



Campaign for School Gardening



Crop Sheet: Peas

Description

Latin name: *Pisum sativum*

Pisum = Latin for pea, *sativum* = cultivated/ farmed.

Green-podded vegetable containing round peas. They are in the legume (pea & bean) family.

Legumes fix nitrogen in soil by bacteria in their root nodules, thus are important for improving nitrogen supply in the soil. Nitrogen is essential for forming proteins needed for plant growth, especially leafy growth. The roots of peas and beans need to be left in the soil and dug in to add the nitrogen. In crop rotation, brassicas (cabbage family) are planted the following season after legume crops, as they are leafy crops that benefit from the extra nitrogen in the soil. However the haulm (stems and leaves) contains most of the pea's nitrogen and make rich compost improving the fertility of the garden.

Most pea plants have tendrils and rounded leaves.

Tendrils are twining, thread-like parts of the leaf that help the plant to hold onto its support. Flowers are usually white, but can also be lilac or pink.

Mangetout and sugar-snap peas have pods without a stiff inner parchment, so these can be eaten whole.

History

Peas are one of the oldest cultivated crops in the world.

Peas became a farmed crop around 8000BC in SW Asia and eastern Mediterranean Europe, together with wheat, barley and some other legumes.

Archaeological investigations have found charred pea seeds in early Neolithic farming villages in south east Turkey (7,500-7000BC).

The cultivation of peas spread eastwards to India and reached China about AD 1000.

It is thought that the Romans introduced peas to the UK. Onstad states that 'fried peas were sold to Roman spectators at circuses and theatres instead of popcorn!'

In the nineteenth century, Gregor Mendel grew and studied peas for his experiments that founded the science of genetics (dominant and recessive genes) and led to the plant breeding that is very important to modern gardeners.

Interesting Facts About Peas

Fresh, canned, dried or frozen, peas can be whole, split or ground into flour.

The seedcoats are used as a fibre and protein additive in bread or health foods.

Peas are a valuable source of protein (23%), carbohydrate (59%), and iron. Fat is low, only 1%.

In some parts of the world the young green tops of the plants are eaten and the tendrils are a luxury treat sold in smart restaurants. Plants are also used by farmers for silage, hay and green manure.



(Sources: 'RHS Fruit & Vegetable Gardening' by Michael Pollock; 'Whole Foods Companion' by Dianne Onstad;

'The New Oxford Book of Food Plants' by J.C. Vaughan & C.A. Geissler and 'Cabbages & Kings: the origins of fruit & vegetables' by Jonathon Roberts).

(Photographs: Taken by & copyright RHS/Open Future growit project & RHS website. Thanks to Petersgate Infant and Barnham Primary Schools).



Campaign for School Gardening



How to Grow Peas

Growing conditions

Peas prefer well drained, neutral to alkaline soil that is moisture retentive. Open sunny sites are ideal. Never sow peas in cold, wet soil.

When to grow

Autumn (October-November): In schools, it is good to plant hardy overwintering varieties, such as 'Meteor' or 'Oregon Sugar Pod' AGM so that you will get an early crop in May. Cover with cloches or fleece to protect over winter.

Spring (March - once the soil has warmed up): Choose early pea varieties such as 'Early Onward', 'Kelvedon Wonder' or 'Misty', mangetout peas 'Oregon Sugar Pod' or sugar-snap peas 'Sugar Ann'. Harvest June-July.

Late Summer Term (June-July): If you have people to water your crops over the summer holidays, a sowing late in the year can give a pea crop to return to in September e.g. 'Cavalier', 'Kelvedon Wonder' or mangetout/ sugar-snap peas.



How to grow:

Sow direct in the soil. Using a hoe make flat drill in the soil 10 -15cm wide to a depth of 5cm. Along both sides of the drill, sow the pea seeds at 5-10cm intervals.

If growing more than one row then spacing between the rows should be equivalent to the eventual height of the plants (check on the seed packet).

In colder areas, or to protect against mice, peas can be started off indoors or in a greenhouse in pots, modules or guttering filled with compost. The pea plants can be planted out when they are 10cm high.

Water well during dry periods; if available, add a mulch (such as well-rotted compost) around the plants to help keep moisture in the soil.

Peas like to scramble and climb so will need some support once they start growing. One of the easiest and most natural supports is to insert twiggy branches (often called 'pea sticks') after planting. Alternatively use sheep netting or plastic mesh supported with sawn wood stakes, this can be used year after year. This will give them something to climb up and also protect young seedlings against birds.



Harvesting

Pods are ready to harvest when they are well filled and the pod is fresh and green. Pick regularly to keep the plants producing more peas. Snap the pods off next to the stem, taking care not to damage the main stems. If you cannot use them that day or the next, shell them, blanch (plunge in boiling water for two minutes and then ice cold water) and then freeze them. The sugars that make fresh peas taste sweet start to turn to starch two hours after picking.

Pest and Disease Problems

The main pest is the pea moth, whose maggot-like caterpillar will be found in pods of peas – so do look out before eating! Early sowings of peas can help to avoid attack by the peas moth. Insect-proof mesh will keep these moths off and you can buy a trap. Other pests include pea aphid and pea thrips – washing these off with a hosepipe is a simple control method, the pea & bean weevil can notch the seedling leaves but protecting the peas with fleece helps. Netting and fleece can help keep birds off your crops. If mice eat seeds, try raising plants in pots indoors.

Diseases include: Foot and root rot, where soil is cold and wet, and powdery mildew, which can be particularly problematic for late crops although choosing resistant cultivars (varieties) such as 'Cavalier' can help. (Refer to RHS website gardening advice for examples of pests and diseases).

(Sources: RHS Fruit & Vegetable Gardening by Michael Pollock & RHS Website 'Grow Your Own Veg' www.rhs.org.uk/vegetables/crops/index.asp)