union. This combination was thought to be one reason why weak growth of mature plants is apparent with many choice cultivars in private gardens.

Time of year January and February were the two months when grafting was carried out. Grafting in August was little practised.

Grafting techniques Bench grafting, using a whip graft, was considered the most popular due mainly to its simplicity and the good results achieved. Scions of 2-3 ins (5-8 cm) length were generally used. The veneer grafts, approach, and nurse-seed grafts were little practised. A wedge graft was reported to be used in California, but was modified in that a sloping cut was made away

from where the scion was to be inserted into the rootstock so as to prevent moisture from entering the cut surfaces during the "after-care" period.

Aftercare Waxing of the union was not advised. Water application should be kept to a minimum in the closed case as epidermal tissue can absorb water, which if in excess, can lead to failure of the union. A basal temperature of 65°-70°fi (18.3°-21.0°fi) was advisable. Hardening-off of the grafts could be commenced within six weeks from grafting.

PROPAGATION BY BUDDING

Chip budding had been practised with success on the tea plant, *Camellia sinensis,* in Malawi. The leaf lamina was retained and the bud exposed when tying in.

PROPAGATION BY CUTTINGS

Source of material Camellias were stated to be a classic example where the rooting ability of a cutting is affected by the age of the stock plant. In America it was considered that there were four major viruses found in camellias. The practice of producing bi-coloured flowers by grafting scions onto virus-infected rooted cuttings was scorned upon.

Shortage of suitable propagation material was a limiting factor with many, so the buying in of unrooted cuttings at 6p each, and rooted cuttings at 24p, had been resorted to; prices up to £1-£2 had been paid for rooted cuttings of very rare cultivars.

Time of year There was considerable variation in the time of year that contributors rooted their cuttings. The earliest time was in June where, in Guernsey, the Japanese technique of using soft-wood cuttings had been experimented with — the cutting being removed from the stock plant when the current season's growth had just begun to become lignified. August and September were the optimum months — timing in one case practised when the stem of the current seasons growth turned from green to brown. At Treseders Nurseries, camellias were successfully rooted up to, and during, February.

Thus, like many evergreens, it would seem — bearing in mind the varietal effect — that the cultivars of *Camellia japonica* and its hybrids could be rooted successfully over a fairly long period.

Cutting preparation single leaf-bud or nodal stem cuttings were normally used. These were prepared from the current season's growth, but it was stated that two and three-year wood could be used. A shallow slice wound was normally practised.

Whether or not a rooting hormone should be used produced two main theories. Firstly, if a hormone was applied then this

would give rise to delayed bud break the following spring. Secondly, it was beneficial to apply a hormone as it was more important to allow roots to initiate as quickly as possible irrespective of any delayed bud break the subsequent spring — a strength of *0.3-0.8% (3000 to 8000 ppm) IBA in talc being used.*

The point that single leaf-bud cuttings should not be inserted too deeply was stressed and the benefits of "re-striking" cuttings which had failed to root were pointed out.

Rooting media A wide range of composts had been successfully used. Pure grit was used for striking cuttings in cold frames, while differing ratios of peat/sand and peat/perlite were used for mist. Pure peat was reported to be used for closed case conditions.

Propagation Facility Mist propagation was most widely used although other facilities had produced good results.

DISCUSSION GROUP REPORT
THE USE OF PLASTICS

Chairman - M.G. Adcock

Nearly *everything today consists, in some part, of plastic in* its various forms. We walk on it, the interior of our cars is almost made of it, we wear it, even wrap our food in it — one could go on almost indefinitely. The only thing we find difficult about the stuff is getting rid of it. It will not burn, but just disintegrates into something like boiling oil. Nevertheless, we would find life quite different without it. Indeed, in horticulture we rely on it no less than many other industries. Incidentally, polythene was introduced in 1933, but, due to the war, most of the polythene was *produced to that end.*

As one can see, this is a very diverse and complex subject, possibly too ambitious for one short session. We had a very interesting and useful discussion. I gathered from most of the members that for many of their production methods, a substitute for plastic would be very hard to find. The polythene sheet has the unique advantage of being very quickly erected on a suitable area to provide the correct environment for growing and propagating plants. It is an easily managed material; also, in most cases, more *economical than glass. With the advent of the low U.V.I. plastic* and the white type, I am sure it has a very long and expanding future in horticulture providing this material, which is a by-product of oil, is available to us in the years to come. Indeed, many new growers are setting up businesses entirely with polythene houses covering a very large area having multi-bay structures.