

Be on the Lookout for these Vegetable Garden Diseases!

See symptoms? Please report!

Occurrence of a couple important diseases of vegetables and basil is monitored in the USA every year to be able to inform growers when they need to be prepared for them to develop in their crops. Their occurrence is variable and impact is great, thus the importance of monitoring, which is done primarily by plant pathologists working with growers. Gardeners can access this information, thereby also benefiting, and they can play a very important contributing role by reporting when these diseases occur in their gardens. Some gardeners already have been!

Photos to help with identifying these plus other diseases are posted at:

<http://blogs.cornell.edu/livepath/gallery/> and information about them at

<http://blogs.cornell.edu/livepath/extension/for-gardeners/>.

Make sure to take photos to document your report.



Late blight of tomato and potato.

Typical symptoms on leaves are large spots with wilty, light green border and white growth of the pathogen on the underside which is most evident early in the day. Stems and fruit are susceptible too. Occurrences are mapped at <http://www.usablight.org/>. At this webpage anyone can sign up to receive alerts when late blight has been confirmed near them; the alert system is not just for growers.

Downy mildew of cucumber, squash and other cucurbits.

Symptoms develop only on leaves. Affected tissue is yellow then brown and angular due to major veins stopping pathogen growth inside. Underneath is brown pathogen growth. In addition to information about occurrences, there is a map-based forecasting system predicting where the pathogen is likely to develop next at <http://cdm.ipmpipe.org/>. There is also an alert system for this disease that gardeners can use.





Downy mildew of basil.

Similar to the disease on cucumber, which is caused by a different pathogen, affected leaf tissue is yellow, delineated by major veins, and during night brown spores form on the underside that are dispersed by wind potentially long distances. There is a new map-based monitoring webpage with information about this disease at <https://basil.meas.ncsu.edu/> replacing the Google spreadsheet format.

Reporting. Step 1 is self-confirmation. Seeing the pathogen's spores on the underside of affected leaves is diagnostic. If none seen, but symptoms look typical, encourage the pathogen to produce spores by putting leaves upside down on damp paper towel in a closed ziplock plastic bag with a little air space overnight where dark. Also look at photographs of other diseases and disorders at <http://blogs.cornell.edu/livegpath/gallery/> to determine if symptoms might be due to another cause. If you feel fairly confident you have one of these three diseases, email digital photographs to mtm3@cornell.edu with disease name plus 'Report' as subject. Include a photograph of the leaf underside with spores. If you need help with diagnosis, contact your local office of Cornell Cooperative Extension. (<http://cce.cornell.edu/localoffices>).

Diseases occurring rarely to report when seen. Several foliar diseases of greens have emerged or re-emerged in the region. Downy mildew of lettuce, downy mildew of spinach and powdery mildew of lettuce have been seen at least once on Long Island. Powdery mildew of kale has been seen elsewhere in the northeast. Photographs and information are posted at <http://vegetablemndonline.ppath.cornell.edu/NewsArticles/winter-greens.html>.

Take advantage of these great resources, and please contribute reports to increase the value of monitoring and our knowledge about occurrences of these important diseases. Thank you!

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