



Greenkeeper Education and Development Fund

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For details, please contact Ken Richardson on 01347 833800 or via ken@bigga.co.uk

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Education Update

Ken Richardson provides an insight into the department's projects.

Although the 2007 Continue to Learn at Harrogate Week Programme will not be distributed until October, I thought that I would give you some advance information on what it contains. This article also includes some important information on the finals of the TORO Student of the Year Programme, on the BIGGA Education and Training Manual and an update on OnCourse - the golf course management software package.

Continue to Learn 2007

The Continue to Learn Programme for Harrogate Week 2007 will be distributed in the October edition of Greenkeeper International. Thanks to support from the GTC and with the cooperation of the EGU, the AGCS, the R&A and the PGA, we have been able to produce an even more extensive programme of Workshops and Seminars. They will offer educational and development opportunities to greenkeepers, groundsman, golf club managers, sports club managers and professional golfers in the purpose built Queen's Suite of Harrogate International Centre. The price of the Workshops will remain the same as in 2006 and we have introduced a discount scheme for the Continue to Learn Seminars. We have added even more one-day workshops, extended the half-day workshop programme and included more seminars. We are also providing many seminars free of charge so the more sessions you attend the cheaper they get.

The week of education begins on Sunday, January 21 with five, two-day workshops. The Workshops are:

HEALTH AND SAFETY FOR GREENKEEPERS

Health and Safety is an important topic in any industry and all greenkeepers, groundsman, golf club managers and sports club managers need to understand their responsibilities to themselves, to fellow employees, to golfers, to visitors and to members of the public. This workshop is aimed at those with a basic knowledge of health and safety and it will show how to identify high-risk areas, how to set standards for health, safety and welfare and how to set up control measures. The Workshop will enable delegates to produce an action plan for their place of work.

MOVING INTO MANAGEMENT

Taking the first steps into a management position can be very daunting but this two-day workshop will help delegates to take charge, be more assertive and maintain discipline. Team building, performance appraisal, motivation and improving team performance, are also covered by Frank Newberry in this interactive workshop. Delegates will take away a list of personal goals and an individual action plan.

AN INTRODUCTION TO GOLF COURSE DESIGN

This workshop continues to be popular among greenkeepers and golf club officials. It does not set out to train you to be a golf course architect but rather to give you enough information to be able to design basic golf course features and understand 'golf course design speak'. Howard Swan and Simon Gidman bring many years of design experience and proven success in presenting workshops to this interactive two-day event.

USING WATER WISELY

Who can tell what the future will bring? Not the weather forecasters or the 'profits of doom'. Next summer could be very dry or it could be very wet. However, no matter what the weather brings, greenkeepers and groundsman need to ensure that they have sufficient water available to irrigate their playing surfaces when it is needed. This two-day workshop led by Dennis and Adrian Mortram, will help delegates prepare for the next drought.

A1 ASSESSOR

This two-day workshop will give you the chance to become a qualified N/SVQ assessor, allowing you formally to assess your staff against National Standards. The Workshop will be presented by Plan-it Training and the GTC.

TORO Student of the Year Competition 2006



The TORO Student of the Year Competition reaches its climax this month when eight candidates attend the National Final at BIGGA House. The judging panel drawn from BIGGA and

TORO will interview Barrie Lewis and Kenneth Gilroy from Scotland, Stephen Eager from Ireland, James Billington from the North, Michael Emptage and Stephen Stroomer from the South East, Abigail Crosswood from the South West and South Wales and Graham Brumpton from the Midlands and they will select the winner of the TORO Scholarship. Watch out for more news in the October Edition of Greenkeeper International.

BIGGA Education and Training Manual

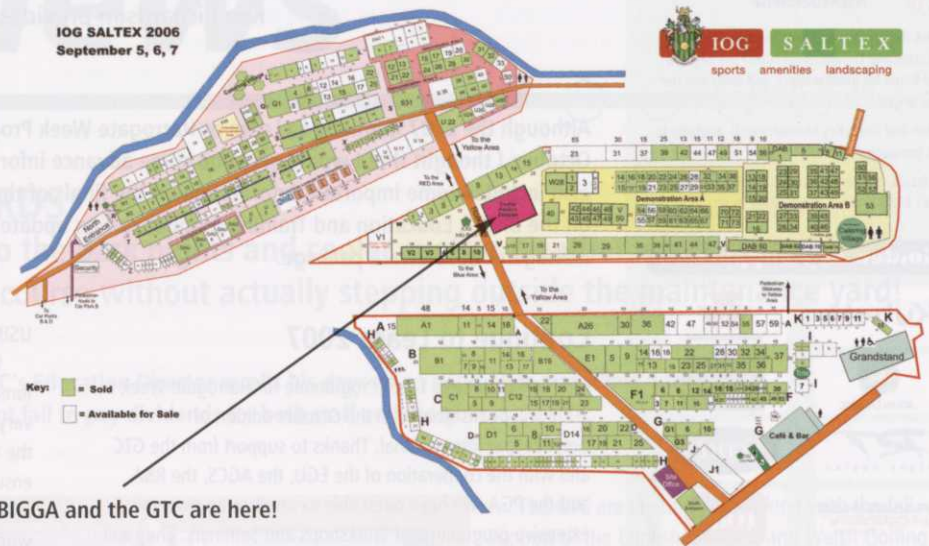
For all of you out there who are under training, have staff being trained or want to get into training, the BIGGA Education and Training Manual is a must read. The manual is an Internet based resource and you can enter it through the BIGGA website. It contains a wide range of information on education, training and development advice, most of which can be downloaded and adapted for your own use. So if you need to find out about Apprenticeships, N/SVQ and other qualifications, career progression, Induction Training, Training Records, Job Specifications, Job Descriptions or On the Job Training visit this site.

