

A Look At ...



A LOOK AT ... FROM AN INDEPENDENT PERSPECTIVE from  
National Organization Responding Against HUJE that seek to harm the Green Space Industry (NORAHG)



# Brown Ring Patch

## A Look At Managing Turfgrass Disease

University of California

Selected and adapted excerpts

### Names Associated with Brown Ring Patch

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BROWN RING PATCH, Waitea Patch ( English names )

*Waitea circinata* var. *circinata* ( Latin name )

Rhizoctone brun du gazon ( French name before the re-classification )

BROWN RING PATCH, also known as WAITEA PATCH, is caused by a species closely related to *Rhizoctonia oryzae* and *Rhizoctonia zeae*, which are known to cause SHEATH AND LEAF SPOT or HIGH-TEMPERATURE BROWN PATCH in the United States.

The formal name of the pathogen ( named after its observed sexual state ) is *Waitea circinata* var. *circinata* ( abbreviation *Wcc* ).

### Susceptible Species and Likely Location

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BROWN RING PATCH, also known as WAITEA PATCH, is a « new » disease of ANNUAL BLUEGRASS PUTTING GREENS that has recently appeared throughout the United States and Canada, including Kelowna, British Columbia.

Although infected ANNUAL BLUEGRASS generally does not entirely collapse, TURFGRASS THINNING AND/OR PLANT DEATH CAN OCCUR.

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### Identification

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During the spring and early summer months, disease symptoms appear as YELLOW RINGS ranging from a few centimetres up to 30 centimetres ( 1-foot ) in diameter.

Initial symptoms on putting greens begin as DIFFUSE, THIN YELLOW RINGS or CRESCENTS that can turn GOLDEN-BROWN under hot or wet conditions.

See Figure 1.

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Figure 2



### Identification ( continued )

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Often, the RINGS will be UNEVEN and have a « *scalloped* » appearance.

See Figure 2.

Although infected annual bluegrass generally does not entirely collapse, TURFGRASS THINNING AND/OR PLANT DEATH CAN OCCUR.

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Figure 3



### Identification ( continued )

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On LOW FERTILITY putting greens, sometimes a GREEN HALO can be seen SURROUNDING or INSIDE of the YELLOW RINGS.

See Figure 3.

Symptoms can be CONFUSED with those of YELLOW PATCH, FAIRY RING, or NECROTIC RING SPOT.



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### Identification ( continued )

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FLUFFY, EXTENSIVE, and ABUNDANT MYCELIA can be seen on the foliage, down in the crowns, stolons, and in the thatch, WHEN THE SOIL IS MOIST.

See Figure 4.



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### Conditions Favouring Disease Development

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The disease has been observed at DAY-TIME TEMPERATURES ranging from 10°C to 32°C ( 50°F to 90°F ), with optimal temperatures of 21°C to 29°C ( 70°F to 85°F ).

Because it can actively colonize thatch, the disease may be MORE SEVERE on putting greens with EXCESSIVE ORGANIC MATTER ACCUMULATION.

Under hot and dry conditions, disease symptoms generally disappear, or may remain visible until treated with an effective fungicide.



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### Chemical Control

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Recommendations for control are based on *in vitro* testing of fungicides in the lab, a limited field study in California, and anecdotal evidence and reports from golf course superintendents.

In the lab, a number of isolates of the pathogen were screened on Petri plates against Chipco 26 GT<sup>®</sup> ( iprodione ), Banner MAXX<sup>®</sup>, Cleary's 3336<sup>®</sup> ( thiophanate ), Heritage<sup>®</sup> and ProStar<sup>®</sup> fungicides.

With the exception of Cleary's 3336<sup>®</sup>, all fungicides evaluated in this study EFFECTIVELY SUPPRESSED MYCELIUM GROWTH.

Like its closely related relative, *R. zeae*, *Waitea circinata* var. *circinata* ( *Wcc* ) appears to be NATURALLY RESISTANT TO THE BENZIMIDAZOLE FUNGICIDES.

Superintendents have reported MIXED RESULTS for Brown Ring Patch control with fungicides — ProStar, Heritage, Medallion and Endorse fungicides seem to consistently provide the greatest level of control.

Since Brown Ring Patch is often in the thatch layer, ADEQUATE APPLICATION VOLUME (  $\geq 7\frac{1}{2}$  litres or 2 gallons U.S. of water per 1000 square feet ) and/or watering-in materials into the upper thatch layer is important.

If the disease is already well-established in the thatch or turf, MULTIPLE APPLICATIONS may be needed to completely stop the pathogen.

In SEVERE CASES, RECOVERY FROM DAMAGE IS SLOW due to the amount of crown damage and thatch degradation.

PREVENTIVE or EARLY CURATIVE CONTROL is likely MOST EFFECTIVE.



A LOOK AT is a Report presented by National Organization Responding Against Hujer that seek to harm or misinform the Green Space Industry (NORAHG). It is a series of Reports destined for the Green Space Industry, nationwide across Canada, the United States, and overseas. This Report has been developed for the education and entertainment of the reader by providing TECHNICAL INFORMATION WITH COMMENTARY.

A LOOK AT is TOTALLY INDEPENDENT of any trade association or business operating within the Green Space Industry. Don't thank us. It's a public service. And we are glad to do it.

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The information presented in this Report is for preliminary planning only. Before making a final decision, the turf manager is expected to obtain trusted expert advice from extension specialists, local distributors and/or agronomists. All decisions must take into account the prevailing growing conditions, the time of year, and the established management practices.

All products mentioned in this Report should be used in accordance with the manufacturer's directions, and according to provincial, state, or federal law. For the official advantages, benefits, features, precautions, and restrictions concerning any product, the turf manager must rely only on the information furnished by the manufacturer. The mention of trade names does not constitute a guarantee or a warranty.

A LOOK AT, and its various incarnations, is the brainchild of William H. Gathercole and his entourage. Mr. Gathercole is a principal founder of the Modern Professional Lawn Care Industry in both Ontario and Quebec. He holds a degree in Horticulture from the University of Guelph, and another pure and applied science degree from McGill University. He has worked in virtually all aspects of the Green Space Industry, including golf, professional lawn care, and distribution. Mr. Gathercole has supervised, consulted, programmed, and/or overseen the successful execution of hundreds of thousands of management operations in the urban landscape. He has trained, instructed, and advised thousands of turf managers and technicians. Mr. Gathercole has also been an agricultural agronomist. Mr. Gathercole is personally credited for crafting the Exception Status that has allowed the Golf Industry to avoid being subjected to the PROHIBITION-TERRORISM policies of pest control products. He is also the creator of the signs that are now used for posting after application.

Mr. Gathercole is now retired, although his name continues to appear as the founder of A LOOK AT.



**A Look At ... From an Independent Perspective**