

# "GRASS CLIPPINGS 6"

This is the last of a series of three articles on "Annual Renovation". In the first article (Grass Clippings 4) we discussed the various changes which take place on a bowling green every year. We also came to the conclusion that unless remedial action was taken every year to restore a green to its original state then the general health of the green would deteriorate.

In "Grass Clippings 5" we discussed the various factors which the decision-making body would have to consider when deciding on a suitable date for renovation. As important, would be the decision whether all the greens should be renovated at the same time or whether renovation should be staggered.

## **1 Should All the Greens be Renovated at the Same time or Singly ?**

Obviously if it was left to the bowlers themselves they would prefer not to have a closed season at all. They would opt for renovation to be staggered.

At the coast the bowlers have become so steeped in the idea that green space has always been available that any deviation from that custom would result in an outcry.

In spite of the above one can still find arguments in favour of closing all the greens at the same time.

### 1.1 Renovating all the Greens at the Same Time

- If a Green keeper is going to use a contractor to assist with the various procedures then he might opt for all at the same time if, by doing so, he could get a better deal.
- In some two-green clubs, with a substantial membership, renovating one green at a time might result in too much congestion on the other green. Taking out both greens at the same time, say from mid-December to mid-January might result in less trauma and unhappiness than rationing play on the one green
- Some Green keepers might, from choice, prefer renovating all the greens at the same time provided the Bar manager and Treasurer are not unhappy about loss of earnings.

### 1.2 Renovating Singly

Provided the other green(s) can cope with the additional load renovating one green at a time does appear to be the method of choice.

## **2 When**

With the Municipalities no longer dictating when renovation should be done the clubs, with an eye on the district calendar, can now decide for themselves when they are going to take their greens out of commission for renovation.

Although one can juggle with dates the basic decision lies between renovating in the "spring" or renovating after root development has commenced in November.

### 2.1 Carbohydrate (CHO) Reserves

Let us, once again, look at what is happening to our grass from August to November

After a period of dormancy in June/July vertical leaf growth is initiated in August. The vertical growth enables the leaf to catch as much sunlight as possible so that it can produce CHO for storage in the bulbous stems and roots before "root die back" sets in during the latter part of September. From September until the end of October with only the minimum amount of absorption from the root system the grass plant is wholly dependent on the stored CHO for its energy requirements.

If left undisturbed there is more than enough CHO to supply the plants energy needs till November. But ! if you renovate your green during this period then you will be putting the grass plant at risk.

- When removing last years growth by scarifying you will automatically also remove some of the bulbous stems and roots in which the grass plant has stored its supply of CHO.
- During top-dressing you will have covered the roots and stems. When the new leaf shoots now emerge from the buds or nodes and fight their way through the top-dressing to get to the surface they will be using up a considerable amount of energy (CHO) to do so. This will put an extra strain on the already depleted supplies of CHO.

The response of the grass to spring renovation will be slow and complete grass cover will take a long time because lateral spread only occurs after the plant is satisfied that CHO production is adequate.

### 2.2 Aeration (Verti-draining)

Another consideration would be the question of aeration. Aeration of the green to provide new air passages to alleviate compaction is part of renovation.

There are two possible procedures –

- Aeration by hollow tining
- Aeration by verti-draining

Hollow – tining can safely be done in the spring because the air passages so created last for some time. Verti- draining disturbs the soil at a given depth. Air (Oxygen) can now penetrate to that level thus enabling the roots also to penetrate deeper. If verti – draining is done in August/ September there are no roots to make use of the deeper penetration of the air and much of the good done by improving aeration by vert-draining is lost because, by the time the root proliferation starts in November the soil is not porous

any more. It can therefore be said that verti-draining should only be attempted when the roots are active and able to use the opportunity to penetrate further into the soil.

2.3 The Long Haul – It is acknowledged that it is very daunting for a GKP to take a green from May to November without any form of relief.

Most GKP's agree that there should be a break in August to allow the green to recover. The protagonists of "spring renovation" cite this as a good reason for renovating in August while those who renovate in November fall back on the old tried method of stimulating growth in August by applying 25 Kgms of Ammonium Sulphate, 2 Kgms of Ferrous Sulphate (or Iron Chelate ) plus a growth stimulant like Megafol. A very light dusting over the green (about 1.5 cu m of suitable top-dressing material and within a week the green shoots have appeared and there is vertical growth. While this would not re-cover weak or bare areas it does give the green a more pleasing appearance and stimulates Carbo-hydrate production before "root die back" occurs from mid-September to October.

(Authors Note – I have always renovated in the summer and have, for many years, applied the "cocktail" described above in August - with pleasing results.)

2.4 District Calendar

All the Districts go into recess over the festive season – usually from Mid-December till the second week in January.

As some of these Districts still believe in "Spring Renovation" they also go into recess from Aug to October. They, therefore, have two periods of recess.

Other Districts, aware of the advantages of closure in November, combine the two periods into one single closed period i.e. From early November till Mid January

In an attempt to encourage the clubs to set aside time for renovation some Districts have adopted a resolution preventing any club from staging a social or sponsored event, in which players from other clubs are invited to participate, during the period the District is in recess..

As the period from mid-December till mid-January also coincides with the period of minimal usage in the inland clubs some clubs will soon cotton on to the idea of using this period to renovate one of their greens. Some two – green clubs might even go so far as to renovate both their greens in the first week of December. Swopping a 9 –10 week closure in the spring for a 4-5 week closure over the festive season, when many players are away anyway, does have it's advantages.

2.5 Club Decision

If it were to be left to a GKP to decide when he would like to renovate his greens he would probably have the following in mind when he submits his proposal.

