

Overseeding... *The simple way*

Course Manager, Ian Kinley, describes the overseeding programme he adopts at Royal Porthcawl Golf Club

As a believer in the phrase that 'greenkeeping is as simple or as complicated as you choose to make it', it's probably not surprising that the overseeding programme that we employ could be considered as very straightforward.

Creating the appropriate environment for the chosen grass species to survive, then introducing seed into the ground, achieving germination and subsequent seedling establishment and persistence is fairly straightforward.

The greens at Royal Porthcawl have, over recent years, been worked on appropriately to determine that the soil mechanics are considered suitable for supporting the desired fescue/bent turf that typifies a links environment. By this we mean that there is very little thatch present, no drainage issues and the natural growing environment is generally dry and infertile. With no significant amendments to the soil mechanics required it meant that the environment was set to commence a sustained overseeding programme aimed at re-establishing the fine textured wiry turf that once dominated this fine links before excessive fertiliser and irrigation applications caused an unfortunate botanical change.

To prepare the surfaces in anticipation of the overseeding operation, Primomax is applied at 0.25l/Ha to place the existing sward into regulation and thus provide any

emerging seedlings with a competitive advantage. Seed selection was a fairly straightforward process; the initial composition was poa, bent and fescue in varying quantities from green to green and the general remit was to increase the fine leaved grass content and to reduce the poa content. Obviously the reduction of poa would be achieved through sensible management practices over a sustained period; it was the increase in fine leaved grass content that we felt could be positively affected through the

high quality, pure and proven mix and also wanted to introduce as many different high quality cultivars as possible. The idea behind introducing numerous cultivars is very simple, each cultivar has its positives and negatives in terms of various stress tolerances and appearance, by introducing numerous cultivars we'll have a cultivar present that is 'top rated' in every area of seed rating. A combination of Bar Fescue and J Fescue in equal quantities was decided upon and this provides us with eight top rated cultivars of

ABOVE: Playing characteristics reinstated

“Seed selection was a fairly straightforward process; the initial composition was poa, bent and fescue in varying quantities from green to green and the general remit was to increase the fine leaved grass content and to reduce the poa content”

overseeding programme. I doubt that many would argue that in the links environment fescue is the most appropriate species and, with appropriate management, provides the characteristics that are typical of links golf.

It should be noted that the method of overseeding that was to be employed is in my opinion unsuitable for introducing bent seed anyway so there was really only one option. So fescue it was to be, as far as selecting the actual seed mix is concerned we basically desired a

chewings fescue, slender creeping red fescue and strong creeping red fescue.

Over a number of years the process of overseeding has been tinkered with until we're now fairly settled on the current process which is quick, effective and not too disruptive. Sarel rollers, hollow tining and solid tining have all been experimented with in an attempt to provide the ideal environment for the seed to be introduced into, through each of these we're essentially creating some mini



about the author

Ian Kinley is the Course Manager at Royal Porthcawl Golf Club

'plant pots'. The one thing that has become apparent is that if we place seed into the ground within approx 1" of the surface, maintain moisture levels, that seed will germinate and produce seedlings. The mechanical operation that we have settled upon is solid tining using 15mm tines to a depth of approx 1" at 1.5" centres. Using the Toro Procore 648 we can solid tine a green and collar/apron in approx 30-40 minutes and this machine has transformed the operation from taking up to a fortnight using a tractor and 3 point linkage mounted aerator into being a one to two day process.

"I decided that the spinning disk topdresser was just a bigger version of the pedestrian spreader we were hiking behind"

I don't mind admitting the next part of the process was stumbled upon through sheer idleness! Having created as many holes as possible, we now simply broadcast seed over the surface before working the seed into the holes. Now, on a very warm day on the East coast of Scotland while sweating like a pig I decided I'd had enough of walking round in circles with the fertiliser spreader trying to apply a very exact amount of seed. The rate of seed that we were trying to apply at that time was determined by traditional overseeding rates, anyone who applies seed using a fertiliser spreader will know it takes what seems like forever to empty seven kilo of seed onto a green. I decided that the spinning disk topdresser was just a bigger version of the pedestrian spreader we were hiking behind. A full bag of seed was emptied into the hopper, the door closed down as much as possible, the conveyer belt slowed down to creeping speed and the spinners set to full tilt. After passing over the green 'topdressing' the seed onto it a look behind revealed that it had spat the entire bag onto the green in one pass, a week or so later we had to double cut that particular green every day due to the ridiculous amount of seedlings that were present! That's the reason that we now apply seed by the bag rather than the Kg, as a rough guide we'll apply two full bags of seed to a green and collar/apron (750-1000M²).



ABOVE: Astroturf dragmat

The first thing most people ask when discussing the rate of seed is 'don't you just lift most of it off with the mowers?' and the simple answer is 'No, we'll lift approx 1-2Kg off with the mowers which is minimal when we consider the amount applied'.

