

SAND GREEN CONSTRUCTIONS IN GREAT BRITAIN

The need to keep golf greens in play throughout the year has led increasingly to the use of sand based rootzones in Great Britain. This type of green construction has also been employed on many newer courses across the United States, hence the investigation into its potential for use in this country.

Fertiliser nutrition was considered to be a critical aspect of management and thus worthy of specific experimentation, due to the inherently low nutrient status of sands and the very high potential for leaching of fertiliser. It is worth noting that the results discussed herein can only be applied to the establishment phase of green management, as the trial ran only for the first three years following construction.

Generally the trial proved to be a great success, and we were able to gather a great deal of information, not only relating to fertiliser management but on the various problems associated with sand greens themselves. Here is a summary of our findings:

■ Nitrogen: To establish and retain a 'satisfactory turf cover, the greens require much more nitrogen than soil greens, the exact rates being somewhere between 250 and 400 kg/ha per year of N, a rate of nitrogen which is at least twice as much as is normally applied to soil greens. However, it should be noted that the requirement for nitrogen would probably decrease with time as natural organic matter accumulates in the sand. It is also worth noting that these higher rates of nitrogen also favoured the development of *Agrostis* (bent) at the expense of *Festuca* (fescue).

■ Phosphorus: Phosphate application was required to prevent significant losses of ground cover. *Agrostis* was particularly susceptible to phosphate deficiency in the sand and problems were noted at levels of less than 10 ppm of P_2O_5 . However, only very low application rates are recommended in these circumstances (ie. no more than 25 kg/ha/year) as there was a definite tendency for *Poa annua* colonisation of plots receiving high rates of phosphate.

■ Potash: The application of potash did not have a significant effect on ground cover readings during the trial period, although it appears there was some natural release of potash from the sand, which complicated these findings. However, we noted that there was a definite response to potash in a number of the playing quality tests which we carried out. In particular, the turf tended to exhibit a much 'springier' response to ball impacts with increasing potash application, and this may indicate other effects on the turf which were not picked up with ground cover tests, eg. increased root growth, organic matter production, etc. We also found that fertiliser derived potash was highly prone to leaching, through the acid plots in particular.

■ pH: Acidity increased (ie. pH decreased) very rapidly as a response to the repeated application of sulphate of ammonia (the chosen source of N). In some instances pH levels dropped below 4.0.

This very rapid decrease of pH had a significant effect on turf growth and caused unacceptable ground cover losses. It was also interesting to note that the bent grass (in this case Highland) was much more tolerant of the increased acidity than the (Frida) fescue.

The very acid plots were also characterised by poor surface water infiltration rates due to a capping effect, which may have been caused by poor organic matter degradation.

As part of the experimental programme, lime was applied to half the plots, with the purpose of neutralising the effect of repeated sulphate of ammonia treatment. In the short term this resulted in stimulation of growth and good ground cover response, but as expected, there were a number of longer term severely detrimental effects. *Poa annua* invasion was rapid and we also observed the development of Take-all patch disease in a significant number of limed plots.

Based on the results of this work and our own experience

- Is there a place for them?
- Is there a *need* for them?

in the field, we do not recommend the use of pure sand based constructions for the follows reasons:

1. pH control is critical: because sand is such an inert substance pH can vary considerably, depending on the treatment. The environment of the grass plant is consequently open to rapid and possibly detrimental changes.
2. As there is no naturally derived organic nitrogen source, the condition of the turf deteriorates rapidly through the winter, and in the case of the particular trial severe losses of ground cover were noted throughout this period. As the fertiliser derived nitrogen source ran out through the autumn, the lack of any naturally available nitrogen prevented steady growth through mild periods and thus the turf was prone to wear damage.
3. Sand greens are very prone to Take-all patch disease due to the lack of any naturally occurring antagonistic bacteria/fungi in the rootzone.
4. Establishment of the turf can be slow and patchy due to the very rapid loss of moisture from the surface, this having an effect on germination and seedling growth.
5. Maintenance costs are potentially high due to the need for repeated fertiliser application during the first few years of establishment.
6. Repeated rootzone sampling is required as nutrients are prone to leaching and regular applications of potash, together with low rates of phosphate, may be necessary. Consideration will also have to be given to micro-nutrient testing with a view to possible application.

