

2000 RUTGERS Turfgrass Proceedings



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This publication includes lecture notes of papers presented at the 2000 New Jersey Turfgrass Expo. Publication of these lectures pro-

vides 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 B. Gould, Editor
Dr. Bruce B. Clarke, Coordinator

IMPACT OF WATER VOLUME, NOZZLE TYPE, AND CLIPPING REMOVAL ON THE EFFICACY OF TRIFLOXYSTROBIN AND OTHER SELECTED FUNGICIDES FOR THE CONTROL OF BROWN PATCH IN COOL-SEASON TURFGRASS

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The efficacy of selected fungicides was assessed for the control of brown patch (caused by the fungus *Rhizoctonia solani*) during the 1999 and 2000 growing seasons using different application methodologies and cultural practices.

In the first study, trifloxystrobin (Compass 50WG) was evaluated at 0.15 oz/1000 ft² on a bentgrass fairway (3/8 inch height of cut) in a factorial design using 0.5, 1.0, 2.0, 4.0, and 8.0 gal H₂O/1000 ft² and three nozzle types: flat fan, rain drop, and turbo flood jet. Azoxystrobin (Heritage 50WG at 0.20 oz/1000 ft²) and chlorothalonil (Daconil WeatherStik 6F at 3.0 fl oz/1000 ft²) were also evaluated at the same water volumes using a flat fan nozzle only. In the second study, trifloxystrobin was applied to tall fescue (2 inch height of cut) at a rate of 0.10 and 0.25

oz/1000 ft² and clippings were either returned or removed.

For each year of the study, disease control was independent of nozzle type. The 0.5 gal water volume consistently resulted in the least disease control. Water volumes above 0.5 gal all provided similar levels of brown patch control. When flat fan nozzles were used, azoxystrobin was more effective than chlorothalonil or trifloxystrobin in suppressing brown patch. Returning treated clippings improved disease control up to 49% (one week post-treatment) compared to the return of untreated tissue. Based on the volatile nature of trifloxystrobin, it would appear that the enhanced level of brown patch control was due to a redistribution of the fungicide within the foliar canopy.

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