HOW TO ENTER

On arrival to the BTME & ClubHouse exhibition, you will be handed a BIGGA goody bag. In this will be your scorecard for the 18-hole competition.

Listed on this card are names of various companies and their stand numbers. Simply visit these stands to get the card stamped.

Once you have had all 18 holes stamped, fill in all your details and post in one of the entry boxes. Boxes will be placed on the BIGGA stand and at various exit points.

The winner will be selected at random and announced in the February issue of Greenkeeper International.

Make sure you enter and have the chance of winning the holiday of a lifetime.

Please note:

- Winner is to choose the dates of travel and BIGGA will arrange subject to availability.
- Holiday must be booked at least six weeks prior to departure date.
- Prize is valid from 1st February 2004 to 15th December 2004. Holiday must be taken within this time or forfeit.
- Flights depart from either Gatwick or Manchester.
- Rainy season in Barbados: End May to September.
- Recommended time to go: February to April or October to December. (These dates are recommendations only).
- All Thomson holiday terms and conditions to be issued to winner on presentation of prize.
- Prize cannot be exchanged for money.
- In the event of a cancellation on the winner’s behalf, any money refunds will be paid to BIGGA.
- In the event of uncontrollable cancellation on Thomson’s behalf (e.g. Hurricane), an alternative will be arranged for the winner by BIGGA.

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www.bigga.org.uk

KNOWLEDGE IS THE KEY TO FUTURE SUCCESS
As a member of the Greenkeepers Training Committee, BIGGA is actively involved in raising the Standard of Greenkeeper Training. The range and quality of training now available means that there is a training course for every greenkeeper which should improve the quality of greenkeeping and help to produce better quality golf courses.

Golf Course Managers should ensure that their staff are trained to the highest standards, beginning 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 if you think that training is expensive then try ignorance.

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

The Greenkeepers Training Committee (GTC) is continually striving to raise the standards of Golf Course Maintenance and Management and they are totally committed to ensuring that the range of qualifications are relevant to the Sportsturf sector and used by employers for recruitment and by trainees for their own personal development.

The Government endorsed awards range from National/Scottish Vocational Qualifications (N/SVQ's) to the more academic Higher National Certificate (HNC)/National Diploma (ND)/Higher National Diploma (HND) in Golf Course Management and the Degree in Sportsturf Science.

The qualifications are continually under review by the Lantra Sector Skills Council (SSC) in association with the GTC. The quality of the delivery of these awards by the network of GTC Approved Training Providers is also constantly monitored by the GTC.

For up to date independent advice on qualifications, education and training courses contact the GTC on: Tel: 01347 838640
Email: golf@the-gtc.co.uk
Website: www.the-gtc.co.uk

Education & Training - The Key to Professionalism

BIGGA has shown its commitment to Greenkeeper Education and Training by investing heavily in Conferences, Seminars and Training Courses. Companies and individuals can show their commitment by contributing to the BIGGA Education and Development Fund through the BIGGA Golden and Silver Key Membership scheme.

This ring fenced fund supports a range of training resources such as Regional Training Courses, Education Conferences, Workshops, Training Vouchers, a Lending Library, Videos, Careers Advice, Books, Booklets, Educational Posters and Field Guides.

The BIGGA Education and Development Fund gives companies, groups and individuals the opportunity to show their commitment to the greenkeeping industry by making donations, gifts and bequests which will improve the skills and knowledge of greenkeepers, enhance the status of greenkeeping and ensure the highest standards of golf course maintenance.

Education and Training - the key to a great future for greenkeepers, golf clubs and the game of golf. Unlock the doors to progress through the BIGGA Education and Development Fund.

For further details on BIGGA Golden and Silver Key Membership please contact the Executive Director on 01347 833800.
ABINGDON AND WITNEY COLLEGE  Warren Farm Campus, Horton-cum-Studley, Oxford OX13 1BH Contact: Alan Brown or John Niven Tel: 01865 351794 Fax: 01865 359391 Email: john.niven@abingdon-witney.ac.uk Web: www.abingdon-witney.ac.uk Information: Warren Farm Campus is the base for Abingdon and Witney College's education and training in Greenkeeping, Sports Turf Horticulture and allied land based courses for the whole of Oxfordshire. Courses include: NVQ Levels 2 & 3 in Sports Turf, Landscaping and Nursery. We also offer a range of short courses for the Industry including Health & Safety, pesticide training and chairsaw operation. For more information contact either Alan Brown or John Niven on Tel: 01865 351794 or Fax: 01865 359391.

