Eight leading figures from golf clubs accross the country give their views on the current big talking point in greenkeeping

Earlier this year the BIGGA website bulletin board was buzzing with discussion over the merits and potential effects of low cutting heights and aggressive maintenance versus a more traditional approach.

The effect on sward composition of various management strategies, and in fact what type of sward is desired, was very much at the heart of the discussion.

The discussion brought together many differing opinions and passions, all in the strong belief that their management technique is the right one in each case. There is no doubt that part of the beauty and fascination of the profession which is greenkeeping, is that we all work in such varied locations, and often under differing conditions, financial resources and customer base. Much of the current thinking is one of the sustainable management of golf courses. This philosophy has its roots in traditional greenkeeping techniques and has the backing of the games governing body, the R&A. The STRI have also played a fundamental role in the need for a more sustainable approach and the publication of STRI Disturbance Theory, Bechlet et al (2007), sparked numerous nationwide education seminars and subsequent debate within the industry.

Key to the success of any management strategy is meeting the balance of achieving the agronomic requirements while providing surfaces which are desired by the golf club. Today's global television and 24 hour media coverage enables the golfer to form an opinion and expectation to what is considered as acceptable in terms of playing performance. This expectation may well be unfair and formed with blinkered vision to what resources the greenkeeper has available and to what type of construction is being managed.

Many viewpoints have been heard since the discussion board thread first sparked intense interest and debate in such an important topic. Harrogate Week 2010 will include a debate session entitled "2mm or above", and will involve many key players within the industry. Managers and Superintendents from some of the country's most high profile courses will exchange frank views with representatives of the Gingerbread movement and those who employ aggressive management techniques. The debate will also draw on the opinions of STRI, R&A and from the world of golf architecture.

The interactive debate will take place on Wednesday, January 22, in the Harrogate International Conference Centre. As a forerunner and introduction to the event Greenkeeper International present the first of two articles which outline the management strategy employed by some of the Course Managers who will be on the debate panel.

The full list of the debate panel is as follows: Debate Chairman - David Croxton; Gordon Moir, Director of Greenkeeping, St Andrews Links Trust; David Cole, Course Manager, Loch Lomond; Kenny Mackay, Course Manager, The Belfry; Greg Evans, Course Manager, Ealing Golf Club; Stuart Yarwood, Course Manager, Lymm Golf Club; Daniel Lightfoot, Course Manager, Bearwood Lakes Golf Club; Paul Lowe, Course Manager, Bromborough Golf Club; Euan Grant, Course Manager, Turnberry; Richard Windows, STRI; Ken Moody, Creative Golf Design; Paul Seago, Course Manager, Renaissance Golf Club, and R&A advisor

This month's article is a Talking Heads' feature which explores the current management techniques and philosophies employed at each golf club.

In December's magazine we ask a series of questions based around the merits of aggressive management versus the traditional approach, and also looks at the practicalities of species transition programmes.

