



During construction at Pырford GC near Wisby

Water proofing water features can be costly if a complete liner is required. However, if there is clay in the subsoil this can be used to help waterproof to above the top water level. Bentonite, which is an inert 'fullers earth' can be used to waterproof the base of the lake, depending on the type of soil.

One of our most successful methods of waterproofing lakes is by using a 'bentonite Slurry Cut off Trench' which are installed in existing, leaking dams or around the lower sides of lakes. They rely on an impervious layer of soil under the lake which the bentonite Slurry Cut off trench is

excavated into. This method of waterproofing is relatively low cost and successful. It is interesting that a trench filled with bentonite slurry does not cave in. A bentonite slurry cut off trench can also be used to bring underground streams, or water courses to the surface.

Golf Courses can be a wonderful habitat for birds and wildlife to such an extent that some golf courses have been granted an SSSI status. An environmental lake can attract all kinds of birdlife and to see the swallows diving over the water is an attractive sight.

Although common waterfowl are the most common birds to be attracted to a new lake, occasionally a tufted duck or even swans will take up residence, which is wonderful. Dragonflies, watervoles and moorhens with their fluffy black chicks are also interesting inhabitants.

Although a golfer is concentrating on his game, to be in the natural countryside with views of a magnificent lake, surrounded by wonderful fauna and flora can only add to their pleasure. With the need for a 'greener world' and golf courses becoming more 'family orientated', the enhancement of the environment is even more important. Waterplants can also add beauty to a water feature. The depth of water is important with shallow water for the waterplants and deeper water, at least three meters, if stocking trout. The waterplants, especially phragmites can help a great deal in the balance of a pond by restricting the blanket



After construction at Pырford GC near Wisby

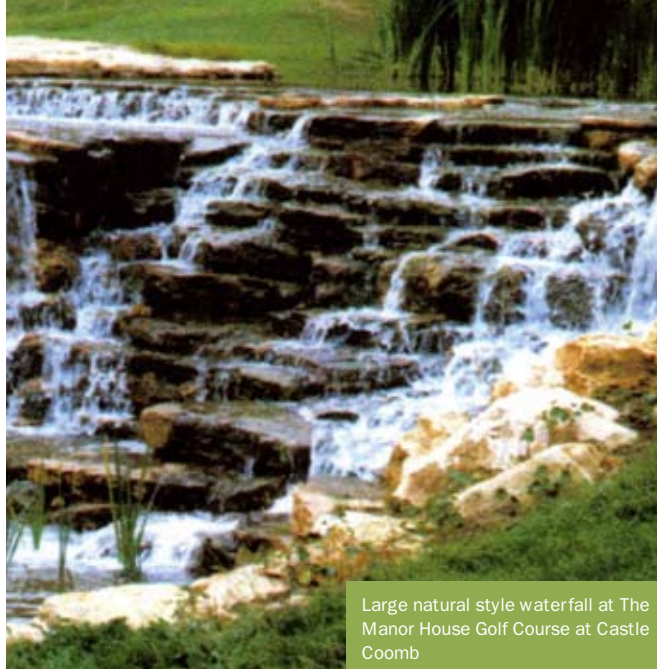
weed caused by high nitrates in the water, and helping to give clear, blue water.

A reed bed of phragmites, with the water seeping through the roots is a very effective way of purifying water. A large village in the west country are using this method to effectively purify human effluent.

If the golf course is experiencing problems with polluted water a version of the reed bed can be used to clean the water which could also be an attractive environmental habitat and may even attract reed warblers. Water has many other attractions, i.e. swimming Lake swimming on a hot summer day with a good expanse of water with no chlorination can be lovely. A jetty with ladder makes a good platform to dive from and climb out.

As consultants, it is interesting to see how the uses of water features can be combined giving, winter storage, irrigation, hazards for golf, environmentally enhancing for the wildlife and also to provide a beautiful view from the clubhouse and other sections of the course.

