

Training providers guide

Available courses guide

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, Alne, York YO61 1UF, Tel: 01347 838640 or visit their website at <http://www.the-gtc.co.uk>

ENGLAND



SPARSHOLT COLLEGE HAMPSHIRE Sparsholt, Winchester, Hampshire, SO21 2NF **Contact:** Ray Broughton **Tel:** 01962 776441 **Fax:** 01962 776587
Email: rbroughton@sparsholt.ac.uk **Web:** 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 block release and day release. 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:** Student Support at King's Lynn on 01553 761144 Ext 271
Information: The College of West Anglia offers a full range of courses for Greenkeepers including: NVQ Level 2 Sportsturf (Greenkeeping and Groundsmanship), NVQ Level 3 Sports Turf Maintenance. GTC Craft Certificate, GTC Certificate in Golf Course Supervision, TDLB Assessors awards. FEPA, Chain Saws, MO1. Other Courses: National and First Diploma in Horticulture and Garden Design.



WARWICKSHIRE COLLEGE Royal Leamington Spa & Moreton Morrell, Moreton Morrell, Warwick, Warwickshire, CV35 9BL **Contact:** Brian Cook **Tel:** 01926 318268
Fax: 01926 318300 **Email:** enquiries@warkscol.ac.uk **Web:** www.warkscol.ac.uk **Information:** Greenkeeping Courses: HNC Sports Turf & Golf Course Management (Day Release 2 year Programme also distance learning option); NVQ Level 2 & 3 Day Release and Workbased Option (we come to you); two year ND in Horticulture with Turf Option; BTLIA Certificate in Turf Irrigation. Short Courses: Introduce your Committee to Turf Culture; Computing for the Greenkeeper - various times throughout the year - ring for details. FEPA: Spraying Certification, Chainsaw Certification; TDLB; First Aid. Also RHS General and Diploma, PA1, PA2A and PA6. Professional Certificate/Diploma in Greenkeeping.



WRITTLE COLLEGE Chelmsford, Essex, CM1 3RR **Contact:** David Campbell **Tel:** 01245 424200 **Fax:** 01245 420456 **Web:** www.writtle.ac.uk
Information: SPORTSTURF PROGRAMMES NVQ Level 2 - Sportsturf; NVQ Level 3 - Sportsturf Maintenance. NVQ Levels 2 & 3 - Amenity Horticulture. HNC - Sportsturf Science. HND - Sportsturf and Golf Course Management. Other Programmes; National Certificate, National Diploma (with Sportsturf Option). BSc (Hons) Sportsturf Science and Management. BSc (Hons) Horticulture. BSc (Hons) Landscape and Amenity Management. MSc Landscape and Amenity Management. NVQ 2 and 3 Service Engineering. First Diploma Agriculture (Mechanisation), C & G Agricultural Mechanics Certificate. FEPA. Chainsaw. Tractor Driving.

IRELAND



GREENMOUNT COLLEGE Antrim, County Antrim, BT41 4PU **Contact:** Declan Gallagher **Tel:** 028 94 426794 **Email:** declan.gallagher@dardni.gov.uk **Web:** www.greenmount.ac.uk
Information: Day release courses to (a) NVQ Level II Greenkeeping and Sportsturf, (b) NVQ Level III Golf Course Supervision, (c) Advanced National Certificate in Horticulture (Sportsturf), (d) National Diploma & Higher National Diploma turf options FEPA, Health and Safety and a range of short courses.



TEAGASC COLLEGE College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin, DUBLIN 9 **Contact:** Pat Suttle **Tel:** 00353 16376133 **Fax:** 00353 18040212
Email: college@botanic.teagasc.ie **Web:** www.teagasc.ie **Information:** Block release courses in greenkeeping providing Level III Certificates by the National Council of Vocational Awards. Level III Certificate in Golf Course Management. 3 year full-time course. National Council for educational awards a National Diploma in Horticulture (Greenkeeping specialisation).

