

TURF WEED, PEST & DISEASE IDENTIFICATION GUIDE

Common Weeds



Cudweed (*Gnaphalium* spp.)
Situation: Found in all turf situations.
Occurrence: The two species common in turf and lawns in Australia are *G. coarctatum* and *G. americanum*. They are annual or short lived perennials with grey-green leaves. *G. americanum* is very woolly with hairy leaves, while *G. coarctatum* has virtually no hairs on the upper surface of the leaf.
Treatment: Can be controlled by **Spearhead®**.



Winter Grass (*Poa annua*)
Situation: Found in all turf situations.
Occurrence: Wintergrass seed germinates in autumn. The plants grow actively throughout winter and seed in spring. The seedheads cause an uneven surface on fine turf such as golf greens. Perennial types of wintergrass can become established in some turf situations.
Treatment: Apply **Chipco® Ronstar G** as a pre-emergent application in autumn before seed germination occurs.



Summer Grass (*Digitaria* spp.)
Situation: Found in all turf situations.
Occurrence: An annual weed (also known as crab grass) with fibrous roots and clusters of soft stems which grow close to the ground. It germinates in spring when soil temperature reaches 12–15°C.
Treatment: Apply **Chipco® Ronstar G** as a pre-emergent application in spring before seed germination occurs.



Crowsfoot Grass (*Eleusine indica*)
Situation: Found in all turf situations. Thrives in compacted soils.
Occurrence: A tufted hairless annual weed which can reach 50cm in height. It germinates in spring when soil temperature reaches 15–18°C.
Treatment: Apply **Chipco® Ronstar G** as a pre-emergent application in spring before seed germination occurs.



White Clover (*Trifolium repens*)
Situation: Found in all turf situations and can be a problem in amenity areas due to attractiveness to bees.
Occurrence: A perennial plant which can behave like an annual when moisture limits summer growth. White flowers in spring produce seed that can remain viable in the soil for many years. Stolons aid its spreading growth habit.
Treatment: Can be controlled by **Spearhead®** or **Destiny®**.



Bindii (*Soliva sessilis*)
Situation: Found in all turf situations.
Occurrence: Bindii is an annual weed. It establishes from seed in autumn, grows actively through winter and flowers in spring. Control should be timed to prevent seeding in spring. Major problem in parkland because when it seeds it produces burrs with sharp spines.
Treatment: Can be controlled by **Spearhead®** or **Destiny®**.



Paspalum (*Paspalum dilatatum*)
Situation: Found in all turf situations but more common in high cut turf.
Occurrence: A native of South America, *Paspalum* is a perennial summer growing grass with short rhizomes. It is a major weed of turf particularly in the sub-tropical regions, although it is also a problem in all southern states as well.
Treatment: Under research.



Capeweed (*Arctotheca calendula*)
Situation: Found in all turf situations.
Occurrence: Capeweed (also known as cape dandelion) is an annual weed found in most areas of Australia. It establishes from seed in autumn, grows actively through winter and flowers in spring.
Treatment: Apply **Spearhead®** to actively growing weeds.



Creeping Oxalis (*Oxalis corniculata*)
Situation: Found in all turf situations especially low cut turf.
Occurrence: A perennial weed (also known as yellow wood sorrel) that establishes from seed. Extremely persistent in low cut turf due to the stoloniferous growing habit.
Treatment: Program should include applying **Spearhead®** to actively growing weeds and **Chipco® Ronstar G** as a pre-emergent measure.



Onion Grass or Guildford Grass (*Poa annua*)
Situation: A weed of high cut turf, sports fields, parks and golf courses.
Occurrence: Germinates in late autumn from a brown bulb (corn) or small brown seed. Firm, shiny, grass-like leaves grown actively through winter and it flowers in spring.
Treatment: Apply **Destiny®** in conjunction with a non-ionic surfactant when weeds are actively growing, preferably before flowering.



Onion Weed (*Nothoscordum* sp.)
Situation: Generally turf farms and parks but can occur in other turf situations.
Occurrence: An erect annual, biennial or perennial plant up to 30cm high, reproducing from seed or bulb.
Treatment: Apply **Destiny®** in conjunction with a non-ionic surfactant when weeds are actively growing.



Ryegrass (*Lolium perenne*)
Situation: Warm season turf such as parks, sports fields, golf fairways and tees.
Occurrence: Can occur as a wild weed, or when warm season turf is oversown with ryegrass to provide an acceptable winter playing surface.
Treatment: Apply **Destiny®** in conjunction with a non-ionic surfactant to actively growing ryegrass whenever it is desirable to remove.



