

Pumpkins are a half-hardy crop that is grown for Halloween. Originating in the tropical regions of the American continent, pumpkins are closely related to squash, marrow and courgette. They are round to oval in shape and vary in colour from yellow, orange through to white. They are susceptible to cold in the early part of the season; hence the crop is normally propagated under cover and transplanted out after the last frosts. A marginal crop for Ireland – you’ll experience good years and bad years depending on the weather.

SOIL/SITE Pumpkins can be quite particular regarding site. They require a rich well drained soil and one that hasn’t grown pumpkins for several years – suggest 3-4. A sheltered, south facing site is desirable.

FERTILISER	Soil Index	N	P	K
	1	140	65	250
	2	125	45	200
	3	105	35	150
	4	90	20	100

If soil P is greater than 15mg/l, no fertilizer P is necessary

If soil K is greater than 250 mg/l, no fertilizer K is necessary

The above recommendations refer to courgettes as no figures are available for pumpkins. Use only as much nitrogen as necessary - too much may lead to increased levels of rot. Do not exceed 140 kg/ha and perhaps substantially less depending on site and previous cropping.

LIME Around pH 6.5 is ideal.

CULTIVARS Racer, Rocket, Flynn
Seed companies: Tozer, Sakata, Clause, CN Seeds
Grow several varieties rather than just one; variety can be site specific.

PROPAGATION The crop is propagated under glass or polythene – takes around 4 weeks. Sow the seed singly into large modules, blocks (5 cm) or pots (7 cm). Germinate at 20°C. During the growing-on stage provide frost protection if necessary by covering with fleece or using background heat. Frost damage can seriously stunt a crop. Be careful not to overwater as they don’t like to be waterlogged.

TRANSPLANTING After hardening off transplant at the 4-5 leaf stage. Depending on area, plant out from mid-May to early June. Plant 2 rows on a 1.4m bed, spacing the plants 85-90 cm each way. Or 1x1m on the flat. Plant numbers per ha is about 10,000 – 12,300.

WEED CONTROL As there are no approved herbicides for the crop the most effective form of weed control is to plant through black plastic and use a directed spray of glyphosate between the beds. Alternatively use a combination of a stale seed bed, inter-row cultivations and hand weeding.

FLOWERING	Pumpkins are monoecious – the male and female flowers are separate but borne on the same plant. The female flower has a small immature fruit at its base. The male flower develop first followed by female flowers some weeks later with both flowering together. They are fertilized by bees and other insects.
PESTS	Slugs may be troublesome but only at planting out stage.
DISEASES	<p>Powdery mildew: No. 1 disease of pumpkins. Occurs most years generally making an appearance in late summer. If an early attack and left uncontrolled, can cause premature senescence of the plant. Late attack not a problem. There are off-label recommendations for the use of Amistar or Amistar Top on outdoor pumpkins. A tank mix of Microthiol Sulphur + SB Invigorator might also be effective. Potassium bicarbonate at 5g per litre applied weekly is another option.</p> <p>Scab (<i>Cladosporium cucumerinum</i>): grey-brown spots develop on the leaf but the main damage occurs when lesions develop on the fruit. These look initially water-soaked in appearance, then turn brown. The disease can survive for up to 3 years in the soil.</p> <p>Botrytis: in damp weather a grey mold attacks the flowers causing a flower end rot of the developing fruit. Not usually worth treating.</p>
CROP LOSS	Pumpkins are very susceptible to rots that can occur pre- and post-harvest. In an average year this can amount to about 15% of the crop – but can be much higher. UK work suggests that <i>Phoma cucurbitacearum</i> causes most rots. Following the work they obtained off-labels for the use of Signum and Switch on the crop to counter development of rots. The disease can gain entry through the stalk, so snap the stalk at the knuckle which leaves a smaller wound and ending up with a handle on the pumpkin. One thing to note about pumpkins is that if the skin is damaged it won't cure itself and can be an entry point for rots. So harvest and handle carefully.
HARVESTING	Usually takes place in September when the foliage has died back and the fruit have turned orange – normally cut and windrowed for a number of days before collection into wooden boxes and storage under glass, polythene or barn stored. Whenever possible the pumpkins should be allowed to fully ripen on the vine. Ideally fruits should be cut and cured in the field prior to storage. Curing allows the stem to seal and the skin to harden. In a poor summer the crop can be slow to turn colour and curing can then be carried out indoors in a well-ventilated glasshouse or polythene tunnel – ideal temperature is 25°C for 10 days. The pumpkins are normally cleaned, graded and boxed prior to sale. Grades: small, medium, large, extra-large.
YIELD	1-2 pumpkins per plant; 1.5 per plant is a good average.