SCOTLAND



ELMWOOD COLLEGE Cupar, Fife, KY15 4JB **Contact:** Ann Bain **Tel:** 01334 658842 **Fax:** 01334 658888 **Email:** abain@elmwood.ac.uk
Information: Full time National Certificate Greenkeeping; Block Release SVQ Level II, SVQ Level III Sportsturf block release and Outreach available, and SVQ Level IV, HNC/D Golf Course Management available as full-time, block release and distance learning. HNC Golf Facility Management, HND Golf Facility Management, PDA for football and cricket available both block release and Outreach. FEPA and COSHH, chainsaws, tree climbing and rescue techniques and Health and Safety short courses also available.



GOSTA TRAINING LTD 5E Clydeaway Centre, 45 Finnieston Street, Glasgow, G3 8JU **Contact:** Chris Bothwell **Tel:** 0141 248 2772 **Fax:** 0141 248 2453
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/Block 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.



LANGSIDE COLLEGE Rutherglen Campus, Buchanan Drive, Rutherglen, Glasgow, G73 3PF **Contact:** Colin S Urquhart **Tel:** 0141 647 6300 **Email:** colinurq@perseus.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 Risk Assessment and Pesticides.



OATRIDGE AGRICULTURAL COLLEGE Ecclesmachan, By Broxburn, West Lothian, Edinburgh, EH52 6NH **Contact:** Steve Miller **Tel:** 01506 854387 **Fax:** 01506 853373
Email: info@oatridge.ac.uk **Web:** www.oatridge.ac.uk **Information:** HNC In Golf Course Management (Part-time): Full-time National Certificate in Greenkeeping and Sportsturf Management: SVQ Level II and GTC Manual (Day and Block Release): SVQ Level III Sportsturf (Day and Block Release) SVQ Level III in Ground Care Machinery, 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.

WALES



PENCOED COLLEGE Pencoed, Bridgend, Cardiff, CF35 5LG **Contact:** Paul Discombe or John Sullivan **Tel:** 01656 302672 **Fax:** 01656 302601
Email: pdiscombe@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.

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- | | |
|-------------------------------|-------------------|
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| • Saturday 7th December 2002 | 10.00am - 12.30pm |
| • Saturday 18th January 2003 | 10.00am - 12.30pm |
| • Saturday 22nd February 2003 | 10.00am - 12.30pm |
| • Saturday 8th March 2003 | 10.00am - 12.30pm |
| • Saturday 12th April 2003 | 10.00am - 12.30pm |



Call us for more information on

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Myerscough College, Bilsborrow, Preston, Lancashire, PR3 0RY
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The GTC is responsible to ensure the Greenkeeping sector has a range of qualifications appropriate to the needs of the industry and maintain a partnership with a network of Approved Training Providers who offer training courses to complement qualifications.

To improve its communication structure the GTC has recently been appointing part-time Liaison Officers across the United Kingdom however some posts are still available (see website).

For independent advice on any matters relating to Greenkeeper training or the role of the Liaison Officer please contact the GTC at the address below.

You can also check out our website www.the-gtc.co.uk for the most up to date information or email us with any questions to golf@the-gtc.co.uk



The Greenkeepers Training Committee Ltd
Aldwark Manor, Aldwark
Alne, York YO61 1UF

Tel 01347 838640 Fax 01347 838775



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- Landscaping
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- Outdoor Education
- Sports Conditioning & Coaching

Higher Education Information Days

Lecturers are on hand to give course-specific tours and answer any questions on a one-to-one basis.

Careers Mornings

- Saturday 11th January 2003, 10am - 1pm
- Saturday 8th February 2003, 10am - 1pm

- Wednesday 15th January 1.30pm - 4.30pm
- Saturday 15th February 10am - 1pm

For further information,
Tel: 01452 702132
E-mail: enquire@hartpury.ac.uk
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Greenkeeper

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HYDRAULICS

Roland Taylor looks at the history of something which has made all our lives easier

In these days of high technology it is easy to forget all the research, time, sweat, sleepless nights and money that was put into developing something we use everyday and simply take for granted. Hydraulics is a case in point.

By having a better understanding of hydraulics, how they work and their maintenance requirements is of considerable benefit in achieving optimum performance and identifying the possible cause of a failure.