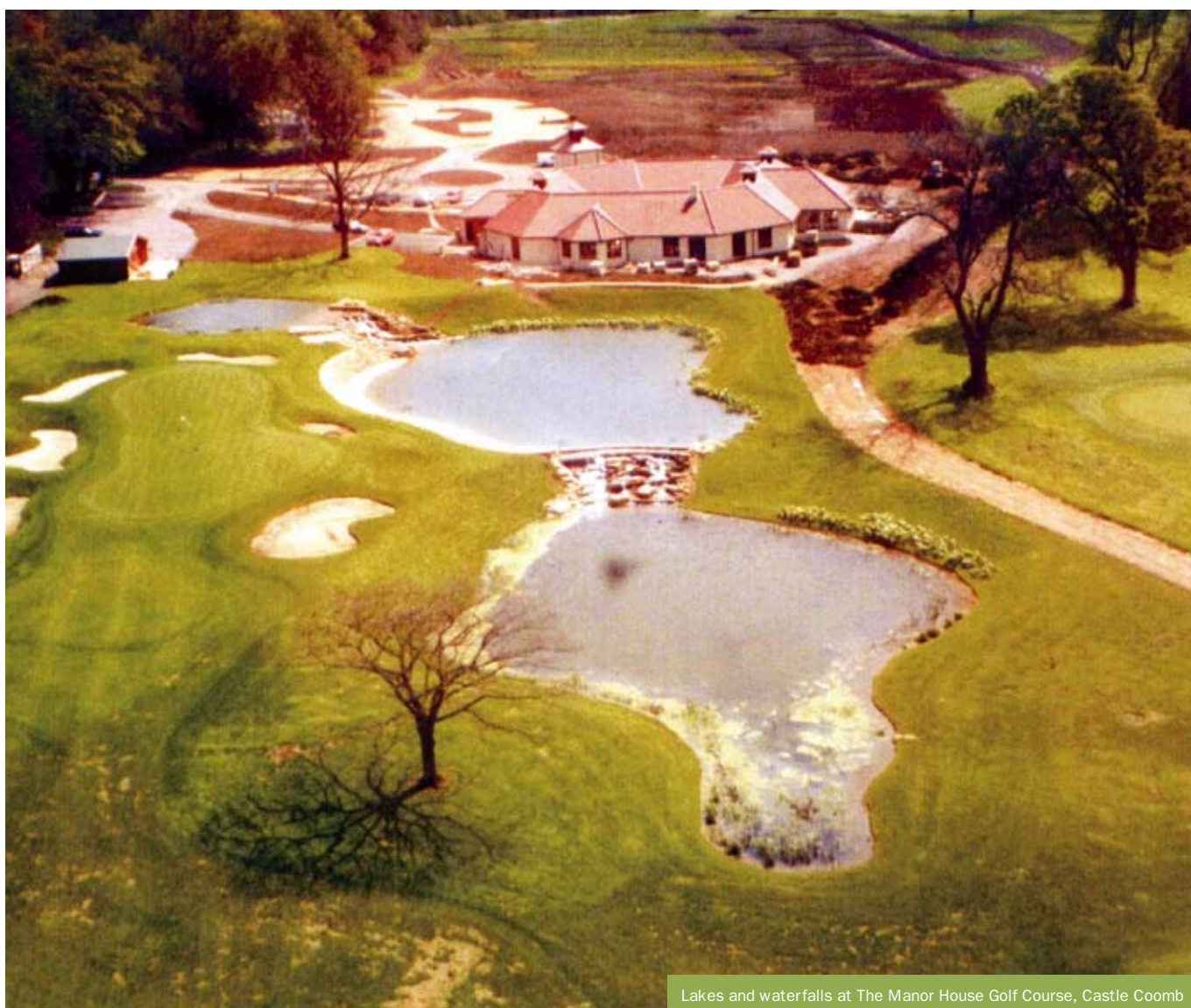
How to advise on how water features can help an existing golf course is a challenge especially when costs are important. When asked to advise we study the ordnance survey map of the area and the geological map showing the subsoils and the latest satellite photograph. These are combined with local knowledge and, most importantly, the requirements of the golf course personnel and greenkeeper, who will be aware of the drainage and irrigation needs is helpful.



Large natural style waterfall at The Manor House Golf Course at Castle Coomb

Our main criteria is to use the existing features as far as possible, which is cost effective and helps the water feature to blend well into the surroundings and look as if it had been there forever!