Rachael and Gemma would like to welcome 43 new members to the Association.

Membership Update

See you at Saltext!

This year BIGGA and the GTC have a joint stand at Saltext. Rachael will be on hand to answer your queries, collect membership renewals and distribute membership forms along with Clive Osgood your South East Regional Administrator. Fiona from the GTC will also be available to answer your questions on greenkeeper training. Our stand has also moved and we are located in the Central Pavilion Complex at stand EH7. We look forward to seeing you there.



BIGGA and the GTC are here!

WIN THE ULTIMATE FERRARI EXPERIENCE

Ever wanted to get behind the wheel of a Ferrari? Well now you can! Drive a Ferrari 328 and F360 or drive a Ferrari F355 with an opportunity to drive a single seater. The prize also offers the chance to put a Land Rover through its paces on an off-road course or drive an MG on the track. The experience also includes a full safety briefing with training laps in a hot hatch and the day finishes with a high-speed passenger ride.*

To enter the prize draw to win this fantastic prize all you have to do is introduce one or more new greenkeeping members to BIGGA. Make sure your name goes on their application form as the person who referred them and we will enter your name in the draw. Remember the more new members you refer the more chances you have to win!

It doesn't stop there either, if you win the Rally Driving experience then the new member you referred also receives a RED LETTER DAY VOUCHER that can be used on an experience of their choice, on a range of at least 20. Typical experiences include Snow Boarding, Zorbing or Capoeira.

The draw will take place on the 16th October 2006 and the winners will be announced in the November edition of Greenkeeper International.

Call either Rachael or Gemma today on 01347 833800 to request a new member application form.



*Choice of activity is dependant on which location is booked. A full manual driving licence is required. The minimum age for this experience is 18.

SEPTEMBER'S MEMBERSHIP DRAW WINNER

Just introduce one or more new greenkeeping members to BIGGA and your name will be placed into a monthly draw to win a £10 Music Voucher. Our congratulations go Gary Anderson of Moortown Golf Club.



STOP PRESS...

The Job vacancy pages of the BIGGA website are now accessed through the home page at www.bigga.org.uk

THE BIGGA LEGAL HELPLINE NUMBER HAS CHANGED TO:
0800 019 2569
with immediate effect
Normal service is not affected

BIGGA welcomes...

SCOTTISH REGION

Richard Colley, Central
 Ian Culross, North
 Alan Madden, Ayrshire

NORTHERN REGION

Stephen Birrell, North West
 Kevin Bush, North Wales
 Nicholas Casson, North West
 Roger Cockburn, North East
 John Gibson, Northern
 John Hardy, Cleveland
 John Hardy, Cleveland
 John Maree, North West
 Thomas McCoy, North West
 Paul Sandalls, North Wales
 Robert Smith, North West

MIDLAND REGION

Jonathan Baines, Midland

Steven Dipple, Midland
 Jamie Irvine, BB&O
 Andrew Lintin, East of England
 Graham Wallace, BB&O
 Geoffrey Wells, East Midland

SOUTH EAST REGION

Michael Barney, East Anglia
 Sam Battley, East Anglia
 Peter Bowman, London
 Robert Bramwell, Essex
 Matthew Cartledge, East Anglia
 James Cooper, East Anglia
 Lee Dowd, London
 Andrew Howell, East Anglia
 Richard Mant, East Anglia
 Luke Rapley, Surrey
 Danny Stunt, Kent
 Andrew West, East Anglia

South West and South Wales
 Beverly Blair, South Coast
 Leon O'leary, South Coast
 William Ridgley, South Coast

INTERNATIONAL MEMBERS

Karl Peak, Norway
 Johan Langerberg, Sweden
 Andree-Anne Couillard, Switzerland
 William Owen, USA

