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Bacterial Leaf Spot of Begonia

Scattered leaf spots, wedge-shaped leaf spots, and wilt can be symptoms of bacterial leaf spot.

We've been seeing more begonias on greenhouse benches over the past few years. This is in part because growers and gardeners are seeking a shade annual substitution for garden impatiens, and in part because there seem to be more and more gorgeous species and cultivars available.

One disease that can mar these beauties is bacterial leaf spot. This has been reported this season from various production ranges—so learn what to look for, and be on the lookout.

Watch for scattered leaf spots that are angular and with a water-soaked appearance or wedge-shaped leaf spots near the leaf edge that are accompanied by a diffuse edge or speckling along the

edge. Sometimes lesions along the leaf edge can look like a marginal leaf burn. This disease can become systemic (moving into the vascular system) and can cause wilt and leaf and plant collapse. Since it can be difficult to discern



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bacterial leaf spots from other leaf spots, enlisting the help of a diagnostic lab is always a good idea.

Bacterial leaf spot on begonia is caused by *Xanthomonas axonopodis* pv. *begonia* (formerly *X. campestris* pv. *begonia*). This bacterial pathogen will only affect begonias, however different species and cultivars of begonias can vary widely in susceptibility. You'll see the most trouble on *Begonia boliviensis*, Reiger, Rex, and tuberous begonias as well as some hybrids. Wax-leaf begonias can be a host of this disease, but symptoms are not commonly seen in production.

Recently I conducted a demonstration trial of shade annuals and alternatives to garden impatiens in which various types of begonias (and numerous other shade annuals) were grown and evaluated. Unfortunately I found bacterial leaf spot symptoms on some of the begonia cultivars included. 'Breezy White' (*Begonia x tuberhybrida*) and 'Santa Cruz Sunset' (*Begonia boliviensis*) were most affected. Some leaf spot symptoms were also observed on 'Sparks Will Fly' (*Begonia x hybrida*) and 'Go-Go Rose' (*Begonia x tuberhybrida*). Symptoms were not observed on the various wax-leaf begonias (*Begonia x semperflorens-cultorum*) in the trial, *Begonia benariensis* ('Whopper', 'BIG'),

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or 'Baby Wing Pink' (*Begonia x hybrida*). (Note that this was not a scientific trial evaluating susceptibility of various begonia species and cultivars. These observations were discussed to illustrate the variability of symptoms on different types of begonia.)

Manage this bacterial leaf spot the way you should be managing other bacterial diseases—prevention and sanitation. Always start with clean plant material and a clean greenhouse. This pathogen can reside in leaf debris, so it is very important to make sure to start clean when growing begonias that are known to be troubled by bacterial leaf spot. If possible, grow species and/or cultivars that are less susceptible to the disease.

Plants affected by this disease should be promptly removed from the greenhouse and discarded, and be sure not to handle healthy plants after handling diseased ones. Remember that nearby begonias that appear healthy might be infected but not yet showing symptoms, so be sure to keep monitoring the



crop. Bacteria can also be spread by splashing water; avoiding overhead irrigation and keeping the foliage dry can help prevent spread. Treating with a product labeled for managing bacterial diseases can help protect plants from new infections. As always, carefully read pesticide labels and follow all instructions, recommendations, and warnings.