ASHKHAM BRYAN COLLEGE Ashkham Bryan, York, North Yorkshire, Y023 2HF Contact: Central Admissions Tel: 01904 772221 Fax: 01904 772280 Email: info@ashkham-bryan.ac.uk Web: www.ashkham-bryan.ac.uk Information: National Certificate in Horticulture (Turf Options), Higher National Certificate in Horticulture (Self Course Management): part-time study, Higher National Diploma in Horticulture (Golf Management Option) available full and part-time. Block release courses NVO Level 2 Greenkeeping, NVO Level 3 Greenkeeping and Sports Turf, NVO Level 4 Amenity Horticulture. Short courses: FAIRWAY training, Chainsaw and broomcutter courses.

BENSHIRE COLLEGE OF AGRICULTURE Hall Place, Buccheet Green, Maidenhead, Berkshire, SL6 8QR Contact: Andy Williams Tel: 01628 824441 Fax: 01628 824695 Email: enquiries@bca.co.uk Web: www.bca.co.uk Information: 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 Higher National Diploma/Certificate programmes. Part-time programmes include NVO Level 2 and 3 Amenity Horticulture, Sports Turf. Residential accommodation is available.

BROOKSBY MELTON COLLEGE Brooksby, Melton Mowbray, Leicestershire, LE14 2UJ Contact: Jo Lees Tel: 01664 835080 Fax: 01664 835355 Email: course.enquiries@brooksby melton.ac.uk Web: www.brooksby melton.ac.uk Information: Situated on the A60 between Leicestershire and Melton Mowbray. Programmes available include NVQ Levels 2, 3 & 4 in Greenkeeping. Work based emphasis for all of these programmes. Short courses available in Arboriculture/Chainsaw work, TDLB training and Pesticide application training.Amenity Horticulture NVO Levels 2, 3 & 4.

CANNINGTON COLLEGE Cannington, Bridgwater, Somerset, TA5 1JS Contact: Enquiries and Enrolment Tel: 01278 655123 Fax: 01278 655055 Email: enquiries@cannington.ac.uk Web: www.cannington.ac.uk Information: Cannington College is recognised as a Centre of Vocational Excellence for greenkeeping and sports turf science. Its resources include a nine hole, 18 tee driving range, fully automated driving range Golf Club within the college grounds. Courses: City & Guilds National Certificate in Horticulture (Sports turf management), BTEC National Diploma in Horticulture (sports turf), BTEC National Diploma in Sports & Exercise Sciences (golf), Certificate of Higher Education in Golf Course Management, Foundation Degree in Golf Course Management, Foundation Degree in Turfgrass Science and Technology, NVO Level 2 in Amenity Horticulture (sports turf option), NVO Level 3 in Amenity Horticulture (sports turf option), British Turf and Landscape Irrigation Association (week 1 course), FAIRWAY Training, Chainsaw Certification, Off-Road Vehicle Certification. Note: Certificate of Higher Education & Foundation Degrees available as part time options.

EAST DURHAM AND Houghton COMMUNITY COLLEGE Houghton, Durham, DH5 3SG Contact: Sue Lamb Tel: 0191 386 1391 Fax: 0191 386 0419 Email: enquiry@eccf.ac.uk Web: www.eccf.ac.uk Information: Full-time courses: National Certificate in Horticulture/Greenkeeping and Groundsmanship - 1 year. Part time courses: Greenkeeping and Sports turf maintenance NVO Level 2 - Day Release. NVQ Level 2/3 Greenkeeping and Sports Turf Maintenance Day Release. Short courses: RHS Modules, Chainsaw certification, Tree Inspection, Horticultural Machinery, Safe Lifting and First Aid.

HAZLOW COLLEGE Hadlow, Tonbridge, Kent, TN11 0AL Contact: Norman Crossdale Tel: 01732 815241 Fax: 01732 853207 Email: h.hall@hadlowcollege.co.uk Web: www.hadlowcollege.co.uk Information: National award and National Diploma in Horticulture. NVO Level 1 Horticulture, NVO Level 2 & 3 in Amenity Horticulture in Hard Landscaping, Sports Turf and Production Horticulture.

