

INTRODUCTION

Many kinds of flowers are grown in the open for sale as cut blooms, since there is not an unlimited demand for supplies of any one flower. The relative importance of each kind varies considerably, depending upon season of the year, extent of competition with other flowers and the inherent suitability of the flower for the cut flower trade.

Cut flowers are currently a relatively small scale enterprise in Ireland practiced by a small number of growers who tend to grow for supply to local high street florists or farmers markets.

Irish per capita expenditure on cut flowers is however increasing and given positive economic growth and an expanding population there is increasing demand and a growing appetite for a greater variety in the flowers available. Different types of events and the increase in availability of flower bouquets through supermarkets is driving the interest in Irish grown cut flowers.

Annual, biennial and perennial species, bulbous plants, herbaceous and shrubby species, foliage and fillers, are all potentially included. This fact sheet deals specifically with annuals and biennials only and gives some brief information on the range of cut flowers in this category that can be grown in Ireland whether for traditional markets or for a larger scale commodity supply to flower processors for onward supply to supermarkets or even for export. Other species are covered in separate fact sheets in this series, eg '17/20' deals specifically with hardy perennials.

Although the number of plants included in this note is large, a carefully thought out policy to assist the smooth running of an enterprise to avoid excessive peaks on labour demand is important.

To be suitable for the commercial cut flower trade, flowers to be grown in the open should possess certain qualities.

1. The most important is that they should last well. They should also take water readily when placed in vases.
2. They must also be capable of being handled, packaged etc. without readily bruising breaking or shattering.
3. Consistent quality capable of good yields is also key.
4. Stems need to be of good length, stiff and wiry and posing the flower heads at a suitable angle meeting with market specification.



SITE

A south-facing aspect is desirable but not essential, however shelter from prevailing winds is important. Returns for flowers mentioned in this note can be increased considerably if the flowers can be produced a week or two earlier. Early sowing is the main factor but if one has a protected structure earlier flowering can result.

SOIL & PH

Light to medium, well drained soils are best but will grow on a wide range. Avoid those that dry out rapidly unless irrigation is available. For plants that have to overwinter, it is essential that the drainage should be good. Aim for pH of 6.0-7.0. A good tilth to encourage quick germination is required and cultivation must be thorough when preparing a seedbed.

SYSTEM

Crops can be drilled on the flat, on drills or on raised beds.

SEED

There are a wide number of companies that supply seed based in UK, Holland, France and elsewhere – see factsheet 23/20 for more details.

NUTRITION

Little experimental work has been carried out in relation to fertilisation of cut flowers. General principles apply so a soil test is necessary to accurately determine rates of Phosphate (P) and Potassium (K). The judicious use of Nitrogen is important. Consult your adviser for crop specifics.

SPACING

Distance between which will depend upon the height and habit of the crop and nature of implements used for inter-row cultivation.

For many subjects 30-45 cm is suitable and it is good practice to leave pathways every 1.2-1.5 m to facilitate harvesting. The depth of sowing is proportionate to the size of seed, very fine seed being only just covered with soil.

WEEDS

It is critically important to keep plantations free of weeds. It is vital that the site has first been cleared of perennial weeds by spraying off, using a mixture of *Glyphosate* (Roundup) and *Carfentrozone-Ethyl* (Spotlight Plus). Some growers rely on inter-row cultivations to keep crops clean. There are limited herbicides recommended for use on cut flowers. Some residual herbicides have 'off label' approval which are used at growers risk. Consult your adviser for specific recommendations and updates.

CROP SUPPORT

Some subjects require support system based on poles and wire mesh to keep stems upright and maintain quality.

PESTS & DISEASES

Slugs – have been found to be problematic particularly in wet seasons with damage seen from early spring right through to the Autumn. Rabbits/hares could pose a threat and site may have to be fenced. Aphids and caterpillars can sometimes be problematic. Diseases can be an issue on particular species which may require specific husbandry requirements. Consult your adviser for recommendations.

