

Propagation of Perennials at Schram's Nurseries

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Schram's Nurseries, Moyvalley, Co. Kildare, Ireland

INTRODUCTION

The nursery was established in February 1981 to supply perennials for the author's landscaping business. At the time, perennials were not grown in Ireland on any commercial scale and the nursery soon started to supply perennials to the trade. In 1987 it replaced the landscape business as the author's sole occupation.

At present 88% of plants produced are sold to garden centres, 4% to the wholesale trade, 4% to export, mainly Northern Ireland, and 4% to the landscape trade.

Because of Ireland's location in the EU and because it is an island with a small population, it is important to offer a diverse range of plants and a good service. Therefore, approximately 1500 different taxa of perennials are grown, from propagation stage to final product. Marketing, promoting, and delivery are all undertaken in house. Recently, several new perennial nurseries have been established in Ireland and it is now not so important to carry such a wide range. Instead, it is important to become more efficient to be able to compete. The nursery now aims to specialize, mechanize, and automate while still trying to offer an interesting range to the trade. New lines are continually introduced, each with their own propagation problems to be overcome.

PROPAGATION

Most propagation is undertaken in house. The main reasons for this are:

- To have guaranteed availability of young plants.
- The weakness of the Irish pound makes imported young plants expensive.
- 17.5% VAT is charged in England which is not reclaimable in Ireland.
- The timing of deliveries from abroad of young plants does not always suit the growing season.
- The range available in the trade is limited and the danger exists that those varieties which are available will be overproduced by this nursery's competitors.

Perennials from Seed. Most perennials from seed are purchased as plugs. This is the most economic way, as these plugs are cheap and the nursery has no facilities for plug sowing. There is only a limited range of easy-to-sow plants available, but these plants are in big demand, so quantities involved are big. The most difficult taxa, such as *Lewisia*, *Gentiana*, and *Helleborus*, are grown from seed on the nursery. They are given a heat treatment of approximately 6 weeks at 20C; then stratified for 3 to 8 weeks depending on species, and then sown in mid January in trays under polythene and covered with aeroboard. After the first signs of germination the trays are put under low tunnels of perforated white polythene, either inside or outside the glasshouse. When the first set of true leaves appear, trays are put

under shading, which is removed later. Before seedlings are potted they are hardened-off outside.

Perennials from Root Cuttings. *Anemone* (Japanese anemones), *Papaver orientale*, *Morisia*, *Anchusa*, *Brunnera*, and some *Geranium* taxa are done from root cuttings. *Anemone*, *Morisia*, *Geranium*, and *Brunnera* cuttings are taken approximately 2.5 cm long and laid flat in a tray and covered with approximately 1 cm of peat. *Anchusa* and *Papaver* are also taken a 2.5 cm and stuck in forestry cells. From 1997, most root cuttings will be stuck in cells.

Shoot Cuttings. The majority of perennials on this nursery are either propagated by division or by shoot cuttings. Most cuttings are stuck in cell trays to prevent root disturbance when potted. These are easy and quick to take out of the tray, easy and quick to pot, and will give very few losses.

The trays are placed on mobile benches under low tunnels with clear polythene. Shading (35%) is given during sunny weather. During the hot summer in 1996 additional shading was required with milky white polythene, which was pulled over the hoops. This simple enough system worked well.

Basal Cuttings. These are mainly taken in spring but *Sempervivum*, *Saxifraga*, *Geranium cinereum* 'Ballerina', *Viola* spp., *Campanula* spp., *Heuchera*, *Artemisia dracunculus* (French tarragon), and *Aubrieta* are autumn propagated.

Division. This is the technique used for most taxa offered by the nursery. Plants propagated by this method include: *Aconitum*, *Astilbe*, *Hosta*, *Aster*, *Cimicifuga*, *Crocasmia*, *Filipendula*, *Gunnera*, *Hemerocallis*, *Iris*, *Kniphofia*, *Rodgersia*, *Schizostylis*, *Tradescantia*, and *Zantedeschia*. Most plants are divided between February and June.