



Arkansas Plant Health Clinic Newsletter

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Bermuda

Spring Dead Spot, caused by *Ophiosphaerella* spp., typically occurs on Bermuda plantings three or more years old, and is the most important disease of Bermuda grass in North America. Infections begin in the fall with damaged areas becoming visible in the spring. Symptoms begin as circular depressed areas prior to spring green-up. When the turf greens up, circular patches of dead, bleached grass are apparent. The dead spots may be from 6 inches to as large as 3 feet in diameter. After several years, the centers of active patches may contain weeds or live bermudagrass, with the patches taking the form of rings or serpentine arcs. The roots and stolons are severely rotted in these areas. Re-growth is extremely slow. Bermuda that re-colonizes the necrotic areas remains stunted due to toxins produced by the fungi. Adequate control of Spring Dead Spot is mainly through cultural practices. Recommendations are core aeration done in August or September, and practices that reduce soil compaction and improve drainage. Applications of ammonium sulfate and potassium have been found to be helpful when applied in summer. Apply at least 1.0 lbs. of Potassium (K₂O) per 1000 sq. ft. to turfgrass

during June, July, or August. Some experts recommend two fall applications three to four weeks apart. Maintain pH in the range of 5.5-6.5. Fungicide treatments are not effective unless coupled with good cultural practices. Heritage (azoxystrobin), ProPensity (propiconazole), Disarm (fluoxastrobin), and Eagle (myclobutanil) may also be used by commercial lawn care professionals. Homeowners may use Ferti-lome F-Stop liquid Fungicide, or Bonide Infuse Systemic Disease Control lawn and Landscapes, or Scott's lawn disease Control. Make applications about 30 days before dormancy in the fall when soil temperatures are between 60°F and 80°F. Follow label for specific instructions, Cultivars with good winter hardiness are less affected by Spring Dead Spot.

Bermuda Spring Dead Spot- *Ophiosphaerella* spp.



Photo by Shawn Payne, University of Arkansas
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Bermuda Spring Dead Spot- *Ophiosphaerella* spp.



**Photo by Brannon Thiesse, University of Arkansas
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Bermuda Spring Dead Spot- *Ophiosphaerella* spp.



**Photo by Brad McGinley, University of Arkansas
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Strawberry Phytophthora Crown Rot

Phytophthora Crown rot, caused by *Phytophthora cactorum*, can cause serious losses when environmental conditions are right for disease development. Phytophthora requires a warm period with prolonged soil wetness for infection. Fields with drainage problems are most susceptible. First symptoms are the youngest leaves turning blue green and suddenly wilting. Plants become chlorotic and stunted. The plant may collapse and die as the entire crown becomes diseased. Typically, the petioles break at the crown when pulled. Dissection of the crown reveals extensive brown necrosis and disintegration. Sometimes a plant will only wilt on one side depending on the number of crowns affected. Plants with wounds are particularly susceptible. Control consists primarily of planting resistant cultivars,



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ensuring adequate drainage, and avoiding planting in low wet spots. Once wilting has occurred, plants will not recover. Ridomil Gold and Aliette are labeled for Phytophthora diseases in strawberries.

Strawberry Phytophthora Crown Rot- *Phytophthora cactorum*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Strawberry Phytophthora Crown Rot- *Phytophthora cactorum*



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Strawberry Anthracnose

Anthracnose Fruit rot is found wherever strawberries are grown. Three species of the fungus *Colletotrichum* have been associated with anthracnose on strawberry: *Colletotrichum acutatum*, *Colletotrichum gloeosporioides*, and *Colletotrichum fragariae*. Chandler, Camarosa, Treasure, and Albion are popular cultivars that are particularly susceptible.

Symptoms on fruit appear as brown to black, water-soaked spots on green and ripe fruit. The lesions become sunken and firm, turning brown to black. Pink, salmon, or orange-colored masses of spores form in the lesion under



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humid conditions. The entire fruit may dry up and become mummified. Infected flowers may also dry up, or developing fruit remain small, hard, and misshapen.

Lesions on strawberry stolons and petioles are often associated with anthracnose crown rot. Lesions begin as small red streaks, and rapidly become dark, sunken, elongated lesions. Pink spore masses form under humid conditions. When lesions encircle the stem, its leaf wilts and dies. The first symptom of anthracnose crown rot is wilting of the youngest leaves on the plant. Once the crown rot is extensive, the entire plant wilts and dies. Anthracnose crown rot is most often caused by *Colletotrichum fragariae*. Anthracnose spores may survive up to nine months on debris in the field. Spread and severity of the disease may be reduced by practices that keep the foliage as dry as possible. Fields where high rates of nitrogen are used, especially ammonium sources of nitrogen, have significantly higher disease levels. Rotate Captan with Topsin M, or Quadris Top, or Pristine, or CaptEvate, or Elevate, or Fontelis, or Scala. To be effective, sprays should be started before the onset of the disease. Follow label for best results. Planting resistant cultivars such as Sweet Charlie, Florida Radiance, and Florida Elyana may be the most practical options for some growers.

Strawberry Anthracnose- *Colletotrichum* spp.



Photo by Sherrie Smith, University of Arkansas
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Strawberry Anthracnose- *Colletotrichum* spp.



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Roundup Damage to Strawberry

We've already seen some roundup damage to strawberry. Care must be taken even when applying with a mop.

Strawberry Roundup Damage- Abiotic



Photo by Sherrie Smith, University of Arkansas
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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.

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Strawberry Roundup Damage- Abiotic



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