HARVEST

Depending on the species, generally stems are cut early in the morning and moved to the cold store to maintain quality. Most species are generally sorted into lengths of 40-50 cm. Stems are bunched in 5"s. Chill at 1-3 C.

SUITABLE SPECIES

ANTHIRRINUM

Anthirrhinum majus

Popular summer cut flower treated as a half hardy annuals commonly known as snapdragons. Produces long stems. Seed sown in slight heat in March and planted out in May. Seed can be sown in the open in July and August for flowering the following season. Flowers cut as soon as those on the lower part of the spike are open and bunched in 6's or 12's.

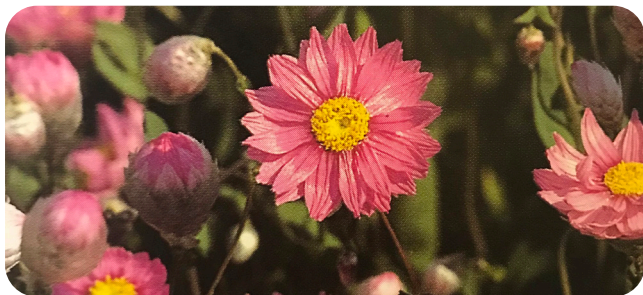
CORNFLOWER

Centaurea cyanua

A widely grown annual commonly known as Bachelor's button available from spring to late summer. Blue varieties sell best followed by pink. Mixed bunches are also marketed. Only double varieties should be cultivated. Best in a sunny site where the soil is not too rich otherwise excessive soft growth results. Support is generally necessary. Annual varieties direct drilled in early spring. The perennial cornflowers (*C. montana*) spreads rapidly into large clumps which can be divided to maintain stock. Available from Spring to late Summer. Sold in stems up to 50cm.

EVERLASTING FLOWERS

Helichrysum & Helipterum spp etc.



The former is the most popular with Acroclinium and Rhodanthe being strictly Helipterum. These are flowers which can be dried to retain their form and colour to be used in semi-permanent decoration where florists use the dried products in posies and baskets. Helichrysum is quite hardy so sow in the open in April in 45 cm rows. Outdoor sowings of Acroclinium and Rhodante can take place in early summer. Other everlasting flowers are Honesty and Statice.

FORGET-ME-NOT

Myosotis spp

Varieties of annual, biennial and perennial species are used for cut flowers

GODETIA

Godetia amoena

This annual is gaining in popularity. Sowing takes place in Spring with supplies later in the Summer and Autumn.

GYPSOPHILA

Gypsophila elegans



White varieties of Gypsophila are most popular although pink and red varieties are also grown. Sow in September for May cutting or from early March onwards for later supplies. Can be drilled 30 cm apart.

HONESTY

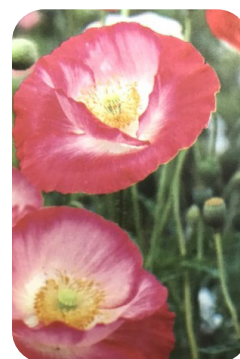
Lunaria annua



This is a biennial and is tolerant of shade. Sow in mid- Summer in a moist seed bed. It is commonly cut for its ornamental seed pods, the septum of which, when the outer leaves have removed, is revealed as the well known 'silver moon.' This is the cutting stage in late Summer with stems from 60-120 cm.

ICELAND POPPY

Papaver nudicaule



Iceland poppies are available in summer early Autumn. Although perennial, it is treated as an annual and planted out from seed sown under protection in early spring. Numerous varieties in a range of colours will flower from end of May onwards. Harvested when the buds are beginning to burst. The seed heads are also used as a dried decoration.

LARKSPUR

Delphinium ajacis

There are a number of different types on the market, the most popular being the stock flowered types. Seed is sown in Autumn or in spring in drills 30-45cm apart. The spikes are cut when the flowers are fully opened.

LAVATERA

Lavatera trimestris

Sometimes sold as a cut bloom. Direct seed sown in April.

LOVE-LIES-BLEEDING

Amaranthus paniculata

The drooping, crimson or green tassels of amaranthus provide strong colours in Spring. This is an annual that is direct drilled. It likes full sun and a well drained soil. It dries easily and keeps its colour well.

