



# LATE BLIGHT

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Disease Name: *Phytophthora infestans* (Mont.) de Bary. Late Blight (common name).

Host Range: Potato, Tomato, Eggplant. Can also be found in petunias.

Symptoms and Signs:

Large, dark green, water soaked spots appear usually on lower leaves generally after row closure in wet weather or under irrigated conditions. As the spot enlarges the center becomes shriveled, dry and dark brown to black. There may be a chlorotic halo associated with the lesion. More lesions occur on leaves and stems as the disease progresses. There is a downy, whitish growth on the underside of the leaf as the lesion enlarges under moist, humid conditions. A characteristic strong odor develops as the tops become blighted.

On tubers, symptoms begin as a small brown, coppery, or purple lesion at the point of infection. The lesion enlarges and slowly works into the center of the tuber. Late blight infections of tubers are usually followed by secondary invaders such as soft rot which causes a much more rapid decay.

Tomato fruit infection begins with a small dark green to brown lesion usually on the upper part of the fruit surface which then enlarges. The lesions are blotchy and irregular and may appear greasy. The infected fruit develops an 'off taste'. As the disease progresses the infected fruit shrivels and may produce a white mycelial growth under the right conditions.

Upon the onset of favorable environmental conditions, production of sporangia begins. Sporangia are formed at a minimum humidity of 91 per cent with an optimum of 100 per cent and a temperature range of 37 to 79° F with an optimum of 64 to 72 ° F. several hours of free moisture is required for germination.

Control:

Irrigation practices which allow free moisture to stay on the foliage is conducive to disease development. Avoid frequent or overnight irrigation if possible, especially overhead irrigation.

Tuber infection may occur if the spores of the fungus have access to the tuber. Proper hillling can significantly reduce tuber infection.

Scouting of fields for late blight symptoms, especially areas that are prone to foliage remaining wet during prolonged periods, should be done at least weekly.

At harvest it is important to make sure that vines are completely dead before digging the crop. Allow at least 2 weeks after vine killing before harvesting. The fungus needs living plant tissue to survive so it is very advantageous to make sure all vines are completely dead before harvest.

Timely application of fungicides is important in controlling the disease. One to two sprays before the rows close, and then an application every 14 days when disease pressure is light is recommended. As disease pressure increases, spray intervals should be shortened accordingly.

Note: The following websites have more information and pictures to help you identify late blight in tomatoes and potatoes.

<http://www.uidaho.edu/ag/plantdisease/lbhome.htm>  
[http://vegetablemdonline.ppath.cornell.edu/factsheets/Potato\\_LateBlit.htm](http://vegetablemdonline.ppath.cornell.edu/factsheets/Potato_LateBlit.htm)  
<http://ohioline.osu.edu/hyg-fact/3000/3102.html>

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