

## Identifying Turf Diseases

### Anthracnose Anthracnose

Usually attacks *Poa annua* species (although Bent grass is also susceptible). Normally occurs during late summer following stress caused by factors such as high temperatures, low fertility, dry soil and compaction, although is also frequently seen during other periods of the year. Likely to occur under high humidity.

The main symptom is irregular-shaped and sized patches in which leaves initially yellow then develop a reddish colour following wilting. Diseased plants may be easily removed from the sward and the black rotted plant base easily seen - a highly characteristic symptom of anthracnose disease.

As far as possible, compaction should be managed by reducing wear over an affected area e.g. keeping the heavy machinery off the turf for a while during high infection periods. A regular and varied aeration program is essential. In the summer months anthracnose may be discouraged by appropriate nitrogen and potassium applications but do not apply fertiliser in the winter months as this could lead to severe outbreaks of fusarium patch disease.

Fungicides such as Daconil Turf can be used successfully for the control of anthracnose in turf. Applications prior to severe attacks will help to keep disease under control.



### Brown Patch

is a relatively uncommon disease but has been increasing in recent years. Occurs during summer, the weather is humid and if the soil is thatch and poorly drained. Symptoms are rapidly enlarging circular or irregular patches up to 0.5m in diameter. A dark purplish or greyish border may be visible in early morning. Sometimes turf recovers from the centre, resulting in a ring of diseased turf.

Brown Patch can be prevented by regular scarification, if necessary, to reduce water-holding thatch. As brown patch is favoured by high nitrogen fertilisation, applications should be light and frequent rather than in one large application. The disease can spread rapidly; fungicide must be applied promptly at the first signs of the disease. Brown Patch



### Dollar Spot

This occurs mid-spring to early autumn when an extended period of leaf wetness will encourage the disease. High day temperatures and cool nights add to susceptibility. Most likely when nitrogen fertility is low and growth is poor.

Varieties of red fescues, particularly slender creeping red fescue are the most susceptible grass species. Also those fescues found in sea-washed turf. The main symptoms are numerous small (no more than 50mm) bleached spots which may coalesce to form larger, irregular patches. Infected leaves appear water-soaked at first, then bleached. Leaf lesions have a characteristically bleached white centre with a reddish-brown border. White 'cotton wool' mycelium may be noted in early morning.

Recovery is usually rapid, as roots are not affected. Maintaining adequately fertility is often the easiest method of preventing attacks of dollar spot.



### Slime Mold

This does not cause any turf damage. It occurs mid autumn to mid spring. Favourable conditions are cool, wet weather which promotes fruiting body formation. They quickly disappear in dry weather. More common in thatch turf. The main symptom is masses of pinhead-sized, rounded fruiting bodies suddenly appear on leaves during cool, humid conditions. Fruiting bodies can be of various colours, but are most commonly grey, purplish-brown or white. They are easily rubbed off by fingers

.Where there are slight infestations only, control measures are not needed. Heavy infestations may be removed by mowing.

Pesticides are not normally recommended, but applications of sulphate of iron would probably limit the spread of slime moulds.



### Take All Patch

Occurs mid spring or early autumn in sterile soil conditions, such as poorly-drained or fumigated soil, and in new sand greens. Severe outbreaks have been associated with high surface alkalinity, especially after liming. The main symptoms appear commonly in spring. Leaf margin turns reddish or yellowish, changing to brown as it dies. Dead turf remains erect. Disease scars heal slowly, and centres of affected areas are often invaded by weeds. Sand constructions are particularly vulnerable. Avoid alkaline reaction fertilisers and do not apply lime.

Also check your irrigation water for high pH. Apply fertilisers which contain ammonium sulphate to acidify the turf surface. Light applications of sulphate of iron may also be made at 3-4 week intervals. Heritage fungicide is the only product that is approved for use against Take All Patch. Maintain good turf vigour by supplying adequate nutrition. Ensure the turf is free draining by regular spiking. Remember, take-all patch spreads rapidly in wet, water retentive turf.



### Thatch

All turfed areas are susceptible to excessive thatch and can occur throughout the year, but is most rapid from October to December. Excessive thatching can be induced by compaction, over feeding and over watering. Circular patches up to 500mm in diameter where the surface of the green sinks due to decomposition of the thatch layer. Sometimes turf in the affected areas undergoes a colour change to a darker green or yellow. The affected thatch may also change colour, to orange, whitish or black. White mycelium may also be visible in thatch. Physical causes of thatching may be alleviated by additional aeration and thatch removal on the areas worst affected. Regular applications of wetting agents, such as H2Pro or can help to avoid infection. Maximise penetrating wetting agent can help to alleviate the problem.



### Rust

There are many rust diseases of turf grasses. Susceptible species to this are perennial ryegrass and POA pratensis. This can occur all year round but most common from early summer to late autumn, during mild humid weather, low fertility and infrequent mowing regime. The affected turf appears rust-coloured, due to the production of numerous yellow or orange spores on the leaf. Spores adhere to fingers when rubbed. Conditions that favour rusts are warm, humid summers. Most often seen in long grasses. Regular mowing will help to discourage rust attack. Ensure adequate fertility in particular with regard to nitrogen.

