



## Growing pumpkins

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*Pumpkins are grown mainly in northern Victoria, with smaller plantings in the southern vegetable growing districts. Pumpkins are summer-growing annuals and will not tolerate frost.*

### Soils

Pumpkins may be grown on a wide range of soil types providing the soil is free-draining. They are tolerant of fairly acid conditions and liming should not be necessary unless the pH is less than 5.5.

Well-drained soils that warm rapidly in spring are ideal for the production of the quick-maturing pumpkins of the Windsor Black and Butternut types. Friable loams with an abundance of organic matter and the capacity to retain moisture are ideal.

### Soil preparation

Prepare a deep, friable seed bed. Early soil preparation will allow time for cultivations to help eliminate weeds.

### Planting times

Sowing of early pumpkins for marketing in December starts in September in northern districts. The main crop is sown from mid-October until Christmas. Pumpkin seed needs a minimum soil temperature of 15°C to germinate and this will determine planting time.

### Fertilisers

The application of 30 cubic m of fowl manure per ha benefits areas prepared without a cover crop. Apply a base dressing of 600 kg to 1000 kg of N:P:K 5:8:4 or 6:6:6 per ha, or the equivalent, before planting.

### Planting

Sow directly into the field. Thin crops drilled mechanically in rows to one or two plants when established. If mechanical seeders are not available, sow the seed by hand in clumps at the desired spacing.

### Spacings

Space the rows between 1.5 m and 2 m apart and space the plants around 1 m apart in the plant row for the larger-

vined pumpkin. Butternut pumpkins can be planted on double rows on beds 1.5 m wide or spaced to 450 mm between plants. Wider spacings are recommended in areas where irrigation is not used.

### Weed control

No satisfactory pre-emergence herbicide is yet available for use in pumpkins. Therefore, cultivation must be regular and effective from the time the young plants emerge. All weeds must be under control before the plants produce runners because cultivation must cease at that stage.

Herbicides such as Fusilade and Sertin can be used for control of grass weed.

Plan plant and row spacings according to the cultivating equipment available so that mechanical cultivation can be the main means of controlling weeds.

### Pollination

Early pumpkin flowers are difficult to pollinate if the weather is cold, wet or windy during flowering. To aid fruit set, place five or six beehives per ha through the crop at the start of flowering.

Bees will also be killed by a number of pesticides that may be used and care should be taken when spraying for pests or diseases. The apiarist should be consulted before spraying and if it is necessary, only sprays of very low toxicity to bees should be used and applied at evening.

### Control of pests and diseases

- **Pumpkin beetle:** spray with either carbaryl which is sold under various trade names, or maldison ("Malathion").
- **Leaf-hoppers:** dimethoate, sold under various trade names.
- **Aphids:** endosulfan, dimethoate, parathionmethyl sold under various trade names.
- **Powdery mildew:** spray with either oxythioquinox ("Morestan"), dimetherimol ("Milcurb") wettable sulphur pyrazophos ("Afugan"), benomyl ("Benlate"), carbendazim ("Bavistin"), mancozeb, maneb or zineb (sold under various trade names).

Use the above products according to the manufacturer's recommendations and observe the withholding periods and safety precautions printed on the label. Check with NRE for the registration status of the products.

## Harvesting

Early pumpkins are harvested when the outer skin has coloured and is reasonably hard and are marketed immediately to catch the high prices of the early season. Withering of the stem indicates full maturity.

Pumpkins for storage are best left in the field until the vine withers. Remove the fruits from the vines, taking care to leave 50 mm to 75 mm of stem attached. Reject fruit for storage if the stems are accidentally broken off as rot organisms will enter at this point.

Yield of pumpkins ranges from around 20-40 tonnes per hectare and for butternut pumpkins 10-25 tonnes per hectare. Yields tend to be higher in the northern production areas.

## Storage

Pumpkins for storage must be sound and should be handled with great care. Any bruise will soon develop a rot, which can spread through the stack. The ideal storage is a rat-proof shed, built well off the ground, preferably at the level of a motor truck tray. Provide plenty of shelves to allow free circulation of air inside the shed.

In areas not subject to severe frost, pumpkins can be stored satisfactorily under heavily-foliaged cypress hedges, but for long storage pumpkins must be stored at temperatures above 7°C or breakdown caused by cold damage will occur.

## Marketing

Most growers sell their pumpkins in bulk, by the kilogram.

Butternut pumpkins are usually sold in 20 kg red net bags or fibreboard cartons.

**Table 1. Main pumpkin cultivars (varieties)**

Cultivar	Description/shape	Maturity	Weight	Remarks
Butternut	Pear-shaped (Waltham Strain), oblong, block (Large Butternut)	3 to 3.5 months	0.75 kg to 2 kg	Thrives best in warm conditions and situations. Mid-season to late variety. Sold by the bushel case.
Windsor Black	Parallel sides with a cap	4 to 5 months	7 kg to 14 kg	Popular mid-season pumpkin, Stores better than Butter Pumpkin.
Queensland Blue	Parallel sides	5 months	4 kg to 7 kg	Standard, long-storing pumpkin.
Jarrahdale	Thick, flat, semi ribbed	5 months	4 kg to 8 kg	Currently most popular variety. Good storing pumpkin.
Sweet Grey	Thick, flat, smooth with slight rib	4 to 5 months	4 kg to 6 kg	Excellent quality, high yielding, very good storage.

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