Hydraulic power, or fluid power as it is sometimes known, involves liquids in motion or under pressure. This force has been used for centuries, but it was not until the 1650s that a Swiss scientist Pascal, and physicist Bernoulli, formulated hydraulic power laws which are still used in modern applications. It was nearly 200 years before these laws could be applied, thanks to the invention of mechanical pumps. By 1882 the City of London had installed a pressurised water system that delivered supplies, through underground mains, to factories, for running the machinery. The next milestone was in 1902, when the American warship, the USS "Virginia", was fitted out with an oil hydraulic system to control its guns. Eighteen years later the first self-contained unit was introduced.

A man who played a significant part in the development of hydraulics, was tractor manufacturer, Harry Ferguson. Although there was no direct link with golf then, his tractors and other manufacturer's models, that used his system, eventually found their way onto most courses. These units were the forerunners of those now found on modern machines.

In 1936, Ferguson launched the "Black tractor" onto the agriculture market, it had a unique integral hydraulically controlled three-point-linkage. Within a decade most tractor and implement manufacturers throughout the world, had copied the system.

Since the last war the growth of fluid technology has been phenomenal and when it comes to transmission systems, hydraulic power leads the way.

HOW DOES FLUID POWER WORK?

It basically involves controlling the circulation of a pressurised fluid, to a motor, which converts it into a mechanical output that works satisfactorily under load. The main benefits of this system are its flexibility, the ability to multiply a force efficiently. In addition, response is accurate and faster than any other power transmitting system. Even under varying loads a precise speed can be maintained. A single lever controls the transmission unit's speed and smoothly alters the direction of travel without a clutch being engaging and the manually changing of gears. This is a big plus when working in confined areas or using a loader. As part of a piece of

machinery's overall design the number of mechanical drive components is greatly reduced.

The link between the pump and motor is not rigid so a hydraulic system is very flexible. Often the motors are a considerable distance from the pump. These features can be seen in machinery such as, long reach flails or a ride-on triple with floating cutting units, so they closely follow the terrain.

A hydraulic system consists of the following, a tank or reservoir, pump and motors, plus control valves and hoses.

The tank has to be large enough to supply the whole system plus a reserve supply. As the oil passes round the system it heats up, mainly due to the friction, created by the moving parts, so it needs to be cooled before being re-circulated. At some point before it is returned to the tank, the oil passes through a cooling unit, which generally consist of a fan, either blowing or drawing cold air through cooling fins.

The pump's function is to create a pressurised oil flow.

Depending on the application, there are generally of two types of motor used, in hydraulic systems - linear or rotational.

The linear unit consists of a piston inside a cylinder (RAM). A piston rod connects the force that is created to the external load. As these units generate force in a straight line they are used on turf machinery for lifting or lowering units. On tractors this type of motor is mostly used to operate the three-point-linkage and power steering.

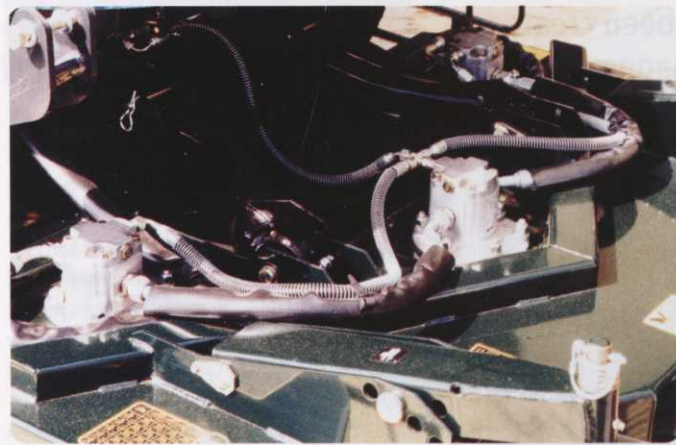
In a rotational motor, pressurised oil drives the gears, vanes or pistons, this produces torque on the output shaft. They are used to drive cutting cylinders and wheels.

Special hoses and connectors have to be used because the oil is under considerable pressure.

