PROPAGATION OF PAPAVERS BY ROOT CUTTINGS

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Papavers are worthy plants with bright bold colours for the herbaceous border. They do best in a sunny position in a deep dry soil. Papaver orientale hybrids, which are common in cultivation today, were raised by Amos Perry of Enfield, Middlesex in the early 1900's. With a few exceptions these cultivars must be propagated by division or root cuttings.

To obtain suitable propagation material papavers should be field-grown, not container-grown, as the restriction of root growth causes a more fibrous root system to be produced.

The stock plants are planted in May or June and left undisturbed, apart from keeping them weeded, until November or December. At this point they are carefully lifted from the ground using a normal garden fork so that the roots are not damaged. As the cuttings will not be inserted until February or March the roots must be stored, there are two ways this can be done:

1) the complete plant is plunged in peat

2) the roots needed are removed, laid in boxes and covered with peat; it is most important that they are kept facing the same way to maintain correct polarity for planting. The original plant can then be plunged in the open ground ready for replanting in the spring.

The roots are then stored dry and frost-free until they are required for propagation. This is very convenient because they can be stored for up to two months. The actual time of preparation of the cuttings is flexible but ususally they are prepared in February when bad weather may mean that outside work is impossible.

The cuttings should be 50 to 60mm in length with straight cuts at both ends, the best diameter is 3 to 7mm; they should be inserted into trays the same day they are made.

Usually trays $600 \times 400 \times 180$ mm are used with peat 30mm deep spread on the bottom of the tray. A strip of peat 30mm deep is then put at one end of the tray so that the cuttings can be placed against it. The cuttings are stood upright across this strip of peat; when the row is completed they are covered with more peat and another row of cuttings can be placed in the tray.

When the tray is full a thin 2mm layer of peat is spread over the top of the whole tray. It can then be lightly watered in and stood in an unheated polythene tunnel or cold frame. The roots are of a fleshy nature, therefore they can be easily damaged by frost; this can be reduced by not letting the peat get too wet.

I have been experimenting with other materials instead of peat because of its water-holding capacity and have had some very good results using a 50:50 perlite-sand mixture.

The cuttings usually start to shoot in April and as the temperatures rise more frequent watering will be required; during May and June the trays can be removed from the polythene tunnel and placed outside for hardening off before planting or potting. This should be done before the roots have started to produce their own fibrous root system. As this is very easily damaged a better plant is produced if the new roots can grow straight into the container compost or the soil. The plants are then left to grow until they have reached a saleable size in containers, this is usually July and August; the field-grown plants are sold from September onwards and the cycle can begin again.

PLANT FAMILIES IN NEED OF TENDER LOVING CARE¹

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The National Council for the Conservation of Plants and Gardens was formed some 10 years ago, following a conference organised by the then Director of Wisley, Mr. C. D. Brickell, now Director General of the Royal Horticultural Society, because of his concern at the rapidly decreasing number of garden plants available to the gardener and horticulturist. The NCCPG, by which initials I shall now refer to us, is as much of a mouth-full as the full name. We are, in fact, an independent charity with offices within the Royal Horticultural Society Gardens at Wisley.

Work on the wild endangered flora of many countries is well underway, co-ordinated by the International Union for the Conservation of Nature and Natural Resources (IUCN), but little or no work has been done on the garden plants of British Gardens. Some work has been done by Dr. E. C. Nelson on Irish garden plants and, in particular, cultivated plants.

The main aims of our organization are:

- a. to encourage the conservation of uncommon plants that are valuable because of their historic, aesthetic, scientific, or educational value by propagating and distributing them as widely as possible,
- b. to list plants held in important collections and gardens,
- c. to encourage the widest possible cultivation of uncommon and endangered plants by arranging conferences, exhibi-

¹ Work of the National Council for the Conservation of Plants and Gardens