Yard and Garden – 06-02-2012 - Ted Griess / Extension Horticulture Assistant

I always thought they were invincible. Rarely do I receive challenging questions about them. Probably one of the easiest flowers to grow, they encounter few pest problems. All that might be changing.

If you have been gardening for any length of time, you probably know that some of the easiest plants to grow in the landscape are daylilies. Their demands are few. They thrive in assorted soil types. They are not fussy about pH or fertility, and they are generally drought tolerant. Lately, however, two diseases— Daylily Leaf Streak and Daylily Rust—have emerged.



Perhaps associated with the unusual spring weather we have been experiencing, the symptoms of these two diseases are more prevalent. Determining which disease is causing the problem can be confusing. With both diseases, yellow streaks begin to appear along the length of the leaves. The problem first starts at the tip of the leaf and progresses downward. Reddishbrown lesions develop along the infected foliage, and eventually, the leaves wither, turn brown and die.

Daylily leaf streak is caused by the fungal micro-organism *Aureobasidium microstictum*. This pathogen is spread from leaf to leaf and plant to plant primarily by water splash. To minimize the problem, one should avoid overhead irrigation and when planting, space the plants far enough apart to achieve good air circulation.

Another way to avoid daylily streak is purchasing or propagating only healthy, disease free plants. Sanitation is one management technique. In severe cases, protecting uninfected plants by removing infected plants may be necessary.

The use of fungicides is another management technique. Fungicides will not cure the disease; however, applying the proper fungicide to an uninfected plant will help to keep the disease at bay. Active ingredient fungicides that prove effective are chlorothalonil, propiconazole, thiophanate-methyl and triadimefon.

Daylily rust is caused by the fungal microorganism *Puccinia hermerocallidis*. It requires two different host plants (daylily and the herbaceous perennial *Patrinia* sp.) to complete its life cycle. As with the disease daylily leaf streak, similar symptoms occur. The fungus is capable of producing spores on the daylily alone. Yellowbrown streaking appears along the length of the



leaf starting from the top to bottom. Ultimately reddish brown lesions develop on the infected leaf. The leaf eventually withers and dies.

Interestingly, daylily rust is said to overwinter in only warmer areas such as Zone Eight and higher. The main method of rust spread in nature is by wind-blown spores; however, it can persist in colder zones if it can affect the alternate host *Patrinia*. A quick diagnostic test to determine whether the disease is daylily streak or daylily rust is to run your fingers along the underside of the leaf. An orange, powdery residue will result from the spores of daylily rust.

The controls for daylily rust in the landscape are similar to those for daylily streak. They are good sanitation and fungicides. One method of control is simply to destroy the diseased plants and start over with healthy resistant plants. Effective fungicides include propiconazole, myclobutanil, and triadimefon.

Who knows? Perhaps our unusual spring weather is partly the reason we are seeing more cases of daylily streak and daylily rust. Even so, I remain optimistic. I will continue to recommend growing daylilies. After all, they are still one of the easiest flowers to grow with the fewest pest problems.