

Cultural Details: **Pansies and Violas**

With a sales season from September through to April, pansies and violas are an essential part of any bedding plant programme.

They can be raised easily from seed, provided that they are not over-heated whilst germinating in the Summer, and temperature control in the Autumn will ensure a tidy plant habit for sale without the need for growth regulators.

Variety Selection

At the time of writing Moles Seeds lists 192 varieties of Pansy and 86 of Violas! The ingenuity of the breeders shows no sign of lessening, with developments in colour combinations, trailing habit for baskets, and compactness for pack sales, being the main goals at the moment.

Very large flowered pansies, such as Power, take longer to flower and are only suitable for Spring/Summer sales as flowers look tatty in poor weather. Multiflora types such as Ultima are excellent for Autumn sales, but become smaller flowered with warmer conditions in Spring and early Summer. A good compromise, large flowers and quick flowering, is the variety Fancy, equally suited to Autumn and Spring sales, and our best seller at the time of writing.

Violas produce masses of small flowers and can be sold in flower in Autumn, Winter and Spring, on their own and in mixed containers. The hybrid types behave well under warmer conditions and will flower into Summer until wiped out generally by Mildew. We offer several trailing types suitable for Winter hanging baskets.

As a less expensive option we have a range of F2 and open-pollinated varieties, which generally take longer to produce a flowering plant for sale, and, when over-wintered, are slower into flower in Spring.

Programming the Crop

*Sow **June** for **September** sales*
*Sow **July** for **October** sales*
*Sow **August** for **November-February** Sales*
*Sow **October-December** for **March** sales*
*Sow **January** for **April** sales*

Propagation and Growing-on

There are around 700 seeds per gram, up to nearer 1000 for viola. Sow into plug trays ideally to prevent root disturbance, or seedling trays. Germination takes around 7 days

at 17-20°C, when sown onto an open seed-sowing compost, and covered lightly with vermiculite. Light is not necessary for germination. Temperatures above 21 °C will reduce germination, so in Summer choose a cool location away from direct sunlight, better still use a temperature- and humidity-controlled germination room.

We are able to provide primed seed for certain varieties, which germinates across a wider temperature range. Ask for further details.

Control water levels; too wet and the young seedlings will stretch. Start moderate liquid feeding the plug plants after 2-3 weeks. Grow on at 17 °C maximum to avoid stretching of the young plants.

After 5-6 weeks the young plants are ready for transfer into 6- or 9-packs, or 8cm pots, or else can be used for baskets and containers. As soon as the roots are visible at the bottom of the container, it is advisable to move Summer-raised plants outside, to avoid stretching of the plants. Stand them on a clean surface e.g. new woven plastic, to avoid picking up persistent diseases such as Theilaviopsis (see later). Maintain a liquid feed programme.

Growth Regulators

The goal for producing pansies must be to avoid the use of growth regulator chemicals by controlling water levels and temperature. However use of growth regulators from an early stage will ensure a compact habit, especially where it is not possible to move plants from under glass/plastic in the Summer. Various growth regulators are suitable – see manufacturers' literature for full details. If using Bonzi note that the chemical can remain active on bench surfaces and affect subsequent crops.

Pest and Disease

Always start with new trays, fresh compost, clean benchtops, and clean water. Keep good air movement through the crop and try and keep foliage dry, to avoid grey mould (Botrytis). Monitor for leaf spot diseases such as Ramularia and spray accordingly. Mildew (powdery – white patches mainly on upper leaf surfaces, and downy, white areas defined by leaf veins on lower leaf surfaces), can be controlled by specific spray programmes.

Black root rot (Theilaviopsis) is the most serious disease currently affecting pansies. Affected plants start to die off, in patches in the crop, and plants may be affected from a very early stage, showing stunted and twisted growth. The disease is persistent in the soil, on bench tops etc, and is easily spread by water splash, hand contact etc. Monitor for this disease – a preventative/curative spray programme can be used – contact your chemical supplier for further details.

Information provided for guidance only, as cultural practices and climatic circumstances vary.