



## Arkansas Plant Health Clinic Newsletter

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### Harry Lauder's Walking Stick (Contorted filbert)

Harry Lauder's Walking Stick, *Corylus avellana* 'Contorta', is an ornamental filbert grown for its interesting, twisted branches. They are hardy plants but are susceptible to Eastern Filbert Blight, caused by *Anisogramma anomala*. This fungus only infects from budbreak through shoot elongation. Once the new growth hardens, the tissue is safe from infection. Symptoms are branch and stem dieback, and tiny oval cankers with black fruiting bodies within the cankers. Rows of cankers may occur singly or doubly. Early in the spring during wet weather, sticky white spore masses ooze from the cankers. The spores penetrate immature tissue behind the meristem. There is a 12-15-month latent period where there are no symptoms. By the time the black cankers appear, the disease has been established for up to several years. Infected branches should be removed 1-3 ft. below the cankered area and destroyed before budbreak in the spring. Apply fungicides starting at bud swell to budbreak and continue at 2-week intervals. A total of four applications is recommended. Bonide Fung-onil Multi-Purpose Fungicide; or Hi-Yield Vegetable,

Flower, Fruit, and Ornamental Fungicide; or Daconil may be used. Commercial growers may use Abound, or Adament.

### Eastern Filbert Blight-*Anisogramma anomala*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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## Eastern Filbert Blight perithecial stromata-*Anisogramma anomala*

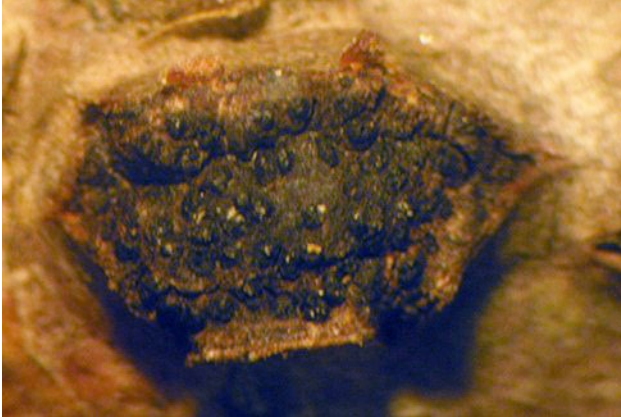


Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## Eastern Filbert Blight asci and *Apioporth*-type ascospores-*Anisogramma anomala*

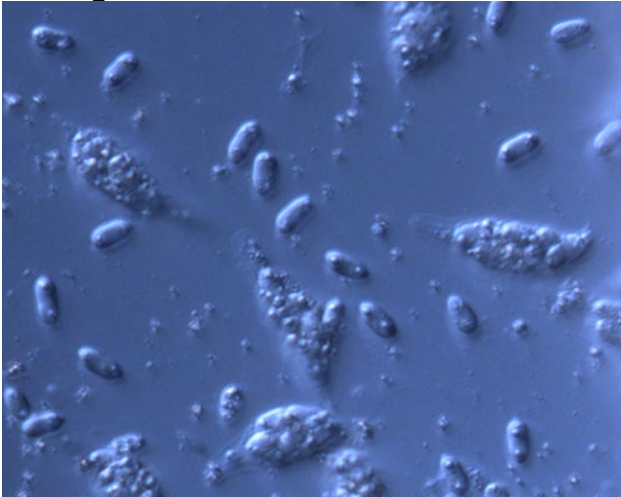


Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## Dogwood

Dogwood Anthracnose, caused by the fungus *Discula destructiva*, is a serious disease of flowering dogwoods, often killing an infected tree in a few seasons. The lower crown commonly shows symptoms first. Lesions on the leaves begin as tan spots with purple edges that rapidly enlarge to large leaf blotches. The blighted leaves remain on the tree in the autumn after normal leaf fall. A diagnostic shepherd's crook may develop when leaf infections reach petioles and new twigs. Tiny, brown fruiting bodies (conidiomata) of the fungus may be observed with a hand lens on the underside of infected leaves. Cankers develop at leaf scar sites, girdling and killing the shoot, while cankers occurring on the trunk can eventually kill the tree. Excessive twiggy growth (water sprouts) often forms on the trunk and branches where twig and branch cankers are located. This growth is particularly vulnerable to infection. Depending on environmental factors that favor disease, badly infected trees may be killed in 2 or 3 years. The best method of protecting landscape dogwoods is planting resistant cultivars. Good management practices can control Dogwood Anthracnose already present in the landscape. These practices must be consistently followed to protect trees for the long term, since native dogwoods and neighboring trees that are not managed may provide sources of infection each season:

1. Carefully prune out all diseased, dying, and dead twigs and limbs.



**Sherrie Smith**

2. Spray all plants at bud break in the spring with a systemic foliar fungicide labeled to control Dogwood Anthracnose. Examples include fungicides containing propiconazole (Banner Maxx) or tebuconazole (Bayer Advanced Disease Control Products). Good coverage of the entire tree with the spray is very important.
3. About two weeks after the systemic spray, apply a protectant fungicide labeled to control Dogwood Anthracnose containing chlorothalonil (like Daconil products), thiophanate-methyl (like Cleary's 3336) or both (like Spectro 90 WDG). Again, complete coverage of the entire tree is essential.

While commercial landscape companies have power sprayers that can effectively spray trees, most dogwoods are small enough to allow the use of trombone tree sprayers for homeowner use. An example is the Trombone® Model 61224 sprayer by Hudson Sprayer Company.

Resistant varieties of dogwood are available and should be considered for new plantings or to replace diseased trees. If you want a cultivar of *Cornus florida*, the flowering dogwood, then Appalachian Spring is an anthracnose resistant choice. Resistant cultivars of the kousa dogwood (species *Cornus kousa*) include Big Apple, China Girl, Elizabeth Lustgarten, Gay Head, Greensleeves, Julian Milky Way, Steeple, and Temple Jewel. The *Cornus florida* x *kousa* hybrid flowering dogwood cultivars with anthracnose resistance include Aurora,

Celestial, Constellation, Ruth Ellen, Star Dust, and Stellar Pink.

### **Dogwood Anthracnose-*Discula destructiva***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### **Dogwood Anthracnose *conidiomata-Discula destructiva***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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## Dogwood Anthracnose-*Discula destructiva*



Photo by Jim Robbins, University of Arkansas Cooperative Extension

## Verticillium Wilt

Verticillium Wilt is a soil-borne disease with a huge host range. Although Verticillium Wilt is mostly associated with two species of Verticillium, *Verticillium dahliae* and *V. albo-atrum*, shade trees are more likely to be infected with *V. dahliae*. The fungus invades through the roots and blocks the water conducting vessels of the plant. Symptoms are chlorosis, branch by branch decline and an overall thinning of the canopy. Eventually death occurs. When twigs or branches are cut in cross section, streaking may be seen in the wood. In magnolia the sapwood is a general brown color, not as obvious as the green to dark brown streaking found in other species of trees. Environmental

stresses make trees more vulnerable. There is no cure for Verticillium Wilt. The fungus exists for a long time in the soil. Therefore, when choosing a replacement tree or shrub, choose a resistant species.

## Verticillium Resistant Hosts

Apple and flowering crabapple  
Ash, European mountain  
Beech  
Birch  
Box aka Boxwood  
Dogwood  
Eucalyptus  
Fig  
Hawthorn  
Holly  
Hornbeam  
Katsura tree  
Laurel, California  
Linden  
Locust  
Locust, honey  
Manzanita  
Mulberry  
Oak  
Oleander  
Orange, Lemon, Grapefruit, and other citrus  
Pear  
Plane tree  
Pyracantha aka Firethorn  
Rock rose  
Rock rose, sage-leaf  
Rock rose, white  
Sweetgum aka Liquidambar  
Sycamore, western  
Walnut  
Willow

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## Magnolia Verticillium Wilt- *Verticillium dahliae*



Photo by Shawn Payne, University of Arkansas  
Cooperative Extension

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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## Magnolia Verticillium Wilt- *Verticillium dahliae*



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