Plantain (*Plantago lanceolata*)
Situation: Found in parks, sports fields and other broad area turf situations.
Occurrence: A commonly occurring perennial weed that grows from a rosette which produces new leaves and seed heads.
Treatment: Apply **Spearhead®** to actively growing weeds.



Cat's Ear (*Hypochoeris radicata*)
Situation: Found in parks, sports fields and other broad area turf situations.
Occurrence: Mature plant is semi-erect up to 30cm. Deeply lobed leaves with yellow flowers. Also known as 'flatweed'.
Treatment: Apply **Spearhead®** to actively growing weeds.

Insect Pests



Billbug (*Sphenophorus brunneipennis*)
Situation: Sports fields, turf farms, golf fairways and tees, and parks.
Occurrence: Early summer to late spring, larvae tunnel into stems and feed on turf grass causing major damage.
Treatment: Larvae: Apply **Merit® Turf & Ornamental Insecticide**. Adult: Apply **Tempo®** on appearance of adult beetles.



African Black Beetle (*Heteronychus arator*)
Situation: All turf grass; turf farms, sports fields, golf courses, bowling greens and recreational parks.
Occurrence: Larvae occur from early spring to mid summer and cause damage to turf roots. Adult mounds greatly disrupt playing surfaces due to tunnelling.
Treatment: Larvae: Apply **Merit® Turf & Ornamental Insecticide** in spring. Adult: Apply **Tempo** or **Ficam W®** on appearance of adult insects.



Argentine Stem Weevil (*Listronotus bonariensis*)
Situation: Predominantly cool season turf such as fairways, tees and greens.
Occurrence: Generally summer months but can appear as early as September. Usually appears as a dry patch around the outside of fine turf. May have as many as 3 life cycles per season.
Treatment: Apply **Tempo®** on appearance of adult insects.



Armyworm (*Spodoptera* spp)
Situation: All turf grass species, sports fields, parks and golf courses.
Occurrence: Occurs in late summer, feeding at night, eating the leaf down to the crown of the plant. Very damaging when in large numbers.
Treatment: Apply **Tempo®** to leaf surface.



Sod Webworm (*Herpetogramma licarsisalis*)
Situation: All turf grass species, sports fields, parks and golf courses.
Occurrence: Tends to appear after turf grass renovation in summer. Obvious damage around core holes.
Treatment: Apply **Tempo®** to leaf surface.



Cutworm
Situation: A number of Cutworm species are known to damage turf grass. The periods of activity of cutworm species are winter and early spring (common cutworm), late summer and autumn (cutworm) and mid-spring, summer and early autumn (brown cutworm). The larvae are inactive during the day when they live in vertical larval holes in the soil.
Occurrence: Damage by cutworm larvae occurs at night when they come out to feed on bowling and golf greens. The symptoms appear as circular spots up to 5cm in diameter, devoid of foliage.
Treatment: Apply **Tempo®** when insects are present.



Grasshoppers
Situation: Found in all turf situations.
Occurrence: A range of grasshopper species can cause damage to turf when populations occur in very large numbers. Nymphs and adults cause damage from spring to autumn. Females lay eggs in pods in the soil from which a new generation will emerge when the conditions are suitable.
Treatment: Apply **Tempo®** when insects are present.

Diseases



Brown Patch (*Rhizoctonia solani*)
Situation: Predominantly golf and bowling greens affecting most turf grass species.
Turf Damage: First sign is a 'smoke ring'. Plant leaves then appear 'water soaked' before turning dark brown in patches 5cm up to 1m in size.
Occurrence: Occurs at 15–20°C with high humidity predominantly in spring and autumn.
Treatment: 3Sixty5®, Chipco® Rovral GT®, Dedicat®.



Anthracnose (*Colletotrichum graminicola*)
Situation: Predominantly golf and bowling greens, particularly affects bentgrass, couch and *Poa annua*.
Turf Damage: Appears as yellowed turf in irregular shapes and patterns before turning brown and dying. Black stain at base of plant is visible due to *acerulus*.
Occurrence: Plant stress, high temperature and moisture provide ideal conditions for this disease.
Treatment: Dedicat®.



Pythium Blight (*Pythium* spp.)
Situation: Predominantly golf and bowling greens in all turf grass species.
Turf Damage: Begins as circular spots with a light brown water soaked appearance. Can feel slimy and affect large areas of turf quickly.
Occurrence: Warm nights (+20°C) and warm days especially with soft growth from nitrogen (N) application.
Treatment: Preventative – Chipco Signature®, curative Chipco Banol®.



Spring Dead Spot (*Leptosphaeria* spp.)
Situation: Predominantly couchgrass turf areas.
Turf Damage: Circular patches often appear in autumn and at spring green-up. Restricts growth in spring.
Occurrence: Generates with soil temperature around 15°C in dormant couch grass.
Treatment: Under research.



