

Spring Management of Cotula Maniototo

INTRODUCTION

With spring just around the corner, many greenkeepers will be concentrating on preparing their greens for the forthcoming bowls season. Common problems often cited when managing Cotula maniototo are:

- Poor strike from bulbils, typically due to washouts
- Recognising and managing *Sclerotinia minor*
- Appropriate spring fertiliser practises for Cotula maniototo.

SUCCESSFUL ESTABLISHMENT OF BULBILS

When re-establishing weak or bare areas with bulbils, the following procedure is recommended:

- Rake the weak or bare area to a depth of 5mm (approx) such that a friable seedbed is produced. Do not cultivate too deeply as it is extremely difficult to re-establish levels due to ongoing settlement of the patched areas.
- Sow the area with fresh bulbils at approximately 20g/m². Ideally treat the bulbils with a contact fungicide by mixing the bulbils and fungicide in a paper bag. A fungicide such as Thiram WP at 200g/30kg of bulbils is recommended.
- Lightly rake or brush the bulbils into the seedbed and/or roll them into the seedbed.
- Cover with 2-3mm of a granular soil and roll again. Any bulbils that are not covered with soil will inevitably wash away with the next rains.
- Apply an NPK fertiliser.
- Cover with scrim and lightly roll.
- In wetter parts of NZ cover the patched area with scrim. When pinning the scrim over the patched area, raise the scrim approximately 5-10mm above the soil surface. Most rain/irrigation will then “mist” when hitting the scrim as opposed to pitting the surface if the scrim rests directly on the soil.
- Make sure the resown area doesn't dry out excessively.
- Be vigilant for disease, slime and moss developing within the patched areas.
- Once the bulbils germinate apply an NPK fertiliser
- Prior to the first mow, lightly roll the sown areas/green.

Sclerotinia minor

Sclerotinia minor is a common problem on *Cotula maniototo* which occurs primarily:

- during spring in the South Island but which can also occur during mild autumn periods
- during autumn and spring in the North Island.

Sclerotinia minor is often confused with winter Pythium (which is extremely rare). *Sclerotinia minor* is first observed as 50mm diameter patches (approx) that with time can enlarge to 75-100mm in size. However when many patches of *Sclerotinia minor* coalesce to form large patches identification can be confused with other diseases.

In the morning, the edge of the diseased patch will be surrounded with white cotton wool like mycelium. Later in the day this mycelium turns a grey, brown colour and leaves collapse to form a mushy crust around the edge of the diseased patch. With time the centre of the patch thins or dies and can be colonised by *Cotula dioica* or weeds.



Sclerotinia minor is worst where:

Cause	Management strategies
With young (< 2 year old) maniototo	<ul style="list-style-type: none">▪ Patience
Leaf remains wet for 12 hours or more	<ul style="list-style-type: none">▪ Maintain appropriate mowing frequency▪ Address any shade issues (e.g. shelters, trees etc)▪ Where appropriate, consider removing dew daily
Plant/leaf is too succulent	<ul style="list-style-type: none">▪ Avoid nitrogen applications during spring▪ Unless essential, avoid soiling or spring mud bathing of the greens after late April/May▪ Iron sulphate or potash can assist to harden the leaf.

When controlling *Sclerotinia minor* contact your NZSTI advisor for the most appropriate fungicide and application rate.

Spring fertilising of maniototo

Cotula maniototo goes through two very distinct growth phases. Depending on a number of factors including, age of the green, density and your location within NZ, *Cotula maniototo* can change from its winter to its summer (spreading) growth phase any time from October (South Island) to December (North Island).



Winter leaf maniototo



Summer leaf maniototo

As the winter leaf phase of maniototo (in absence of Colobanthus) can provide an open cover, greenkeepers often face the quandary as to whether to apply nitrogen fertiliser to “boost” the green during spring.

The following points should be considered when fertilising Cotula maniototo during spring:

1. Using nitrogen will not hasten the change of Cotula maniototo from its winter to its summer leaf phase.
2. Using nitrogen on winter leaf maniototo will not increase density. Maniototo can only spread/thicken up when it is in its summer leaf.
3. Using nitrogen on winter leaf maniototo in spring to “boost the green” will increase leaf succulence and thereby encourage *Sclerotinia minor* and wear (particularly around the ends).

Recommendations

1. Complete renovation early enough so that there is at least 4 weeks of good growing weather (whilst the Cotula maniototo remains in its summer leaf) for recovery during autumn.
2. Apply adequate nitrogen during autumn whilst Cotula maniototo is in its summer leaf to reinstate a full cover.
3. If there are weak areas present in winter, resow them with bulbils prior to the new season.
4. The summer leaf phase of Cotula maniototo is an extremely vigorous plant and generally rapidly fills in weak areas. If your green does need a “boost” during spring, delay nitrogen applications until the Cotula maniototo starts to change to its summer leaf phase. Small foliar applications of nitrogen are preferred to prevent/reduce problems with disease (Brown patch, *Sclerotinia minor*).
5. For further recommendations refer to your turf advisory report or contact your NZSTI advisor.

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