	What type of construction are you managing?	What is your estimated sward composition?	Do you have a target Summer green speed?
Euan Grant Golf Courses & Estates Manager Turnberry	Members & Hotel Residents Ailsa: native soil construction Kintyre/Arran:mixtureofnative soil and USGA construction	Ailsa: 80% bent / poa 20% other (fescue, Yorkshire Fog, rye) Kintyre / Arran: old greens similar to Ailsa, new greens 80% fescue, 20% bent / poa	No. Very weather dependant. Upwards of 8½`
Dan Lightfoot Course Manager Bearwood Lakes	USGA (no blinding layer) at a private members club	80% annual meadow grass 20% creeping bent grass	10 for day to day play and 11 plus for tournaments
Gordon Moir Director of Greenkeeping St Andrews Links Trust	The majority of our courses are Links and therefore build on a sandy base. However two of them, The Castle Course and Strathtyrum are both built on USGA spec greens, albeit to slightly different specs and standards.	This varies across the courses from 99% fescue/bent on The Castle Course to 80% fescue/bent 20% poa/crested hair grass/rye on the Old to 50% fescue/bent 20%poa on the Strathtyrum	Anything between 8.5 to 10 depending on what is on, weather conditions etc. On The Castle Course we try to keep between 8.5 and 9 for the wind and slopes.
Greg Evans Course Manager Ealing Golf Club	110 year old clay based 'push up' greens with little to no land drainage. Private members club	70 - 80% Poa 30 - 20% Colonial bent This is a visual estimate. This is from 100% Poa greens pre 2006.	10.5 – 11 everyday play 12 – Major club comps 13 – 14 Two external comps
Stuart Yarwood Course Manager Lymm GC, Cheshire	8 x 101 yr old push up loam 4xUSGA 6yr old 6xClay push up 35yr old	65% Bent / 30% Poa / 5% Fescue/Yorkshire fog	8-9 1/2 ft
Kenny Mackay Director of Golf Courses and Estates	A mixture of sand/soil Brabazon and Derby and USGA on PGA and new green on Brabazon	70/30 poa/ bent	Brabazon 11 PGA 10 Derby 9
David Cole Golf Course Superint -endent/ Estates Manager Loch Lomond GC	10 Year old USGA greens	60-70/30-40% poa bent	9-10ft
Paul Lowe Course Manager Brom- borough GC, Wirral	USGA Members course	100% annual meadow grass	9ft Day to day 10ft tournaments

Range of mowing heights? General & low	Type of Mower?	Routine maintenance
3.5 – 5.5mm	Ailsa: Toro1000 through the week / GM3250 weekends Kintyre / Arran: Toro GM3250 or JD 2500E	Regular aeration – procore with star tines or hydroject . Fortnightly topdressing (light). Regular brushing, verticutting as necessary. Winter ½" vertidrain monthly/slit tining twice before Christmas
2.25 – 3 in summer 4-5 in winter	Toro 1000s for majority of weekday mowing Toro 3250 with DPAs for weekends and other circumstances eg before dressing / save time Graden turf iron and Greentek vibra rollers throughout summer	Two maintenance weeks Vertidrain, core, overseed and scarify, topdress, Otherwise tine once a month on average and v cut every 2 – 3 weeks during the season 100-150 tonnes per season of sand and groom regularly
Low 4mm for short periods. Winter 5.5mm although we may go to 6.5 on The Castle Course. Could cut as little as once/week through winter	A mixture of Toro 1000's or Toro 3250D's on all courses depending on time, staff and competitions. On The Castle Course we use Toro Flex 21's, occasionally we use a 3250D at weekends. We use the Tru turf irons a lot, summer and winter including behind aeration.	Vertidrain twice a year Verticut as required Hyrdoject or solid tine monthly through the growing seaon. Topdress on a regular basis as required, mostly through spring and early summer And more
2mm in summer 3mm winter If the need to speed the greens up is required, we add a roll as well.	Summer – JD 2500B ride-on. Eleven blades with no groomers. 8 months of the year (Mar – Oct). Winter – Range of hand mowers. 4 months of the year (Nov – Feb).	VC – Every fortnight. From 1 to 3mm plus in to the soil. Sand after every VC. Apply 200 tonn per year Verti-drain monthly from Mar-Oct. Range from 8mm to 25mm. Hollow core once a year in Oct. NO AERATION IN THE WINTER Irrigation is based on a weather station and course experience. Fertility is on a little and often method. A six week cycle based on one granular feed, followed by two liquid.
4.5mm-5mm summer 6mm-7mm winter	John Deere 2500 Triple summer John Deere 220B hand mowers weekly in Winter Turfworks Vibro rollers fortnightly Brush weekly	Vertidrain:- April (8mm); August 12mm, as deep as poss!) Solid tine monthly/8mm/5mm; Verticut 2-4 times /year Star slit/brush summer weekly; Deep slit 8" winter weekly Earthquake Sept; 100-150 ton Sand/Compost topdressing per season
Winter 4.5 to 5mm Summer 3 to 3 .5mm	Toro 1000 Toro 3250 Roll greens every other day in the season to increase the green speed and keep surfaces smooth	V Mow in Spring Scarify hollow tine in summer for quick recovery Verti drain in winter Topdress once or twice in spring and then only in renovation about 150 tonne per year. Regular grooming and brushing
4-5mm	John Deere 180 pedestrian mowers. Alternate between groove and smooth rollers depending on weather and turf conditions. Utilise side winder and vibro rollers a couple times per week when conditions favourable	One ½ hollow tine in autumn combined with medium heavy topdress and fescue and browntop bent overseed Two ¼ hollow tine spring and mid summer combined with medium topdress and browntop bent overseed Pencil 5mm tine every 3 weeks combined with light topdress during growing season Verti drain 8mm tine at 200mm deep in winter Light Verti cut when weather condition allow
4 – 5mm summer 7mm winter	John Deere 220c hand mower x3 John Deere 2500 ride on	DT- phase one. Remove thatch problem – aerated 58 times – solid tine, slit and hollow tine. Verti-cut fortnightly during growing season brush in the winter. Regular top-dressing = 200 tonne. Wetting agent monthly. Hand water only.

