

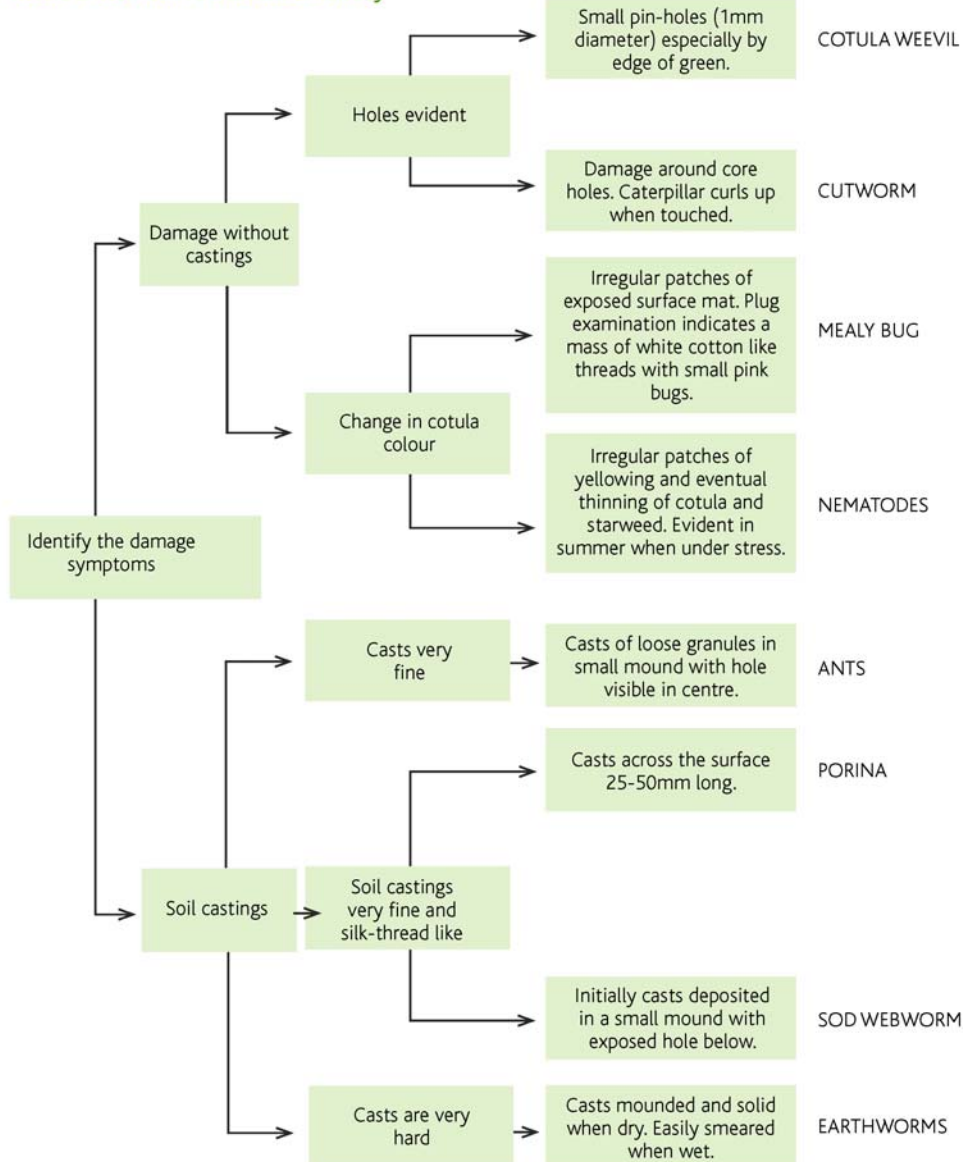
Summer Pests ■ 2009/10







Summer can be a challenging time for bowling greens and particularly for new greenkeepers seeing the different problems for the first time. The effects of play, weather and the numerous pests that are active can result in significant damage to the playing surface.