Jackson House is Managing Director of House Brothers Limited www.lakesandgolfcourses.com - 01935 433358



Lakes and waterfalls at The Manor House Golf Course, Castle Coomb

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SKIN AT WORK: OUTDOOR WORKERS AND SUN EXPOSURE

BIGGA'S Health & Safety series produced by Xact



As we approach the late spring and early summer months, consideration should be given to the effects of sunshine on the skin of people who spend an appreciable period of their working time outdoors during the day, or during leisure time spent outside e.g. gardening, playing or watching sports, holidays etc. As well as tanning the skin, ultra violet radiation in sunshine can also cause skin cancer which is one of the most common cancers in the UK. In recent years UK summers have been getting warmer with greater amounts of sunshine giving a corresponding higher risk from the disease. Diagnosis of the disease is rising each year. However, up to 80% of cases could be avoided with some simple precautions. The highest risk is when skin is exposed to direct sunlight but damage can occur even when it is overcast.

On average, people who work outdoors receive three to four times more UV exposure each year than people who work indoors. This cumulative exposure puts outdoor workers at greater risk of non-melanoma skin cancers, which are the most common forms of skin cancer in the UK. People who get sunburnt e.g. at work, while on holiday, gardening etc, also increase their risk of malignant melanoma, the most dangerous form of skin cancer. Those most at risk of skin cancer are people with fair skin, lots of freckles or moles or a family history of the disease.

Employers and other persons exposed to the sun should, whenever possible:

- Avoid unnecessary sun exposure at times between 11am - 3pm - this is the time of day when UV radiation is at its peak in the UK
- Plan outdoor tasks so that they can be done earlier in the morning

or later in the afternoon, reserving indoor or sheltered jobs for peak UV radiation times in the middle of the day

- Limit each employee's midday UV exposure where possible by rotating tasks with other staff
- Provide shade for workers to use, especially during breaks. If this is not feasible, encourage workers to find shade where it is safe to do so
- Encourage people to cover up
- Provide hats or appropriate headgear for workers to wear. Hats should ideally shade the face, neck, ears and head
- If hardhats are worn, consider providing extension flaps to protect the neck
- If your organisation has a uniform, this could include a hat, as well as shirt and long trousers
- Consider providing/using sunscreen
- If practical, SPF 15+ sunscreen should be available for outdoor workers to use
- Keep it in easily accessible places, such as tearooms, toilets or site offices
- Ensure you give guidance that for maximum benefit, sunscreen needs to be applied generously before being exposed to the sun and reapplied often
- Keep their workers informed
- Include sun protection advice in any routine health & safety training
- Encourage workers to check their skin regularly for unusual spots or moles that change size, shape or colour and to consult their GP promptly if they find anything that gives them concern - Early detection saves lives!

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GREENKEEPER TRAINING

BIGGA is actively involved in raising the Standard of Greenkeeper Training. The Association is a member of the Greenkeepers' Training Committee and strives to enhance the level of education through various means, including Section, Regional and National workshops, seminars and conferences.

The range and quality of training now available throughout the UK means that there is a training course for every greenkeeper. This should improve the quality of greenkeeping and help to produce better quality golf courses to the benefit of all within the industry.

Golf Course Managers should ensure that their staff are trained to

the highest standards. This begins by selecting a training provider that meets the criteria laid down by the GTC. There is a clear link between education, training and economic success and all clubs should invest in the education of their staff.

Ken Richardson

Education and Training Manager
 British and International Golf Greenkeepers Association
Tel: 01347 833800
Email: education@bigga.co.uk
Website: www.bigga.org.uk

SCOTLAND

ELMWOOD COLLEGE

Cupar, Fife, KY15 4JB

Contact: Sam Letham
Tel: 01334 658842 **Fax:** 01334 658888
Email: sletham@elmwood.ac.uk
Web: www.elmwood.ac.uk



Information: Information: Full Time National Certificate Greenkeeping: Block Release. SVQ Level II and III Block Release and Workbased options available. SVQ IV ILM Management, HNC & HND Golf Course Management available as Full time and Online Distance Learning. Golf Course Environmental Studies, Construction and Design Management Online Learning Courses. HNC & HND Golf Facility Management. PDA for Football, Cricket Management. SVQ Level II & III Landbased Service Engineers and Golf Course Mechanics Course. BTLIA Irrigation Management Block Course Various times throughout the year. FEPA and COSHH Health & Safety Courses Available. Chainsaw, tree climbing and Rescue Techniques.

LANGSIDE COLLEGE

Rutherglen Campus,
 Buchanan Drive,
 Rutherglen,
 Glasgow, G73 3PF



Contact: William O'Neil
Tel: 0141 272 3823
Email: woneil@langside.ac.uk

Information: SVQ, SGA, HNC, HND. Full time and part-time courses in Greenkeeping, Groundsmanship, Golf Course Management, Horticulture, Land and Environment and Applied Ecology. Short courses for land-based industries including Pesticides.

