

Spur Blight of Red Raspberries

Michael A. Ellis

Department of Plant Pathology

Spur blight is caused by the fungus *Didymella applanata*. Spur blight occurs only on red and purple raspberries. Spur blight has been considered to be a serious disease of red raspberry; however, recent studies in Scotland suggest that spur blight actually does little damage to the cane. The extent of damage caused by spur blight in the United States is not clearly understood. The spur blight fungus has been reported to reduce yields in several ways. It can blight the fruit bearing spurs that are produced on the side branches, cause premature leaf drop, and kill buds on the canes that later develop into fruit bearing side branches. In addition, berries produced on diseased canes may be dry, small, and seedy.



Figure 1. Typical symptoms of spur blight on red raspberry canes.

Symptoms

The symptoms first appear on young first-year primocanes in late spring or early summer. Purple to brown areas (lesions) appear just below the leaf or bud, usually on the lower portion of the stem.

These lesions expand, sometimes covering all the area between two leaves. In late summer or early fall, bark in the affected area splits lengthwise and small black specks, which are fungal fruiting bodies (pycnidia) appear in the lesions. They are followed shortly by many slightly larger, black, erupting spots; another form of fungal fruiting body (perithecia). Leaflets sometimes become infected and show brown, wedge-shaped diseased areas, with the widest portion of the wedge toward the tip of the leaf. Infected leaflets may fall off, leaving only petioles without leaf blades attached to the cane. When diseased canes become fruiting floricanes during the next season, the side branches growing from diseased buds are often weak and withered.



Figure 2. Spur blight symptoms on red raspberry leaves.

Causal Organism

Spur blight is caused by the fungus, *Didymella applanata*. It survives the winter in lesions on diseased canes. The following spring and summer, during wet and rainy periods, spores are released and carried by splashing rain and wind to nearby primocanes. There they germinate in the presence of water and produce new infections, where the fungus will again over winter.

Control

All steps possible should be taken to improve air circulation within a planting, to allow faster drying of foliage and canes. Reducing the number and duration of wet periods should reduce the potential for infection. Excessive applications of fertilizer (especially nitrogen) should be avoided, since it promotes excessive growth of very susceptible succulent plant tissue. Plants should be maintained in narrow rows and thinned to improve air circulation and allow better light penetration. Weeds are very effective in reducing air movement; therefore, good weed control within and between rows is important for

improving air circulation within the planting.

Wild brambles, especially wild red raspberries, growing in the area should be removed. They can serve as a reservoir for the disease.

After harvest, remove and destroy all old fruited floricanes and any first-year primocanes that are infected. The best time to remove old and infected canes is after the canes go dormant in early winter or early spring before new primocanes emerge. If spur blight becomes an important problem in the planting, growers may want to consider the use of fungicide. Special fungicide sprays specifically for control of spur blight are generally not warranted.

For the most current spray recommendations, commercial growers are referred to Bulletin 506-B2, *Midwest Commercial Small Fruit and Grape Spray Guide*, and backyard growers are referred to Bulletin 780, *Controlling Diseases and Insects in Home Fruit Plantings*. These publications can be obtained from your county Extension educator or the Extension Publications Office, The Ohio State University, 216 Kottman Hall, 2021 Coffey Road, Columbus, Ohio 43210-1044.

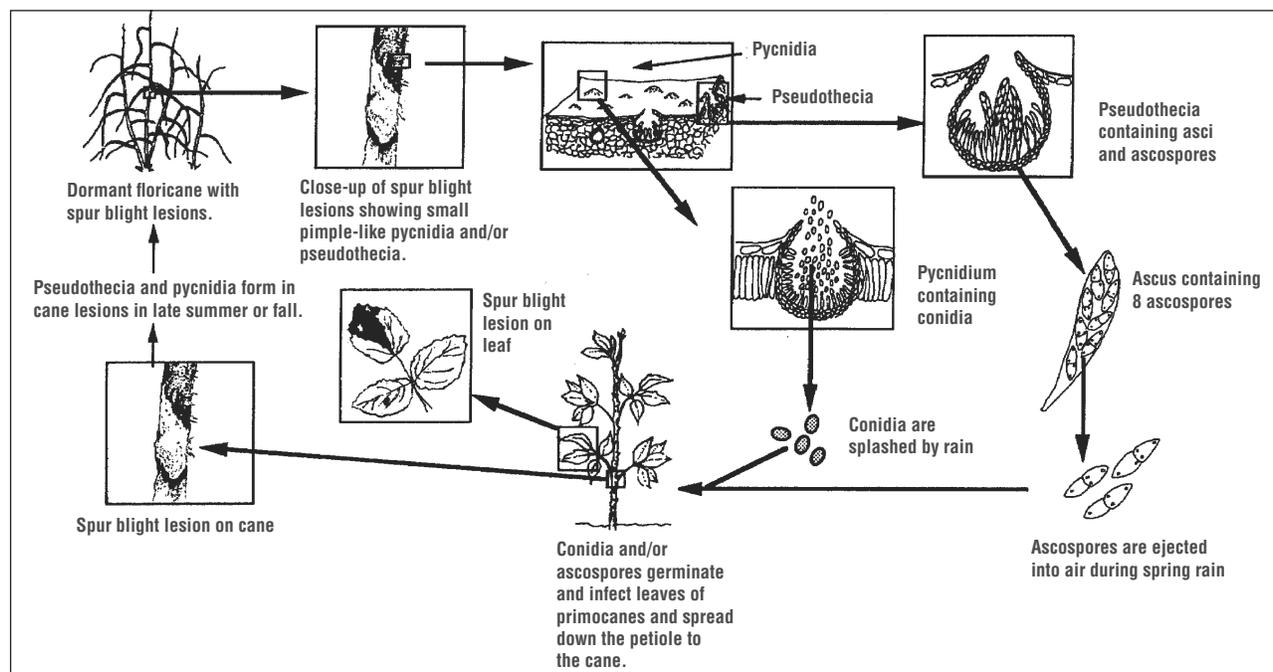


Figure 3. Disease cycle of spur blight.

EMPOWERMENT THROUGH EDUCATION

Visit Ohio State University Extension's web site "Ohioline" at: <http://ohioline.osu.edu>

Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA.

Keith L. Smith, Ph.D., Associate Vice President for Agricultural Administration and Director, Ohio State University Extension

TDD No. 800-589-8292 (Ohio only) or 614-292-1868