HARTPURY COLLEGE Hartpury House, Gloucester, Gloucestershire, GL19 3BE Contact: Rural Camp Tel: 01452 707132 Fax: 01452 700629 Email: enquiries@hartpury.ac.uk Web: www.hartpury.ac.uk Information: Courses available: College Certificate Greenkeeping, First Diploma Amenity & Landscape Horticulture, National Award Greenkeeping & Groundsmanship, National Certificate Amenity & Landscape Horticulture, National Certificate in Landscape Horticulture, National Diploma in Landscape Horticulture. Work based emphasis for all of these programmes. Short courses available in Arboriculture/Chainsaw work, TDLB training and Pesticide application training. Amenity Horticulture NVO Levels 2, 3 & 4. Work based emphasis for all of these programmes. Short courses available in Arboriculture/Chainsaw work, TDLB training and Pesticide application training. Amenity Horticulture NVO Levels 2, 3 & 4. Please contact us for up-to-date listings, qualifications and advice. Career Evenings held monthly at the college.

HARTPURY COLLEGE Hartpury House, Gloucester, Gloucestershire, GL19 3BE Contact: Rural Camp Tel: 01452 707132 Fax: 01452 700629 Email: enquiries@hartpury.ac.uk Web: www.hartpury.ac.uk Information: Courses available: College Certificate Greenkeeping, First Diploma Amenity & Landscape Horticulture, National Award Greenkeeping & Groundsmanship, National Certificate Amenity & Landscape Horticulture, National Certificate in Landscape Horticulture, National Diploma in Landscape Horticulture. Work based emphasis for all of these programmes. Short courses available in Arboriculture/Chainsaw work, TDLB training and Pesticide application training. Amenity Horticulture NVO Levels 2, 3 & 4. Please contact us for up-to-date listings, qualifications and advice. Career Evenings held monthly at the college.

MERRIST WOOD CAMPUS OF GUILDFORD COLLEGE Wessexdown, Guildford, Surrey, GU3 3PE Contact: Joe Poulton Tel: 01483 860638 Fax: 01483 860401 Email: sp@mer stockings.org.uk Web: www.merristwood.ac.uk Information: Merrist Wood and at Crawley, Level 2 Edexcel First Diploma college day release, also full-time for those without qualified workplace accessess.NVO Level 2 Sports Turf college day release and workplace visits/assessments at Merrist Wood and at Crawley. Level 2 Edexcel First Diploma college day release, also full-time for those without qualified workplace accessess, NVO Level 2 Sports Turf college day release and workplace visits/assessments, Level 3 Edexcel National Award college day release for those without qualified workplace accessess, Edexcel HNC Turfgrass Science and Management college day release over 2 years plus various short courses throughout the year. Edexcel HND Turfgrass Science and Management college day release. Please contact us for up-to-date listings, qualifications and advice. Career Evenings held monthly at the college.

MYERSCROUGH COLLEGE Bilsborrow, Preston, Lancashire, PR3 0RY Contact: Colin Stanfield Tel: 01959 642223/643025 Fax: 01959 642333 Email: info@myerscough.ac.uk Web: www.myerscough.ac.uk Information: Full-time courses, BSc (Hons) Turfgrass Science, Foundation Degree Sportscourse - online option by distance learning, NVO Turf Science & Sportsground Maintenance: National Certificate in Groundsmanship and Greenkeeping, also Sports Turf Mechanisation option: First Diploma in Greenkeeping, Turf Science: NVO Level 2, 3 & 4 Greenkeeping and Management delivered both in the work place and over the internet using the college 'MySoft System'. Part-time courses NVO Level 2 & 3 Greenkeeping and Sports Turf Maintenance (Day/night release or fast track work-based training qualifications). All higher education courses can be accessed on a part time basis. Edexcel Sport Science: FdSc courses. Short courses: NPTC Certificates of competence in the safe use of mowers and turfcare equipment. Careers mornings monthly on Saturdays.

NESCOT - NORTH EAST SURREY COLLEGE OF TECHNOLOGY Reigate Road, Ewell, Epsom, Surrey, KT17 3DT Contact: Mr Colin S Smith Tel: 020 8934 3220 Email: info@nescot.ac.uk Web: www.nescot.ac.uk Information: NVO Levels 1, 2 and 3 in Amenity Horticulture (Greenkeeping options). Part time Day Release. Duration: two years to Level 2. FER Spraying Courses. Also available - RHS General and Advanced Certificates in Horticulture. RHS Diploma in Horticulture.

