

Dollar Spot

The problem

Dollar spot, caused by pathogens in the genus *Clariireedia*, is a widespread and very destructive turfgrass disease that occurs throughout the golf season in Canada. Dollar spot attacks most turfgrass species including annual bluegrass, bentgrasses, fescues, Kentucky bluegrass and perennial ryegrass. The pathogen responsible for dollar spot was previously classified as *Sclerotinia homoeocarpa* but has now been reclassified into four separate *Clariireedia* species, of which, *C. jacksonii* is likely the predominant species in Canada.

What to look for

Dollar spot is favoured by air temperatures ranging from 15–32 °C (optimum 21–26 °C) with extended periods of high humidity (>85% at night). The disease tends to be most severe under the following conditions: warm days, cool nights, infrequent rain but long dew periods, extended leaf wetness periods, and low nitrogen fertility. When the fungus is active and leaf surfaces remain wet, a fine, white, cobwebby mycelium covers the infection centres of diseased patches during early morning hours.

Symptoms of dollar spot can vary based on the turfgrass species and height of cut. Under close mowing heights, as with intensively maintained bentgrass or annual bluegrass, the disease appears as small, circular, straw-coloured spots of blighted turf about the size of a silver dollar. On coarser textured turf maintained under higher mowing practices, such as Kentucky bluegrass or perennial ryegrass, the blighted areas are considerably larger, straw-coloured patches 3–6 inches in diameter.

Affected patches frequently coalesce and involve large areas of turf. Grass blades generally die back from the tip with distinct hourglass-shaped lesions that are straw-coloured with dark brown margins.

Envu solutions

Implementing proper cultural practices is crucial to reducing disease severity. Management tactics include:

- Maintaining adequate nitrogen fertility
- Removing dew by mowing, whipping or rolling
- Proper water management strategies, avoiding drought stress
- Aerifying to reduce compaction and thatch when disease is not active
- Removing trees or adding fans to increase air circulation

Fungicides are a key part of an integrated dollar spot management program. Since dollar spot is a foliar disease, select spray nozzles and spray volumes that provide good coverage to maximize fungicide activity. Routine fungicide applications are commonly needed when air temperatures are 21–32 °C. The use of dollar spot prediction models, such as the Smith-Kerns model, can be a valuable resource in determining timing of first fungicide applications and the proper spray intervals. Integrating cultural and chemical control strategies provides the most effective control of this fungal disease. Preventive applications of DMI fungicides, like Mirage® Stressgard®, for fairy ring and summer patch prevention (average soil temperatures of 13 °C at a 5–10 cm depth) also provide early dollar spot control. Mirage Stressgard can be integrated throughout the summer months as a trusted component in dollar spot control programs.

Exeris® Stressgard® is an ideal choice for dollar spot control in all weather conditions. Exeris Stressgard is especially helpful in hot weather, since it can be used without risk of negative plant-growth-regulating effects, while also controlling other summer diseases such as anthracnose and brown patch. Dollar spot resistance to DMI fungicides is also of growing concern, and Exeris Stressgard is an excellent solution for rotating fungicide classes and providing control of DMI-resistant dollar spot populations.

Dedicate® Stressgard® is also a strong option for controlling dollar spot, especially late in the season when other cool weather diseases, such as leaf spot and Microdochium patch, start to emerge. In addition to dollar spot, Dedicate Stressgard offers control of other summer diseases like anthracnose, summer patch and brown patch.

Preventive applications and rotating fungicide classes, including the use of multi-site contact fungicides, are important for reducing the risk and impact of resistance. If DMI resistance is present, place emphasis on rotating and applying different fungicide chemical classes that target the disease. Increasing the rates or shortening the application interval of Mirage Stressgard, or using a combination fungicide like Dedicate Stressgard, will help keep DMI fungicides effective in these situations.

Solution	Rate per 100 m ²	Application interval* (days)
Exeris® Stressgard®	140–200 mL	14–21 (greens) 14–28 (fairways)
Mirage® Stressgard®	32–64 mL	14–21
Dedicate® Stressgard®	32–64 mL	14–21

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



Dollar spot symptoms on a creeping bentgrass research green showing the bleached-out lesions and coalescing of symptoms in heavily infested areas.

Photo: Derek Settle



Dollar spot development on a creeping bentgrass putting green.

Photo: Jesse Benelli, Envu



Fluffy white mycelium associated with dollar spot on a bentgrass tee.

Photo: Jesse Benelli, Envu



Close-up of symptoms and signs of dollar spot infecting an annual bluegrass leaf.

Photo: Paul Giordano

To talk about your specific needs or to learn more about our solutions, please contact an Envu representative.