



2mm (or Above)

Golf Greens Management Debate
BTME Wednesday 20th January 2010

Last month's Greenkeeper International issue outlined the management practices and strategies for the eight Course Managers who will be debating the effects of low mowing regimes and intensive management of golf greens.

This month the Course Managers are joined by three additional debaters who add input from other angles. Richard Windows, STRI Agronomist for Scotland and co-author of The Disturbance Theory, joins the panel along with Ken Moodie, Golf Architect and Past President of EGCAA, and Paul Seago, Head Superintendent Renaissance Club. Paul also sits on the R&A Golf Course Committee as an advisor. As we continue to set the scene for the debate, the aim of this article is to investigate the beliefs and experiences gained from differing strategies. Each member of the debate panel was asked a series of questions based upon issues associated with mowing strategies, sward composition and other management inputs. The full transcript of answers is available on line by logging on to the education page of the BIGGA website and clicking on the relevant link in the left-hand column.

Paul Woodham



1. What are the biggest challenges you face maintaining the greens you have, at this stage and in the future?

Euan Grant, Turnberry:

Successful overseeding with fescue at the appropriate times whilst being sympathetic to highly demanding golfers. Also being patient in the spring and not over managing until all the species are growing late May/early June.

Paul Lowe, Bromborough GC:

Growing expectations of green speed have become nonsensical. A few years ago, 8 ½ foot was deemed a good pace. Now 11-12ft is the norm. Trying to achieve those unrealistic speeds makes greenkeepers' lives more difficult. What the future holds is anyone's guess - I fear the worst.

Gordon Moir, St Andrews:

The current financial climate raises concerns of lower investment leading to less staff and less important maintenance. Costs of materials and equipment are increasing, and with high end courses on the television, golfers don't relate the cost of running these to their own clubs/courses. Players think greens should be fast and soft, and aeration should be left until January. Being unable to control weeds and worm-casts could be issues going forward.

2. What influence do you consider cutting heights has on the performance of UK golf greens?

Stuart Yarwood, Lymm GC:

In the short term we can make greens sing with low cutting heights and lots of reactive inputs. Fine if we are chasing promotion or short term success, but what in the longer term if the tightrope snaps. Does it matter if the greenkeeper has moved on? Someone has to pick up the pieces. When exaggerated greens speeds become the norm, how far can we push nature for the weekend medal?

If we greenkeepers chase the speed dream I question - who are we doing it for? Surely true and consistent is priority over speed. If we can provide cost effective, healthy, low input, year round, surfaces at 8-9 ft, then long term happy days!

Dan Lightfoot, Bearwood Lakes:

Lower mowing creates faster greens but this must be in conjunction with regular topdressing, aeration, and fertility to ensure plant health. The quality of products available to the Course Manager allows greens to be cut shorter while remaining healthy. The introduction of topdressing spinners, better foliar applications and quick aeration equipment allows the CM to produce tighter surfaces but

with more accurate management alongside.

Greg Evans, Ealing GC:

Absolute major influence. The number one priority in producing good greens. Golfers want fast, true greens with no excuses. This is easier on creeping bent greens, but more difficult on poa.

However, after managing both grasses, they react very similarly to an aggressive regime. If you want a fast green, cut it lower, but back it up with a good cultural plan i.e. sanding, aeration, fertility, etc.

Ken Moodie, Creative Golf Design:

The faster the green is, the greater the breaks will be. Faster greens often run more truly than slower greens but on very fast greens the ball can deviate as small imperfections (grit etc) have an impact. I believe that a speed of around 8-10 feet on the stimp is probably the optimum for summer conditions on most courses.

Green speed needs to match the contours. If there are strong slopes ultra-fast greens may become unpinnable. I believe that uniformity of green speed is more important than actual speed, so maximum green speed should be set to maintain the steepest green on the course in a playable condition.

Richard Windows, STRI:

Mowing closer increases green speed in the short term. The problem is that prolonged low mowing compromises turf health, often causing weakening and thinning.

Surely, the aim of modern green-keeping is to achieve realistic speeds (which are course specific) and bring the greens alive without cutting excessively low and compromising turf health. We should employ all treatments that positively influence green speed (rolling, top dressing, brushing etc) to deliver our target speeds without risking turf health by simply shaving the greens. The job of the greenkeeper is to monitor turf and playing qualities accurately and take a flexible attitude toward the cutting height.

3. What do you consider to be an 'acceptable and sustainable' level of pesticide use and can you see a future with or without chemical use?

Euan Grant, Turnberry:

Ideally we would not rely upon chemical control of diseases, and with seed companies working towards breeding resistant strains and greater understanding of plant biology, this could be a reality one day. However, as long as an effective IPM is in place and cultural practices utilised efficiently, there is no shame in a low dosage rate fungicide to keep the wolves at bay.

David Cole, Loch Lomond:

Managing greens to the highest quality, based on proven agronomic techniques and following an IPM approach will make it easier to succeed. Good draining and diluted turf surfaces reduce usage of pesticides and protect efficacy.

