

Growing Sweet Potatoes

Ipomoea batatas

The plant

Sweet potatoes have been known in the UK for over 450 years. The original type has a short-day requirement for inducing tuber production that, until recently, made it difficult to cultivate them under the long day conditions of the UK summer.

There are two types of sweet potato – the mealy-fleshed or dry, which are usually pale in colour and taste floury, rather like sweet chestnuts, and the moist soft fleshed types, often more orange or yellow coloured which taste sweeter. Yellow forms are high in beta carotene that transforms to Vitamin A in the body.

Sweet potatoes form trailing vines up to 2.1m (7ft) or more. Sadly the plant isn't very inclined to climb – but will do, if you are very strict about tying it in every couple of days. Left unattended it roots all too easily at the leaf axils so a patch can rapidly become inextricably overgrown. Sweet potato has a huge variety of leaf shapes and colours. Some types never flower, others blossom prolifically. Types selected for UK growing seldom flower.

As a native of the tropics, plants require high temperatures and a good supply of water. Ideal conditions are temperatures between 26-30°C (77-81°F). In well-drained soil, slightly acidic, and an annual rainfall of around 750-1200mm (30-50in), tubers can be harvested within 3 to 4 months. A well-grown plant can harvest around 15kg of tubers in the tropics, although UK grown plants will yield much less.

Varieties and plant material

Sweet potatoes are not propagated by planting individual tubers but by 'slips' or cuttings from the shoots, which arise from the eyes on the tuber.

In late summer, bought sweet potato tubers are often found with small adventitious buds starting to sprout from the eyes. Although you can sometimes successfully grow plants from these sprouts, the chances of being able to harvest anything grown from it (apart from the foliage) are very slim, because it's the wrong end of the short growing season. In addition imported tubers are likely to be from tropically grown and adapted parents so won't like our cold temperatures and low light levels.

If you have a stray food tuber start sprouting, give it a try, but don't expect miracles.

Thanks to a great deal of work by National Institute for Agricultural Botany at Wellesbourne several cultivars have been selected for growing in this country. Amongst these are 'Beauregarde', and 'Georgia Jet', deep orange-fleshed types and 'T65' with white flesh.

Many seed companies now send out the slips or unrooted cuttings in late spring.



Planting and site

When they arrive, carefully unpack the slips (they can be annoyingly fragile) and plant around the edge of a wide pot containing a mixture of equal parts of sharp sand and a loam-based compost or if you have any, some well-rotted leafmould. Keep warm, with bottom heat and roots will soon develop. When you see white shoots emerging from the base of the pot, remove and separate the plants into individual 15cm/6in pots filled with a loam-based general-purpose compost.

Plant out the slips when the soil is warm enough: a good guide is shortly after the time you'd put a half-hardy planted hanging basket outside. Soil temperatures need to be at least 12°C/54°F before planting out into the ground. Over most of the UK this means no earlier than late May.

Traditionally in the tropics they're grown on mounds - ridges about 30-35cm (12-14in) apart, allowing slightly less distance, say 25-30cm (9-12in) between plants – but this is not essential. Bury the plants deeply, with at least half of the stems covered to encourage tuber formation.

Open ground is preferable to a pot, but they grow reasonably well in very large containers. (Anything over 34cm/14in diameter will do, but the bigger the pot, the better the crop.)

During the growing season plants will need a minimum of 22°C/68°F, so they're much happier with some form of protection. A polytunnel or a coldframe is ideal - growing conditions are similar to cucumbers or melons, warm and slightly sticky. However, established plants can tolerate surprisingly wide swings in temperature, so don't be put off even if your conditions are less than perfect. Fleece or plastic can be useful on cold summer nights. Minimum survival temperature is around 6°C/45°F, but a cold wind can be damaging to tender shoots.

The soil should be fertile but not over-rich in nitrogen, as this encourages excess foliage at the expense of tubers.



Feed growing plants regularly using comfrey liquid and water plants well in dry weather to keep them actively growing.

Pests, weeds and diseases

Slugs don't bother them much but whitefly does, and recently I have had reports of plume moth larvae feeding on the leaves, which are very small, slightly hairy, cream caterpillars.

Unlike ordinary or Irish potatoes, tubers will form where the stems touch the ground, so it's no good trying to use the plants as a clearing crop, like ordinary potatoes, with black polythene or other forms of soil cover – you will just have to weed them, as they don't have enough leaf to smother competitors. You may find that you need to pinch out wandering shoots as they get too enthusiastic: they make a pleasant if rather chewy and mucilaginous green leafy veg if briefly boiled.

Harvesting and storage

Tubers will begin to form from around August, but if you can, wait until the leaves have been touched by the frost before harvesting to achieve maximum cropping. The tubers won't survive frost in the soil, so lift them as soon as serious signs of cold damage show on the leaves.

Once lifted, rub as much soil as you can from the tubers and allow the skins to set by storing them in a warm place, around 25°C/77°F for about a week.

Store the roots somewhat cooler, at the temperature of a normal living room. Tubers easily become chilled if kept cold – store in the pantry, not the fridge – and rapidly shrivel as they dry out, so eat them fairly soon after lifting. Some people have had success with storing them like apples, in paper bags or in a single layer in trays covered with newspaper, kept in a frost and draught-free place for several months.

This leaflet is produced as part of the Sowing New Seeds Project. This is funded by Big Lottery's Local Food Fund and has produced a resource of information on growing advice, experiences and seeds to promote growing of exotic produce in the UK.

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