OAKLANDS COLLEGE & Allams Smallford Campus, Hatfield Road, St Albans, Hertfordshire, AL4 3A4 Contact: Helpline Tel: 01727 737000 Fax: 01727 737952 Email: help-line@oaklands.ac.uk Web: www.oaklands.ac.uk Information: Full-time courses, National Certificate in Horticulture and Sports Turf Management. Part-time courses: leading to NVO Level 2 & 3 Greenkeeping, Modern Apprenticeships: Evening Courses: leading to NVO Level 4. Short Courses: Pesticide, Chainsaw.

PLOMPTON COLLEGE Ditchling Road, Lewes, East Sussex, BN7 4AD Contact: David Blackmur Tel: 01273 890454 Fax: 01273 890761 Email: enquiries@plopton.ac.uk Web: www.plopton.ac.uk Information: (Full time) National Diploma in Amenity Horticulture, Greenkeeping & Sports Turf (part time) NVO Levels 2/3 in Amenity Horticulture: Horticulture, National Diploma in Golf Course Management, flexible learning options. Short courses: IFA, Chemical Safety, Safe Lifting, Chainsaw, Off-road Vehicle Driving, First Aid, NPTC Certificate of Competence.

REASEHEATH COLLEGE Nantwich, Cheshire, CW5 6OF Contact: Chris Spicer Tel: 01270 632236 Fax: 01270 634565 Email: course.enquiries@reaseheath.ac.uk Web: www.reaseheath.ac.uk Information: Full-time National Diploma in Amenity Horticulture, Greenkeeping & Sports Turf (part time) NVO Levels 2/3 in Amenity Horticulture: Horticulture, National Diploma in Golf Course Management, flexible learning options. Short courses: IFA, Chemical Safety, Safe Lifting, Chainsaw, Off-road Vehicle Driving, First Aid, NPTC Certificate of Competence.
This guide is not exhaustive and 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. Anyone with a query regarding greenkeeper training should contact the Greenkeeper Training Committee at Aldwark Manor, Aldwark, Aline, York YO61 1UF, Tel: 01347 838640 or visit their website at http://www.the-gtc.co.uk

Sparsholt College
Hampshire
Sparsholt, Winchester, Hampshire, SO21 2NP Contact: Ray Broughton Tel: 01962 776441 Fax: 01962 776587
Email: info@sparthol.co.uk Website: www.sparsholt.ac.uk Information: NVQ Level 2 Greenkeeping Practice, NVQ Level 3 Greenkeeping Supervision, City & Guilds Phase IV Management Studies. National Diplomas in Golf Course Management and Golf Studies. National Certificate in Greenkeeping and Sportsturf Management. GTC: Greenkeeping Certificate, GTC Certificate in Golf Course Supervision, FEPA. Short courses, Chainsaws, Phase IV and NVQ Level 2 are offered on a block release and day release basis. Full residential facilities available. Sparsholt College provides education and training in the land-based industries.

The College of West Anglia
Milton Campus Contact: Bob Young Tel: 01223 860701 Email: enquiries@col-westanglia.ac.uk
Information: The College of West Anglia offers a full range of courses for Greenkeepers including; NVQ Level 1 Sportsturf (Greenkeeping and Groundsmanship), NVQ Level 3 Sports Turf Maintenance. GTC: Craft Certificate, GTC Certificate in Golf Course Supervision, TSQL Assessor awards. FEPA, Chain Saws, MO1. Other Courses: National and First Diploma in Horticulture and Garden Design.

Warwickshire College
Royal Leamington Spa & Mount Morrell, Mount Morrell, Warwick, Warwickshire, CV35 9BL Contact: Andrew Turnbull Tel: 01926 318208

Writtle College

The College of West Anglia
Milton Campus Contact: Bob Young Tel: 01223 860701 Email: enquiries@col-westanglia.ac.uk
Information: The College of West Anglia offers a full range of courses for Greenkeepers including; NVQ Level 1 Sportsturf (Greenkeeping and Groundsmanship), NVQ Level 3 Sports Turf Maintenance. GTC: Craft Certificate, GTC Certificate in Golf Course Supervision, TSQL Assessor awards. FEPA, Chain Saws, MO1. Other Courses: National and First Diploma in Horticulture and Garden Design.