STUDENT MEMBER

Jonathan Cary, South West

CORPORATE MEMBER

Andy Church, Northern

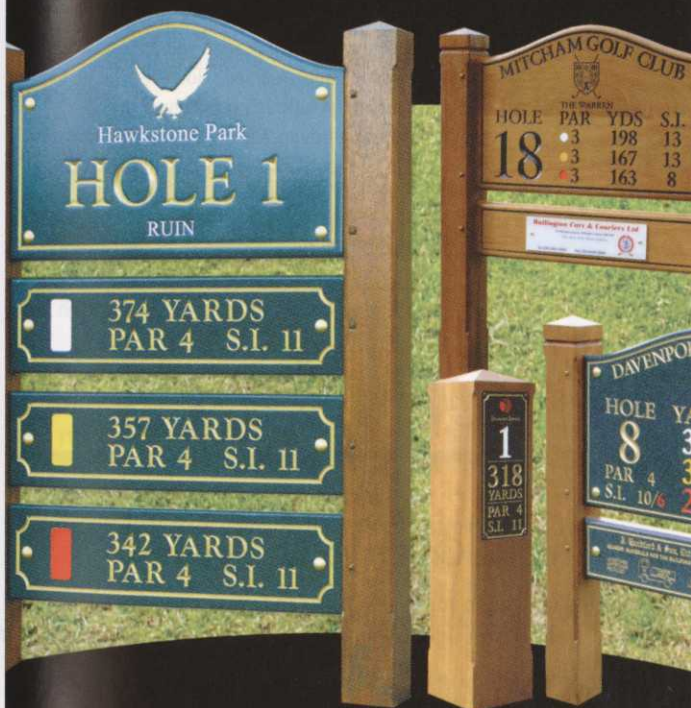
ASSOCIATE MEMBER

Colin Evans, East Midland

The perfect approach to quality course signage

Signs & Design

Tee Signs



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our new 2006 catalogue.

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Harrogate week

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www.harrogateweek.org.uk



EDUCATION 21 - 25 January 2007

EXHIBITION 23 - 25 January 2007

As Easy as ABC



You never stop learning so, in conjunction with the GTC and lecturers from some of the UK's top greenkeeping colleges, GI has launched a new series which gives the developing greenkeeper the chance to add to their knowledge with some useful advice.

DEVELOPING A WORK ETHIC

Andy Turnbull, Course Manager for Sports Turf at Warwickshire College offers his advice.

The most important thing any young greenkeeper needs to learn is a work ethic and willingness to learn. When I was a Golf Course Manager, my biggest frustration was the attitude of some young greenstaff. Turning up late, finding any excuse to sit on their backside, having to always get them going after break times - all contribute to the conclusion that this person does not want to follow a career in greenkeeping.

So, how can young greenkeepers show that they can work hard, are reliable and would be missed if they left?

1. Be the first at work waiting for the gates to be unlocked, showing you want to be there.



Clipping edges - a simple job but one that has a great effect on overall course presentation if carried out conscientiously



2. When allocated a task don't moan about it but do the best you can.
3. If you finish the job early and no one is around find something else to do, for example, pick up a broom and sweep the shed or yard or clean some machines and check oil levels.
4. Ask questions, showing you want to learn about the job.

Golf greenkeeping can provide a worthwhile and rewarding career. Wages for a Course Manager are generally above many other professions, e.g. teaching, and the opportunities are available to achieve any level of qualification you are capable of - from NVQ to Masters Degrees. However, the higher you progress in greenkeeping the fewer the opportunities for advancement. By showing initiative and gaining a reputation for working hard and being reliable, you will give yourself a good chance to progress in your career.

Letters ▶▶

Thank you Hoylake!

I am sure that many of my colleagues, like myself, suffer from Augusta Syndrome. It always strikes during that awful hiatus between winter and soil temperatures rising. Suddenly we are besieged by telly watching members all asking "Why aren't our greens, tees shrubs et al like Augusta?"

My stock answers of,

a) "We are on 300 feet of clay and have a climate more akin to Alaska than Augusta", or...

b) "We don't have six members, a course closed for half the year for preparation or a 20 zillion dollar budget", just don't seem to cut the ice.

This year at Hoylake we were treated to a fantastic display of golf. The best man won, not just because he is technically great, but he also worked out the nuances of links golf better than any other player.

So I say God bless you Hoylake. For the great golf? Well, yes for that, but more for producing a brilliant course where, to this date, not one of my members has asked, "Why can't our course look like that?"

A very grateful Greenkeeper!

Tony Leinster

Deputy Head Greenkeeper

Bearwood GC

It Need Not Be Green To Be Good

I just wanted to write to you to thank you and the Association for selecting me to be part of the BIGGA Open Support Team, for the recent championship at Hoylake.