In theory, the basic rationale behind the use of pure sand constructions would appear to be perfectly sound. There is no doubt that the provision of a free draining rootzone is highly desirable and of great importance in this country, because of the frequently wet and mild winters which characterise our climate. This weather pattern, combined with the massive increase in playing levels, particularly during the winter, does make provision of free draining putting surfaces essential.

It is worth bearing in mind that many of our best greens – in terms of drainage and year round quality – have been established on coastal links sites, frequently utilising the local dune or beach derived sand. However, closer inspection of these greens reveals a rootzone that does not consist of pure sand alone. Usually the sand has a significant organic and soil component. It is this distinction which we have found to be so critical.

The lack of organic matter and soil renders the pure sand rooting medium prone to rapid changes in pH, increases the requirement for fertiliser and substantially influences turf growth and wear tolerance through the winter. We consider these problems far outweigh the potential advantages ➔ 13

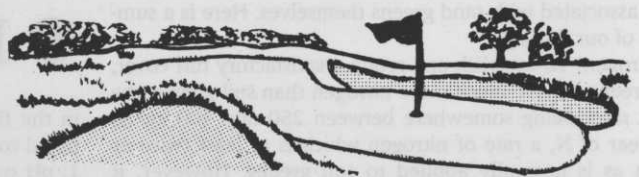
● Conclusions are based on research following a three year trial on the fertiliser nutrition of sand greens, carried out at the Sports Turf Research Institute and sponsored by the Royal and Ancient Golf Club of St Andrews. Tim Colclough is an Advisory Agronomist with the Sports Turf Research Institute, specifically serving the south west of England.

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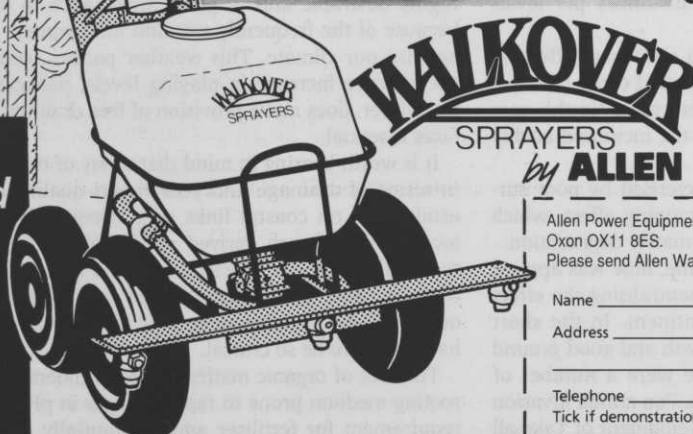


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in terms of rapid drainage rates.

Furthermore, it is frequently the condition of the surrounding land, ie. fairways and especially green approaches, which dictate the feasibility of winter play through periods of heavy rainfall and consequently, the availability of ultra free-draining greens becomes irrelevant. That is not to say that the provision of a free draining putting surface is of low priority, indeed quite the opposite is true. A compromise is the obvious solution and we prefer to use a growing medium which contains at least 70-80% of uniformly graded lime free sand of medium particle size, blended with a small amount of light soil and organic material. Given the provision of good quality materials which conform to a very tight specification, this growing medium will provide free drainage and promote healthy growth of the desirable turf grasses. Indeed, this type of sand/soil mixture is more in line with our original links green constructions, when compared to pure sand.

In conclusion, the combination of research work and site experience leads us to believe that generally there is no place or need for pure sand greens in this country. The only mitigating circumstances which could contradict this conclusion may arise due to a complete lack of suitable local materials and a tight construction budget.

As is so often the case with experimental work, more questions become apparent and in responding to the need for further investigation into the whole subject of green construction, the Institute is carrying out extensive comparative research into pure sand greens, the USGA Green Section specification and local topsoil constructions. This five year experiment, again sponsored by the R&A, will also encompass investigations into irrigation rates and links with fertiliser application.

■ May I use the pages of Greenkeeper International to thank everyone in the North Scotland Section for the presentation of a print of The Old Course at St. Andrews, made to me at our section AGM.

It came as a great surprise and although being secretary of the section was hectic at times, the post gave me a great opportunity to make a great many friends in greenkeeping, not only in the north of Scotland but also throughout Britain, Europe and beyond.