	Overseeding	Expected nitrogen input	Annual Rainfall	Expected pesticide use
Euan Grant Golf Courses & Estates Manager Turnberry	Seasonal overseeding – July -September. Pure fescue – 50% slender screeping red & 50% chewings	40 – 50 kg N / Ha	1000 – 1250 mm	Preventative used prior to larger comps. Contact applied as necessary – 1 or 2 pa
Dan Lightfoot Course Manager Bearwood Lakes	Barenbrug All Bent 4gms/m² 3 times/year May, August and whenever else we can fit it in!	165 – 175kgN/Ha	650mm	3 preventative – one each for maintenance and one in September/ October 1 extra for fairy ring in summer(heritage) 2 contacts at half rate when needed – hopefully not!!
Gordon Moir Director of Greenkeeping St Andrews Links Trust	Barenbrug On greens two or maybe even three times a year. Usually with 100% fescue but occasionally an 80/20 mix	Between 30 and 80kg/ Ha Depends on the course	6 5 0 m m although it seems like a lot more these past 3 years!	We might spray for leather- jackets depending on how active the crane flies are this autumn and if we notice a heavy infestation towards the end of the year.
Greg Evans Course Manager Ealing Golf Club	3 times per year using pure colonial bent. Months will be Mar, July and Oct. First two will be at 3g/m2 with the last at 4g/ m2	100 – 140 kgN/ha	2008– 524mm 2009 – 328 so far	4 applications a year. 2 x preventative Oct & Nov 2 more if needed for the rest of the winter.
Stuart Yarwood Course Manager Lymm GC, Cheshire	BSH Aberroyal Bent. 150kg in August Mascot Slender creeping/ Chewings fescue 150kg in sept	45-55kg/N/hec (Lawnsand, ½ 8.0.0, Sulphate Ammonia/Iron) No P or K applied. No N after July, only sulphateiron/seaweed if needed.	950mm	1x Headway or iprodione in july/august for Dollar Spot Usually Knapsack, extending to blanket if needed! No preventative/curative Fus. Apps for 5 years.
Kenny Mackay Director of Golf Courses and Estates	Don't overseed my green unless I have lost some grass coverage work with what I have in the sward.	95kg per hectare	850mm	Regularuseroffungicidewhen required if the environmental conditions make it necessary preventative programmes in place for tournaments and high risk conditions in Autumn late summer
David Cole Golf Course Superint -endent/ Estates Manager Loch Lomond GC	Overseed greens fescue 25gms m2and browntop bent 4gms m2 after ½ hollow tine. Overseed greens browntop bent after 1/4 hollow tine. 4gms per m2. Overseed greens browntop bent after 1/4 hollow tine. 4gms perm2.	75-100kgs/Ha Nitrogen 5-10kgs/Ha Phosphorous 150-200Kgs/Ha Potassium Micronutrients also utilised	2000mm	6 preventative fungicides every 8 weeks from March 1st. This limits the amount of curative applications. Curative if required but pre- ventative apps has reduced this dramatically. Insect spray in Autumn
Paul Lowe Course Manager Brom -borough GC, Wirral	None yet!	60kg	850mm	2x preventative & 2 contacts. Was 14 contact in 2006