The five days were everything that I hoped they would be and more. From the moment we turned up, the level of expectancy and professionalism was to the fore, as one would expect for such an event. The organisation was first class for the whole week. The catering arrangements were excellent - the ladies in the cathedral kept us well stocked.

As this was my first time, it was very good to have seasoned Support Team workers to encourage us along. The level of professionalism shown by all attending the championship was very encouraging for our Association. The camaraderie of all the volunteers was wonderful and added to the experience.

The work was hard and the hours long, but the opportunity to walk inside the ropes in the Open Championship eased the pain of the blisters and the heat. If anyone is considering volunteering for next year's Open, I heartily recommend it, it's an experience quite unlike any other.

On a final note, congratulations must go to Craig Gilholm and his team for giving us a traditional golfing experience of the highest calibre. The work of the green staff at Royal Liverpool should go to exemplify the fact that it need not be green to be good.

A great many thanks once again.

Yours sincerely,

Keith Scruton

YOUR LETTERS ARE REQUESTED!

Send to: Scott MacCallum, Editor, Greenkeeper International, BIGGA HOUSE, Aldwark, Alne, York YO61 1UF, or email them to: scott@bigga.co.uk.

Letters ▶▶

Seasonal Planning

I've read a lot recently, saying that you don't have to starve your greens of fertiliser to grow fine turf. I wholly agree with this but feel that if you can get fescue to link with its mycorrhiza, you'll need little or no fertiliser and, done properly, your grass will thrive - not starve.

Mycorrhiza won't establish sufficiently if you've got high phosphate levels or if weedkillers are drying it out. However, if you have the right conditions for mycorrhiza, my methods to maximise the link with fescue are as follows:

Start your efforts in the spring.

In spring:

1. Apply wetting agent.
2. Cut as seldom and as high as possible (above 6mm).
3. Spray sulphate of iron after heavy rain.
4. Delay cutting for as long as possible after this application.
5. Lower height of cut gradually and increase frequency in response to grass growth.

In summer:

1. Spray sulphate of iron after heavy rain in June.
2. Again, miss out mowing for as long as possible after this application.
3. Cut as often as needed but no lower than 5mm.
4. Verticut between June and August as required.
5. If needed use nitrogen fertilisers from the end of May until the end of August.

In autumn:

1. From September, start to raise the height of cut and reduce mowing frequency.
2. If you've suffered a dry summer, re-apply wetting agent.
3. Spray sulphate of iron after heavy rain, remembering to put off mowing for as long as possible.
4. Adopt your winter cutting height and cut as seldom as possible.

Notes:

- I spray sulphate of iron about three to five times a year.
- I use long term wetting agents.
- Top dressing, heatherjacket control and hand weeding, are carried out in addition to the above.

This plan is based on the ideas that mycorrhiza: grow actively in spring and autumn and should not be disturbed then; provides nutrients to grasses during their growing season; uses carbon (carbohydrate) which grasses store in their roots; are moisture dependant and encourage grass root growth.

Sulphate of iron boosts photosynthesis and carbon production; spare carbon is stored in the roots; mowing uses up the plants carbon; fescue doesn't use applied nitrogen until late May and after the end of August; nitrogen applied before the end of May will boost competing grasses; fescue can tolerate aggressive mowing and verticutting when growing actively between June and August - but only then.

I've based what I'm doing on long established greenkeeping principles and seem to be achieving good results. I'd be happy to hear from anyone working along similar lines or anyone who has any thoughts on the subject.

Yours faithfully,
David Woodbyrne
Dumfries

Thank You

I would like to thank you for giving me the opportunity to be part of the BIGGA Support Team at this year's Open Championship.

It was a wonderful experience and it was a privilege to be able to work with such a brilliant team.

I met some great people and it is a memory I will treasure.

Yours sincerely,
Shane Wells

Harry Diamond Memorial Quaich

The Harry Diamond Memorial Quaich competition took place in July and Belleisle GC never looked better. I can't say what Kevin Thomson and his dedicated staff did but it was equivalent to waving a magic wand over the course.

The weather wasn't the usual sun baked Costa Ayrshire, still, the swallows were skimming the fairways while the light drizzle kept the golfers cool. It was obvious that the sun was just peaking from behind silver linings, awaiting the lovely afternoon to come.

It was a very successful competition enjoyed by young and old. I can't say that my own golf was up to any standard, I did however manage to secure a few points for my team in the Stableford. Harry's wife Jessie presented the presentation of the quaich and second and third prizes, to the winners. The winners of the quaich were: S Mitchell, D Gemmell, N Hannon and J Brooks. The quaich remains with Harry's family - each winner received a miniature replica to keep, together with a prize of some description.

All the Diamond family were busying themselves with handing out free raffle tickets and seeing that everyone was supplied with a free drink of their choice. Two of Harry's brothers - Neil and Campbell were there to assist when called upon, together with all the Diamond grandchildren. It was a pleasure to see the girls growing up into young ladies and still attending at their grandpa's memorial quaich.