I would also like to thank once again all those who helped and supported me in my capacity as secretary, including my wife, Pauline, and my past employers, Fraserburgh Golf Club. It is a job I would recommend every member might care to try for and I am sure that my successor as section secretary, Iain McLeod, will be an excellent ambassador for BIGGA, North Scotland.

GORDON MOIR St Andrews, Fife, Scotland

■ As a member of BIGGA I want to congratulate you on your fine magazine Greenkeeper International. I enjoy reading it and look forward to it every month.

I was particularly interested in the recent article: "Lessons To Be Learned" (September '91). I too was one of the millions of viewers who watched The Open at Royal Birkdale on my TV set and although as a fellow greenkeeper I was curious about the appearance of the greens, what really disappointed me was the speculation and misinformation that the so-called professional announcers – both British and American – were feeding to the viewing public. Whilst this misinformation has been a problem in America for some time, I was distressed to see that it had now reached global proportions.

It has always seemed curious to me that the mere presence of a microphone and a camera can instantaneously transform an observer of the game into an agronomist. The situation is even more alarming because to the viewing public these men are uttering the final word and their rambling theories are taken verbatim as THE TRUTH! This is particularly troublesome for the greenkeeper in question and for the industry as a whole. One of the few positive signs that this situation might improve, at least here in America, is that the announcers are more frequently commending our golf course superintendents by name during their telecasts. Positive it is, for it wasn't too long ago that the local golf professional was given credit for the spectacular condition of the course, which as you might imagine was a real thorn in the sides of all golf course superintendents.

Suffice it to say we still have a long way to go before we can be satisfied that we have turned the corner on this particular problem. Certainly it would be nice if these announcers were to seek out the person in charge of the maintenance and improvement of the golf course to get the real facts, but until they do it is important to use a forum such as your magazine to help them recognise their deficiencies.

ROBERT J MAIBUSCH CGCS, Hinsdale GC, Illinois, USA

■ As we come to the close of another year I am in the habit of reflecting on the various milestones which have occurred during the previous twelve months. One such major milestone has been the upgrading of BIGGA's magazine, Greenkeeper International, which in my view has successfully combined news from within the golf industry with helpful and instructive articles.

In particular, I have found Jim Arthur's articles to be ideal. They seem so often to epitomise the realities which many people tend to skirt around and incorporate helpful, positive suggestions and direction. I trust this beneficial and vital format will continue in the years to come.

To everybody who works on Greenkeeper International I send my best wishes for a prosperous New Year.

DAVID JENKINS

Managing Director, Charterhouse Turf Machinery Limited

Letters

■ I suffer from apathy! My chosen sport is cycle racing and I cover around 200 miles a week during the summer. I also enjoy watching golf on TV as well as most other sports.

All very well, you may say, but because I don't play golf (though I do belong to BIGGA) I suffer from apathy. This complaint about non-golfers is one levelled at non-playing Kent section members, which is why I'm writing.

I'll admit I did play golf in the past, but found it slow and boring. Now I find myself asking how many other greenkeepers – like me – work very hard on golf courses and yet enjoy another sport and are therefore branded as apathetic? Do the rules of BIGGA state that members must play golf?

GARY MILLS Chestfield Golf Club, Kent

Whilst talking with other members of the team here at Walton Heath, I offered an opinion that greenkeepers who play golf make better, or more complete, greenkeepers than those who do not play; by virtue of seeing and understanding the golf course from both sides. The room went very quiet for a while and I think my comments upset a few. Am I right, what do you think? I don't know if I am qualified to offer such an opinion, but I've been an artisan golfer for 25 years, a mechanic/greenkeeper for 8 years, and I keep my eyes open and use my common sense too.

TED JAMES BOND Walton Heath Golf Club, Surrey

– Two divided opinions, poles apart, and separated by nothing more than a delightful game and its vociferous devotees. Perhaps it is because the greenkeeping profession so often attracts entry from those who play golf that such opposing views are often aired. Readers comments are invited.

■ Whilst playing at Eltham Warren I hit a shot to the elevated first green, to my own satisfaction and retorts of 'good shot' from my partners. Upon reaching the green the ball was noticeable by its absence. A relentless search ensued – even looking in the hole – without success.

The following group were pressing and with mumbled remarks such as 'come on Biscoe, we'll never get round', with shaking heads we abandoned the Slazenger and moved on.