Climatic challenges and grass species dictate how much pest pressure you experience. Ensure to manage stress by daily scouting with soil and tissue testing to sustain plant nutrition. Ensure mowers are sharp, and spray at correct rates when conditions are favourable.

As regards the future - my biggest concern would be a total ban on insecticides. We can overseed bent/fescue, or creeping bent into damaged or thin turf and have some success. However, if we cannot control root-feeding insects at chronic levels, then maintaining a healthy putting surface no matter what the grass species will be near impossible.

Kenny Mackay, The Belfry:

Our market consists of corporate, along with pay and play guests who

may only play here once a year. We therefore cannot afford to have any problems on the green throughout the year. With that in mind our chemical applications run on a preventative programme on a regular basis. With different fertiliser and maintenance practices the amount of disease and pests has decreased but a world without chemicals? - I am not to sure I will see it in my career.

Richard Windows, STRI:

Lovely to think we won't need chemicals to maintain high quality putting surfaces, however, this is generally unrealistic. We should aim to create high quality surfaces which are not dependent upon routine pesticide applications. This means employing IPM control strategies to reduce the likelihood of damaging attacks/infestation, enabling pesticides to be used judiciously.

4. Do you feel that there is likely to be a loss of playing performance while embarking on a species transition?

Dan Lightfoot, Bearwood Lakes:

Absolutely. Creating a situation which encourages bent or fescue grasses automatically stresses poa annua. Most clubs have a percentage of poa annua and the customer (especially the green fee payer) will not accept unsightly stress as they don't realise what is being attempted or why. In addition mowing heights will have to be raised, more overseeding and top-dressing will be needed with less regular verticutting. Short-term quality will be reduced, and an inevitable loss of playing performance clearly visible. How long this lasts will depend on the success of the transition.

Gordon Moir, St Andrews:

Most definitely, and that is where the importance of good communication with the Club Committee or Board, and members is vital. Golfers must fully understand the reasons why the Club is taking that route. I've always felt the golfing press could do more for the green-keeping industry although I realise that greenkeeping isn't "sexy" and won't sell magazines.

Greg Evans, Ealing GC:

No. Poa and bent grasses perform very well together. I am getting sections of my greens colonising with bents. If I had the budget, I would change to creeping bent and the

transition would be quicker. From my experience, Bent grass will germinate and establish happily at 2mm.

Richard Windows, STRI:

Sward composition change should not be allowed to overly-compromise playing qualities. The transition process should concentrate initially on a soil-rectification programme, which sets the right environment to favour species change. It is likely that the disruption from operations required to improve soil conditions may result in a temporary lowering of playing qualities. Great care and attention is required to minimise disruption and quickly restore playing qualities following each operation. Objective measurements of organic matter in the soil profile, will indicate the rate of progress and when the conditions are right to move forwards (onto the next phase) of sward species change.

Implementing the next phase (i.e. reducing poa - Phase 3 in DT terms) requires a high level of skill and judgement on the part of the Course Manager but we believe it is possible to achieve the transition with the minimum of inconvenience to golfers and disruption to playing quality.

5. Would your target market accept any short term drop in quality throughout a transition process?

Dan Lightfoot, Bearwood Lakes:

No! A species transition is likely to take at least three years. A member here would pay £14k over this period. No new member would pay this being told on day one the product will be less than perfect over this period, even for a long term gain. People paying this kind of money want it now, and would go elsewhere if the club undertook this kind of strategy.

Euan Grant, Turnberry:

The introduction of finer grass species into a poa dominated sward is a long term process which should only be undertaken with the full understanding of the target golfer.

Those with a variety of grass species in the sward will understand that this happens every year due to the differing temperatures at which different species start to grow.

Paul Lowe, Bromborough GC:

NO, as I said earlier, we have made a rod for our own back. DT phase one is without doubt the

most difficult and contentious part. Improving drainage, removing thatch with regular and disruptive aeration upsets everyone, removing problem trees to resolve shade etc undoubtedly creates conflict. Our communication skills will help manage this, along with the promise of better greens. Once we get to Phase two of the theory we should start seeing the playing quality improve and that all-important consistency return. My philosophy is to get out of phase one as quickly as possible and then the high-octane greenkeeping can be relaxed.

The most important factor is our customer. Within the current economic climate, no-one can afford to lose quality.