ORNAMENTAL BRASSICA

Brassica oleracea

Have become very popular in recent years available in late Autumn. Grown from transplants or direct drilled in mid-summer. Season extension can be obtained using protected structures. Several varieties available with the 'Crane' series performing the best in Teagasc trials. Wide range of colours available which colour up as the temperature drops in the Autumn. Plant at 12cm square. A wire mesh is necessary to support the crop as it grows. Watch for aphids, caterpillars and slugs.



SCABIOUS

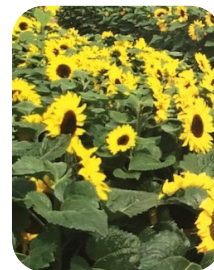
Cabiosa atropurpurea



The annual scabious is available in a large range of colours and is popular in summer and into autumn. There is also a popular perennial *Scabiosa caucasica*. The annual is sown in April in 30 cm rows.

SUNFLOWER

Helianthus annuus



A popular cut flower with a range of standard and dwarf varieties. They enjoy full sun with plenty of air movement on a well drained soil of pH 6.5-7.0. They are direct drilled or grown from transplants raised under protection. They are prone to a number of pests and diseases. Plant at 15cm square.

STATICE

Limonium spp

Three species of statice are grown for cut flower – *L. bonduellii* and *L. sinuatum* are perennials in their natural habitat, but for horticultural purposes they are treated as annuals. The third, *L. suworowii* is a true annual. *L. bonduellii* is yellow flowered while *L. sinuatum* in its native form is lilac but several hybrids are available. Flowers are marketed either fresh or dried. *L. suworowii* is a different habit and carries its flowers in spikes. Suitably timed sowings will produce flowers from May to October.

STOCK

Matthiola incana



This is one of the most popular cut flowers on the market available in a wide range of colors. Treated as half hardy annuals, they are sown under protection in Jan/ Feb and planted out in May. A bed system works well with plants at 15 cm square. They can also be

direct drilled outdoors in May and June. They are fit for harvesting once 5-6 flowers are open.

SWEET PEA

Lathyrus adoratus

Extremely popular and financially rewarding if on the market early. A wide range of colours available with shades of lavender, pink and blue being very popular. Good soil is essential and deep cultivation is required. They are hardy. Sow in the open ground from mid- March in spring for mid-summer blooms but autumn sowings or seed raised under protection in Jan/Feb will produce flowers in the early summer period. Aim for double rows 30 cm apart. Support netting is required and side shoots and tendrils should be pinched out to ensure top quality flowers are produced. Cutting should take place when the top bud of the inflorescence is ready to open.



WALLFLOWER

Cheiranthus cheiri

A perennial plant it is usually treated as a biennial when grown commercially for cut flowers. It is an old garden flower, sweet scented and attractive. There are several named varieties singles and doubles. Plants are usually raised from seed sown in drills in the open in April or May. They are planted out in their permanent positions in Sept or October. You can also drill directly without transplanting. A well drained medium loam soil with a pH of 6.5 is essential. The species is very susceptible to club root – hence the high pH. The stems are ready to cut when several of the lowest flowers on the spikes are open. The leaves are stripped off to the base of the stems.



SWEET WILLIAM

Dianthus barbatus



An old fashioned flower still in favour. Flowers are sweet scented and attractive and usually available in late June or early July. A good open sunny position is best. Though a perennial plant, the Sweet William is generally treated as a biennial direct drilled in

the summer months. Seed can also be sown under protection and transplanted out and will produce flowers late the same season. Plant at 15cm square. The flowers are usually marketed in mixed bunches.

ZINNIA

Zinnia elegans

The Zinnia is a tender half-hardy annual and requires a favourable position liking good weather. Direct drill in the spring .

Other species to consider include Astilbe, Calendula, Celosia, Nicotinia, Nigella , Molucella and some of the seed raised fillers such as Ammi, Bupleureum, Carthamus & Euphorbia.