The matter was forgotten in the heat of battle until the eighth was reached, the green being adjacent to the first. My third shot hit the green, stopping 12 feet from the pin and ending in birdie territory in more ways than one, for as I walked forward my partner exclaimed 'did you see that, a crow has taken your ball and flown off with it?'. I couldn't believe it, but sure enough, one of the balls – mine – was missing. I looked and spotted the villain of the piece, 50 yards away with ball in mouth, taking a breather.

Suddenly my mind snapped, perhaps it was part of my RAF Regiment training, for I found myself charging at it, brandishing my putter. The fact that I'm an RSPB member didn't enter into the situation, for my ball was in danger and I was out of control. The bird, realising his little game might end in mortality, dropped the ball as my putter soared through the air, and took to the sky.

The putter never reached the target, clunking innocently through intervening tree branches to the ground. I proudly retrieved both ball and putter, replaced the ball and missed the birdie for a second time, settling for a par.

Well, I've heard of the thieving magpie but stone the crows – this takes the cake!

PETER BISCOE Keston Wood, Kent

Whitaker by a whisker

A popular catchphrase often spoken at presentation ceremonies following competitive events is 'there are no losers here today, everyone is a winner'. The sincerity of the catchphrase is undoubted: indeed the phrase has such a pleasant comforting ring about it that it could well become an integral part of speechmaking folklore.

'No losers here today', however, took on a whole new meaning at the ICI banquet given at Aldwark Manor in December, when the five finalists gathered for the supreme honour of being heralded ICI Premier Greenkeeper of the Year learned that after a selection process which began months earlier with a written paper, followed later with an assessment of their golf course and finished in December with a searching panel interview, a gap of less than a handful of points separated all five contestants. What was even more staggering was that not a single point separated first from second!

The final choice, a hugely popular one, went to a young man who has performed miracles at the exciting new Wisley Golf Club in Surrey. It was the view of the judges that David Whitaker had demonstrated in convincing style the skills necessary in managing a golf course, albeit a brand spanking new one, to near perfection. To be in the shoes of a selection panel chaired by Neil Thomas and comprising Jack McMillan, John Crawford and ICI's Richard Minton, was one this writer did not envy, but it was to their credit that David was chosen and indicative of their wisdom that runner-up Laurence Pithie would later go on record by writing 'I'm sure that their decision in choosing David Whitaker was the right one after taking all aspects into consideration. He has done a marvellous job at Wisley and I wish him every success in the future.' There is, as mere humans are all too well aware, nothing quite like praise from one's peer group and Laurence's views were heartily endorsed by the other finalists, third placed Richard Barker, Arne van Amerongen and Tim McCreddie.

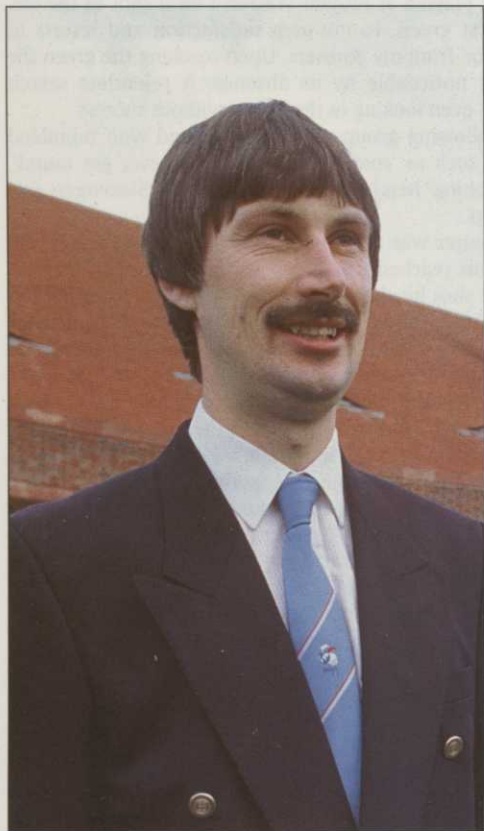
Returning to the banquet, the congratulatory speech given by the Marketing Manager of ICI Professional Products, Roger Mossop, gave rise to massive optimism for the future of today's professional course managers when he opined that by their knowledge and understanding of the art of greenkeeping the world of golf owed greenkeepers – and especially the five contenders – a debt of gratitude, and they had much

of which to be proud. His comments were music to their ears, as was the splendid news that ICI Professional Products will again be sponsoring the event in a new and even more exciting format for 1992.

