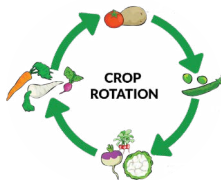


WHAT IS LATE BLIGHT?

The fungal pathogen, *Phytophthora infestans*, which causes Late Blight, belongs to a group of fungi called "water moulds". Late Blight thrives and produces spores under a humid, moist environment and causes infection only when free water is present on plants. The pathogen is highly aggressive and can potentially infect all plant parts, causing rapid die back and death. Tomato plants can be the source and carrier of Late Blight. It will attack and destroy both crops equally. Because the different forms of this pathogen can easily travel by wind or rain, or swim in films of water on the plant or in the soil, it can spread very rapidly and survives between crops and over winter on infected seed potatoes, cull potato piles, volunteer potatoes and diseased garden crop debris, all which represent living host tissues.

GARDEN PREVENTION

- ✔ **Always plant certified seed potatoes**, which are available at greenhouses and garden centres.
- ✔ **Rotate your garden crop.** The Late Blight (LB) pathogen can carry over in moist soil, so choose a location for potato plants where potatoes, tomatoes or green peppers have not been planted for at least 4 years.
- ✔ **Warm, dry, sunny location is ideal for planting**, avoiding low areas with reduced air flow.
- ✔ **Do not overwater.** Water only underneath the plants, not the foliage. The LB pathogen develops rapidly under moderate temperatures (12-24 C) and wet/humid conditions.
- ✔ **Hill potatoes well** to place more of a soil barrier to potential spores being washed down onto tubers.
- ✔ **Do not over-fertilize** as it promotes excessive top growth and diminishes tuber production.
- ✔ **Apply home garden fungicides** recommended for prevention of LB when conditions are favorable.



DESTROY AND DISPOSE AFFECTED PLANTS

Potato and tomato plants with LB **should be promptly, carefully and completely destroyed** to avoid sending the disease on to other gardens or farms!

DESTROYING INDIVIDUAL PLANTS:

DO NOT pull affected plant, as this process can dislodge spores into the air where they can become wind-borne to neighboring plants.

1. Pull a large dark plastic bag over the plant first.
2. Cut the plant off at ground level and tie the bag.
3. Put the bag in full sunlight so the contents will be killed by the heat from the sun.
4. Once the plant is dead, the fungus is also destroyed and the bag can be discarded with regular garbage.

To destroy adjacent plants follow same instructions as above.

Once vines and leaves have been destroyed, potatoes can be dug and eaten right away if they have not been affected. They will not store.

DO NOT put affected potatoes in compost pile. If they survive the winter, new sprouts from these potatoes could be the source of inoculum next season.



PROTECT YOUR GARDEN FROM LATE BLIGHT

Late Blight disease on home garden potatoes and tomatoes transfer easily to neighbors' gardens through wind and rain, INCLUDING large commercial crops.

Late Blight was responsible for the Irish Potato Famine in the 1840's, which resulted in the death and mass emigration of millions of people.

Keep this brochure handy during gardening time to help you determine if your tomato and potato plants are showing signs of Late Blight.

Please garden responsibly. You can help save our Alberta Potato Industry from the spread of this potentially disastrous disease.

Regularly inspect your tomato and potato plants.



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Growing Healthy Potatoes Together

IDENTIFY THE SIGNS



Dark, water soaked lesions (spots) form on leaves, often moving in from leaf tips toward the center.



First spots may have a yellow edge or margin and are not contained by leaf veins.



A small amount of spore production, which appears as fluffy white growth on the edges of lesions, may occur on the underside of the infected plant.



Within a couple of days, lesions usually turn brown or black in colour and may become brittle if they dry out.