Self-contained hydrostatic transmissions are very popular and these are generally found on the small estate and garden tractors, some ride-ons and pedestrian rotary and cylinder mowers.

All systems have some form of by-pass valve for moving the machine, without the engine running. These are also generally used to bleed the system of air.





TAKING CARE

On most systems, maintenance is relatively minimal, there are however a number of other factors that need to be taken into account to ensure continued optimum performance and long life.

The components of the pumps and motors are manufactured to very fine tolerances so if the oil becomes contaminated with dirt, then serious internal damage can occur. If water gets into the system it will create major problems.

From time to time the reservoir tank will need to be topped up. Make sure the recommended hydraulic fluid, as shown in the manual, is used.

The manufacturer will have carefully routed all the hydraulic hoses and secured them with some type of fastening. During work these fasteners can become damaged, break or lost, as a result a hose may then chafe against another part of the machine. If this is not spotted and dealt with, a hole eventually forms and bearing in mind that the oil is very hot and under pressure a very unpleasant situation could occur, which endangers the operator and also badly damage the turf.

Connectors are a point where foreign bodies can enter the system, so these need to be kept clean and checked regular to ensure they are working correctly.

As already mentioned, it is important that the oil is kept at the correct temperature. Two things can affect this - the lack of oil or an ineffective cooling system. To avoid the first one, it is necessary to check the levels periodically, as recommend in the instruction manual. Also be on the look out for any signs of leakage, such as small pools of oil on the floor area where the machine is stored. Some manufacturers such as John Deere, now offer a hydraulic oil leak detection kit for some of their machines. If these detect a leak an audible alarm and a warning light warn the operator.

Cooling fins are often used to keep the fluid at the correct temperature. These can become clogged up with dried grass and dirt, as a result the airflow across them becomes either restricted or non-existent. Regular inspection, and cleaning if necessary, will avoid these hot spots occurring.

OTHER WARNING SIGNS

There are other signs that may indicate a problem to watch out for. If a unit is showing loss of power, noisy, not working or the oil is foamy, then air may have entered the system. The answer in this case will be to bleed

the system. As each machine has a different system it is necessary to consult the users manual.

A point that is shown in the John Deere instructions, for bleeding a system, is obviously very important and should be checked out regarding other makes of machines. They state that pumps should never be bled or purge under load as this could seriously damage them. It also says that the machine needs to be jacked up so the tyres are off the ground when carrying out this operation.

BIODEGRADABLE OIL

Apart from the environmental issue, these have another advantage. In the event of an accident where hydraulic oil is sprayed onto the turf, damage will occur because of the heat, but there is a high chance of recovery.

Before proceeding to use biodegradable oil you need to check with the supplier or manufacturer of the equipment to ensure they endorse the use of it. There are some operations where it is not recommended. The other down side is the cost, it is more expensive than normal oils.

John Deere says in their literature, that there are other factors that should be taken into account, these include, increased oil change costs and possibly higher maintenance bills, especially where systems are working at high temperatures and with heavy loads.

Where biodegradable oil is being used there are signs to be on the lookout for. If the fluid becomes black there is probably an overheating problem. Where it is milky then the chances are water is in the system. The fluid needs to be cold to obtain its correct level.

Hydraulic power has over the last few decades played a significant part in the efficiency and cost effectiveness of a majority of equipment used on a golf course. Maintenance requirements and schedules have been considerably reduced in recent years, but it is still important that if maximum output and long life are to be achieved, regular checks are carried out and any faults identified and rectified as quickly as possible.

With any hydraulic system a watchful eye can often spot a minor problem before it becomes a major one, so always be vigilant.



R&A Golf Course committee

LEADERSHIP AND GUIDANCE

Scott MacCallum meets Michael Barratt, the public face of the R&A's new Golf Course committee which has been created to offer leadership and guidance on course management issues



Everyone knows that the R&A organises The Open Championship

Approach any group of golfers and ask them who is the governing body for the game and most will be able to tell you that it is the R&A. Ask the same group what the R&A does and some will be able to tell you that they set the rules of the game and organise The Open and several of the largest amateur events on the calendar like the Walker Cup and the Amateur Championship.