For the winner himself the taking of the title ICI Premier Greenkeeper, along with a trip to New Orleans to visit the GCSAA Conference and Trade fair, comes at the end of a whirlwind period which began peaceably enough at the Baildon Golf Course in Bradford. It was here that David began his career as an apprentice and served for a total of eleven years under the tutelage of David Hannam, thence to Rawdon Golf and Tennis Club as head greenkeeper and followed at the age of 27 by a unique opportunity to work from the growing-in stages at Golf Du Domaine Imperial in Switzerland. This Pete Dye designed course, like his present Wisley, is American in concept and design and was the first to open in Switzerland on a shares debenture basis. Without knowledge of foreign languages, David coaxed a raw crew of French, Italian, Swiss and Portuguese into tending a course that boasted pure sand greens and bent grasses, greatly spurred on by the pessimistic views taken from his native West Yorkshire that 'it couldn't be done'. It could, it was, he delivered, and the rest is history. Head-hunted during a sabbatical in Britain following a long hard summer, David took some convincing of the need to move from a task he enjoyed so much, but the magic of Wisley soon convinced him that there was another hurdle to leap and the proof of his decision – and dedication – is witnessed now in every blade of grass at Wisley.

Proof also that all finalists were well chosen is witnessed with Laurence Pithie already acclaimed as Britain's first ever Master Greenkeeper Certificate holder, Richard Barker engrossed in a golf course construction exercise with the Hawtree Practice, Arne van Amerongen about to move to new pastures and Tim McCreddie setting up shop this very month at the popular golfing venue of Royston, home of the racehorse gallops. They are indeed all winners!

David Whitaker: ICI Premier Greenkeeper of the Year



Professional Products



ICI PREMIER
GREENKEEPER OF
THE YEAR 1991



BIGGA Chairman George Malcolm and, centre, Roger Mossop, Marketing Manager of ICI Professional Products, with the five ICI Premier Greenkeeper of the Year finalists: Tim McCreadie, Laurence Pithie, Richard Barker, Arne van Amerongen and David Whitaker

Plot your progress with ICI -BIGGA Wall Planner

For the second consecutive year, as part of their sponsorship programme, ICI Professional Products have produced for all course manager/head greenkeeper members of BIGGA, the official Association 1992 Wall Planner.

This colourful Wall Planner, measuring 28x20", illustrates the year at a glance, highlighting all the major BIGGA events. In addition, a valuable seasonal guide to the use of pesticides and fertilisers is featured together with details on products, their timing of use and chemical active ingredients.

Announcing the 1992 official Work Planner, Neil Thomas, BIGGA's Executive Director, said: "This exciting introduction by ICI Professional Products comes on top of their sponsorship of the ICI Premier Greenkeeper Award, BIGGA Turf Management Exhibition Seminar Programme and the BIGGA National Golf Tournament. ICI Professional Products are investing a substantial amount of money, expertise and enthusiasm into BIGGA, in particular into the key Association areas of Education, Training and Industry Development. In consequence they deserve our support in return."

All BIGGA course manager/head greenkeeper members have been mailed direct with their free Work Planner in time for the New Year. Planners are available for any BIGGA member upon request from BIGGA HQ.

Now it's over to you

The opportunity is yours! ICI are giving you, the BIGGA member, the chance to nominate a fellow course manager or head greenkeeper to represent your section in this prestigious competition.

The person you nominate should be a colleague who, in your opinion, manages and maintains his/her golf course as a model to other members of the profession.

Everyone should be considered, be they involved in managing nine holes with limited resources or the multi-million pound complex, for each faces different challenges deserving of recognition.

The winner of this highly esteemed competition will receive an all expenses paid trip to the Golf Course Superintendents Association of America Exhibition and Conference in Anaheim California during February 1993. Runners up prizes will also be

awarded.

What's more, at all three stages of the ICI Premier Greenkeeper Award, there are credits to be collected towards the Master Greenkeeper Certificate:

● In Stage 1, nominations at Section level, the nominee earns one credit for 50 marks or more out of a possible 100, for course assessment. 60 marks or more gains two credits, 75 marks or more, three credits.

