

Potato pests and diseases

Potatoes can suffer from a range of pests and diseases – ranging from scab, which causes superficial damage, to blight, which can destroy a whole crop. The best strategy is to take the following steps to prevent problems arising.

Pest and disease prevention

- Variety choice: Varieties are available with resistance to blight, blackleg, scab, potato cyst eelworm and other problems. www.varieties.potato.org.uk is a good source of information.
- Seed potatoes: To avoid introducing pests and diseases, only plant certified seed potatoes. Home saved seed from healthy crops may be used for a year or two, but virus and other disease levels may build up quickly. Never save seed from a pest or disease infected crop.
- Crop rotation: Grow potatoes on a three or four year rotation to help avoid build-up of soil-borne pests and diseases, such as potato eelworm and scab. See [Garden Organic fact sheet GG10](#), *Crop rotation*, for more information.
- Soil improvement: Compost and other rotted organic materials help keep soil borne pests and diseases under control. They also help the soil to retain moisture, encouraging strong growth. Compost fed plants are less attractive to pests than those given artificial fertilisers.

Pest and disease control

Potato blight (*Phytophthora infestans*)

- Symptoms: Dark blotches develop on the leaves; in warm, wet conditions the entire foliage can quickly blacken and die. The disease spreads rapidly through the crop. Rain washes disease spores down into the soil where they can infect the tubers. Infected tubers may rot in the ground, or in store. For more details see [factsheet DC17](#) *Potato blight*.
- Control:
 - Grow resistant varieties, such as Cara and Sarpo Mira.
 - Where blight is common, grow early bulking varieties that produce a reasonable crop before blight appears.
 - Earth up or mulch with a thick layer of leaves, straw or hay, to reduce tuber infection.
 - Once the disease has taken hold it cannot be cured. To save the crop cut off and remove all foliage. Wait three weeks before lifting the tubers so any lingering spores, that could infect the tubers as they are lifted, will have died.

Common scab (*Streptomyces scabies*)

- Symptoms: This bacterial disease, which is common in many soils, produces patches of corky tissue on the surface of tubers. Damage is generally fairly superficial, and infected tubers are quite edible.

- Control:
 - Grow resistant varieties, such as Carlingford and Golden Wonder.
 - Improve soil moisture holding.
 - Scab is much worse in alkaline conditions. Do not lime soil before planting potatoes.
 - Put a layer of grass mowings in the planting hole/ trench.
 - Water, if conditions are dry.

Potato eelworm (*Heterodera rostochiensis* and *Heterodera pallida*)

- Symptoms: This microscopic pest can survive in the soil for twenty years in the absence of any potato or related crop. It tends to be common on allotments, where potatoes are often grown without using a crop rotation.

Infected plants will tend to die back early, sometimes in patches, and yields will be reduced. Where soil is severely infested, growth and cropping may be minimal. To confirm the presence of eelworm, check in July/early August. Carefully expose the roots of a potato plant and look for pinhead sized white, yellow or brown cysts on the roots. A magnifying glass may help!

Two forms of potato cyst eelworm are commonly found - *Heterodera rostochiensis*, the golden eelworm, and *Heterodera pallida*, the white eelworm. It is very difficult for the amateur to identify which type is present. The only time it matters which type is present is when using resistant varieties; the majority are only resistant to the golden eelworm; a few to both.

- Control:
 - Use certified seed to avoid introducing the pest.
 - Use a four year crop rotation; longer where eelworm is a problem. Tomatoes are also susceptible.
 - Pentland Javelin, Cara, Maris Piper, Nadine, Nicola, Kestrel, Swift, Sante and Valor, for example, are resistant to the golden eelworm. Kestrel and Sante must be the preferred choice as they also have some resistance to the white eelworm.
 - Use compost and composted manure to improve the soil.
 - No-dig growing can reduce the effects of eelworm on potatoes. *See [Garden Organic fact sheet GG2](#), No dig gardening.*
 - Early varieties may produce a reasonable crop before an attack begins to take effect.

Potato blackleg (*Erwinia carotovora*)

- Symptoms: This is a common bacterial disease of potatoes, especially in wet seasons. Leaves turn pale green or yellowish. Stems turn brown or black 10cm above and below soil level, and may wilt and die. Not all the stems on one plant are necessarily affected.

In bad attacks the tubers may all decay in the ground. More commonly, the tubers appear sound on lifting, and then rot in storage. Infection will spread between tubers in store.

- Control:

- Avoid waterlogged and wet sites.
- Less susceptible varieties include Osprey, Kestrel and Merlin.
- Avoid very susceptible varieties such as Estima, Wilja, Epicure and Maris Bard.
- Lift crops during dry weather if possible. Allow tubers to dry out before storing.

Slugs

- Symptoms: Holes and galleries found in potato tubers. The main culprits are the soil dwelling keeled slugs, *Milax spp.*
- Control:
 - Choose less susceptible varieties such as: Charlotte, Kestrel, Pentland Dell and Romano.
 - Maris Piper, Marfona, and Maris Bard are particularly susceptible to slug attack.
 - Harvest all tubers by early September
 - [Biological control nematode](#), *Phasmarhabditis hermaphrodita*, available through The Organic Gardening Catalogue.