DOLLAR SPOT MANAGEMENT

Dollar Spot is caused by the fungal pathogen Sclerotinia homeocarpa. It infects most warm and cool-season grasses including creeping bentgrass, annual bluegrass, Kentucky bluegrass and perennial ryegrass in northern regions. Dollar spot can occur any time from early summer to early fall and under variable environmental conditions, however it is most active during periods of high humidity and day time temperatures ranging from 15-30°C with cool nights and heavy dew. Frequent summer irrigation cycles increase disease incidence and severity is much greater on nitrogen deficient turf. Therefore, keeping fungicide applications to a minimum can be a challenge. However, there are various chemicals licensed for the control of Dollar spot on turf that perform very well. It is imperative to pay particular attention to timing of applications, products employed to avoid disease resistance and proper cultural practices.

THE RIGHT TIME OF APPLICATION

Research at Purdue University in 2011[1] has shown that, to be effective, fungicide applications should be made when the pathogen is active. In most cases, preventive application in late fall or early spring will fail to demonstrate any dollar spot control because the pathogen is not active and there is no more enough fungicide residues when the pathogen reaches its optimum activity. In some cares, an early spring application can be effective if temperatures have already been conducive to the development of the disease.

APPLICATION

Water volume application of 4 litres/1000 ft^2 is considered most effective for foliar diseases (Dollar spot). Higher volumes (and rain or irrigation within a few hours of application) are not recommended can result in reduced fungicidal control. It is important to choose the correct spray nozzles. Air induction or flat fan nozzles provide the best results.

FERTILIZER

Nitrogen levels too low increase the incidence of the disease. The total level of nitrogen in the soil should be between 3 and 20 ppm (tissue testing in a laboratory). Appropriate nitrogen levels in the foliage range between 1.5 to 2% and also provide anthracnose resistance.

RESISTANCE FUNGICIDAL

The fungus of Dollar spot can easily develop resistance to fungicides. Although no resistance is yet been detected for chlorothalonil (Daconil) and boscalid (Cadence), Dollar spot has developed resistance (if counted everywhere in North America) to most other fungicides. For this reason, it is crucial to use fungicides in rotation by changing the chemical families.

Reference

1 - R.Latin and Daniels, Departement de Botanie et Patholgie des plantes, Université PURDUE