● Stage 2, five regional nominations to final stage, following further course assessment and a written presentation, the nominee earns one credit for 50 marks or more out of a possible 100. 60 marks or more gains two credits, 75 marks or more, three credits.

● Stage 3, at a panel interview the overall winner gains three credits, runner-up, two credits and a credit for the third place.

ICI PREMIER GREENKEEPER OF THE YEAR AWARD 1992

The 1992 ICI Premier Greenkeeper of the Year Award comprises of three stages:

Stage 1

Criteria:

1. Member of BIGGA.
2. Course Managers/Head Greenkeepers only.
3. Agreeable to complete all stages of the competition including having his/her course assessed by a BIGGA Regional Education Chairman and ICI Sales Manager.
4. The nomination should be a person who manages/maintains his/her golf course as a model to other members of the profession.

Section nominations

Each section committee of BIGGA to receive (via BIGGA headquarters) nominations from fellow members of the Association from their own section by 30 April 1992. The section committee of BIGGA will then discuss the nominations and by no later than 31 May 1992 send their nomination to the BIGGA Education Officer.

Stage 2

Each region of BIGGA will receive five section nominations as follows:

- Scotland – Ayrshire, Central, East, North and West
- Northern – North-East, North-West, Northern, Cleveland, Sheffield
- Midland – East Midland, Midland, East of England, Berks/Bucks/Oxon, Mid-Anglia
- South East – Surrey, Kent, Sussex, London, East Anglia

South West and Wales – South-West, South Coast, Devon and Cornwall, South Wales, North Wales* (North Wales Section allocated to South West and Wales Region for the award only).

During June/July/August, the section nominations will have a course assessment carried out by the BIGGA Regional Education Chairman and the local ICI Area Sales Manager on a regional basis. Following the course assessments, the two assessors will forward their markings to the BIGGA Education Officer.

NB: the course assessment will include the following areas: "Presentation of the Golf Course", "Staff Organisation", "Organisation of Sheds", "Budget Management", "Record and Stock Control", "Management Participation", "Course Development Programme", "Machinery and Irrigation", "Golfing Knowledge".

Stage 3

The five regional winners will have their course inspected during the last two weeks of September 1992 by representatives of BIGGA and ICI.

The five regional winners will also attend BIGGA Headquarters near York for a panel interview comprising of representatives from BIGGA and ICI.

One month before panel interview, the finalists will forward a 1,000 word submission on a proposed autumn/winter maintenance programme for their course for consideration in conjunction with interviews which will take place in early December 1992.

Send in your nomination today – complete the pre-paid card opposite Page 4

■ Kings Horticulture Ltd have been appointed national distributors for the BASF Floranid range of slow release fertilisers, a range proven throughout Europe and with a substantial market share in the UK. The Floranid range has always been supported by the technical expertise of Mr John Hinton, who becomes Amenity Advisor for Kings Horticulture and will also provide technical back-up to a selected number of regional distributors. King's MD, Mark Bowley, said: "This move confirms our commitment as a major supplier of both advice and products to the amenity market."

■ Since announcing the availability of their turf on the Big Roll in September, Rolawn have produced several pieces of equipment that are lent, free of charge to customers, for handling and laying.

The latest developments are their own pedestrian, self propelled, tracked machines, which differ from others in that they enable Rolawn clients to lay their own turf. Also available are a heavy duty motorised version and a Rolawn tractor attachment which fits a standard tractor (from 25 hp) and is ideal for large open areas. Rolawn's Big Rolls are approximately 31 yards long and 29 inches wide. For details call: 0904 608661.

■ Staffordshire based Turfmech Machinery Ltd. have announced they are now distributors of the range of Rotadairon Stone Burying machines from France. Like the very best and most effective ideas, the Rotadairon principle is simple. While cultivating to a depth of up to 22cm, all the soil is lifted over a rotor, broken down and sorted. The stones, clods and surface debris are then placed at the bottom of the cultivation depth. Fine soil particles make up the surface of a fine and level seedbed which could not be achieved, even with many passes, by a conventional cultivator, making hand picking a thing of the past. Models are available from 18 hp to 110 hp. For details call: 0889 881611.

