

2001 RUTGERS Turfgrass Proceedings



THE NEW JERSEY TURFGRASS ASSOCIATION

In Cooperation With

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The Rutgers Turfgrass Proceedings is published yearly by the Rutgers Center for Turfgrass Science, Rutgers Cooperative Extension, and the New Jersey Agricultural Experiment Station, Cook College, Rutgers, The State University of New Jersey in cooperation with the New Jersey Turfgrass Association. The purpose of this document is to provide a forum for the dissemination of information and the exchange of ideas and knowledge. The proceedings provide turfgrass managers, research scientists, extension specialists, and industry personnel with opportunities to communicate with co-workers. Through this forum, these professionals also reach a more general audience, which includes the public.

This publication includes lecture notes of papers presented at the 2001 New Jersey Turfgrass Expo. Publication of these lectures provides a readily available source of information covering a wide range of topics and includes technical and popular presentations of importance to the turfgrass industry.

This proceedings also includes research papers that contain original research findings and reviews of selected subjects in turfgrass science. These papers are presented primarily to facilitate the timely dissemination of original turfgrass research for use by the turfgrass industry.

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Dr. Ann Brooks Gould, Editor
Dr. Bruce B. Clarke, Coordinator

MANAGEMENT OF SOME COMMON PROBLEMS OF ORNAMENTAL TREES, SHRUBS, AND PERENNIALS

Margery Daughtrey¹

Sphaeropsis tip blight (alias Diplodia tip blight) — caused by the fungus *Sphaeropsis sapinea* on 2- and 3-needled pines. Gather cones; prune out dead tips. Treat just before budbreak, plus 2 more times at 10-day intervals. Try Cleary 3336 + spreader-sticker, Spectro, Camelot, Protect T/O, Junction, or Banner MAXX.

Rhabdocline needlecast — caused by the fungus *Rhabdocline pseudotsugae*. Prune before May 1; improve air drainage around base. Before new growth is 1/2 inch long, apply Daconil or Twosome, and keep treating every 3 to 4 weeks until July 1.

Juniper tip blight — caused by the fungus *Phomopsis juniperovora*. Prune out tips; avoid heavy fertilization or overhead watering. Treat with maneb, mancozeb, Banner MAXX, Heritage, Cleary 3336, Zyban, or Junction every 2 weeks. Choose resistant cultivars (e.g., Keteleeri, Pfizer, and Sargentii within *J. chinensis*).

Kabatina blight — caused by the fungus *Kabatina juniperovora*. Treat with Cleary 3336, Protect T/O, or Heritage if severe.

Rust on junipers — both cedar-apple rust and quince rust are common (*Gymnosporangium juniperi-virginianae* or *G. clavipes*). Treat in early August with Bayleton, Systhane, Protect T/O, Zyban, or Junction 2 to 3 times at 3-wk intervals, especially if nearby hawthorn or crabapples are severely affected. Look for resistant varieties. Treatment on rosaceous rust hosts is usually more effective.

Phytophthora root rot on rhododendron, juniper, chamaecyparis, etc. — caused by an oomycete, which is no longer considered a true fungus. Plant shrubs

in well-drained sites. Treat with Subdue MAXX to protect plants near those that have succumbed to *Phytophthora*. Replace with less susceptible species.

Phytophthora shoot blight — prune out injury. When new foliage begins to expand, treat 3 times, 7 days apart, with materials such as Protect, Daconil, Twosome, Camelot, or Heritage.

Botryosphaeria canker of rhododendron — prune out dieback. Treat with Protect T/O. Some cultivars (e.g., Boursalt, Chionoides White, Cunningham's White, and English Roseum) are relatively resistant.

Powdery mildew — different fungi cause disease on different hosts. May occur on many plants, including lilac, dogwood, euonymus, deciduous azalea, and rose, as well as many herbaceous perennials. Provide good air drainage; treat with materials such as Bayleton, Cleary 3336/Cavalier, horticultural oil, Camelot, Banner MAXX, Spectro, Heritage, Systhane, or Armicarb. Cherokee Brave and Appalachian Spring are resistant dogwoods; Stellar Pink, Galaxy, and Aurora are resistant *C. kousa* x *C. florida* hybrids from Rutgers.

Actinopelte leaf spot of oak — caused by the fungus *Tubakia dryina*. If necessary treat once just before bud swell in spring with a product such as Protect T/O, Daconil, Twosome, or Spectro.

Dogwood anthracnose — caused by the fungus *Discula destructiva*. Plant dogwoods in sunny locations; mulch and irrigate to avoid drought stress. If necessary, treat with fungicides such as Daconil, Banner Maxx, or Fore at bud break and twice more at 10- to 20-day intervals. *Cornus kousa* is usually resistant; StarDust, Stellar Pink, and Celestial are re-

¹Senior Extension Associate, Dept. of Plant Pathology, Cornell University, L.I. Horticultural Research and Extension Center, 3059 Sound Ave., Riverhead, NY 11901-1115

sistant Rutgers hybrids. Other anthracnose diseases are common on oaks, maple, and ash (control is similar).

Tar spot of maple — caused by *Rhytisma* sp. fungi. Norway maple may need treatment. Use materials such as Bayleton, Protect T/O, or Junction timed at budbreak and two more times at 7- to 14-day intervals.

Verticillium wilt — caused by *Verticillium dahliae*, a fungus that forms long-lasting microsclerotia in the soil. Avoid drought stress; fertilize and irrigate.

Shadbush rust — caused by *Gymnosporangium clavipes* most often (quince rust). Eliminate juniper hosts; treat with Systhane/Eagle at bloom.

Apple scab — treat with materials such as Banner MAXX, Systhane/Eagle, copper sulfate, Fore/Protect T/O, Cleary 3336/Cavalier, Zyban, Daconil, Twosome, or Spectro. Initiate treatment at pink-bud. Utilize resistant varieties.

Shothole of cherry — caused by the fungus *Blumeriella jaapii*. Problematic on skip laurel. Treat at petal fall, and repeat twice at 14-day intervals with Banner MAXX, Protect T/O, Junction, Systhane/Eagle, Spectro, or Cleary 3336.

Peach leaf curl — caused by *Taphrina deformans*. Apply Spectro or Junction during dormancy.

For more information:

For lists of pest-resistant cultivars: Pest-Resistant Ornamental Plants by D.C. Smith-Fiola. Send \$9.93 check payable to Ocean Co. Board of Agriculture, Rutgers Cooperative Extension, 1623 Whitesville Road, Toms River, NJ 08755

For Compendia or the new comprehensive books on vascular wilts and nursery diseases: Diseases of Woody Ornamentals and Trees in Nurseries (\$89); Shade Tree Wilt Diseases (\$79); Compendium of Rhododendron and Azalea Diseases (\$49). Contact APS Press at 1-800-328-7560 or visit their Web site: <http://www.shopapspress.org>

For Cornell Pest Management Guide for Commercial Production and Maintenance of Trees and Shrubs: Cornell University Media Services Resource Center, 7 Business & Technology Park, Ithaca, NY 14850. Visit their Web site: www.cce.cornell.edu/publications/catalog.html

For Diseases of Trees and Shrubs by Sinclair et al. (\$69.50): Cornell University Press, Ithaca, NY. Visit the Web site: www.cornellpress.cornell.edu