GOSTA TRAINING LTD

50 Brook Street, Glasgow, G40 2AB

Contact: Chris Bothwell
Tel: 0141 556 3999 **Fax:** 0141 556 4999
Email: learn@gostatraining.co.uk



Information: SVQ II, III and IV also Modern Apprenticeship in Sportsturf including other options and GTC Training Manual. Attendance Day release from November - March. Distance Learning also available. Short courses with certification include Pesticides, Chainsaw, First Aid, Risk Assessment, Abrasive Wheels, Full Range of Machinery Courses, Manual Handling and Fire Extinguisher training. Consultancy service for Health and Safety Policy development, Site Risk Audits, Machinery Permit to Use system, COSHH and Noise Assessment.

SOUTH AYRSHIRE COUNCIL GREENKEEPING COURSE

Chief Executive's Department,
 Training & Development Centre,
 15 Links Road, South Ayrshire



Contact: Gordon McGinn
Tel: 01292 678861 **Fax:** 01292 671790
Email: gordon.mcginns@south-ayrshire.gov.uk

Information: SVQ Level 2 Amenity Horticulture: Sportsturf, SVQ Level 3 Amenity Horticulture: Sportsturf and the Modern Apprenticeship in Amenity Horticulture

WALES

PENCOED

Pencoed, Bridgend, Cardiff, CF35 5LG

**Contact:** Paul Discombe or John Sullivan**Tel:** 01656 302672**Fax:** 01656 302601**Email:** pfdiscombe@bridgend.ac.uk**Web:** www.bridgend.ac.uk

Information: NVQ Sportsturf Level 2-3, HNC/HND Turf Management. National Certificate/Advanced National Certificate - Sportsturf Management. Short courses: PA1, PA2 PA6a and Chainsaws. NCH National Certificate in Horticulture. Advanced National Certificate in Horticulture.

ENGLAND

ASKHAM BRYAN COLLEGE

Askham Bryan, York, North Yorkshire, YO23 3FR

Contact: Central Admissions**Tel:** 01904 772211**Email:** enquires@askham-bryan.ac.uk**Web:** www.askham-bryan.ac.uk

Information: First Diploma and National Diploma in Horticulture. Foundation & Extended Foundation Degrees in Horticulture, Landscape and Garden Management or Arboriculture. All available full or part-time. Block release courses: NVQ Levels 2 & 3 Greenkeeping and Sportsturf Maintenance. Short courses: FEPA spraying, chainsaw and brushcutter courses.

**TRAINING PROVIDERS/
COURSES GUIDE**

A full list of GTC approved training providers can be obtained from the GTC.

The Greenkeepers Training Committee (GTC) are continually reviewing the approved status of training providers offering greenkeeper training courses.

For more information contact the GTC on: 01347 838640 or visit: www.the-gtc.co.uk

BERKSHIRE COLLEGE OF AGRICULTURE

Hall Place, Burchetts Green, Maidenhead, Berkshire, SL6 6QR

Contact: Deborah Smirfitt**Tel:** Freephone 0800 0711 666**Fax:** 01628 824695**Email:** enquiries@bca.ac.uk **Web:** www.bca.ac.uk

Information: Located in the Thames Valley, BCA has excellent resources for horticultural based training including a six-hole golf training facility opened by HRH The Duke of York. Programmes include the First Diploma, National Certificate and National Diploma in Horticulture, with Landscape Design and Greenkeeping options plus Apprenticeships, Higher National Diploma/Certificate programmes. Part-time programmes include NVQ Level 2 and 3 Amenity Horticulture, Sports Turf. Residential accommodation is available and free parking on site.

**BRIDGWATER COLLEGE CANNINGTON
CENTRE FOR LAND-BASED STUDIES**

Cannington, Bridgwater, Somerset, TA5 2LS

Contact: Course Enquiries**Tel:** 01278 441234 **Fax:** 01278 444363**Email:** enquiries@bridgwater.ac.uk**Web:** www.bridgwater.ac.uk

Information: National Certificate in Horticulture (Sportsturf), Advanced National Certificate in Horticulture (Sports Turf), Certificate of Higher Education in Golf Course Management, Foundation Degree in Golf Course Management, NVQ Level 2 Sports Turf, NVQ Level 3 Sports Turf, FEPA Training, Chainsaw Certification, Greenkeeper Mechanics. Note: The Certificate of Higher Education and the Foundation Degree are available as part-time options.

