

Q. My garden is full of daylilies that bloom from early spring until fall. I have ordered some new varieties but do not want to bring a new disease into my garden. Has daylily rust been found in California? How can I keep my plants disease free?

A. The fungus *Puccinia hemerocallidis*, commonly called Daylily Rust, has been found in California. This Asian fungus appeared on daylily plants in Florida in 2000, and then spread rapidly to many other states. The spores are spread by wind, infected plants, tools and soil.

The first symptoms you would see are typical bright yellow spots or streaks on the undersides of the long leaves followed by yellow/orange pustules (containing orange spores). The leaves will eventually turn brown and die, not killing the parent plant but causing it to become very disfigured. The fungus appears to affect foliage only, but may be able to be carried on the tubers.

Tests from various nurseries indicate that there is big difference in susceptibility among different cultivars, with the most resistant showing nothing more than small flecks. Field observations in the southeastern US show that the varieties most often infected are Attribution, Pardon Me, Gertrude Condon, Crystal Tide, Colonel Scarborough, Starstruck, Joan Senior, Imperial Guard, Double Buttercup, Stella D'Oro. The spores have a short incubation period of 2-3 days, so symptoms can show up rapidly on new plants. Some of the more resistant varieties have not shown symptoms until weeks or months have passed.

If you are purchasing new daylilies, remember that the plants can be carrying the fungus. You will want to isolate the new plants until you are certain that you are not bringing an uninvited guest into your garden. Keep the plants in a separate greenhouse, portable cold-frame or porch until you are confident that they are clean. The current recommendation is for six months of isolation, but some growers are opting for longer.

Peel the outer layer of leaves back to the crown, then cut the remainder about 1-2" above the crown. The crown can then be soaked in a fungicide if desired, but be aware that this procedure may cause significant shock to the plant and may cause death. Plant the new daylily in an area that you can carefully monitor, checking daily for symptoms, particularly on the undersides of the leaves. The early signs look very similar to other disorders such as aphid damage. Once pustules form they can be clearly seen with the eye, although a magnifying glass will help. Wipe the leaf with a white tissue. If a yellow powder comes off, the fungus is producing spores. If you are not sure, send the plant material to a diagnostic laboratory for identification.

To help keep you garden healthy, remember that these spores can be carried on the wind, and can blow in from other gardens. When you are doing your winter clean-up, remove all the leaves from your existing plants and either bury in a hot compost pile or deep in the soil.