start from the "eye" in the middle of the scion (similar to roses after they have been headed back); once this commences remove the plant to an open bench with a temperature of about 50° to 55° F (10° to 13° C). When it has produced two sets of leaves, pinch out to harden and encourage fresh roots to form on the stock and, finally, pot on into a 4½ in. (11 cm) pot and stake with a 4 foot (120 cm) cane. We much prefer to use clay pots for this purpose. Place in a cold greenhouse or polythene house and within 6 to 9 months of grafting one will have saleable stocks.

PROPAGATION BY ROOT CUTTINGS

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The root cutting method of propagation is one of the least used methods of vegetative propagation. It is certainly one we hear little about. The primary reason for this may be the inconvenience in obtaining the propagating material. In most cases the stock plants have to be dug up or else the soil round the roots of the plants must be excavated to expose the roots prior to their removal; at best a rather tedious procedure. As this has to be done in mid-winter, it is is not surprising that propagators find other ways of increasing their stock.

Despite the difficulties involved, the root cutting method is by far the best way to increase certain plants which do not easily grow from stem cuttings. The Californian poppy, *Romneya hybrida*, is very readily increased by root cuttings. At Woodbridge, we find this operation is best done in late December or early January.

Stock plants are grown in large pots and planted in our display borders where the flowers are very useful during the summer for Flower Shows. The stock plants are carefully dug up, and the roots which grow over the top of the pot and through the hole at the bottom are ideal for our purposes; only a very small amount of this fleshy type of root is produced on plants dug up from the open ground. These are cut off and carefully put into a box, making sure all pieces of root are the right way up; they are taken into the greenhouse and cut into lengths of about one inch. To avoid confusion when potting, it is best to cut horizontally across the top of the root and slanting at the bottom. The cutting is then potted vertically into 1½ in. peat pots, covering the top with 1 in. of compost. For ease of handling, these small pots are put into plastic seed trays and placed in a warm greenhouse at 55° F. When the roots begin to show through the wall of the peat pot, usually in March, they are ready to pot on into 5 in. pots. Great care is needed with romneyas at this stage, because the roots must not be disturbed. This is why we use the peat pot as it can be planted "pot and all".

Before the peat pot came onto the market, clay pots were used, making sure to wash them very clean to stop roots sticking to the side of the pot. Before the War, when propagating houses were kept locked, this propagation technique for romneyas was one of the best kept secrets of our nursery.

In May or June, the romneyas are planted into nursery beds and by autumn have reached a height of two to three feet.

Rhus typhina and *Rhus typhina* 'Laciniata' are also increased by root cuttings, which is easier than stem cuttings or by seed, in the case of the type itself. The roots of these are readily obtained. Sometimes the roots run as far as 4 ft. from the plant, just under the soil. The cuttings are made about 2 in. long, slightly longer than *Romneya* cuttings. These are potted into 5 in. pots, about 20 to a pot and given the same treatment. In the spring they are potted into 3 in. peat pots and planted out in nursery rows in June. The percentage obtained is not as high as with romneyas but high enough to make it worthwhile.

Chaenomeles will, of course, root from stem cuttings but they also grow well from root cuttings. The only precaution is that one must be sure that the stock plants are on their own roots.

We find the best plants for roots are two-year plants. We wait until the saleable plants have been undercut, then lift them carefully, cut off what roots the plant can spare and lay the plant back. These are then treated the same as the *Rhus* — 20 in a 5-in. pot, with very good results.

Clerodendron trichotomum is perhaps the easiest of all to propagate by root cuttings. We pot these as for *Chaenomeles*, 20 to a 5-in. pot do not repot into 3-in. peat pots. They are simply planted into a cold frame in April and will reach 1½ to 2 ft. by autumn.

I should think *Clerodendron* would propagate very readily in a cold frame, or even in nursery beds but I have not tried this method.

I do not claim for one moment that there is anything new in this method of propagating. I have been involved in this for 40 years and find it is the best way to increase the stock of certain plants which do not root well from stem cuttings. Another point is that the work can be done at a slack time in the propagator's calendar — if any propagator ever admits to having a slack period!

The whole operation can be carried out by junior members of the propagating staff, leaving the senior members free for more skilled jobs, such as grafting.

Root cuttings, although admittedly of limited usefulness in the whole field of propagating, are of great value in the production of a few special plants. The technique should not be forgotten as it is sometimes an inexpensive substitute for more costly grafting or very poor results often obtained with softwood cutting propagating.