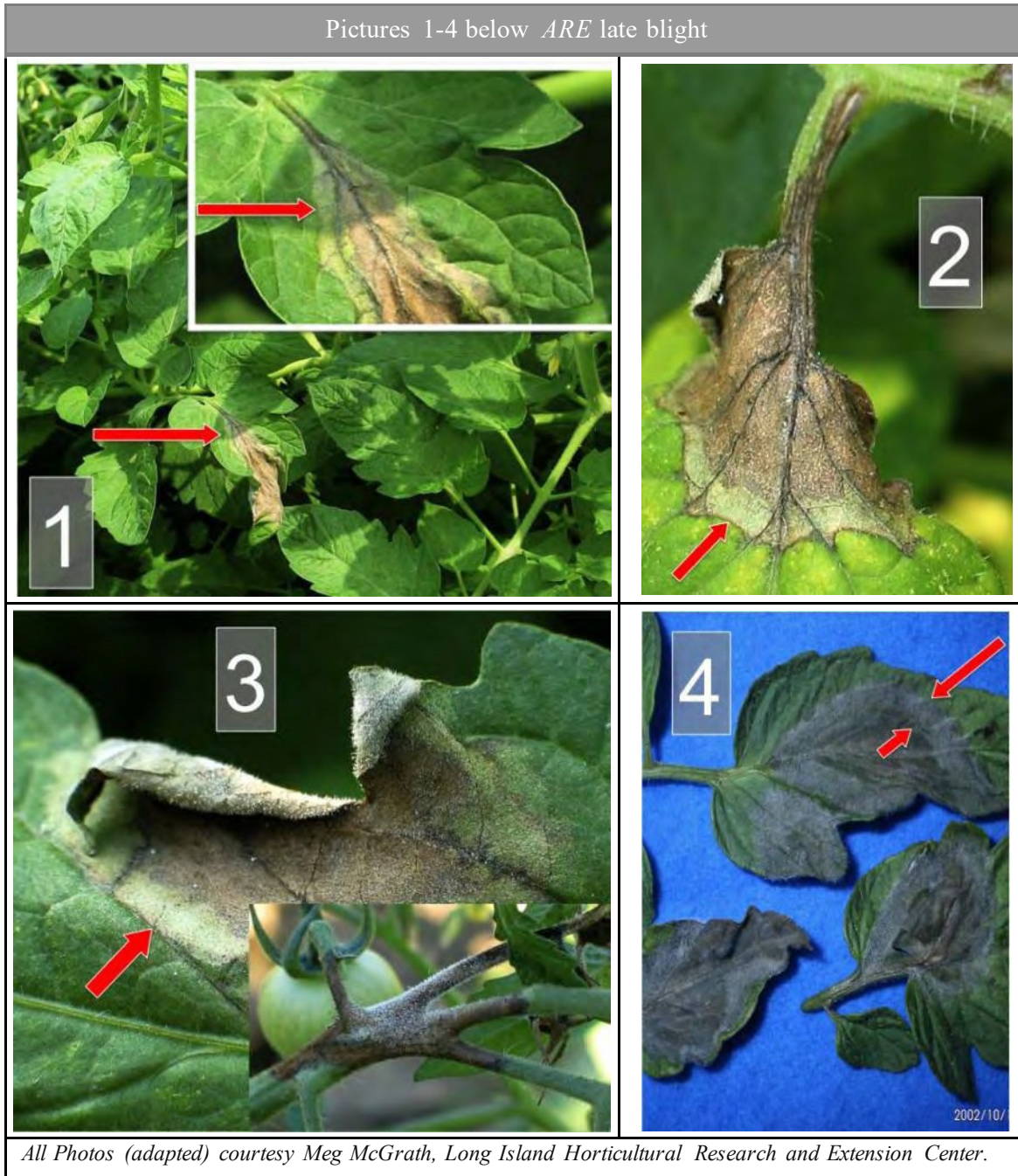


Know Late Blight Symptoms AND its Look-Alikes

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Reports of late blight in the region can drum up anxiety that any wilted leaf or spot on found on your tomato or potato crops could be the beginning of the end. A lot of plant symptoms can look similar without a trained eye or a good reference. Reduce your anxiety by knowing what clear signs to look for, and what issues may look like late blight at first glance.