The competition is so well organised that it seems to run itself but I know that a lot of effort, both by the family and the club, goes into the setting up of the competition each year. Finance is always a problem, the family would like to send a special message of thanks to all the sponsors and others who contributed towards making the competition the success it was. They also send a big thank you to all the golfers who took part in the quaich and wish them a great golfing year, keeping fit to play in the Harry Diamond Memorial Quaich in 2007.

Kindest regards,
Cecil George

Safety in the Turf Care Machinery Industry

Safety has always been of paramount importance for all those involved in the turf care machinery industry. But with the sharper legal focus on employee health and safety, it is becoming an even more prominent issue. Today it impacts directly on how Course Managers and Greenkeepers manage their machinery fleets.



For everyone responsible for course management, the regulations governing the safety and operation of course machines are clear. They can be found in The Provision and Use of Work Equipment Regulations (PUWER) 1998, which in part state that equipment provided for use at work must be:

- 'Safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure this remains the case.'
- 'Used only by people who have received adequate information, instruction and training.'

So let's look at these two key statements in turn:

1. Safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure this remains the case.

Daily Maintenance Checklist
Duplicate this page for routine use

| Maintenance Check Item | For the week of: | | | | | | |
|---|------------------|-------|------|--------|------|------|------|
| | Mon. | Tues. | Wed. | Thurs. | Fri. | Sat. | Sun. |
| Check the safety interlock operation | | | | | | | |
| Check the brake operation | | | | | | | |
| Check the engine oil and fuel level | | | | | | | |
| Drain the water/fuel separator | | | | | | | |
| Check the air filter restriction indicator | | | | | | | |
| Check the radiator and screen for debris | | | | | | | |
| Check unusual engine noises (1) | | | | | | | |
| Check unusual operating noises | | | | | | | |
| Check the hydraulic system oil level | | | | | | | |
| Check the hydraulic filter indicator (2) | | | | | | | |
| Check hydraulic hoses for damage | | | | | | | |
| Check for fluid leaks | | | | | | | |
| Check the tyre pressure | | | | | | | |
| Check the instrument operation | | | | | | | |
| Check the reel-to-bedknife adjustment | | | | | | | |
| Check the height-of-cut adjustment | | | | | | | |
| Check all grease fittings for lubrication (3) | | | | | | | |
| Touch-up damaged paint | | | | | | | |

1. Check the glow plug and injector nozzles if hard starting, excess smoke, or rough running is noted.
2. Check with the engine running and the oil at operating temperature.
3. Immediately after every washing, regardless of the interval listed.

Notation for Areas of Concern

| Inspection performed by: | | |
|--------------------------|------|-------------|
| Item | Date | Information |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |

Implementing and following a machine maintenance schedule has many benefits, but improving the performance of the machine and aftercut appearance is the primary aim though following maintenance schedules and looking after your machine will give other benefits. Chief among these are operator safety, machine reliability - resulting in less downtime - and a reasonable return on the residual price when the time comes to sell.

Daily checks differ from course to course, though standard check-sheets can be found in the operator's manuals supplied with the machine.

Most daily checks are second nature with experienced operators and take little time to complete. Checking for fluid leaks, damaged hoses and units can be carried out with a cursory glance and investigated further if required, whereas interlock switches, braking, steering and instrument operation are normally checked the moment the operator drives from the shed. Checking oil levels, air filter and tyre pressures becomes routine and takes little time to do. It is possible with some greens machines that a difference of 1 psi in the tyre pressure will give a 0.25mm mismatch, which is visible to the naked eye.

At the end of a day's work, it is worth taking the time to wash units down with low-pressure water - lubricate to purge any water and top up the diesel tank to minimise any condensation forming in the tank over night.

One of the most important daily checks is to verify the unit is on cut. This will reduce the risk of damage to the reel, excessive wear on the moving parts and give a better quality of cut. There are so many variables that can affect quality of cut and it is important to understand all factors involved.

It is important to check the following to maintain reel mower performance on a daily basis:

- **Bedknife to Reel Adjustment** - Both the reel and knife's cutting edges need to be straight and sharp, so grind as necessary and back lap little and often. The reel should be adjusted to the bedknife so that it pinches paper when placed between the two and cuts paper when it is passed over the bedknife into the path of the reel. This is one of the most effective preventative maintenance practices.
- **Attitude Adjustment** - where units have this capability, is normally set for the height of cut used. 'Attitude' refers to the bottom of the bedknife and the ground plane under the cutting unit. A large angle is referred to as an aggressive bedknife attitude. The opposite applies to a small angle and in this less aggressive set-up the bedknife can be riding on the turf. This is one of the first places greenkeepers should look when trouble-shooting aftercut appearance issues. Designs in units, such as the DPA unit and the Bedbar pivot location, now allow for operators to maintain a virtually-constant aggressiveness as the reel wears.
- **Rollers need to be set parallel with the cylinder** using a set-up plate and at the same time roller bearings should be checked for excessive play. Modern components such as the DPA unit have rollers that are parallel with the reel throughout and do not require the need to 'parallel'.
- **Height of cut needs to be checked for desired finish.** As with tyre pressures, errors in setting the height of cut on a greens machine by as little as a 0.25mm mismatch will be visible to the naked eye. With courses achieving ever-lower heights of cut on their greens, it is becoming more critical to achieve continuity through setting heights of cut.

