

POTATO & TOMATO BLIGHT

This rapidly spreading fungal disease is famously the cause of the Irish Potato Famine in the 1840's. A widespread problem on potatoes and tomatoes throughout the UK. It affects the leaves, fruits and tubers of its hosts. Although specific to these two crops it can also infect related plants such as Solanum, known commonly as potato vine, and petunias.

Symptoms

Potatoes are subject to watery rotting of the leaves which quickly collapse and die, brown lesions appearing on the stems and a red/brown decay under the surface of the tuber skin which soon turns to a soft rot throughout the potato. Note that attacks on early potatoes may not be visible but the potatoes will rot in store.

The symptoms on tomatoes present a similar leaf infection with brown patches appearing on the green fruit. Note that infection of more mature fruits causes them to rot much more quickly than green immature fruit.

Biology

Phytophthora infestans spores are produced on leaf lesions and transported by water splash and may travel long distances on the wind. Infection occurs when the spore finds itself in a film of water on leaves of the host plant. Warm wet conditions can lead to serious outbreaks when this pathogen is able to breed rapidly and distribute itself easily. Spores typically overwinter in the ground below infection sites, on diseased tubers and very often emerge from compost heaps in the spring. Tomatoes grown under glass are not often affected but when attacks do occur the humid environment usually leads to a very quick build up of symptoms.

Control:

Potatoes

Earthing up potatoes greatly reduces the risk of infection.

Operate a crop rotation to reduce the risk of re-infection by spores overwintering in the soil. Aim for a minimum of four years.

Early harvest varieties are less likely to be infected.

If infection occurs remove all stems at soil level once 25% of the leaves are infected or stems have developed brown patches. Rake up and burn all debris. After 2 weeks, or once the potato skin has hardened, harvest the crop for storage or use.

Remove any potatoes and foliage from the area at the end of the season, burying infected material deeply and in a location where disturbance is unlikely.

Resistance from certain potato varieties is now difficult as new strains of the disease have been able to infect crops. However, the Sarpo range has exhibited more effective resistance to current strains than other varieties.

Tomatoes

Do not over water the plants.

Good ventilation is key especially regarding greenhouse crops.

Always use new compost each year. Never replant in used compost.

Varieties showing some resistance are Ferline, Pomona and Lilliput.

There are currently no products licensed for use against blight in the garden.