



Summer Patch

Bayer Solutions

// THE PROBLEM

Summer patch, caused by *Magnaporthe poae*, is a root, crown and stem disease that develops during periods of summer stress. Among the grasses that are most susceptible to infection are annual bluegrass, Kentucky bluegrass and fine fescues. Older varieties of creeping bentgrass maintained at low mowing heights can also develop symptoms of summer patch. Initial infection will typically begin as soil temperatures rise above 18°C during late spring. Peak symptom expression is most commonly observed under hot summer temperatures and other plant stressors.

// WHAT TO LOOK FOR

Symptoms develop as circular patches or rings of chlorotic turf, 2.5-7.5 cm in size, that can expand up to 0.5-1 m in diameter. On annual bluegrass greens, small patches may coalesce into larger, irregularly blighted areas. Initial symptoms on turf resemble those of drought stress, with leaves turning greyish green to reddish brown or straw coloured. White bands may develop on leaves as a response to heat stress and damaged roots. Creeping bentgrass is usually not affected and will continue to grow in mixed stands with annual bluegrass, Kentucky bluegrass or fine fescues.

Roots, crowns and stems of infected plants will show a reddish-brown to dark brown colouration. Microscopic examination will show crown rot and extensive runner hyphae covering roots, especially in stages of advanced infection.

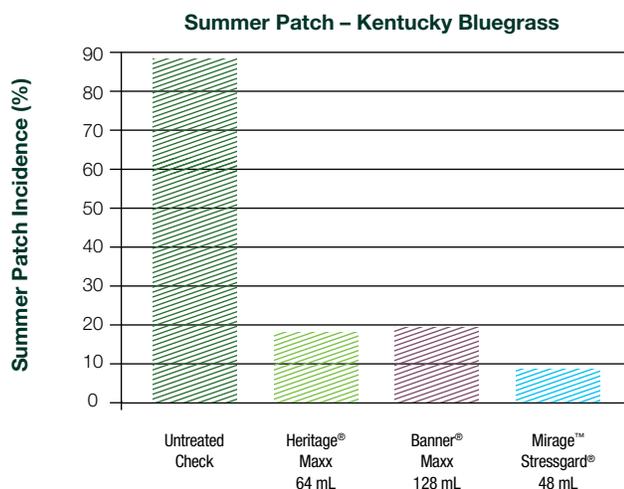
// BAYER SOLUTIONS

Summer patch must be managed by a combination of cultural and chemical controls. Disease is favoured by hot, humid weather, high soil moisture, low mowing heights and soil compaction. Although high soil moisture creates conditions for infection, adequate irrigation and syringing are often needed to keep plants with damaged roots alive during summer conditions.

Key cultural controls include (i) relieving compaction with core aeration in the spring and fall, (ii) using ammonium fertilizers when applicable, and (iii) maintaining soil pH between 5.5 and 6.0. Ammonium-based, acidifying fertilizers appear to reduce symptoms, while nitrate forms increase severity; urea forms seem to have a neutral effect. Use caution when applying fungicides that include chlorothalonil, as this active ingredient has been shown to enhance symptoms of summer patch.

Preventive fungicide programs should start when average soil temperatures at a 5-10 cm depth are 18-21°C and should be maintained through late summer. Systemic fungicides like DMIs and QoIs have the best effectiveness against summer patch and can be combined with anthracnose control programs. Since QoI resistance is present in many anthracnose populations, these applications will provide control of summer patch but another fungicide class will be needed for anthracnose control.

Two Bayer solutions for summer patch included Dedicate™ Stressgard® (a combination product including DMI and QoI chemistries) and the DMI fungicide Mirage™ Stressgard®. These two products provide control of summer patch, dollar spot and anthracnose with low plant growth regulation effects. Mirage Stressgard applications can control dollar spot and provide summer patch prevention simultaneously.



Summer Patch

Bayer Solutions

Solution	Rate Per 100 m ²	Application Interval* (days)
Dedicate Stressgard	32-64 mL	14-28
Mirage Stressgard	32-64 mL	14-28

*See fungicide labels for complete details. Always read and carefully follow label instructions.



Summer patch on an annual bluegrass/creeping bentgrass putting green.

Photo: Derek Settle, Bayer.



Summer patch on an annual bluegrass green.

Photo: Frank Wong, Bayer.



An annual bluegrass plant affected by summer patch showing extensive root and crown rot.

Photo: Frank Wong, Bayer.



Summer patch on fine fescue roughs.

Photo: Jesse Benelli, Bayer.



Science for a **better life**

es.bayer.ca

1-888-283-6847

@BayerGolfCA

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.

Bayer, the Bayer Cross, Dedicate™ Stressgard® and Mirage™ Stressgard® are trademarks of Bayer Group.

Bayer CropScience Inc. is a member of CropLife Canada. ©2022 Bayer Group. All rights reserved. | 01/22-81628