It is important to maintain continuity across all cutting units and ideally to ensure the same person sets all units. Again, this is another area to look at when trouble-shooting aftercut appearance issues.

By Ian Sumpter

REELMASTER 5210 / 5410 / 5510 / 5610
QUICK REFERENCE AID

CHECK/SERVICE (daily)
 1. OIL LEVEL - ENGINE
 2. OIL LEVEL - HYDRAULIC TANK
 3. COOLANT LEVEL - RADIATOR
 4. FUEL/WATER SEPARATOR
 5. PRE-CLEANER - AIR CLEANER
 6. RADIATOR SCREEN
 7. BRAKE FUNCTION
 8. TIRE PRESSURE
 9. BATTERY
 10. BELTS (FAN, ALT.)
 GREASING - SEE OPERATOR'S MANUAL

FLUID SPECIFICATIONS/CHANGE INTERVALS

| SEE OPERATOR'S MANUAL FOR INITIAL CHANGES | FLUID TYPE | CAPACITY | CHANGE INTERVAL | FILTER | FILTER PART NO. |
|---|-----------------------------|-------------------------------------|-------------------------|--------------------|-------------------------------------|
| A. ENGINE OIL | SAE 15W-40/34 | 22 (20L) 23 (21L) 24 (22L) 25 (23L) | 100 HRS. | 100 HRS. | 104-5167 |
| B. HYD. CIRCUIT OIL | ISO VG 46/58 | 9 GALS.* | 800 HRS. | SEE RECOMMENDATION | 31-8877 |
| C. AIR CLEANER | | | | SEE RECOMMENDATION | 100-9019 100-9018 100-9013 100-9012 |
| D. FILTER, BRAKE FUEL | | | 400 HRS. | | 99-7612 |
| E. WATER SEPARATOR | | | 400 HRS. | | 99-9794 |
| F. FUEL TANK | NO. 2-Diesel | 14 GALS. | Drain and Flush, 2 yrs. | | |
| G. COOLANT | 50/50 Ethylene glycol/water | 22 (20L) 23 (21L) 24 (22L) 25 (23L) | Drain and Flush, 2 yrs. | | |

* INCLUDING FILTER

Lastly, all these daily checks should be recorded as supporting evidence that the machine has been inspected and complies with PUWER regulations 'safe for use'.

Full maintenance check-sheets can be found in the service manual. The sheets give service intervals, specifications and interval hours and can be used as a guide and recording method for the golf course mechanic. To help the mechanic, certain manufacturers have a quick-reference guide located on the machine. This incorporates useful information from the service manual, such as daily checks, engine oil type, interval hours and part numbers. Obviously, it is always recommended that any advanced maintenance is best left to a qualified person.

Again all maintenance checks should be recorded as supporting evidence that the machine has been inspected and complies with PUWER regulations stated previously - 'safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure this remains the case.'

2. 'Used only by people who have received adequate information, instruction and training':

In the Continue to Learn booklet of this series of articles - volume 2, 2005 - Keith Jaynes looked at the requirements for installing machinery, and pointed out the clear distinction between installation and operator training. Therefore I shall not attempt to deal with installation again here.

Suffice to say, manufacturers and golf club employers share a responsibility to ensure machines are installed legally. Before an operator uses any new machine, a competent person should always cover a comprehensive installation briefing. Those responsible for receiving machines should sign installation/delivery paperwork only when they are happy that a complete installation handover has been given.

The past few years have seen an increase in operator training courses. This has come about in part, due to the Health and Safety executive reviewing the use of machines in the agricultural/groundscare industry and the possible introduction of a mandatory licence for all operators.

Some dealers have seen this structured training as an opportunity to contribute to the safety of the industry and improve customer care and after sale satisfaction. Manufacturer's training or accredited training through Lantra, is generally available from manufacturers, training providers or local dealers. We have not yet seen the introduction of a mandatory operator's licence but casting an eye towards the construction industry, with its introduction of the CITB licence for machinery operators, I believe it is only a matter of time before we see something similar in our industry.