ERI (Couchgrass Decline)
Situation: Couchgrass turf areas.
Turf damage: Symptoms of ERI disease can include straw-coloured patches that range in size from 30cm to 1 metre in diameter.
Occurrence: Ectotrophic root-infecting fungi (ERI fungi) are a factor in causing patchiness and poor root health in couchgrass. The term 'ectotrophic' means these fungi grow over the root surface before they penetrate into the inside of the root. ERI fungi refer to a number of fungal species.
Treatment: Apply Dedicat® on a preventative program.



Leptosphaerulina (*Leptosphaerulina*)
Situation: A range of cool season grasses.
Turf damage: Uniform yellow or brown lesions may extend down to the leaf sheath. Water-soaked lesions, which quickly fade to a bleached white, may also occur on the leaf blades.
Occurrence: Disease outbreaks can occur during warm, humid weather on fescue, ryegrass or bentgrass. Large turf areas become uniformly blighted or appear patchy with individual leaves dying back from the tip.
Treatment: Apply Dedicat® when conditions for disease development occur.



Curvularia (*Curvularia* spp)
Situation: Most commonly found on low cut turf grasses like golf and bowling greens.
Turf damage: Curvularia diseases produce irregularly shaped patches of thinned turf, often coalescing to affect larger areas. Individual leaves initially show yellow and green dappled patterns that extend downwards from the leaf tip. Affected tissue turns brown then grey as it shrivels and dies.
Occurrence: Higher temperatures and long periods of leaf wetness increase risk of disease infection. Cool and warm season grasses can be affected.
Treatment: Apply Dedicat® when conditions for disease development occur.



Take-all Patch (*Gaeumannomyces graminis*)
Situation: Formerly known as Ophiobolus patch, Take-all patch is a disease of cool season turf particularly bentgrass.
Turf Damage: Initial patches often resemble fusarium patch; however, they continue to develop after fusarium has ceased in late spring. Patches can range from 10cm to an area covering three metres.
Occurrence: Most severe in cool wet years on poorly drained irrigated turf. Patches often occur after fumigation in areas of low nitrogen fertility and/or high pH.
Treatment: Bayfidan® Turf.



Dollar Spot (*Sclerotinia homoeocarpa*)
Situation: Predominantly golf and bowling greens affecting all turf grass species.
Turf damage: Small (4–5cm) circular sunken patches.
Occurrence: First appears as mycelium (cottony thread). Generally occurs at 15–18°C.
Treatment: 3Sixty5®, Dedicat®, Bayfidan® Turf, or Chipco® Rovral GT®.



Helminthosporium Complex (*Drechslera* spp., *Bipolaris* spp., and *Exserohilum* spp.)
Situation: Predominantly golf and bowling greens of all species. Also affects kikuyu racetracks.
Turf Damage: Causes reddish-brown to purple-black spots on leaves and stems which spread quickly. Leads to turf desiccation.
Occurrence: Wet conditions with high humidity between 3–30°C.
Treatment: 3Sixty5®, Dedicat® Turf, Chipco® Rovral GT®, Bayfidan® Turf.



Fusarium Patch (*Microdochium nivale*)
Situation: Affects both cool and warm season grasses.
Turf Damage: A small circular patch with a distinct smoke ring apparent in winter. May show a pink ring with a white centre.
Occurrence: Prevalent in cool conditions (0–8°C) in turf with high nitrogen levels.
Treatment: 3Sixty5®, Chipco® Rovral GT®, Bayfidan and Dedicat®.



White Helminthosporium
Situation: Predominantly couchgrass at golf and bowling greens.
Turf damage: Small white patches which can coalesce and give the turf surface a general white colouration.
Occurrence: The pathogen causing this disease is unknown. This is a disease of closely mown couchgrass (e.g. bowling greens). Symptoms generally appear in autumn and persist until spring. The quality of the playing surface is not affected.
Treatment: Apply Dedicat® on a preventative program.



Rust (*Puccinia* spp.)
Situation: Most common on ryegrass but can infect other species as well.
Turf damage: With severe infection turf density can become thin and chlorotic. Orange pustules of spores on the leaves help identify the disease.
Occurrence: This disease generally occurs in cool weather when the turfgrass is not growing rapidly. Prolonged leaf wetness will increase infection.
Treatment: Under research.



Fairy Ring (many *Basidiomycetes*)
Situation: Most severe on light soils which have low fertility and low moisture content.
Turf damage: A concentric ring of dead grass may develop inside the circle of lush grass.
Occurrence: Circular or arc shaped rings of darker or faster-growing turf can appear in moist turf in the spring or early summer.
Treatment: Under research.