



**Greenhouse Pest Message, March 21, 2022**

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It has been many years since we were closely looking at our geranium crops for symptoms of **Xanthomonas or bacterial blight**. With the warmer temperatures on Friday, we thought sending out some more photos would be helpful. (Symptom expression increases with increasing temperatures, for example, with 60 F NT, it may take 3 weeks to see symptoms, whereas with 81F NT, it may only take one week). With overhead watering, this disease can quickly spread throughout a geranium crop.

From: Diseases of Geraniums:

<https://ecommons.cornell.edu/handle/1813/3738>

Here are some more photos for you:

Keep in mind that two types of leaf symptoms that can occur.

- 1) Small, water- soaked spots on the underside of the leaves, that are followed by **wilting and death of the affected leaf**.



Figure 1: Wilting of leaves caused by Xanthomonas. Photo by Dr. Li, CAES

- 2) Leaves wilting at the margins of the leaf blade with the leaf petiole at first remaining turgid. **Infected areas of the leaf rapidly die in angular areas that are bounded by the leaf veins. The affected leaves may drop off immediately or may hang onto the plant for a week or more.**



Figure 2: Infected areas of the leaf rapidly die in angular areas that are bounded by the leaf veins when geraniums are infected with *Xanthomonas*. Photo by Dr. Li, CAES.



Figure 3: Wilting of geranium leaves due to *Xanthomonas*. Photo by Dr. Li, CAES.



Figure 4: Wilting and V-Shaped Lesions on a more mature geranium plant. Photo by L. Pundt, UConn.

Geraniums are also prone to **Botrytis blight**, but symptoms are not always so characteristic, as in this photo with the concentric line patterns.



Figure 5: Botrytis Blight on Geraniums. Photo by L. Pundt, UConn.

In the next photo, you can see some wilting occurred with leaf edges turning brown. Looking at this photo, you cannot tell whether it is **bacterial blight** or **Botrytis Blight**. **Proper diagnosis is vital.**



Figure 5: Geranium infected with Botrytis Blight. Photo by L. Pundt

Ivy geraniums often show indistinct symptoms. Infected plants may be off-color resembling a nutrient deficiency symptom or two-spotted spider mite feeding damage.



Figure 6: When ivy geraniums are infected with Xanthomonas, symptoms are often indistinct. Photo by Grace O'Keefe, Maine Dept of Ag.

Thanks to Dr. Li for his photos and review of this pest message! **Dr. Li has the Agdia test strips for Xanthomonas for testing at the CAES Plant Disease Information Office.**

CAES Plant Disease Information Office, CAES, New Haven, CT  
<https://portal.ct.gov/CAES/PDIO/PDIO-Home/PDIO-Home>

For more photos:

<https://ag.umass.edu/greenhouse-floriculture/photos/geranium-xanthomonas>  
<https://greenhouse.cornell.edu/pests-diseases/gallery/>

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