ADVANCE GRASS SOLUTIONS

Managing Anthracnose

Pathogen: *Colletotrichum cereale* **(formerly** *Colletotrichum graminicola***)**

Susceptible Species: Many turfgrass species can be affected, but it is most commonly seen on Poa annua and also Agrostis spp.

Anthracnose is considered a summer disease as it is most prevalent following a period of stress in the summer months. Extremes of temperature or soil moisture combined with less than ideal agronomic conditions (thatch, poor rooting, black layer, saline soils, etc.) can sufficiently stress the plant to make it considerably more susceptible to infection. It is often categorized into two types: anthracnose **foliar blight** and anthracnose **basal rot**.

Basal rot is usually associated with cool, damp conditions and foliar blight is more common during hotter spells, although moisture is still needed for fungal infection.

Prevention is far better than cure, as it can take multiple applications of fungicide to sufficiently reduce the pathogen population and you are often left with a thinning, inconsistent sward once the disease is no longer evident. Visible symptoms are often at an advanced stage of infection, so effectively the damage may already have been done.

Symptoms:

Symptoms within a sward are patches of irregular, yellow/brown/bronze-coloured patches and a loss of turf density. Foliar blight-affected leaves lose colour to become a yellow colour and black spots containing fruiting bodies (acervuli) can be seen on the leaves.

Foliar anthracnose: Infected yellow leaves tend to appear to darken as the leaves turn brown and more acervuli are present. Turf loss or a much reduced sward density is common and control from fungicide applications becomes less effective.

Basal Rot: The initial symptoms are very similar to foliar anthracnose: - yellowing/browning of the sward and a thinning turf stand. Patches can be small circular patches or an irregular pattern across large areas of turf. The base of the plant darkens and acervuli can be seen on the crown and sheath. Plants can be easily plucked from the surface.

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Cultural & Chemical Prevention:

Anthracnose is a stress-related disease, so getting good cultural work done before the stress period is key in prevention. The pathogen survives as mycelium or conidia within the thatch layer of the turf, so reducing thatch build-up will reduce likelihood of later infection. Adequate nutrition is vital, but it is important not to over-feed as this leads to even more thatch build-up. **Sustane** granulars and slow-release **Growth Products** liquids offer the ideal solution – correct levels of nutrition, but no excess soft growth causing weakened leaf blades and thatch accumulation. Research suggests that keeping higher leaf potassium levels (>2%) in summer will reduce anthracnose severity, so consider Sustane 5-2-10, Growth Products K Builder 7-2-21 or Pot Carb Max 0-0-25. Sustane 5-2-4+Fe and also Growth Products TKO Phosphite have been shown in independent research to be as effective as fungicides in prevention of anthracnose.

Sensible aeration and top dressing prior to stress periods will strenghten the plant and reduce infection. Regular, light top dressing has been proven to significantly reduce anthracnose. Increased mowing heights and alternating mowing and ironing can alleviate symptoms.

Fungicide Only Options:

Curative:
Propiconazole (Nimble Pro)
Tebuconazole + Trifloxystrobin (Tebloxy)

Preventative:
Propiconazole (Nimble Pro)
Azoxystrobin (Pure Azoxy/Xylem)
Tebuconazole + Trifloxystrobin (Tebloxy)

Fungicide Tank Mixes:

- 1l Tebloxy + 4l TKO Phosphite + 30l Pot Carb Max
- 3l Nimble Pro + 2.8l/ha Pure Kelp SA + 30l Pot Carb Max

Non-Pesticidal Anthracnose Prevention:

Use Sustane 4-6-4 as an early season base feed to maximise soil and plant health. Before the expected stress period apply Sustane 5-2-4 if using a granular programme to promote low yield, healthy growth. Foliar programmes should use Classic 18-3-6, K-Builder 7-2-21, Nitro 30 or Quick Response 20-3-3 alongside TKO Phosphite. Utilise biostimulants such as Essential Plus or Pure Kelp SA 100% pure seaweed extract to condition soils and reduce plant stress. Set up a year-round balanced nutritional programme avoiding excess growth using low salt, low yield fertilisers.

Look at using penetrant wetters to reduce surface moisture, and irrigate in the morning to avoid leaves being wet overnight.