HADLOW COLLEGE

Tonbridge, Kent, TN11 0AL

Contact: Sally Flanagan**Tel:** 0500 551434 / 01732 853164**Email:** enquiries@hadlow.ac.uk**Website:** www.hadlow.ac.uk

HADLOW COLLEGE

Information: NVQ's, Apprenticeships and Work Based Learning courses available in Amenity Horticulture (Sports Turf), Amenity Horticulture (Landscape) and Production Horticulture. We also offer a range of short courses for example, Health and Safety, COSHH, Chainsaw use, Welding and Pesticide Applications. Additionally, full and part-time courses at different levels in Horticulture and a variety of other land-based subjects are available.

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Worplesdon, Guildford, Surrey GU3 3PE.

Contact: Keith Harrison

Tel: 01483 884136 Fax: 01483 884001

Email: kharrison@guildford.ac.uk Website: www.guildford.ac.uk



Information: Part-time courses: NVQ Level 2 Sportsturf college day release and workplace visits/assessments, Level 2 First Diploma college day release, for those without qualified workplace assessors, NVQ Level 3 Sportsturf on-line, Level 3 National Award college day release for those without qualified workplace assessors, HNC Turfgrass Science and Management college day release over 2 years, HND day release 1 extra year plus a Top-up BSc Degree for HND graduates part-time over 2 years, Foundation Degree in Sports Turf Science (subject to validation) plus various short courses including BTUA Irrigation Certificate Course, throughout the year. Please contact us for up-to-date listings, qualifications and advice. Open evenings are held regularly at the Campus.

PLUMPTON COLLEGE

Ditchling Road, Plumpton, Lewes, East Sussex BN7 3AE

Contact: David Blackmur

Tel: 01273 890454 Fax: 01273 890071

Email: enquiries@plumpton.ac.uk Web: www.plumpton.ac.uk



Information: Foundation Degree in Horticulture (Sportsturf specialism), National Diploma in Amenity Horticulture, National Award (Garden Design), First Diploma in Horticulture. Part time courses: NVQ Level 1; NVQ Level 2 in Landscaping and Sportsturf; NVQ Level 3 Landscaping and Sportsturf; NVQ Level 4. Also available are RHS Certificate and RHS Advanced; IOG National Technical and Intermediate National Diploma. Short courses are also available for FEPA spraying and chainsaw. Bespoke courses to order. Centre of Excellence for Horticultural Technologies (CoVE).

MYERSCOUGH COLLEGE

Bilsborrow, Preston, Lancashire, PR3 0RY

Contact: Stewart Brown

Tel: 01995 642222 / 642305 Fax: 01995 642333

Email: mailbox@myerscough.ac.uk

Web: www.myerscough.ac.uk



Information: Full time courses; BSc (Hon's) Turfgrass Science, Foundation Degree Sportsturf Science - (Including an Online option by Distance Learning), National Diploma, National Certificate and First Diplomas in Sportsturf, Greenkeeping and Groundsmanship.

Part-time courses NVQ Level 2, 3 & 4 Greenkeeping and Sports Turf Maintenance (Work-Based Training). All higher education courses can be accessed on a part time basis: FdSc / BSc Turf Science: FEPA Short courses. NPTC Certificates of Competence in the safe use of Mowers and Turf care Equipment. Careers mornings monthly on Saturdays.

REASEHEATH COLLEGE

Nantwich, Cheshire CW5 6DF

Contact: Gareth Phillips or Chard Spicer

Tel: 01270 613236 Fax: 01270 625665

Email: enquiries@reaseheath.ac.uk Web: www.reaseheath.ac.uk



Information: Foundation Degree and Higher National Certificate in Golf and Sports Turf Management; National Diploma in Amenity Horticulture with Sports Turf; NVQ levels 2 & 3 in Sports Turf; Apprenticeships; NPTC Qualifications.

On-site facilities include a commercially operating golf course, football and rugby pitches, Crewe Alexandra training grounds

OAKLANDS COLLEGE

St Albans Smallford Campus, Hatfield Road, St Albans, Hertfordshire, AL4 0JA

Contact: Andrew Wight

Tel: 01727 737080

Email: andy.wight@oaklands.ac.uk

Web: www.oaklands.ac.uk



Information: Full time courses: National Certificate in Greenkeeping and Sports Turf Management. HNC in Sportsturf. Part-time courses: leading to NVQ Level 2 & 3 Greenkeeping, Apprenticeship Training. Short NPTC Courses: Pesticide, Chainsaw. HNC starting in Sept 07.

