

Growing Heaths and Heathers in Europe

David Hutchinson

MAFF ADAS, Cromwell House, 15 Andover Road, Winchester, Hampshire SO23 7EN, England.

INTRODUCTION

Through the ages heaths (*Erica*) and heathers (*Calluna*) have long been associated with humans from the thatching of dwelling houses, the making of ropes and pegs, the construction of roads, and dyeing of cloth to the recognised observation that some of the finest brands of whisky obtain their most delicate piquancy from heather in Scotland. However, heaths and heathers also have immense ornamental value: flowering year-round in a range of colours; having attractive spring foliage with red, white, or cream tips; and having golden, silver-grey, or dark and soft green foliage which, in the autumn, gives rise to fiery red hues. Garden cultivars have arisen through collection from the wild which in turn have given rise to sports and some cultivars have also arisen from breeding. Breeding and introduction of new cultivars have given rise to over 700 different types being grown and catalogued in Europe.

In the last 20 years, the professional growing of heaths and heathers has resulted in many specialist nurseries producing over 20 million plants each year.

NOMENCLATURE CLONAL STOCK

With a wide range of types and cultivars handed down through time and distributed, it was recognised by 22 members of the British Heather Growers Association that there was confusion and misnaming along with poor clonal material. In 1988, each member submitted one plant of each of their nurseries top 50 heaths and heathers.

These were propagated at HRI, Efford and in 1990 assessed for: trueness to type, vigour, form, density of growth, resistance to sun scorch, foliage colour, flower density, length of flower spike, and flower colour.

Five clones of each cultivar were short listed for growing on. In 1992 the final selection of the best clones was made. In 1993 the members received propagated plug trays of the selected clonal material which were then grown on for stock plants. In 1994 the new clonal material was available through members for sale to the garden centre trade.

STOCK PLANTS

With this new clonal material and other new cultivars, specialist nurseries select their mother stock very carefully each year. Many growers prefer to grow the mother plants in 3-litre pots which are then stood on sand-capillary and irrigated beds to ensure that the plants are adequately watered in summer and well drained in winter. In high rainfall areas stock plants prefer to have winter protection and are grown under glass or polythene structures.

An alternative method of growing stock plants is by growing on 90-mm pot stock plants into suitably prepared soil of the right pH and free of calcium carbonate. The

stock plants are planted through a polypropylene mulch which eliminates weeds and helps to prevent soil-borne diseases from contaminating the foliage of the mother plants.

PROPAGATION

In mid summer heaths are the first to be propagated by cuttings. Cuttings are prepared 20 mm in length from fresh collected wood and inserted into 273-plug trays. Some prefer to strip the lower foliage in order to insert the cutting more efficiently, others prefer not to. After insertion, the cuttings are drenched with a fungicide solution of prochloraz and furalaxyl.

The trays are placed on sand beds and can either receive intermittent mist, fog, or be enclosed in shaded polythene tunnels. If mist is employed, water of the correct pH and calcium carbonate level must be used to obtain quality plants.

FUNGICIDE PROGRAMME

Heaths and heathers can suffer from many diseases when grown intensively especially so under protection and a fungicide spray programme is needed (Table 1).

Table 1. Diseases and fungicides used to control them.

Disease	Fungicide
<i>Botrytis</i>	Dichlofluanid
"	Iprodione
"	Chlorothalonil
"	Prochloraz
"	Thiram
<i>Pythium</i>	Furalaxyl
<i>Rhizoctonia</i>	Tolclofos-Methyl
<i>Phytophthora</i>	Furalaxyl
<i>Cylindrocarpon</i>	Benomyl
<i>Pestalotiopsis</i>	Prochloraz
	Carbendazim + Maneb

GROWING ON

Rooted cuttings are potted into 90-mm pots using an in-line, linear potting system, an ADAS potting bench, or potting machine. Increasingly, sand-capillary-irrigated beds are being used for growing heaths and heathers outdoors. These beds reduce losses, use the minimum amount of water, and avoid water application to the foliage. This in turn significantly reduces foliage diseases. Well drained beds through the winter ensure excellent survival of the root system, heighten the normal foliage colour, and ensure hardiness.

GROWING MEDIA

Propagation. No controlled-release fertilizer is added. Propagation media include 1 graded sphagnum peat : 1 graded pine bark (v/v) or 1 graded sphagnum peat : 1 medium grade perlite (v/v).

Growing on. Controlled-release fertilizer (2.0 kg m^{-3} 12-14 month) adjusted for type of irrigation and plant is added. Growing on media include: graded sphagnum peat or 3 graded sphagnum peat : 1 graded pine bark (v/v).

PESTS

Vine weevil, *Otiorhynchus sulcatus*. This pest can be damaging to the root system, causing death. The latest control measure is incorporating micro-encapsulated chlorpyrifos granules (trade name Suscon Green) into the potting compost. Alternatively, no control measures are incorporated into the compost, and good hygiene and monitoring for the pest are carried out.

Tortrix moth caterpillars. These are an occasional pest and are controlled by a routine programme using diflubenzuron, or when seen, by spraying with cypermethrin.

Aphids. These pests can cause considerable damage before being seen, and regular monitoring or occasional sprays are recommended usually Pirimicarb is used.

HEATHS AND HEATHERS

Heaths and heathers (*E. arborea*, tree heath; *E. carnea*, winter heath; *E. ciliaris*, Dorset heath; *E. cinerea*, bell heather; *E. erigena*, Irish heath; *E. tetralix*, cross-leaved heath; *E. vagans*, Cornish heath; *E. xdarleyensis*, Darley Dale heath; *E. praegeri*, Praegers heath; *Calluna vulgaris*, ling, heather, Scotch heather) enhance a garden with attractive flower and foliage for 12 months of the year, are hardy, and can remain attractive in the landscape, lasting 7 to 10 years providing they are well trimmed after flowering each year.