But the R&A's input into the game now stretches much further and deeper than that to the extent that, with the formation of a new committee, clubs everywhere – particularly in Europe to begin with – can look forward to receiving best-practice guidelines on course management, an accreditation system and co-ordinated research effort.

The Golf Course committee has been born out of R&A Secretary Peter Dawson's desire to offer genuine leadership on vital golf-related matters.

The public face of the Golf Course committee, which replaces the R&A Advisory Panel, which had a similar, if less dynamic, remit, is a man whose face is, indeed, very well known to the public. Michael Barratt's experience in television and media communications is second to none and for several years now he has been working with the R&A. Now he has become Communication Consultant to the new committee.

"We aim to promote best practice guidelines on those issues and also create a system of accreditation to be used across Europe and eventually beyond."

Some time ago, the Advisory Panel identified six key issues affecting course management in these changing times: Climate or climatic change; water; chemicals, planning; levels of play and finally the environment.

Michael was initially responsible for a three-pronged campaign to spread the word and instigate debate on the issues - a video, "A Course for All Seasons"; an accompanying booklet with the same title and two



Michael Barratt, the public face of the new R&A Golf Course committee

Conferences, one in St Andrews, "On Course for Change" (covered in the March 2000 issue of Greenkeeper International), and the other on the continent.

The video and booklet explained the real fundamentals of golf course management and showed how different types of golf courses were managed. This was sent to each golf club in Great Britain and Ireland as well as to each of the Federations in Europe and was fully funded by the R&A.

It was followed up by the St Andrews Conference, in early 2000, which received quite a bit of publicity for what emerged - especially on coastal erosion. But it was the second Conference, held near Lisbon towards the end of last year, which was to prove the catalyst for this new committee.

'Changing Course in Europe' was one of the most exciting conferences I've ever had anything to do with. It was very evident that there was a strong feeling from delegates of looking to the R&A for leadership on a whole number of issues," recalled Michael.

Peter Dawson was in attendance and was initially surprised by what he was hearing, and then greatly moved.

"As a consequence, at the end of the conference, instead of just saying what a great conference it had been and thanks for coming, he said he had been moved and that it had given him a vision," said Michael.

Peter Dawson then outlined this vision of establishing a new R&A body which would concern itself with key issues on behalf of Great Britain and Ireland and the whole of continental Europe and eventually a wider field than that.

"He was speaking very much from his own heart and, I thought, very bravely because he knew it would be recorded and people would be looking to see what he would do," recalled Michael.

Since then things have moved remarkably quickly considering what needed to be put in place to make it happen. It's a fact that Michael is keen to emphasise, reinforcing the importance that is placed on the new committee by the R&A.

"It was agreed by the R&A General Committee that there should be the formation of a golf course committee and the Advisory Panel was dissolved."

The new committee, comprising R & A members is Chaired by Tim Taylor, with Deputy, Nick Park (who carried out the same roles on the Advisory Panel), Jaime Ortiz Patino, Michael Reece, Robert Webb and Bo Wickberg, with Peter Dawson, Golf Development Secretary Duncan Weir and Financial Secretary Mark Dobell on an ex-officio basis. The R&A is in the process of recruiting a full time Secretary to serve the committee.

"Everyone has a great deal to offer with vast R&A experience and outside business skills while Bo is a leading figure in Scandinavian and European golf affairs.

"Our first priority has been to find out what the Europeans expect of us.



Amateur Champion Alejandro Larrazabal

So we first of all sent out a simple questionnaire to every Federation and Union. Among the things we wanted to know was whether they would appreciate a visit from us so that we could really get to understand what their needs were and how they thought we could help. The response was unanimous. Yes, they said, let's get together. So we have already instituted a series of meetings on their home ground. I've been to Holland, to four Scandinavian countries with Bo Wickberg and (by the time this article appears) Spain, Portugal and Italy with Tim Taylor.

"An ad hoc committee has also been formed, chaired by Bo Wickberg, which is to report very soon on how to establish best practice guidelines, an independent accreditation body and how to improve the image of the game with EU legislators, national governments and local authorities," said Michael.

