

When Irises Have Health Problems

By Susan Camp

Irises are my favorite flowers. I love these regal plants with sword-like foliage and extravagantly ruffled blooms in an array of colors from darkest midnight to the earliest blush of dawn.

After our mild winter and rainy spring, I noticed that some of my irises did not perform well. Nothing serious, just less than robust leaves and short-lived blooms. I wasn't concerned, but after I received two inquiries about iris health, I decided to take a closer look at iris diseases and pests and how to prevent or combat them.

My friend, Betty, who lives near Charleston, South Carolina, asked me on Facebook, "Why are my tall bearded iris leaves turning yellow?"

Yellowing leaves often are the first indication of a health problem caused by soil conditions or the growing environment, both of which can contribute to the development of fungal or bacterial diseases.

Then, it was my turn to ask a question, "What is the soil like?" Betty responded that her irises are growing in sandy soil at the end of the drive. The plants receive runoff from the driveway and lawn. Her statement was a strong clue to a possible origin of the problem.

Irises require full sun and well-drained, fertile, slightly acidic soil. The rhizomes should be barely covered with soil. I referred Betty to Clemson University Extension to obtain a soil sample kit.

The second iris question was posted by a local friend, who asked, "What are the little brown spots on my iris leaves?"

Fungal or iris leaf spot (caused by *Didymellina macrospora*) is a common disease of bearded, Siberian, Dutch, and native blue flag irises. Leaf spot usually presents during a period of rainy weather as small circular or oval spots that turn yellowish-brown with reddish-brown borders. Leaves shrivel and die back from the tip. Flowering may be poor, and if the disease is not controlled, the plants will weaken. Fungal leaf spot can occur anytime the temperature is above freezing.

Bacterial leaf spot or blight (caused by *Xanthomonas tardicrescens*) is a serious disease that causes large, irregular, watery brown spots on the leaf tips. The spots increase in size and coalesce as they move down the leaf toward the rhizome. Bacterial leaf spot often is confused with fungal leaf spot, but the bacterial type occurs during periods of mild weather.

Two other diseases, fungal crown rot and bacterial soft rot can seriously damage an iris bed. Fungal crown rot (caused by *Sclerotium rolfsii*), which primarily affects bearded irises, causes the leaf tips to turn yellow and a gray, cottony mass to cover the leaf base where it is connected

to the rhizome. The rhizome will then rot, and the leaves will fall over. Fungal crown rot occurs most often in moist soil when temperatures are warm.

Bacterial soft rot (caused by *Erwinia carotovora*) is a serious disease that can quickly destroy a bed of tall bearded irises. The rhizomes rot and emit a distinctive foul smell, and the leaves wilt and die. If you act quickly and scrape out the soft, rotting material with a spoon, you may be able to save the irises. After cleaning, let the rhizomes dry in full sun for at least 24 hours before replanting.

Prevention is the best treatment for these iris diseases, which are often spread by contaminated garden tools and splashing water from rain or irrigation. Disinfect garden tools frequently. Remove and dispose of leaf debris in a closed bag. Do not compost affected plants. Avoid overhead watering, if possible. Lift your irises every three or four years to prevent overcrowding; good air circulation is crucial to prevent spread of disease.

Contact a Gloucester Master Gardener through the Extension Office at (804) 603-2602 for current information about fungicide use.

Neem oil is an organic fungicide/insecticide that is generally safe to use, but apply it cautiously to prevent harm to bees and butterflies.

Go to The American Iris Society at www.irises.org for information about iris culture and care.