

RENOVATION

Future Proofing your Green for the Next Playing Season

1. Why Renovate?

Renovation is the best opportunity for your Club to improve the green(s) such that the best quality playing surface is provided for the next playing season.

2. Develop a Renovation Plan

In order to provide the best playing surface, it is important that a renovation plan is prepared whereby:

1. Renovation goals are clearly identified.
2. Goals are prioritised to address and overcome any playing quality issues from the season just finished, for example:
 - Goal One: establish full cover.
 - Goal Two: wire green to improve levels.
 - Goal Three: reduce weed content (e.g. hydrocotyle).
3. Be realistic, i.e. if you try to achieve too much then inevitably each goal will only be partly (if at all) achieved.
4. Allow enough time in the autumn (close the green early enough) to achieve the goals identified. This is more important the further south your club is located in NZ.

A procedure for establishing renovation goals that uses the Bowls NZ Green Evaluation System is discussed in the February 2011 NZ Turf Management Journal.

3. Process

3.1 Step One: Review Playing Season

How did the green play and can any issues be fixed as part of the renovation process?

Too Slow – Consider:

- Is the green very thatchy?
- How good are the levels?



- Are there a lot of weeds such as moss, hydrocotyle, grass etc. present?
- Was the green over watered?
- Was the mower set up correct and the mowing regime suitable?
- Were the plants growing too fast over the season?

Uneven Draw or Variable Speed – Consider:

- How good are the levels?
- Are there a lot of weeds present?
- Has the green got a non-uniform mixed plant cover or density e.g. dioncia & starweed?
- Was the irrigation/watering uniform?
- Were the rinks moved often enough?

3.2 Step Two: Review the Season

What maintenance problems were experienced?

Cover Loss – Consider:

- Scalping due to poor levels or excessive thatch.
- Poor heat stress/irrigation management especially on localised areas by hedges and clubhouses.
- Nematodes (thatch, compaction).
- Disease (thatch, fertiliser, irrigation & soiling practises).
- Poor rink movement especially in the early part of the season.

Weeds – Consider:

- Thatch/compaction issues.
- Levels
- Fertiliser practises, especially following renovation.

3.3 Step Three: Set Renovation Goals

What are the key goals of this year's renovation? For example:

- Reduce thatch.
- Reduce weed (hydrocotyle) content and improve levels.
- Improve density.

3.4 Step Four: Prioritise each Goal

Consider which goal has the greatest impact on playing quality – typically the order of priority will be:

- Re-establish full cover



- Provide a level surface
- Establish a uniform cover
- Manage thatch
- Manage compaction and weeds

3.5 Step Five

Determine which goals can be properly and realistically achieved in this season. In some situations a two or three year programme may be required to achieve all the goals.

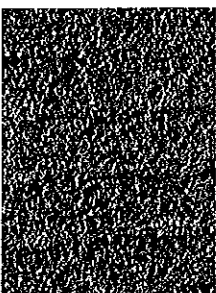
3.6 Step Six: How do I Achieve each Goal?

Consider:

- Becoming a member of your Regional Green Keeping Association and attending field days.
- Refer to *Establishment and Management of Natural Bowling Greens in New Zealand* – handbook.
- Engage the services of your NZ Sports Turf Agronomist to visit your green and provide a relevant and specific programme for your club.

4. Achieving a Quality Renovation – Common Pitfalls

- Appoint a Supervisor.
- Make sure you are ready (machinery, soil, fertiliser and labour is available).
- Time renovation so that you have at least 4 weeks of good growing weather afterwards for recovery. This is more important the further south one's club is. Complete recovery should occur before growth ceases in the autumn as the following playing season often starts before good spring growth occurs.
- Make sure profile is uniformly moist (not saturated) to a depth of at least 50mm.
- Weed control – if in doubt as to what herbicide to use, how to use it or the rate that should be used – check.
- Bare areas
 - Where possible plug them out prior to renovation – it's a guaranteed and instant result.
 - When stolonsing with diocia use quality stolons at least 2 – 3 leaf nodes in length (need to use a rake or an "old groover").
 - With starweed, use fresh seed (<12 months old).
- Grooving
 - Let debris dry and clean groove lines completely.
 - Use a granular soil and when dry, rub thoroughly into groove lines.



- Re-check backfilling of groove lines 3 and 7 days later.
- Rubbing soil into groove lines and screeding for levels are two separate jobs.
- Make sure all excess soil is removed off the green, so the surface looks green.
- Ensure groove lines are completely backfilled
- Levelling
 - Survey green to determine most appropriate levelling approach.
 - Screenshot once groove lines are completely backfilled with topsoil.
 - Pull screed in one direction in a grader blade fashion. Take care that soil does not work its way under the leading edge of screed.
 - Do not apply too much topsoil. In some cases levelling may take a couple of seasons.
 - Wires should be surveyed into green at new level. Cut a groove into high areas of green for wires to sit into so that only low areas are raised.
- Fertiliser
 - Clubs need to purchase a Remote Service Package to have NZSSTI provide a soil test interpretation and provide a suitable fertiliser programme.
 - Correct deficiencies particularly pH, Phosphorus and calcium at renovation.
 - Focus on applying sufficient nitrogen fertiliser to the green in the autumn so as to achieve FULL RECOVERY before growth stops.
 - Feed green (excluding starweed) approximately every 10 days following renovation until full cover is established.

NZSSTI Services

If your club would like phone support throughout the year or a visit to prepare a maintenance programme specific for your greens, NZSSTI offers two commercial packages:

1. Remote Services Package - (provides Greenkeepers with phone advice and interpretation of soil tests)
2. Annual Advisory Package - (provides Greenkeepers with an annual advisory visit, report, phone advice and interpretation of soil tests).

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