6. Would the retention of Fescue or Bent be viable in the long term without regular overseeding?

Kenny Mackay, The Belfry:

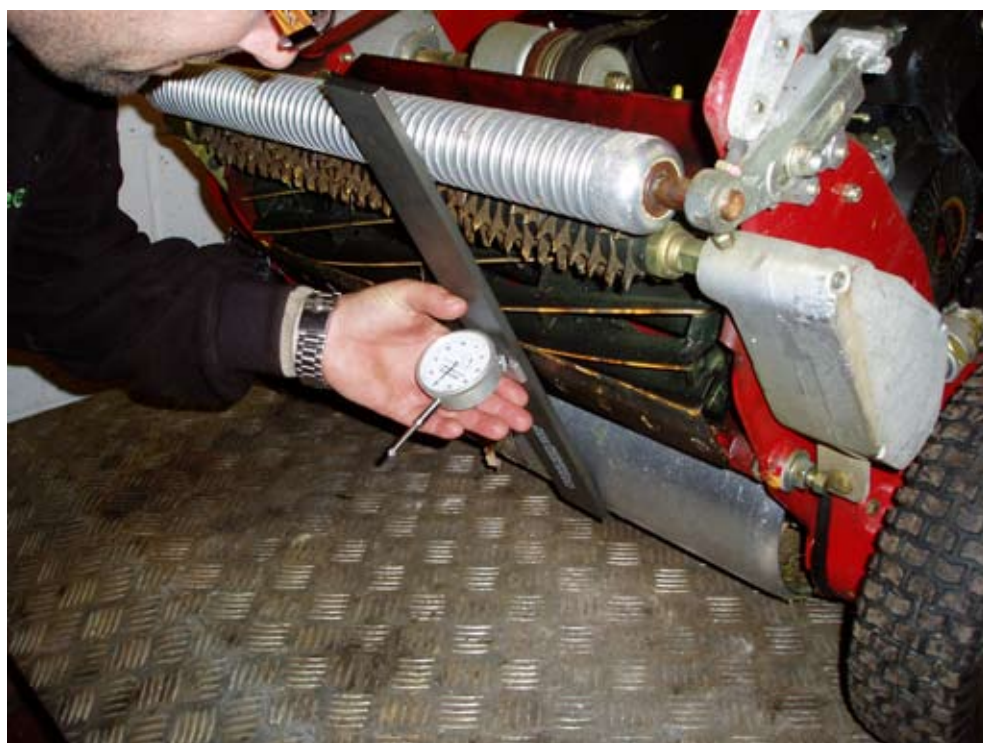
Not for me. I am a strong believer in that greenkeepers should work with what they've got. We rarely overseed our greens here - the only controls we use are fertiliser, PGR's, topdressing and aeration and the results are of the highest quality. In the last 3 to 4 year we have seen a rise in bent grass percentages in the Brabazon greens through good greenkeeping practices without overseeding. Ideal for me is to achieve a 60/40 Poa/Bent composition on the sward. Yes Poa is prone to disease and slow to start in spring but with the correct maintenance it can be a perfect putting surface throughout the year.

Stuart Yarwood, Lymm GC:

I would agree you can retain a bent or fescue dominated sward in the long term as long as you are creating the right environment for those grasses to flourish, otherwise you will speedily prove that it can be undone much quicker than it was created.

At Lymm we have changed our heathland holes from pure meadow grass to fine fescue, without hollow coring/ disturbing like crazy, just sneaked in with plenty of slitting, low feeds, and the crucial, most crucial height of cut! This factor is key to retaining bent fescue sward without overseeding! Keep it high as you dare and allow the grasses to thrive.

As far as overseeding goes, I believe if you provide the environment, the bents fescues will thrive through natural competition. The poa will not hang about if it doesn't like it, and the poa seeds produced



will not survive if you are not creating the environment for them. Overseeding can accelerate the results from natural competition in those gaps created by the weaker species.

We can accept it works the other way round, going down the ladder from Bent to Poa, nature's biggest overseeder, but not from Poa, up to bent. We can create the environment for bent/fescue seed to flourish, just as easily as we can create the environment that favours the poa seed. It is entirely our choice.

Euan Grant, Turnberry:

If a chemical were available for complete suppression of poa seedhead production then maybe, otherwise no. It is necessary to keep the fescue / bent seed populations higher and more competitive than that of the poa.

Paul Seago: Renaissance Club

Wow, where do we stop with this one. Simple answer yes, but only if you have the right conditions to begin with or are setting out long term objectives to encourage both fescue and bent, coupled with a sensible management regime aimed at their retention.

I agree that if you have a heavily played course with underlying clay and poorly drained, then trying to retain grass of any description is your number one goal.

If this is indeed the scenario then it would be pointless in overseeding with anything until the other problems had been identified and corrected.

Ken Moodie, Creative Golf Design:

This is a very good question. There is no point in pretending to be following sustainable management practices by changing the grass sward from Poa annua to fescue/bent if it cannot be sustained without regular intervention such as overseeding. When you take into account all the energy, fertiliser, pesticide and other inputs required to develop the seed you may find that they exceed the benefits to be gained on the golf course and by inference for the environment.

Richard Windows, STRI:

If maintenance programmes are directed towards fescue or bent and environmental conditions are appropriate then these species can dominate the sward without intervention. However, we believe overseeding plays an important part in maintaining bent/fescue dominant swards.

Overseeding is important to retain density, and minimise gaps from wear or disease allowing poa ingress. The extent and frequency of overseeding is dependent on levels of play, climate etc.

The process of overseeding is also important to ensure new and improved cultivars are introduced into the sward to give superior playing performance and take advantage of the constant improvements in cultivars, ie. disease and drought tolerance, shoot density etc.