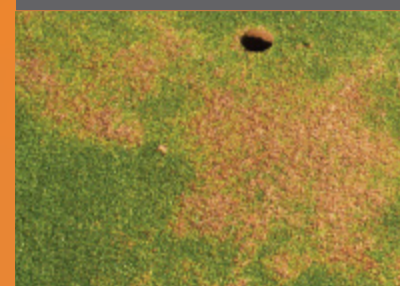




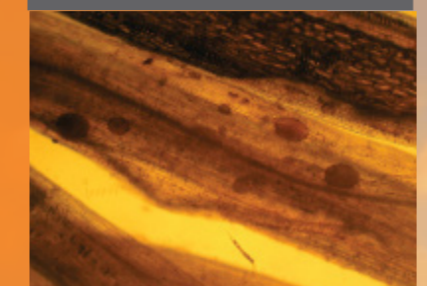
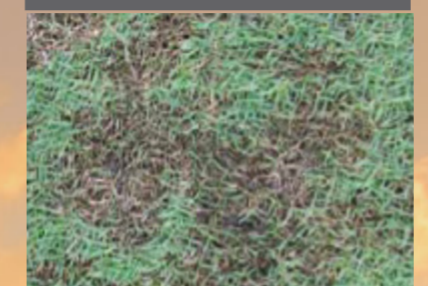

