



Campaign for School Gardening



Crop Sheet: Potatoes

Description

The potato, *Solanum tuberosum*, is a perennial but, as it does not tolerate cold, the seed potatoes must be grown after, and the tubers must be harvested before, the winter frosts. There are numerous potato cultivars, grown for their underground tubers (swollen food storage organs) that provide a variety for every purpose. They vary in colour too, from the common white or pinkish-red skin with white flesh, to yellow and blue-fleshed cultivars.



Early types, often referred to as new potatoes, are small and generally cooked whole for hot dishes and salads. Late-maturing maincrop types have large tubers that can be cooked in many ways.

For school use we would recommend first earlies as they can be closer spaced and occupy the ground for less time, they are less prone to disease, and can also be easily raised in containers and placed under cover for extra-early yields. Maincrops require more space and greater attention to selection of varieties, in particular looking for resistance to blight and scab, but will provide crops in September. Second earlies and many 'salad' potatoes crop in August and are best avoided for school purposes.

History

Most people believe the potato to have arrived in Britain with Sir Walter Raleigh during the 16th Century. However, it seems more likely that it was brought here from South America, via mainland Europe, by the Spanish in the 15th or 16th Century. Certainly it was eaten by the Incas in Peru around 6000 years ago but did not really feature in the British diet until late in the 17th Century. As varieties improved potatoes became a regular part of our diet and, despite the Irish potato famine in the 1840's, potatoes have remained a staple of our diet for nearly 200 years.

Interesting Facts About Potatoes

Potatoes are a good source of carbohydrates, providing energy over a long period. They contain vitamin C, and are lower in fat and calories than pasta or rice.

The loss of the potato crop in Ireland in the 1840s was due to the fungal disease potato blight that can still destroy our crops today.

They can be grown in open ground but perform very well in containers, even in dustbins!

They are in the same family as tomatoes (compare their flowers) and for this reason they should be treated in the same rotation group. This family also contains deadly nightshade – a good reminder that only the tubers are edible, the rest of the plant, especially the seed, is poisonous.

In October 1995 the potato became the first vegetable to be grown in space. NASA called in experts to develop super-nutritious and versatile potatoes to feed astronauts on long space voyages.



(Sources: 'RHS Fruit & Vegetable Gardening' by Michael Pollock; 'RHS Encyclopedia of Gardening' by C. Brickell)

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How to Grow Potatoes

Growing conditions

Potatoes need to grow where they are unchecked by frost or lack of moisture. Ideally they should have a deep, fertile soil with a pH of 5-6. Incorporate plenty of organic matter such as well-rotted manure or garden compost, ideally in the autumn before planting, and a general purpose fertiliser such as chicken manure pellets immediately prior to planting.

When to grow

Seed potatoes of a first-early variety should be started into growth indoors in February, planted out into the soil just before Easter, and lifted for eating in late June or early July. For September crops, maincrop varieties can continue to be planted throughout April and May, again after sprouting indoors (known as 'chitting').

How to grow

Sprout or 'chit' the seed potatoes by arranging them, with the rose end, with most 'eyes' uppermost, in egg boxes or seed trays in light in a cool but frost-free room. They are ready for planting when these sprouts have reached 2cm in length, which will take approximately 4-6 weeks.

Plant either in a drill or in individual holes in the soil, 7-15 cm deep, with the sprouts pointing upwards and cover with at least 2.5 cm of soil. They can also be grown easily in pots, tubs and dustbins.

Space 'early' types as close as 30-38 cm between the tubers, 38-50 cm between the rows. However, a wider row spacing of 50-60 cm makes 'earthing up' much easier and is recommended if space allows. Maincrop varieties need more room, 38 cm between the tubers and 75 cm between the rows.



Emerging growth should be 'earthed up'. This is when the soil is drawn up around the stems and should be done periodically to prevent tubers being pushed to the surface and turning green in the light, making them inedible. This is best done when there is about 20-30 cm of growth and soil should be drawn to leave 10 cm of foliage exposed to light to ensure photosynthesis continues to occur.

Harvesting

Harvest early potatoes when, or just before, the flowers open. Leave healthy maincrops in the soil to bulk up until September. In the autumn cut the stems of each plant to about 5 cm above ground level and leave for another two weeks to harden the skins before lifting. Lift with a fork on a dry day, taking care not to damage the tubers, and leave to dry on the soil for a few hours. Store in paper sacks in a cool, dark and frost-free place until required. Never store diseased or damaged potatoes.

Pest and Disease Problems

Blight - first seen as brown patches on the leaves and most serious in warm, wet weather in the summer. Grow resistant cultivars or grow only first earlies, avoid overhead watering and, if blight strikes, cut the stems down to 5 cm above ground and leave for two weeks before harvesting. Do not compost the foliage.

Slugs can be a problem, particularly for maincrops that are in the soil in the autumn. Grow less susceptible cultivars and harvest as soon as mature. (Refer to RHS website gardening advice for examples of pests and diseases)

Varieties to try: First Earlies: 'Accent' AGM, 'Mimi' AGM, 'Lady Christl' AGM, 'Pentland Javelin' AGM

Maincrop: 'Sarpò' cultivars such as 'Sarpò Mira' and 'Sarpò Axa' are strongly resistant to blight and ideal for growing for lifting in the autumn term. (Sources: 'RHS Encyclopedia of Gardening', by C. Brickell and 'The Vegetable Garden Displayed', by Joy Larkcom).