Langside College
Glasgow, GLASGOW Website: www.langside.ac.uk Information: Courses offered: National Certificate in Horticulture, Level 3 Certificate in Greenkeeping and Sportsturf, HNC Level 3 Certificate in Landscape and Amenity Management, National Diploma in Horticulture and Golf Course Management.

Teagasc College
College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin, DUBLIN 9, Republic of Ireland Contact: Pat Suttle Tel: 00353 18460544 Fax: 00353 18460524 Email: psuttle@kinsealy.teagasc.ie Website: www.teagasc.ie Information: Courses offered: Level 3 Certificate in Greenkeeping, Level 3 Certificate in Golf Course Management, National Diploma in Horticulture and Golf Course Management.

Elmwood College

Gosta Training Ltd

Langside College
Rutherglen Campus, Buchanan Drive, Rutherglen, Glasgow, G73 3PF Contact: Colin S URquhart Tel: 0141 647 6300 Email: curquhart@langside.ac.uk Website: www.langside.ac.uk Information: Courses offered: Level 3 Certificate in Greenkeeping. Level 3 Certificate in Golf Course Management. National Diploma in Horticulture and Golf Course Management.

Oatridge Agricultural College
Ecclesfield, By Broxburn, West Lothian, Edinburgh, EH52 6NH Contact: Steve Miller Tel: 01506 854387 Fax: 01506 853373 Email: learn@gostatraining.co.uk Information: Advanced National Certificate in Horticulture, Level 3 Certificate in Greenkeeping, Level 3 Certificate in Golf Course Management, National Diploma in Horticulture and Golf Course Management.

Penicuik College
Penicuik, Midlothian, EH26 0TB Contact: Paul Discombe and John Sullivan Tel: 01355 202827 Email: info@penicuik.ac.uk Website: www.penicuik.ac.uk Information: Full time Course, Day/Block release. HNC: Sports Turf and Golf Course Management. Other Programmes: National Certificate, National Diploma in Sportsturf. All courses with a work-based option available. Distance Learning and NVQ Level 2, 3. Gold Course Supervision, GTC: Craft Certificate, GTC Certificate in Golf Course Supervision, TSQL Assessor awards. FEPA, Chain Saws, MO1. Other Courses: National and First Diploma in Horticulture and Garden Design.

Welsh College Of Horticulture
Enjoy Your Greens?

BCA is a BIGGA (British and International Golf Greenkeepers Association) approved centre for greenkeeper training at craft level. We have industrial links and training agreements with top-ranking golf clubs in the area as well as our own Greenkeeping Group. All of this, together with our team of professional staff, ensures that you have the highest quality in training and facilities.

Our golf training facilities are full size and open for play, but are primarily there to train professional greenkeepers. The greens are each of a different design and construction with architecture demonstrating a variety, covering the whole of the 20th century, and looking to the future. Computerised irrigation systems complement this unique training resource.

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- NVQ Amenity Horticulture, Sports Turf Maintenance, Levels 2 to 3 (part-time)
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- Higher National Certificate in Sports Turf Technology (part-time)
- Higher National Diploma in Sports Turf Technology (2 years, full-time)

For more details please call 01628 824444 or click on www.bca.ac.uk

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E enquiries@bca.ac.uk W www.bca.ac.uk

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- HNC Turf Science & Golf Course Management
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- First Diploma Groundsmanship & Greenkeeping
- National Certificate Groundsmanship & Greenkeeping
- National Certificate in Sportsturf Machinery
- National Diploma Turf Science & Sportsground Management

*Offered as work-based options where trainees study within the workplace supported by tutor visits and CD/line materials.

We also have various short course programmes - please contact us for a short course prospectus.

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Myerscough College, Bilsborrow, Preston, Lancashire PR3 0RY

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- National Certificates
- Advanced National Certificates
- RHS General Certificate
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- Chainsaw Testing

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For further information contact:
NPTC, National Agricultural Centre, Stoneleigh
Warwickshire CV8 2LG
Tel: 024 7685 7300
Fax: 024 7669 6128
Email: information@nptc.org.uk
Website: www.nptc.org.uk
YOUR LETTERS ARE REQUESTED!
Send to: Scott MacCallum, Editor, Greenkeeper International, BIGGA HOUSE, Aldwark, Alne, York Y061 1UF, or email them to: scott@bigga.co.uk