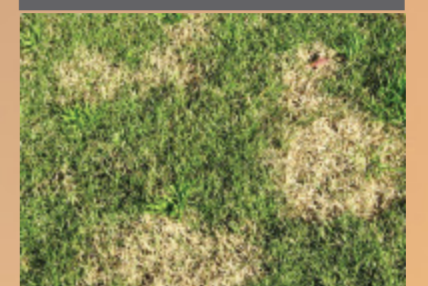


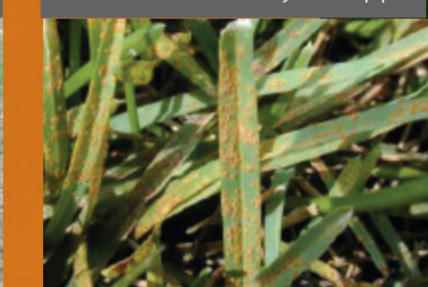


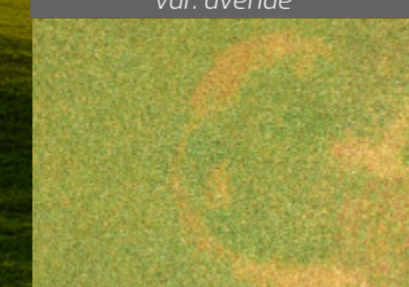


# Common diseases of turf

<p><b>Anthracnose</b> <i>Colletotrichum graminicola</i></p>  <p><b>Description:</b> Infects the foliage and crown, resulting in the yellowing off and dieback of the older leaves. Black hair-like fruit bodies sprout in clusters on the leaves and sheaths of the plant.</p>	<p><b>Bipolaris</b> <i>Bipolaris</i> spp.</p>  <p><b>Description:</b> Infects foliage, crown and roots, causing grey to brown lesions, crown rot and leaf death. Infected plants can occur in small spots or patches.</p>	<p><b>Brown Patch</b> <i>Rhizoctonia solani</i></p>  <p><b>Description:</b> Infected areas of turf display circular patches of brown foliage up to 60cm across, often with healthier looking turf in the centre and a smoky grey-brown outer halo. Symptoms vary between host species and conditions.</p>	<p><b>Curvularia Leaf Blight</b> <i>Curvularia</i> spp.</p>  <p><b>Description:</b> Often found in infected turfgrass as a secondary infection. Lesions may appear on the leaf blade before the foliage dies and collapses. Infected swards can appear unthrifty and 'speckly'.</p>	<p><b>Dollar Spot</b> <i>Clariireedia homeocarpa</i></p>  <p><b>Description:</b> Infected swards exhibit small, dollar sized deep sunken patches. Patches can develop rapidly under optimum conditions and can destroy large areas of turf. Hourglass shaped lesions can be observed across blades.</p>	<p><b>Downy Mildew (Yellow Tuft)</b> <i>Sclerophthora macrospora</i></p>  <p><b>Description:</b> Infected turf becomes stunted with growth retarded to form broadened leaf blades. Yellow patches up to 10cm in diameter may form with the turf pulling easily from the soil due to a lack of roots.</p>	<p><b>Drechslera</b> <i>Drechslera</i> spp.</p>  <p><b>Description:</b> Brown to purple lesions appear on the leaf blade and sheath, eventually turning to deep pitted necrosis in the plant tissue. Blighting of leaves occurs as lesions grow resulting in thinning out of large areas of turf.</p>	<p><b>Fairy Ring</b> various basidiomycete fungi</p>  <p><b>Description:</b> Depending on the species, this disease may cause large rings of lush green growth to occur on infected turf, or may result in rings of mushrooms with plant dieback and hydrophobicity.</p>	<p><b>Winter Fusarium</b> <i>Fusarium</i> spp.</p>  <p><b>Description:</b> This pathogen causes water soaked irregular shaped yellow to tan patches, often turning purple at the margins. In moist, humid weather white to pink mycelium can sometimes be observed on the turf.</p>	<p><b>Grey Leaf Spot</b> <i>Pyricularia grisea</i></p>  <p><b>Description:</b> In warm season host species this pathogen causes grey lesions with a dark brown margin. In cool season host species they appear as water soaked lesions, which quickly result in necrosis of tissue and blight.</p>
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<p><b>Kikuyu Yellows</b> <i>Verrucalvus flavofaciens</i></p>  <p><b>Description:</b> Patches appear in spring and summer ranging from 10 cm to over 1 m in diameter. Infected turf turns characteristically yellow and eventually dies back with weeds often colonising the centre of the patches.</p>	<p><b>Leptosphaerulina Leaf Blight</b> <i>Leptosphaerulina</i> spp.</p>  <p><b>Description:</b> Symptoms may initially show as small patches and spots of a straw yellow to white colour, often progressing as a uniform blight. On close inspection leaves will be dying back from the tip down to the base.</p>	<p><b>Pythium Leaf Blight</b> <i>Pythium</i> spp.</p>  <p><b>Description:</b> Circular tan to straw coloured patches between 2-5 cm, often appear overnight in warm, humid weather. Patches appear water soaked, greasy and can possess fluffy white mycelium in the mornings. Spread rapidly blighting large areas of turf in a matter of hours.</p>	<p><b>Pythium Root Dysfunction</b> <i>Pythium</i> spp.</p>  <p><b>Description:</b> Infected turfgrass appears in general decline, with thin and off colour foliage and stunted growth. Symptoms appear as small yellow spots and patched eventually spreading to large irregular patches with this turf coverage.</p>	<p><b>Red Thread</b> <i>Laetisaria fuciformis</i></p>  <p><b>Description:</b> Infected turf becomes blighted in small circles and patches at first, often spreading to destroy large areas. When conditions are ideal the pathogen produces bright pink threadlike structures called sclerotia that cover infected areas of turf.</p>
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<p><b>Root Decline</b> <i>Gaeumannomyces graminis</i> var. <i>graminis</i></p>  <p><b>Description:</b> This ERI pathogen initially exhibits symptoms as patches of chlorotic turf with stunted root system and poor foliar growth. Infected areas become larger resulting in patches of thin or dead turf. Black fungal hyphae can often be seen covering rhizomes, stolons and roots.</p>	<p><b>Rust</b> <i>Puccinia &amp; Uromyces</i> spp.</p>  <p><b>Description:</b> Infected leaves begin to yellow off in spots along the length of the leaf blade. As the infection progresses pustules of orange spores protrude from infected leaf tissue and burst resulting in masses of rust coloured spores over the leaf surface. Large areas of turf can become infected, turning whole swards orange.</p>	<p><b>Slime Mould</b> various basidiomycete fungi</p>  <p><b>Description:</b> These organisms are not plant parasitic and do not cause disease in turfgrass, however their presence impacts on aesthetics and playability of turfgrass surfaces. Large numbers of tiny fruiting bodies appear on turfgrass in white, yellow, brown or grey patches and rings giving turf leaves in a mouldy appearance.</p>	<p><b>Spring Dead Spot</b> <i>Ophiosphaerella narmari</i></p>  <p><b>Description:</b> Circular, white to tan dinner plate sized patches appear in spring as the turf sward leaves winter dormancy. Through autumn and winter root tissue is infected by the pathogen. Roots and stolons appear rotted and blackened in affected areas.</p>	<p><b>Take All Patch</b> <i>Gaeumannomyces graminis</i> var. <i>avenae</i></p>  <p><b>Description:</b> Symptoms exhibit as patches up to 1m in diameter, appearing in spring and summer. The affected turfgrass dies back slowly as the patch enlarges, coalescing to form large areas of dead turf. As the disease advances the centre of the patch can be colonised with non-susceptible species.</p>
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Fungicides	Anthracnose	Brown Patch	Curvularia	Dollar Spot	Fairy Ring	Fusarium (Microdochium)	Grey Leaf Spot	Helminthosporium Complex	Kikuyu Yellows	Leptosphaerulina	Pythium Leaf Blight	Pythium Root Dysfunction	Pythium Root Rot	Red Thread	Root Decline (TARR)	Rust	Seedling Damping Off	Slime Mould	Spring Dead Spot	Take All Patch	
Banner Fairway				•																•	
Banner Maxx	•	•		•		•		•							•					•	•
Banol											•		•				•				
Chloronil Pro		•		•			•														
Compass	•			•			•	•													
Daconil Weather Stik		•		•		•	•	•							•					•	•
Dedicate T&O	•	•	•	•		•	•	•		•										•	•
Dedicate Forte Stressgard	•	•		•	•	•	•	•								•					
DEK Liquid		•				•		•													
Enclave	•	•		•		•	•	•												•	
Evolution Fungicide	•	•		•	•	•	•	•													
Exteris Stressgard Fungicide		•		•		•	•	•								•					
Headway Maxx	•	•		•		•	•	•			•		•	•	•		•			•	•
Heritage Maxx	•	•		•		•	•	•			•		•	•	•		•			•	•
Impala Fungicide	•	•		•		•	•	•					•		•		•			•	•
Instrata Fungicide	•	•		•		•	•	•													
Interface Stressgard		•		•		•	•	•								•					
Lexicon Intrinsic	•	•	•	•	•	•	•	•			•	•			•	•				•	•
Maxtima	•	•	•	•	•	•	•	•							•	•				•	•
Medallion	•	•		•		•		•													
Monstar					•																
Posterity				•		•														•	
Reserve Stressgard		•		•			•														
Segway 400SC Fungicide											•	•									
Shiba Fungicide	•	•	•	•	•	•	•	•													
Signature Xtra Stressgard	•										•	•	•								
Subdue Maxx											•	•					•				
Transact 500		•	•	•		•		•												•	
Transact Pro		•		•		•		•												•	
Vantage Fungicide	•	•				•	•	•			•		•	•			•				
Velista Fungicide	•	•	•	•	•			•						•						•	
Xzemplar		•		•	•			•													

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