- 1.) Early symptoms of single leaf showing late blight brownish wilted leaf lesion. Subset picture showing close-up with arrows pointing to light greenish-brown border area characteristic to late blight. Yellowing is *not* characteristic to late blight.
- 2.) Close-up of leaf and stem lesions with arrow pointing to light greenish-brown border characteristic to late blight. Note the lesion gets darker towards the center, and veins are even darker. Lesions become darker grayish-brown as they progress.
- 3.) Stem and leaf lesions showing fuzzy whitish fungal spores forming on infected areas.
- 4.) Further progressed infection, showing darker sooty-grayish leaf lesions. The lighter colored outer border between arrows is also darkened, with spores concentrated in this area.

- 5.) Botrytis gray mold on leaf. Note, *no* greenish-brown border, coloration is more uniformly brownish with concentric rippling and is *lacking* any grayish hues; diffuse yellowing on lesion borders is *not* characteristic to late blight.
- 6.) Botrytis gray mold spores on tomato stem. Botrytis gray mold spores are much longer ("fuzzier") than late blight spores, and are gray-brown, *not* white.

Pictures 5-8, below and on the following pages, *ARE NOT* late blight



Larger photo in image 5 courtesy David Ingram Mississippi State University Extension. All other photos (adapted) courtesy Meg McGrath, Long Island Horticultural Research and Extension Center.



Image 7 (adapted) courtesy Meg McGrath, Long Island Horticultural Research and Extension Center. Image 8 photos (adapted) courtesy Janice LeBoeuf, Ontario Ministry of Agriculture, Food and Rural Affairs.



7.) Drought stress in tomato leaf. Drought stress damage comes inward from leaf edges and does not spread to stems or fruit. Drought stress does *not* have a lighter greenish-brown lesion border area, *lacks* sooty-grayish hues, and *doesn't* develop fuzzy spores.

8.) Lightning damage on tomato leaf, and stem (subset). Similar to drought stress, leaves look scorched from tips/edges inward, but also have yellowing, and stems (subset photo) characteristically collapse/pucker.

Note: Multiple symptoms of different afflictions may occur in tandem. Knowing symptoms characteristic to late blight specifically is your most important identification strategy!

For more information see:

<http://www.longislandhort.comell1.edu/vegpath/photos/diagnose.htm>

http://www.longislandhort.comell.edu/vegpath/photos/lateblight_tomato.htm

<http://onvegetables.com/2010/07/13/late-blight-look-alikes/> <http://www.rodale.com/tomato-problems?page=0,0>

Pictures 9-12 below *ARE NOT* late blight



All Photos (adapted) courtesy Meg McGrath, Long Island Horticultural Research and Extension Center. Image 11 upper two photos courtesy of Ontario !PM-Ontario Ministry of Agriculture, Food and Rural Affairs, lower photo U-California Cooperative Extension-Ventura County. image 12 photo (adapted) courtesy Janice LeBoeuf, Ontario Ministry of Agriculture, Food and Rural Affairs.

9.) Early blight (*Alternaria*) on tomato leaf. Smaller, roundish, rippled concentric rings and yellowing are characteristic of early blight. Numerous smaller lesions and yellowing are *not* characteristic of late blight, and sooty-grayish hues are *lacking* in early blight.

10.) Powdery mildew on tomato leaf. Whitish-powdery spores develop, with mottled blackening on leaf undersides (subset). Diffuse yellow spotting is usually associated following whitish spore development, followed by necrotic lesions. Yellowing, and whitish spores *without* brownish or grayish lesions, are *not* characteristic of late blight.

11.) Septoria on tomato leaf. Similar symptoms to early blight, but septoria develops tan centers and small black specks in their lesions.

12.) Corky root/stem rot on tomato. Leaves and stems decline from the tips inward with complete necrosis. Stem yellowing behind necrotic areas is characteristic, and roots are corky with banded lesions. Leaf decline may resemble late blight, but leaf and stem yellowing and specific outward-in decline pattern is *not* characteristic to late blight.