

INFORMATION ON POTATO BLIGHT

Potato blight is one of the worst disease problems for the potato grower. It can wipe out the plants almost overnight and, worse still, it can infect the tubers causing them to rot in storage. In a sack it will travel from potato to potato ruining the lot.

What Causes Potato Blight?

Potato Blight is caused by a fungus *Phytophthora infestans*. This can also infect other members of the potato family, *Solanaceae* such as tomatoes. It spreads through the air and develops when the weather conditions are warm and humid. Blight forecasting has often been based on the occurrence of "Smith periods". A "Smith period" is a 48 hour period in which the minimum temperature is 10°C or more and the relative humidity exceeds 90% for at least 11 hours during the first 24 hours and for at least 11 hours again during the final 24 hours. However, any period of warm, humid weather increases blight risk.

Symptoms of Potato Blight

The first thing you may notice are brown freckles on the leaves or sections of leaves with brown patches and a sort of yellowish border spreading from the brown patch. In a severe attack you may walk onto your patch to find all the potato foliage a rotting mass. Tubers (the actual potato) affected by potato blight can be told by dark patches on the skin. Cutting the potato in half will reveal brownish rot spreading down from the skin. Later the entire potato will turn into a soggy, foul smelling mass.

Prevention of Potato Blight

Potato blight fungus is generally killed by cold weather, although there are some rare resistant crossbred strains that overwinter. Otherwise, the disease reservoir is infected tubers in the ground or your sack. Wherever it comes from, it can travel miles on the wind and there is little you can do if the weather is right (above 10deg C and 75% humidity) and there has been recent rain leaving wet foliage. There are a range of chemical treatments available. The traditional spray was Bordeaux mixture. This isn't such a good idea as it contains copper and is hardly good for your diet although it is organically approved. The non-organic Dithane 945 is good as long as it is applied before blight has hold. Your best preventative is to grow a resistant variety of potato that is less affected by the blight.

Other actions to help prevent potato blight:

- Try to get all the potatoes out from the ground when you harvest and so you won't leave a reservoir on your plot.
- Ensure potatoes are well earthed up to protect tubers even if you get it in the foliage
- Water from the base rather than spraying potatoes.
- Potato cultivars vary in their resistance to the disease. Among the most susceptible are 'King Edward', 'Arran Comet', 'Arran Pilot', 'Epicure', 'Foremost', 'Golden Wonder', 'Home Guard', 'Kerr's Pink', 'Majestic', 'Sharpe's Express', and 'Ulster Chieftain'.
- Cultivars showing some resistance include 'Cara', 'Kondor', 'Orla', 'Markies', 'Valor', and 'Remarka'.

Treatment of Potato Blight

If you notice a small number of affected leaves with patches, you can try removing those and disposing of them. Burn all effected material. This is a good time to make sure the potatoes are well earthed up to prevent spores getting into the tubers unless you have already done this. Spray with Bordeaux mixture or Dithane 945 may prevent spread if applied early enough. If you have a more serious infection, then you need to cut off all the haulm and burn it. Hot composting heaps may work but burning works 100%. Removing the foliage prevents the disease getting into the tubers, as long as they are well covered with earth. Leave the crop alone for at least two weeks to let the blight spores on the surface die and the potatoes develop a thicker skin. After harvest, check regularly for signs of blight and remove any suspect tubers at once from your store.