WARWICKSHIRE COLLEGE

Moreton Morrell Centre, Warwick CV35 9BL

Contact: Andrew Turnbull

Tel: 01926 318285 Fax: 01926 318300

Email: aturnbull@warkscol.ac.uk



Information: Greenkeeping Courses: Foundation Degree Sports Turf Management (2 years full-time, 3 years part-time), NVQ Level 2 & 3 Day Release and Work-based Options, NPTC Level 2 National Certificate Sports Turf (1 year full-time, 2 years part-time), City & Guilds Advanced National Certificates (Sports Turf), BTECH First Diploma Sports Turf. Short courses: Spraying Certificates (PA1, PA2), Chainsaw and tree felling, Tractor Driving, Mowing Equipment, Turf Maintenance Equipment.

OATRIDGE COLLEGE

Ecclesmachan, By Broxburn, West Lothian, EH52 6NH

Contact: Steve Miller

Tel: 01506 864800 Fax: 01506 853373

Email: info@oatridge.ac.uk

Web: www.oatridge.ac.uk



Information: Full-time National Certificate in Greenkeeping: SVQ Level II and GTC Manual (Day and Block Release): SVQ Level 3 Sportsturf & SVQ Level 3 Fast Track (Day and Block Release) SVQ Level III in Service Engineering, full range of Amenity Horticulture, Landscaping and other land based subjects at HND and HNC, National Certificate and SVQ Levels; Short Course - FEPA, Chainsaw, Forklift, First Aid.

WRITTLE COLLEGE

Chelmsford, Essex, CM1 3RR

Contact: The Registry

Tel: 01245 424200 Fax: 01245 420456

Email: info@writtle.ac.uk Web: www.writtle.ac.uk



Information: SPORTS TURF PROGRAMMES: Foundation Degree- Sports Turf and Golf Course Management Honours Degree- Sports Turf Science & Management Higher Certificate- Sports Turf Management NVQ Level 2 & 3- Sports Turf OTHER PROGRAMMES: BSc (Hons) & FdSc Horticulture BSc (Hons) & FdSc Landscape & Amenity Management BSc (Hons) Horticulture with Business Management BSc (Hons) International Horticulture BSc (Hons) & FdSc Horticultural Crop Production FdSc Landscape Construction MSc/MA International Horticulture MSc Horticulture (Crop Production) MSc Postharvest Technology MA Landscape Architecture MSc Landscape Management First Diploma, National Certificate, National Diploma- Horticulture NVQ Level 2 & 3 Landscaping NVQ Level 2 & 3 Service Engineering (Agricultural & Groundcare Machinery) C&G Service Engineering Progression Award SHORT COURSES: NPTC Chainsaw, Health & Safety plus many more.

BIGGA MEMBERSHIP



STUDENT BENEFITS

MEMBERS HANDBOOK

A free yearly copy of this indispensable tool, enabling members to track down professional help and keep contact with contemporaries

FREE FIELD GUIDES

A set of field guides is available to every member on request. This handy guide is produced in an easy to use format and is an aid to course identification. Call 01347 833800.

BIGGA LIBRARY

The BIGGA Library boasts over 650 books available to borrow for up to six weeks. The only cost is that of returning the book to HQ.

NETWORKING OPPORTUNITIES

When you join you are automatically given membership of one of the 27 sections around the country. As an active member you can attend golf days and other social events on a regular basis enabling you to network amongst others in the industry. Look at the 'Around the Green' section for contact details.

EDUCATION OPPORTUNITIES

All Members are invited to a Continuing Professional Development (CPD) Scheme, which records education and training achievement. Regional training courses are offered alongside regional and national seminars and workshops.

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INSURANCE QUOTATION SERVICE

A quotation service is available to members on a wide range of insurance products. Call 01603 828255 and quote UniBG0306

BIGGA WEBSITE – WWW.BIGGA.ORG.UK

Exclusive access to the Members area of the website. Interact with other greenkeepers on the bulletin board or check out the latest recruitment vacancies in the industry.

SUBSCRIPTION TO GREENKEEPER INTERNATIONAL

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ABOVE: Greenkeeper International magazine
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