■ Stewarts have launched a new natural seaweed soil conditioner to be marketed under the name Kelpie, replacing a range of bought-in seaweed products sold by the company over the past eight years. Stewarts' Sales Manager, Alan Miller, said that the increased demand for natural or 'green' products had created a new demand for the use of seaweed, and in preparing Kelpie the company will do no more than speed up the natural decomposing process by composting fresh weed to ensure the product will start working immediately it is applied to the soil. Soil aeration and improved drainage are claimed as additional benefits, brought about by Kelpie's ability to crumb soil particles.

■ The newly launched Articulator from Hayter Beaver is designed to eliminate the age old problem of either scalping or leaving grass uncut on undulating golf course fairways. The Articulator's unique design is made up of a series of 21" rotary mowers which work in line, whilst floating independently. The secret of the machine's ability being found in a system of specially designed flex-joints, with each of the mowing decks capable of adjustment to give an overlap of between 2" and 5".

The PTO driven Articulator can cut at a ground speed of 4-5 mph and is available in 5', 8' or 11' widths.

■ The latest addition to Kawasaki's range of ATVs - the Mule 500 - is announced. Like its bigger brothers, the Mule 500 employs automatic belt drive torque converter transmission and Dual Mode differential for the rear axle - making it both easy to drive and easy on the ground. With a payload of up to 350 pounds, it can tow a wide variety of after market equipment - from specialist trailers to rollers, mowers and sprayers - via an optional trailer hitch. It is a single person vehicle and is powered by an electric start 286 cc 4 stroke petrol engine.

■ ICI's divestment programme has involved the rationalisation of their subsidiary, BritAg Industries Ltd, the company responsible for marketing Techturf in the UK. This has provided Netlon Ltd, the world-wide patent holders, with the opportunity to consolidate the UK into its international operations. The company promote the system outside the UK, which is established at golf courses in many parts of the world, as Netlon Advanced Turf. The system provides natural turf with durability, resistance to compaction and an inherent self-cultivating action. Netlon's Tim Oliver comments: "The move is timely. We are promoting the system world-wide, yet until now we have had no direct involvement in the domestic market. We will be recruiting a number of Techturf specialists in BritAg and users will benefit from the combined overseas and UK experience."



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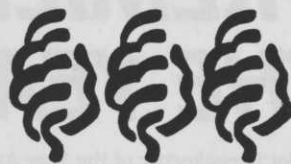
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Exhibition Catalogue

The Exhibition Centre, Harrogate, North Yorkshire, 22-24 January 1992
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Exhibition Opening Hours

Wednesday 22 January	• 9.00am – 6.00pm
Thursday 23 January	• 9.00am – 6.00pm
Friday 24 January	• 9.00am – 2.00pm

Entry to the Exhibition

Entry to the Exhibition is by purchase of the January 1992 edition of Greenkeeper International, which contains the official catalogue – £2.50. Visitors who have pre-registered will be handed a magazine and identification badge at the entrance and admitted without charge.

Organisers/Press Office

The Organisers Office is situated at the right hand side of the entrance hall, with the Press Office on the left.

Safety

Fire exits are clearly signposted and are also shown on the Exhibition Plan, on Pages 28-29.

Educational Seminar Programme

Workshop sessions (20/21 January) will be held in the Old Swan Hotel whilst the general Seminar Programme running concurrently with the Exhibition will be held in the Royal Hall – entrance from Hall C – exit into Hall A.

The Old Swan Hotel

The elegant Old Swan Hotel in the centre of Harrogate has been designated as the Exhibition and Conference Hotel. The Old Swan will be the focal point for pre-exhibition workshops and the social programme, which culminates with a sumptuous Exhibition Banquet on Thursday January 23, when comedian Norman Collier will entertain. The BIGGA Hospitality Room in the hotel will be open in the evenings for exhibitors and delegates alike to relax in pleasant surroundings.

Dates for your diary

- 27-29 March 1992: BIGGA National Education Conference, Royal Agricultural College, Cirencester.
- 8 April 1992: Annual General Meeting, Royal York Hotel, York
- 29 April 1992: Westurf Exhibition, Long Ashton Golf Club, Bristol.
- 16-19 July 1992: Open Championship, Muirfield.
- 10-12 August 1992: BIGGA National Tournament, Littlestone Golf Club, New Romney, Kent.

For more information about the British & International Golf Greenkeepers Association, come and have a chat on Stand C27, or call us after the show on 03473 581.

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Stand A69 at BTME '92



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