



This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

Pachysandra

Pachysandra thrives in shady to partly shaded areas. It is an excellent evergreen groundcover, forming a dense mat 8-10 inches high. Pachysandra grows best in good, loose, moist, fertile soil with an acidic pH under 6.0. Although easy to grow under ideal conditions, Pachysandra is susceptible to leaf blight and stem canker, caused by the fungus *Volutella pachysandricola*. Symptoms on leaves begin as brown or tan blotches with dark margins. The lesions often develop concentric rings of lighter and darker zones as they enlarge. Stem cankers begin as water soaked areas that become brown and shriveled. When the stem is completely girdled, the plant wilts and dies. Pinkish-orange spore masses are produced on the cankered stems and on the underside of leaves when conditions are warm and humid. Pachysandra blight can spread rapidly through a planting, causing enormous losses. Overhead irrigation can be a contributing factor in disease development. Remove diseased pachysandra from the planting. Thiophanate methyl, chlorothalonil, and mancozeb are effective against *Volutella*. Plants should be sprayed when new foliage emerges in the spring. Follow individual label for repeat sprays.

Pachysandra blight (stem canker) - *Volutella pachysandricola*



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Pachysandra blight- *Volutella pachysandricola*



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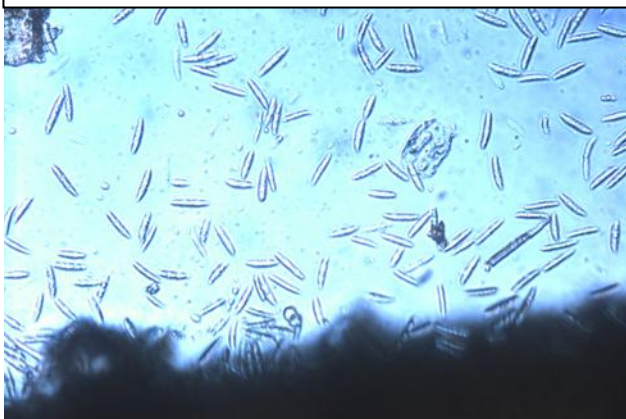
Pachysandra blight spore masses (sporodochia) - *Volutella pachysandricola*



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**Pachysandra blight spores -
*Volutella pachysandricola***



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**Snap pea pythium root rot-
*Pythium ultimum***



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Sugar Snap Pea

Sugar snap peas are sweet-tasting nutritious peas that can be prepared without shelling, because they are less fibrous than English peas. They are easy to grow, but may develop root rots when planted in poorly drained or compacted soils. Pythium root rot, caused by *Pythium ultimum*, can be very damaging, especially to seedlings. Symptoms are stunting, yellowing, wilting, and death. When the roots are examined, they will be brown, water-soaked, and rotted. Short rotations between pea crops along with poor drainage create a favorable environment for disease. Practice a 4-year rotation between pea crops. Ridomil Gold SL is labeled for control of pythium in peas, but will be ineffective for plants already wilted.

**Snap pea pythium root rot-
*Pythium ultimum***



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Dogwood

Homeowners are sometimes startled in the spring when they notice bright orange exudates on the trunk or branches of a dogwood tree. The cause is injury to the bark, or pruning in late winter or early spring before flowering. The tree begins weeping sap from the injury or "bleeding." Yeast and fungi, such as *Cryptococcus macerans*, often colonize the sap. These organisms feed on the sugar rich sap. *Cryptococcus macerans* is a fungus that stores energy in carotene-filled sacs, giving a startling orange color to the dogwood sap. Birches, maples, butternuts, and walnuts are among other species of tree on which these phenomena can occur. The wounds themselves should not be covered or treated, but allowed to heal naturally. The tree usually stops bleeding by early summer.



**Dogwood with orange sap-injury
sites colonized by *Cryptococcus macerans***



Photo, courtesy of Judy Gibbs

**Dogwood with orange sap-injury
sites colonized by *Cryptococcus macerans***



Photo, courtesy of Roselyn Gira

Wheat

Symptoms of phosphorous deficiency in wheat are stunted growth and reduced tiller development. Older leaves will have reddish-purple leaf tips and margins, with the majority of the plant remaining green. Soils low in organic matter are the most likely to be deficient in phosphorous. It is common on wet, calcareous soils, but also found on acidic soils high in aluminum. Because phosphorous does not move much in the soil, applications to correct deficiencies must be uniformly applied.



Wheat phosphorous deficiency- abiotic



Photo, courtesy of Pat Miller Missouri Extension