It is this latter role which is perceived to be one of the biggest challenges, particularly in continental countries where golf doesn't have a real history and established reputation.

"One of the big problems is that much legislation out of Brussels and elsewhere doesn't differentiate between farmland and golf - so golf often suffers".

The ad hoc committee is looking to bring in help from inside and outside the game. "We learned some time ago that it was very important to work with other bodies, especially in the environmental and ecological field. For example, Keith Duff, from English Nature, has been a wonderful support for us."

Looking at the make-up of the committee, and appreciating its remit, a concern could have been the lack of any greenkeeping representation - Walter Woods and George Brown sat on the original Advisory Panel - but this is explained by Michael.

"Tim Taylor wanted the committee to be small and dynamic and to pull people on board when we needed them and I can say that BIGGA and its members will be involved. BIGGA has a lot to help us with, particularly on the best practice guidelines. BIGGA features large in our thinking."

Asked how the success of the committee will be measured in five years' time, Michael is clear on the matter.

"Success is easily measured. In five years' time, in fact long before five years, we will have established a series of flexible best practice guidelines.

We face two difficulties. One is making it simple. Any attempts I've seen already have been far too complicated. The other is that they have got to be broad enough and comprehensive enough to embrace very different conditions. There's the hot and dry Mediterranean Basin and then there's Finland where they can only play for five months of the year. But people we have talked with have agreed that it is an achievable objective.

"I have to say it is all very exciting," concluded Michael, as he prepared for his next visit.

NEW PRODUCTS

MASSEY FERGUSON

More power at the top end, fully independent suspension all round, selectable 2/4wd on all models and a revolutionary new rack system are included in the redefined range of Massey Ferguson Agricultural Terrain Vehicles unveiled for 2003.

Called AgTVs rather than ATVs because they have been specifically developed for use in agriculture, forestry, grounds care and related industries, the MF range features six models including three with automatic transmission. For 2003, the range now offers many common features while maintaining class-leading ground clearance, suspension travel, carrying and towing capacity and more powerful engines.

At the top of the range, the three MF 500 models produce more performance from their 493cc engines across the complete power spectrum. The extra power comes from higher compression, new carburetors, a new cam and changes to the ignition timing and gears. The result is improved acceleration and a higher top speed, which can be used to advantage with the machines' towing, handling and terrain-following capabilities.

The mid-range MF 400 AgTVs now get their power from 376cc four-stroke air-oil cooled engines - an all-new engine in the case of the 400 manual 5-speed transmission model. These provide ample power for tackling wide-ranging tasks in all manner of terrain.

All six MF AgTVs now have fully independent double A-arm front and rear suspension. On the MF 500 and 400 models, this provides a massive ground clearance, making them the best in their class by a long way.

The ability to ride over obstacles and avoid bottoming out in ruts is assisted by the superb ride given by the unbeaten suspension travel of these MF AgTVs.

Front differentials with selectable 4WD or 2WD are now standard throughout the whole range of MF AgTVs. All models have the easy start-in-gear feature, so there is no need to select neutral when starting up.

The MF 300 has a manual five-speed transmission with high, low and super low ranges while the 400 and 500 machines offer a choice of manual five-speed with high and low ranges or dual-range Duramatic automatic constantly variable transmission.

All MF AgTVs provide users with a carrying capacity of 45kg on the front rack and 90 kg on the rear, while the MF 500 Automatic TBX, with its longer wheelbase, has a rear-mounted moulded tipping box with a capacity of 136kg.

Now, this best-in-class carrying capacity can work harder for users with the introduction of a revolutionary MultiRack Platform (MRP) on MF 400 Auto and 500



Auto machines. This new rack system, built to a patent-pending design, allows users to fit a range of accessories according to the task in hand. These slide-on attachments are fitted to the main rack to hold a wide variety of tools and equipment, eliminating the need for elastic cords and straps, and ensuring everything is held safely and securely.

Users can mix and match from the wide selection of versatile MultiRack components, enabling their MF AgTVs to be tailored to their work tasks.