Making the Case for Bio Stimulants
I am writing with regard to the article written by Bob Taylor of the STRI about what does the future hold for bio stimulants in the October issue. The STRI trial with biostimulants did not show positive results but I think greenkeepers might like to know of my experience. I have been Course Manager at the Royal Automobile Club for 26 years and we have always had problems with root growth even though analysis shows the soil to be good for grass. Frequent aeration did not seem to help. Last autumn we started to get problems with grass cover which was made worse by continuous winter play. After discussing the options with our consultant we started a programme of adding mycorrhizae and soil microorganisms and reducing other chemical use. This September we started to apply compost tea brewed in a Symbio Xtractor to increase fungi, protozoa and beneficial nematodes in the soil. It took several months for real improvements to show but now the rootzone has changed colour from grey to light brown and smells healthy. We now have roots growing down to 300mm and we have been using water and fungicide use. From what I have seen adding microbes and using compost tea with good greenkeeping practice is part of the future.

Bob Wiles, Course Manager, The Royal Automobile Club, Epsom

Bob Taylor Replies...
The article on Organic Products—What's the Hype About, published in the October edition of Greenkeeper International was always going to generate a predictable response particularly from those with a vested interest in the manufacture and sale of these products. If the article is seen to be out of date and erroneous it is only so as a result of a lack of available independent meaningful data which we at the STRI have requested repeatedly to back up the claims being made. However, Novozymes are currently having trial work conducted on new products by the STRI and possibly other producers may be having similar work conducted by other organisations which should help in the availability of independent data.
The article was compiled from numerous sources including recent editions of the USGA's Green Section Record, personal and culminated experience from within STRI and from the trial work conducted both at STRI and in Australia. Interestingly, it was only having completed the seminar on this subject in Adelaide this year at the AGCSA Conference that I was informed of their current trials on this subject which they have carried out totally independently. Although some greenkeepers at the conference intimated to me that they have had some success with microbial products, the results of the Australian trials revealed no significant effects and in essence therefore were not dissimilar to those of STRI. I have found a similar response among British greenkeepers where some appear to see some benefits while others see none.
Clearly from an ecological and environmental point of view, any biological product that helps reduce the amount of pesticides and other chemicals including nitrogenous and phosphatic fertilisers must be welcomed. However without meaningful data substantiated by research how can consultants advise on the pros and cons of the products available?
My own personal view is that the use of microbial products will over time become increasingly important, particularly so given the likely withdrawal of many other chemical products we have become so reliant upon. On existing greens that have become compromised, lacking strong microbial associations, microbial products may find their niche. On healthy surfaces, however, where microbial populations are strong, their value is likely to be reduced. At the end of the talk in Adelaide I asked the question, "What future for microbes?" This section was for some reason omitted at source from the article printed but basically I do see a role, particularly on new sand-based constructions where initial microbe populations are likely to be low. Introducing microbes here may accelerate turf establishment. Ensuring strong microbial populations through the growing and establishment phases may also suppress disease. The presence of a healthy soil fauna is likely to be essential for seed germination, seedling establishment and in encouraging greater rooting depth. While writing this, it did cross my mind that composted material produced in-house would give similar effects "at little cost". This does raise the question therefore, "Are commercial microbial suppliers likely to experience a new level of competition in the near future given the current resurgence of interest in composting organic materials and the European legislation that beckons".
My article was written to stimulate thought and interest, and in the main to re-emphasise the need for ongoing intensive cultural practices. Indeed, there can be no substitute for traditional greenkeeping even if it is now being cosseted by modern mechanical equipment.
I am pleased to see that Symbio are hosting seminars on their products through November and I do sincerely hope that the apparent wealth of data currently held within this and other organisations and repeatedly requested by STRI can be made more available to those of us working within the field.
Bob Taylor, STRI
Roland Taylor looks at the range of compact tractors currently jostling for position in a crowded market.

My dictionary defines “compact” as ‘having parts or units closely joined’, ‘occupying a small volume because of efficient use of space’. Both definitions apply to most modern tractors, regardless of their output. Today, the term compact does not necessarily mean a small tractor when it comes to the power it delivers. Over the last two decades diesel engines have come down in actual size, while horsepower has risen.

With the changes that have taken place in agriculture, manufacturers, who previously showed little interest in the groundcare market, are now producing model ranges specifically designed for it. This has meant an increase in competition with the result that innovation is to the fore, as companies strive to retain or gain market share.

The same also applies to tyre companies and, as a result, larger tractors fitted with the correct tyres can now be used on areas where previously it was not possible without damaging the turf and the rootzone layers.