I believe that the method employed to work the seed into the holes is part of the reason for the significant success rate that we achieve with each overseeding operation. In the past after applying seed we've either 1) brushed- which unless it physically pushes seed into a hole it 'flicks' seed into the air giving it one more chance to find a hole, 2) drag matted- which I think may move the seed a little more than brushing but again has a tendency to 'flick' seed into the air giving it one more chance to find a hole. We use a drag mat 'sandwiched' with a piece of astroturf, the dragmat provides sufficient weight to determine that the mat will follow the contours well and maintain contact with the turf surface. The AstroTurf is not only very turf friendly [we use the same mat for working in topdressing] it 'works' the seed between the turf surface and the mat essentially meaning there is a much greater chance of the applied seed finding one of the numerous holes in the surface.

Purely for the sake of reinstating surface levels, once the seed has been worked into the holes we will generally top dress the surface and work the applied sand in using the

same AstroTurf mat. As far as the actual overseeding process is concerned finishing the operation with topdressing or not doesn't appear to have any effect on the success rate. It could I guess be argued that covering the seed in the holes with topdressing may provide some protection from the elements. To further reinstate acceptable playing characteristics we will ordinarily mow to remove any debris that is left lying on the surface and roll the surface using a Tru-turf roller to perfect surface levels. It has to be said that once complete, the roll of a ball is virtually unaffected by the overseeding operation.

Following the completion of the overseeding operation we will generally give each sprinkler a couple of turns which will apply approx 2mm of water, no real reason to do this immediately, it's probably simply a 'no time like the present' moment. Once the first irrigation application has been applied, we will apply 1mm of irrigation nightly until seedlings are evident, this will normally take between seven and 10 days. Once seedlings are evident irrigation applications are maintained at 1mm each night for approx one week and then relaxed yet maintained at sufficient frequency so as to avoid the seedlings from being allowed to dry out.

As we know the makeup of a grass seed provides the seedling with its own personal source of carbohydrates for initial establish-

ment and this is evident in the accelerated growth rate of newly emerged seedlings which can be a problem in itself.

Following emergence, thought must be given to providing the seedlings with the necessary nutrition to enable full establishment and persistence.

In the past overseeding was performed once annually, generally in September, and any fertiliser application typically using a granular product with an analysis 4:0:8 or similar also served to 'winterise' the surfaces.

As our overseeding programme is now commencing much earlier in the season and is seeing us perform repeated operations, we must achieve seedling establishment/persistence and rapid surface recovery without creating a flush of growth that would negatively affect playing characteristics. To achieve this we utilise products that we know and trust; Farmura Potash Plus and Farmura Liquid Seaweed are both products that we use throughout the maintenance calendar and both have proven effective in maintaining turf health and vigour without any negative effect on playability.

Approx one week following seedling emergence an application of both products is made aimed at pushing the seedlings on to establishment, thereafter Potash Plus is applied at 10-20l/Ha on a regular basis.

I feel that one of the attributes of the Farmura products that we are using is that while providing the seedlings with the required nutrition for increased resistance, increased rooting, etc, these applications are also improving the overall sward health.

At the same time as the Seaweed/Potash Plus application we will generally apply Primomax at 0.25l/Ha to restrict top growth in the seedlings and favour root development and tillering.

During 2009, two greens that were significantly different botanically to the other greens received an intense overseeding programme from late June through to October. The frequency of overseeding operations determined that we repeatedly sought to establish seedlings and achieve rapid surface recovery whilst maintaining playing conditions. Obviously as a result of the numerous overseeding operations that were performed, there were seedlings at several different stages of establishment within the same green, through regular light applications of Potash Liquid



ABOVE: Surface prepared to accept seed.

Seaweed we were able to provide these seedlings with a source of nutrition that proved appropriate to see all of the newly introduced plants persist.

As was stated initially, the overseeding process that we employ is very straight forward and involves just a few simple and straightforward operations. It is an operation that has been performed repeatedly for numerous years now and has yet to fail to produce satisfactory results. Seedling persistence has been achieved each time, this I feel could be attributed to some generally sensible maintenance practices. I would also attribute a degree of the success to the fact that in the early stages of life the seedlings are being maintained at up to 1" longer than the sward into which they are introduced; this is obviously a significant competitive advantage.

The practice of overseeding is a vital aspect of what we are trying to achieve at Royal Porthcawl GC and will remain part of our annual maintenance.

There is sometimes a misconception that botanical change has to be disruptive; we've achieved numerous overseeding operations and are progressing through a process of botanical change while staging both national amateur events and professional tournaments annually.

If you've got the environment set to support the desired species, I'd encourage anyone who isn't already overseeding but desires botanical change to give it a whirl.

The satisfaction gained from seeing excessive numbers of seedlings is great and the members also appear to take a significant interest when they can see that what you're doing actually works!



LEFT: Seed worked into holes