- a time when the grass is growing vigorously
- a time when there is the least usage eg. Christmas and no District events

The GKP would probably recommend the following programme to his Club Committee –

- |                           |   |
|---------------------------|---|
| - <u>One Green Club</u>   | - Mid-December to Mid-January   |
| - <u>Two Green Club</u>   | - First Green – Mid-Nov to Mid-Dec  |
|                           | - Second Green – Mid-Dec to Mid-Jan   |
| Alternate Two-Green Club  | - Close both greens Mid-Dec to Mid - Jan                                      |
| - <u>Three Green Club</u> | - First and Second Green as for a Two-Green Club                              |
|                           | - Third Green – End February – End of March                                   |
| - <u>Four Green Club</u>  | - The fourth Green would be renovated with the second green from Mid-December |

**Note –The GKP (and his Committee) should appreciate that if they are going to stagger their renovation the green(s) still in play will be carrying an extra load. There will be more damage and bruising of the grass. The grass will need more CHO. This can only be produced by the grass plant itself. The leaf area is increased by raising the cutting height by 1.00mm and thinning out less vigorously. A little additional water would also be helpful**

**3 This and That - A few hints about renovating –**

3.1 Aeration – You must know what you want from the procedure.

- If you just want to aerate the soil then go for the largest number of tines per 100 mm square – you can leave these holes open and do not have to fill them, with soil or compost.
- you can actually go up to a 15 mm tine and still leave it open.
- If your soil is unsuitable and needs amendment you should use a larger tine and fill it with suitable soil.
- If you are verti-draining then you must ensure that the roots are active at the time and able to benefit from the verti-draining.. Be careful to set the verti-drain to "kick" at a height just deeper than your roots – it is foolish to set a verti-drain to loosen the soil at 200 –300 mm when your root system is only 50 mm deep – in that case it is much more beneficial and cost effective to set the vert-drain to "kick" at 100 mm . **The level at which you set the verti-drain must be attainable by your roots.**

Note - If the depth of your root system is less than 40 mm then you have a problem with too much clay in your soil. Here it is as important to amend your soil in the root area by **soil substitution**- a process whereby you hollow – tine to a depth of 100 mm with tines which are up

to 38 mm in width. You fill those holes with a coarser sand mixed with compost of pine-bark. You might have to repeat this process every year for a few years. In addition it would be advisable to verti-drain such soil at a depth of 100 mm at a different time-eg Feb/March to give the root system a boost for the winter.

3.2 Removal of last years Growth or excess Thatch - If you want to give your green the best opportunity to perform well in the coming season you must ensure that there is no grass on the green when you top-dress. You must scarify or “thin out” vigorously. As mentioned I always renovate in the growing season and remove 4.5 – 5.0 cu. m of grass when I scarify. I then have a bare green for top-dressing.

3.3 Top Dressing and Fertilising – Top-dressing must not be confused with leveling. A green is top-dressed just to fill in whatever hollows occurred in the previous year and make the surface smoother. You must never put too much top-dressing on existing grass – you will only be creating a layer of thatch and pay for it later,

The sand used must have the same texture as the existing soil on the green or be coarser. **The top dressing material must never be clayey or even loamy.**

If the GKP is not sure of the texture of the soil he intends using then he must insist on the contractor supplying him with a Particle Size Analysis of the soil or, at least, the percentage of silt/clay. The Silt / Clay percentage must not exceed 3 %.

A GKP must avoid changing the top-dressing material from year to year and leave layers in the soil profile – layers of soil of different textures can lead to “black rot” and other undesirable conditions developing in the soil.

The GKP must avoid putting on too much top-dressing. Remember ! Whatever the thickness of the top-dressing the grass leaves must still come through it.

Note - 6 Cu. m. of top-dressing will provide a cover which is 4.00 mm thick over the whole green. If the GKP intends applying Phosphorous he must do so when there is no grass on the green i.e with the top-dressing. Phosphorous applied to the surface of a green does not easily penetrate a grass layer and does not readily move into the soil. Even in soils rich in Phosphorous I always advise a single application of 50 Kgm of 3:1:5 before top-dressing.

3.4 Drought Conditions If the GKP is suddenly faced by water restrictions he must immediately raise the mowing height by 1.00mm and thin out less vigorously – this will reduce water requirements by 15 – 20 %.

**No GKP should consider starting renovations if water restrictions are in force..**

#### 4 **Authors Foot Note**

I read an interesting article on the preparation of the greens at the Darebin International Sports Centre which will host 9 days of bowls for the Commonwealth Games. The greens were so bad that Bowls Australia had cancelled some tournaments scheduled for Darebin. They called in Tony Ware (Head Curator of the M.C.G.). His report was ‘ these greens are sub-standard. There has been a lot of thatch build-up They have no pace and because they have to be kept wet all the time there is a lot of algae and moss. **To me the only solution is to take the top off.**”

Those greens have responded to the extent that they recently hosted a 15 day tournament while running at 13.0 – 13.5 secs . The final touches are now being made and the greens are expected to run at 14.5 – 15.5 (over 27 m ) for the Games

For years I have been trying to convince GKP and their Committees re the advantages of removing the top 25 mm. with a sod-cutter.

Irrespective of how well you remove last years growth there will be a build up of thatch, which will affect not only your speed but also the health of your green. I take off the top 25mm of my greens every 7 years – not only are my greens healthy but my ditch-boards do not have to be lifted.

There is also the added advantage that after “removing the top” the green is bare and much more amenable to minor adjustments in the levels. .

**Conclusion** - I hope that, having read G.C.4,5 and 6 there will be no doubt in the minds of GKP's and Club Committees re the importance of taking the greens out of commission every year for renovating.

The methods used and the timing of the various procedures is secondary to the fact that it be done every year.

Good Bowling on Better Greens –