It is also necessary to take into account the power requirements of modern machinery necessary to maintain a course in good condition, especially when it comes to aeration and dealing with compaction. Often this equipment now needs plenty of both engine and pulling power to do the job satisfactorily. For this reason alone it is necessary to find the right tractor for one’s own specific requirement. This involves comparing ground weight and the soil types it is likely to be used on.

The following is to whet your appetite, with a selection of models that are now available (plenty are not included simply due to lack of space) plus some experiences your peers have discovered with specific tractors.

JOHN DEERE

This year saw the launch of two new large chassis compacts - the 4610 (44hp) and 4710 (48hp).

There is a choice of transmissions. The eHydro(tm) combines all the benefits of a gear driven tractor for accurate speed control when using coring or deep aeration equipment, plus the flexibility of hydrostatic transmission, when using a loader.

PowrReverse(tm) transmissions is the alternative and provides clutchless shuffling between 12 forward and 12 reverse speeds, plus additional 12/12 creeper gears.

In addition there is the eMatch(tm) which enables the operator to customise the tractor’s transmission response for the specific jobs the tractor is carrying out. The system matches the speed and loading and combined with optional cruise control, gives great accuracy with less operator fatigue, especially when working at low speeds.

John Deere has restyled the Standard models in their 5015 series. These new look tractors are available on turf tyres, with either two or four wheel drive. They have a wider cab with improved all round visibility and a low noise level of 78dB(A). There is a choice of five synchronised transmission systems.

Woking Golf Club is the oldest heathland course in the country and is rated among the top UK 100.

This spring they took delivery of two John Deere tractors, the 4410 (33hp) and a 72hp 5410.

"Our previous equipment could not be relied upon and we were wasting valuable time. The tractors are much more efficient, easier to maintain and very operator friendly. This means we can get the work done faster, leaving more time to spend working on the courses," said Head Greenkeeper, Jon Day.

The smaller tractor with an Aercore 1500 has been used on the greens throughout the summer. In addition to operating spiking, slitting and sarel rolling, it also powers a Tornado side blower and Sisis Variseeder.

For general grounds maintenance work, the larger 5410 is used with an assortment of attachments including Turfmech TMS vacuum collector, 2-metre Vertidrain aerator and Earthquake subsoiler.

Jon Day concluded that both tractors cope easily with all the jobs they required them to do and by running them on turf tyres they could be used anywhere on the course without causing damage.
A three cylinder liquid cooled Iseki diesel has been chosen to power the new MF GC2300 mid range compact tractor. This latest addition is part of a new company policy, following extensive customer research in the groundscare sector.

Safety, ease of use and operator comfort, has played a major part in the design of this tractor. The driving position has a sprung adjustable seat that positions an operator so they have all-round visibility and the semi platform provides plenty of leg room. All the controls are colour coded and within easy access. Another feature of this compact tractor is its versatility to take on a host of grounds maintenance tasks in confined areas.

The MFGC joins the already established 2200 series that offers three models from 55hp to 80hp. The emission compliant Perkins diesel engines used for these tractors, are said to provide 10% more power with 5% less fuel consumption.

There is a choice of transmissions and the Speedshift, which is an option, gives a 20% reduction in every gear.

For those looking for fingertip draft and positioning control, there is an optional electronic linkage system with rotary controls for the setting mounted on the console. There are special GE versions of this tractor for use on extreme hilly terrain. The tractor’s height has been reduced, so the centre of gravity is lowered and this is said to have the effect of improving the unit’s stability under these conditions.

KUBOTA

The new ME Series is aimed specifically at professionals working within the amenity sports turf. Comprising three models rated at, 58hp, 85hp and 94hp respectively, the ME5700, (58hp) ME8200 (85hp) and ME9000 (94hp) tractors have been developed to deliver very high levels of comfort, performance and operating efficiency within a compact, lighter-treading frame. All are powered by the E-TVCS (three vortex combustion system) water-cooled diesel engine. These are said to produce high torque rise characteristics, reducing the need to change gear while giving smoother performance in all working conditions.

For driver comfort there are ergonomic control layout, illuminated instrument panel and deluxe suspension seat.

Transmission systems match each model’s power output. The ME5700 has a fully synchronised 12/12 transmission with clutchless, on-the-move, hydraulic shifting from forward to reverse and vice-versa. The ME8200 and ME9000 have 18 forward and 18 reverse speeds, fully synchronised gearboxes, also with clutchless hydraulic shuttle shift for directional changes without having to stop the tractor.

