

Spring Dead Spot (*Ophiosphaerella korrae*)

Introduction

The dominant cause of the turf disease known as 'Spring Dead Spot' or 'Necrotic ring spot' is *Ophiosphaerella korrae* (formerly *Leptosphaeria*). This fungus is a member of the ectotrophic root-infecting (ERI) fungi, a complex of soil borne pathogens. Spring dead spot appears as circular patches of "bleached", straw-coloured dead grass, a few cm to 1m in diameter (commonly less than 50cm) when turf resumes growth in spring.



The patches may combine to form large areas. On affected plants dark elliptical sclerotia (a compact mass of hardened fungal mycelium) are often visible on stolons. Dark sunken lesions can be seen on affected crown buds, roots and stolons; these areas may become black, necrotic, and brittle in advanced stages of infection. Sometimes, the symptoms are not evident until 2-3 or more years after the establishment of the disease at which time the centres may remain alive and take on a "ring-like" appearance.

Biology

Spring Dead Spot is thought to survive unfavourable environments as mycelial plaques in plant debris. The fungus is thought to move from plant to plant by growing ectotrophically along the surface of roots and rhizomes, and infecting cells in the root cortex. Patches are commonly seen in Spring, hence the name spring dead spot. However, symptoms can also be seen in autumn and winter after cool climatic conditions and /or wet weather. The disease can be transferred by vegetative turf material (i.e. rhizomes and stolons or solid turf).

Conditions favouring disease expression

Spring Dead Spot infection occurs when average daily soil temperatures drop to between 12°C and 14°C and is therefore exacerbated by wet weather and moist soil conditions in Autumn.

Visual Symptoms

The disease disrupts the aesthetics, uniformity, and functionality of lawns, golf courses, and sports fields. Large patches up to 1 metre can be observed and if the root disease is prolific it can be unsightly and difficult to recover the turf to its former health. Patches kill the turf foliage and the rhizomes become discoloured,



rotten and sunken. Scars can remain for several years following damage. Patches may appear in the same spot for multiple years. Weeds are often found within the centre of the patches where competition is less severe to non-existent.

Distribution

Spring Dead Spot occurs in a wide range of climates, from tropical to sub temperate.



4. Paspalum (Paspalum distichum)