There are a variety of resources available for golf courses to offer in-house training. Manufacturers produce videos covering both general and machine-specific safety on the golf course. Greenkeepers using Toro equipment can now take advantage of a

variety of operator training courses run by distributor Lely UK, which are unique in the industry. Courses are part of a year-round training programme and are held over two days at Lely's St Neots training facilities. The sessions are very popular and comprise:

GOLF COURSE MANAGER'S COURSE

Designed to provide an understanding and knowledge of how best to manage a machinery fleet, including routine paperwork. Covers available information to assist turf professionals in the management of their courses. Also includes a brief look at Health and Safety on the golf course.

GROUNDSCARE OPERATOR'S MAINTENANCE COURSE

Provides an understanding and knowledge of troubleshooting, routine servicing and maintenance of Toro groundscare machinery. Covers principles and factors that affect clip, unit configuration and after-cut appearance, as well as giving training in the use of Toro equipment.

CUTTING TECHNOLOGY AND AFTER-CUT APPEARANCE

Aimed at troubleshooting, routine servicing and maintenance of cutting units. Teaches the principles and factors that affect clip, unit configuration and after cut appearance. Participants also learn about grinding procedures.

GROUNDSCARE MECHANIC'S COURSE

For troubleshooting, routine servicing and maintenance of Toro groundscare machinery. Training in the principles and factors that affect clip, unit configuration and after cut appearance, and how to use an ACE handheld system. Also covers Level 1 electrics and components, and Level 1 hydraulics and hydrostatic units.

SPRAY TECHNICIAN'S COURSE

For training in using and calibrating a pro-monitor and pro-controller. Additionally deals with troubleshooting, routine servicing and maintenance, including sonic booms.

Ian Sumpter is Training Manager for Lely UK Turf Division.





Algae Alert!

Tim Soane talks about the biggest threat to ponds, lakes and irrigation pens on golf courses - algae



A lot has been said about the threat of global warming to all different aspects of our daily lives but nobody has yet pointed out the very real menace it poses to golf courses from one end of the country to the other. And I am not talking about tinder dry greens or parched and brown fairways, either.

The unprecedented heat and endless withering weeks of burning sunshine this past summer - not to mention hosepipe bans and water restrictions in some areas - gave Course Managers and greenkeepers alike almighty challenges and headaches trying to keep precious grass surfaces in pristine condition against colossal odds.

But, while they fretted over frazzled greens and browning fairways a far more insidious and menacing threat erupted amongst them virtually overnight and practically without warning - highly toxic blue green algae.

Nature's most ugly - and, potentially, damaging - aquatic mantle rampaged across lakes, ponds and, most chillingly of all, crucial irrigation reservoirs throughout July and August at almost Apocalyptic speed - in some cases its green choking pea soup-like mass achieving depths of over 1.5 metres in just a matter of days.

What were once picturesque water features enhancing the natural rhythms and undulations of every kind of course from Championship standard through to local pay and plays were turned, almost overnight, into unsightly, slimy eyesores - distasteful and off putting to members and exasperating for the Course Managers and greenkeepers.

It is no exaggeration to say that my small team and I were literally run off our feet during these months, trying to keep up with calls from existing clients and scores of new Course Managers who called us in desperation because of the algae problems, which burst upon their water areas from one day to the next.

The real worry is not - despite the distaste and anger it provokes in members - the ruined visual appearance and aesthetics of the course or its water features but the very practical threat which blue green algae poses, should it infiltrate the waters of the irrigation reservoirs and lakes without being detected.

Highly toxic, it can lead to serious de-oxygenisation of the water and the blockage of pumps and pipe work of irrigation systems. Most worryingly of all it can inflict incalculable damage to the greens and fairways onto which any contaminated irrigation water is sprayed, rendering the course unplayable within hours and running up a bill of unthinkable, disastrous, magnitude.

Algae is, without exaggeration, one of the Course Manager's worst nightmares - and the threat of it is going to become greater and greater as

global warming delivers more and more summers in the future on the scale of this one. Make no mistake, it is the new scourge of golf courses along with elodia, broadleaved pondweed and several other invasive weed species whose growth is accelerated by prolonged sunshine and nutrient rich run-off, from nearby greens and fairways. Be in no doubt the troubles of summer 2006 are just a foretaste of much more to come.

To a large extent, it is today's generation of course designers and architects, who must shoulder a good deal of the responsibility for this. Their preference has been to create more and more new courses with large tracts of shallow, largely static, water or lakes and ponds with very little depth, flow or current. Almost without fail, nobody thinks to stipulate the installation of water agitators or pumps at the time of building these wonderful aquatic features and thus are inbuilt the perfect - I would go as far as to say optimum - conditions for the dreaded algae to flourish.

Blue green algae - some people call it blanket weed - comes in two forms: the wispy filamentous type, often known as maidenhair or silkenweed, which is free floating and then the single cell species which creates the choking, pea soup like masses which proliferate at alarming speed through all kinds of water areas from large lakes to suburban garden ponds.