All three tractors have an independent hydraulic rear PTO, which can be engaged and disengaged on-the-move.
ANTONIO CARRARO

The TRX multi-functional tractors have the provision to allow the attachments to be used either on the front or rear, in some case both. The drive direction is chosen through RSG, a reversible drive system. The tractors are said to have the capabilities of working in a wide range of environments and different terrains.

SAME DEUTZ

Their Deutz-Fahr Agrokid and Same Solaris have a number of commonalities and specifications.

All tractors in these ranges have three PTO points, a 540/1000 rpm rear and 1000/2000 rpm for front and mid mounted equipment. Position and draft controls are fitted as standard. There is 12/12 mechanical transmission, with the option of hydrostatic on the 25hp model. Features included are oil immersed disc brakes and electro hydraulically operated front differential lock, for added traction.

Solaris have four engine options in their range, three water-cooled plus an air-cooled version.

TRACTORS UK

For courses looking for a small compact there is the 3-cylinder, 18.5hp VST1880D which is said to have a host of features comparable with larger tractors. It is less than 1-metre wide so it can be used in areas where access is very limited.

The tractor is powered by a 3-cylinder Mitsubishi diesel engine and has a 6-speed gear box. The straightforward design is said to require minimal maintenance while retaining durability and make the VST 1880D competitively priced.

MOTOKOV

The TYM range is made up of models from 31hp to 70hp, with the smaller fitted with Kubota engines and the larger 55hp and 70hp have John Deere power units. Synchro shuttle transmission is standard on most models and the creep speed is fitted on the bigger machines. Other features include selectable 4-wheel drive and the multi-plate hydraulic PTO package, which is operated by a hydroelectric control from the driving consul. All the TYM tractors have two years manufacturer's warranty.

KIOTI

The DK range includes 5 tractors from 35hp to 51hp. All have mechanical gearboxes with full synchronisation. The hydrostatic steering has its own hydraulic pump and there is the option on some models of a double speed turning system that is said to reduce the turning radius and avoid scuffing of the tyres. Kioti 'green' engines use indirect injection technology that meets emission regulations throughout the world. The hydraulics has its own high flow pump driven directly off the engine. Position and draft control, plus swinging towbar, are all fitted as standard. The tractors have two year unlimited hours, parts and labour warranty.

CCOR

The specifications of the Dions and Fructus series include tractors from 52hp to 76hp, with either a field or creep version available. A main feature is the driving position, which has a plenty of leg room and colour coded controls for ease of operation red for transmission, green for hydraulics and yellow for power.

There are now over 20 UK firms offering tractor ranges in what is a relatively static marketplace. It is worth checking out the specifications from as many suppliers as possible. The aim is to determine exactly what is included and what the optional extras are, then talk to other users before arranging a demonstration. There should be no problem in getting suppliers to demonstrate their latest models, it is more likely that you would not have all the time required to see them.

Competition for market share is fierce, so the financial package also needs to be taken into account.

A small amount of research could result in some considerable savings being made.

McCORMICK

Wetherby Golf Club in Yorkshire had a need for a mid sized tractor which would operate a 1.5metre punch-action tiner/corer, but be light enough not to damage the greens.

"The McCormick GX45 is part of a new range of groundcare tractors and seemed to embody the things we were looking for. It has been kept very busy over the past year and exceeded our expectations, in terms of the growing number of jobs we’ve found for the little tractor," says Head Greenkeeper David Hannam. He went on to say that they decided on a set of generous flotation tyres that allow the tractor to work on delicate grass areas, without leaving a mark yet have enough grip on their more challenging banks.

The GX45 is powered by a 44hp Yanmar diesel engine, has mechanical forward-reverse shuttle and 12-speed transmission plus creep facility. At Wetherby it handles the corer, three different cylinder and rotary gang mowers and a trailer for general transport work.

Eric Wallis, one of the tractor’s regular drivers, added that the tractor runs very smoothly, is light to operate and very manoeuvrable.

"It is just what we needed for mowing and other work, and copes well with all the jobs we have given it."

A drop valve to regulate lift arm descent has been added to ensure the heavy corer can be lowered to the ground gently.

David Hannam concluded by saying that following crew training, calibration and familiarity trials, the GX45 recently came through a full 18 green run of hollow tining in eight hours with exemplary performance."