PEST IDENTIFICATION KEY

Detailed below is a process that will enable greenkeepers to identify what pest is damaging their greens.

Cotula & Starweed Pest Identification key



PEST	MANAGEMENT
<p>Nematodes</p>  	<ul style="list-style-type: none"> ❑ For green(s) with a history of nematodes, <u>monitor regularly</u> from September onwards; for either the nematode and/or damage to the root system (as shown). ❑ “Organic measures” such as sugar, some seaweed products, garlic etc, <u>may</u> assist to reduce the severity of damage caused by nematodes. For best results, these programmes should be started during early spring prior to damage being observed. ❑ Nematocides (Vydate, Nema-cur) are generally required where significant nematode problems exist. Treat early (Oct – Dec), before severe damage to the root system and/or the turf cover occurs. ❑ Syringing to manage heat stress, selective hand watering and the use of foliar type fertilisers can reduce the severity of damage caused by nematodes.
<p>Cotula weevil</p>  	<ul style="list-style-type: none"> ❑ From <u>September/October</u> onwards monitor for the adult weevil using; pyrethrum drenches, checking the clippings, watching for feeding activity by birds, looking for pin holes (as shown). ❑ Most insecticides control only the adult Cotula weevil. Due to the progressive emergence of the adults, repeat applications of insecticides are generally required. ❑ Refer to November 2009 NZ Turf Management Journal for more information.
<p>Cutworm</p>  	<ul style="list-style-type: none"> ❑ These caterpillars live in burrows on greens (typically in core, boring or Verti-drain holes) and “eat” a circular patch around their burrow entrance (as shown). ❑ No casts are seen. ❑ Cutworm generally occurs from October/November until late autumn. ❑ Caterpillar curls into a ball (unlike other caterpillars) when disturbed. ❑ Most insecticides will control cutworm.

Ants



- ❑ Where large colonies of ants occur, an uneven playing surface can develop as a result of their burrowing activity.
- ❑ Drenches of Malathion or chloropriyfos will provide control.

Mealy bug






- ❑ Although Mealy bug is commonly found on bowling greens it is extremely rare that they cause damage to the playing surface.
- ❑ Treatment is only required when:
 1. the Cotula /starweed turns a yellowish colour and/or the cover starts to thin,
 2. Mealy bug is found throughout the weakened (yellowish) area and very close to the surface.
- ❑ Control can be achieved with, localised drenches of and/or spraying following renovation with Malathion and a spraying oil.

Porina



- ❑ Porina produces a horizontal cast held together with silken fibres.
- ❑ Unlike cutworm, the caterpillars will not curl into a ball.
- ❑ Although not strictly an autumn-winter problem, clubs using the growth regulator Dimilin, Porinex or Sniper for the control of porina, should commence spray programmes in February (approximately 8 weeks after the main adult moth flight)
- ❑ Where there are several sub-species and hence flights of the porina moth in your region, apply Dimilin or similar, monthly until late April/May.

<p>Nyssius fly (Wheat bug)</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> This insect is often confused with the cotula weevil as high numbers are seen during the summer especially on warm days. <input type="checkbox"/> They are often caught in the catcher and the clippings literally move due to the large numbers of Wheat bug present. <input type="checkbox"/> They are not a pest on cotula or starweed greens and should be ignored.
<p>Black beetle</p>  	<ul style="list-style-type: none"> <input type="checkbox"/> The adult black beetle can occur in large numbers within the upper North Island, from September - December and February - April. Damage from the: <ul style="list-style-type: none"> o adults is usually negligible. Control maybe required, to prevent damage caused to the green by birds feeding on the adult beetle. o larvae (black beetle and grass grub) can be a problem, particularly on thatchy dioica greens. The larvae may cause areas of turf to die, or more commonly cause the green(s) to “tear” when being renovated during autumn.

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Remote Services Package \$275 +GST

provides greenkeepers with phone advice and interpretation of soil tests until July 2010

Annual Advisory Package \$600 +GST

provides greenkeepers with an annual advisory visit, report, phone advice and interpretation of soil tests.

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