



On the Money

Jeff Perris and Ruth Mann investigate the increase in the amount of dollar spot appearing on golf courses.

During the past few months, some advisory staff have seen a noticeable increase in the amount of dollar spot on golf courses. Over the years this disease has been observed from time to time, particularly on bowling greens, and especially those that still have a significant red fescue content from previous establishment with Cumberland or sea washed turf.



Golf courses in the south of the country seem to have borne the brunt of the increase in dollar spot disease outbreaks which have been prevalent on a wide range of turf composition, but with fescue dominated fairway turf suffering particularly badly. I have recently visited a well known golf club where most fairways on one of their courses were very badly affected, to the point where if you threw your hat down, it would cover a dollar spot patch! Worrying times for the Courses Manager at this particular club where several greens (comprising bent and annual meadow grass) were also showing signs of the disease.

I have also come across situations this summer where there has been what I would describe as 'background' dollar spot where the turf is not showing the classic dollar spot appearance. Indeed, in such instances greenkeepers and others have thought the condition was red thread or even turf that was just showing some dieback from localised dryness

Without doubt the weather this summer has triggered the dollar spot problem but if such weather conditions are to become increasingly common as part of our changing weather pattern, then I think greenkeepers have a worrying time ahead. Heaven forbid, however, that that we end up like the United States, where dollar spot is such a problem on many of their golf courses that regular and persistent fungicide treatment is carried out during high-risk periods to try and keep the problem at bay.

In view of the situation, Dr Ruth Mann, our Plant Pathologist, has prepared the following notes, which explain more about the disease and its treatment.

The symptoms of dollar spot are pale, bleached lesions on the leaves with a reddish-brown band usually found separating the affected tissue from the healthy green tissue. Small (dollar size) spots of bleached turf occur on close mown grass. These spots reduce the aesthetic appearance of the golf green and create an uneven surface causing non-uniform ball roll.



Dollar spot on bent/fescue tee



Dollar spot on an annual meadow grass green

The spots may coalesce to form large areas of affected turf. White mycelium may be present on affected areas on dewy mornings and disappears as the leaves dry. In the UK, dollar spot is most commonly found affecting *Festuca* spp. Factors which encourage the development and spread of dollar spot include heavy morning dews; areas of turf that do not receive morning sun or suffer from a lack of air movement due to surrounding obstructions (this allows the turf surface to remain moist for longer); daytime temperatures of 15 - 25°C; low fertility; and excessively low cutting heights.

To prevent and control dollar spot minimising leaf wetness is an important practice. By reducing the period a leaf stays wet, the potential for infection is reduced. Altering management practices can reduce the period of leaf wetness. Therefore, during dry periods, irrigation should occur as close to dawn as possible.

Greens can then be switched first thing in the morning to remove any surface water, reducing the period of leaf wetness. Irrigation should be supplied infrequently and to thoroughly wet the profile rather than frequent light irrigations. It is important to reduce shaded areas and improve air movement in order to reduce the drying time of the sward.

This can be achieved by the selective pruning or removal of surrounding vegetation. Low nutrition (particularly low nitrogen) has also been found to promote dollar spot so appropriate fertiliser regimes should be adopted. It may be advisable, during times of high disease pressure, to increase the height of cut of the sward in order to promote grass growth and reduce stress.

Regular aeration is required in compacted areas as this also reduces stress and has been found to reduce the susceptibility of the turf to dollar spot. If cultural control measures are unsuccessful there are several chemical controls available.

These include carbendazim (such as Mascot Systemic from Rigby Taylor and Turfclear from Scotts); chlorothalonil (Daconil Turf from Scotts and Fusonil Turf from Rigby Taylor); fenarimol (Rimidin from Rigby Taylor); iprodione (Chipco Green from Bayer Environmental Science and Amenitywise Iprodione Green from Standon Chemicals); pyraclostrobin (Insignia from Vitax) and thiophanate-methyl (Mildothane Turf Liquid from Bayer Environmental Science and Snare from Headland Amenity).

Fungicide resistance is of major concern when controlling dollar spot. All precautions to prevent resistance should be applied, including correct identification, rotation of active ingredients with different modes of action and employing all possible cultural controls to help reduce the disease pressure. Please remember when using fungicides to adhere to label recommendations and ensure all COSHH regulations are applied.

Jeff Perris, STRI Head of Advisory & Consultancy Services, and Ruth Mann, STRI Plant Pathologist, can be contacted on 01274 565131.