Both are relatively simple organisms, which require very little encouragement to bloom and multiply. Hot weather, plentiful sunshine and shallow, slow moving water are the three key components for explosive growth. I have recently been engaged on consultancy work with a major water authority near London, where an entire six kilometre stretch of one of their rivers had become engulfed to a depth of over a metre in little over two weeks!

The hotter and longer the sun shines, the more rapidly it will bloom and spread. Modern golf courses, with their emphasis on numerous water features that are invariably shallow and with little or no current or flow, provide almost laboratory standard growing conditions for it. The fierce and relentless onset of global warming, as evidenced this summer, will only exacerbate an already serious problem for many years to come for greenkeepers and Course Managers. You can be sure that, Summer 2006, was only the beginning of an emerging pattern both in terms of weather and its effects on aquatic areas.

What then, is the answer? In a nutshell, not a lot. And by that I mean the remedy is relatively simple and straightforward. For greenkeepers and Course Managers to lay their hands on it, does not require too much imagination or trouble.

First and foremost, if the problem is to be tackled from a long term point of view then those courses with relatively shallow water areas of little or no movement should start thinking about having them dug deeper and/or the installation of heavier duty pumps, water aerators or simple pump and fountain features which will, at least get the water moving about.

Secondly, today's course architects and celebrity designers need rapidly to take on board the realities and implications of global warming and the future prospect of more, not less, tinder-box dry summers. They must re-examine their instincts for incorporating water features of only a shallow aspect and static character and instead make them deeper and with a real flow of water - otherwise don't bother with them.

Don't get me wrong, water on a course is great and vastly enhances its aesthetics and playing challenges so I would never say dispense with it altogether - but it is critical that the designers get it right in today's changing climatic times - otherwise they could be creating expensive breeding grounds for toxic green eyesores.

More immediately, blue green algae can be controlled and very largely suppressed if courses adopt all-year round aquatic maintenance. The crucial thing for Course Managers, greenkeepers - and particularly the accountants protecting their budgets - to realise is that algae control is not something which can be cherry picked on an ad-hoc basis - say, in Spring to make a course look attractive for the approaching summer or every alternate year to enable something else to be accommodated in the CapEx columns in intervening years.

Unequivocally, anti-algae treatments, depending on the size of the water area(s) involved, need to be carried out between two or four times a year on a sustained on-going basis. Obviously companies like our own specialise in the work - but, if they wish, a ground staff team are perfectly capable of implementing the necessary preventative measure on their lakes, ponds and irrigation reservoirs etc.

At the heart of the treatment programme is a very simple and straightforward material readily available to anybody who knows a friendly farmer or two - barley straw.

When this is immersed in the affected water, a 100% environmentally safe chemical reaction takes place with the algae, which is then slowly and steadily destroyed and degraded by the straw. Usually, the first effects are visible within two to three weeks of the straw being submerged and its algae decomposing properties generally go on working for two to four months depending on the depth and density of the algae.

There's a bit of a knack in how the barley straw should be deployed an affected water course and how it is most effectively baled up for immersion. Similarly, at Clearwater, we have developed a number of accelerants - all 100% environmentally friendly - which we mix in with the straw to carefully worked out levels and these speed up the decomposition process on the algae. This, in certain instances can achieve quite startlingly rapid results.

Obviously, prevention is the best cure of all and it is especially important to realise that by deploying the barley straw throughout the year, including the winter months, then



Lake covered in algae - before

resistance levels in water courses are built up. If nowhere else, golf Course Managers and groundsmen, should be avidly following such a strategy in relation to their irrigation reservoirs and pens.

What happens if prevention has not been practised and algae density has reached extreme levels? In such circumstances the last resort is chemical spraying but for safety and efficacy's sake, it should, without fail, be conducted by a specialist contractor to ensure that the correct strengths of chemical in relation to the cubic capacity of the affected water area, is applied.

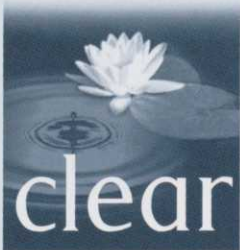
Even then this creates something of a Catch 22 situation in relation to irrigation reservoirs. Compromised by toxic algae, their water cannot under any circumstances be utilised for spraying or irrigation purposes on fairways or greens for fear of disastrous consequences - but then neither can the water be used after the chemical treatment without leaving it for an absolute minimum of 14 days.

Let's face it, blue green algae is nobody's friend and I cannot pretend that, with the fierce onset of global warming as we have seen this summer, the picture is a particularly happy one. There is no question that the future is a sunny one but, for once, that is not what greenkeepers and Course Managers really want to be hearing.

Tim Soane is Founding Director of Clearwater Pond and Lake Management Ltd.



Lake as above - after



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