High-density polyethylene skid plate protecting the underside of the MF AgTV. An electrical output socket providing power for equipment such as spreaders, sprayers, winches, and the MF Fieldstar terminal for precision tar niig operations. Top quality after-sales service for parts and servicing provided through the MF dealer network.

For further information Tel: 024 76694400 or visit the websites at www.agcocorp.com and www.masseyferguson.com

RECO

The SGG vacuum collector available from RECO can be used either as manually operated equipment for clearing leaves and lifter or as an integral grass clippings collection system.

The equipment is mounted on a tractor's rear linkage and incorporates a powerful fan and 1m³ hopper with dust filter and viewing panel. Fan performance ensures grass and leaves are tightly packed in the hopper to reduce emptying frequency. Rear castor wheels with wide pneumatic tyres minimise damage to soft surfaces.

Leaves and lifter are collected with a heavy-duty plastic nozzle connected to the hopper by five metres of hose. For grass cutting operations, the system is typically used in conjunction with front-mounted finishing mowers.

Two tipping options are available - one for ground level and the other for reaching up to 2.2 metres.

For further information Tel: 0114 266 4668



CHARTERHOUSE TURF MACHINERY

Health and Safety concerns mean that today's users of professional machinery require powered products that give lower vibration levels and longer usage times. A new range of post-hole borers from Charterhouse Turf Machinery fulfil these criteria and can also be used for other important tasks.

One- and two-person operated Ardisam augers are offered. They are lightweight and designed for fast performance, being not only able to work in hard earth, but also in concrete. The machines feature a special shock-absorbing system that protects the user from vibration, lessening fatigue and allowing longer usage times for maximum productivity. Machine life is also prolonged.

Power comes from 2hp and 5hp petrol engines made by Honda or Tecumseh, and augers can be fitted with diameters ranging from 2.5-14in (6-34cm) with an overall length of 32in (81cm). Auger extensions can be fitted for work at even greater depths.

A range of attachments are available which convert the Ardisam augers to work as ice-breakers, power drills and even as a cement mixer, giving year-round usage potential and cost-effectiveness.

For further information contact: Tel: 01428 661222



PLM POWER PRODUCTS

Investing in a number of pieces of machinery for specific jobs can be expensive as each has an engine that requires regular servicing and maintenance. PLM Power Products have introduced a cost-effective solution to this problem- the Shindaiwa Multi Purpose Tool carrier which can be adapted to carry out a number of applications. One of the major benefits of this type of machine is that because of its versatility considerable space is saved a factor that is particularly important when working away from base, and using vehicles for transporting equipment. It also means that by having all the attachments readily available for those unforeseen jobs, both time and money is saved.

The M230 Tool Carrier has Shindaiwa's own 1.1hp engine, which has a dual ring piston, and chrome plated cylinder for long life and reliability.

A Walbro barrel-valve carburettor ensures a quick throttle response and that the engine runs smoothly in all positions. This lightweight power unit has a built-in anti-vibration system to help reduce operator fatigue.

Fitting an attachment to the tool carrier is easy and simple, the top end of the shaft is slid into coupler and locked in position. It is recommended that this operation is carried out on a flat surface so both assemblies can be fitted end to end.

Attachments include the SBA-AH230 Articulated Long Reach Hedgetrimmer. Cutting high hedges using conventional trimmers can be a labour intensive and time consuming operation. Ladders have to continually be moved and for safety reason often two people are involved.

The double-sided reciprocating blade is 22.3" inches in length and the unit total length of 7ft 10" inches. The blade can be adjusted to 10 different positions through 15 degrees and folds down for transporting and storage.

SBA P230 Pole Pruner has a length of over 9ft when fitted with a 10inch bar. There is a choice of 8", 10" or 12" bars and these are mounted on the left-hand side of the gear case so the operator has a better view of the cut.

SBA T230 String trimmer has a cutting swath of 16". A brushcutter conversion comes as part of the package. The splined, solid steel drive shaft is hard wearing and better for dealing with torsional loads that trimmers often encounter.

For further information Tel: 01543 414477



GREENTEK

Where do you turn to when you suddenly find you need to install some additional drainage or irrigation pipes or lay an underground cable? Should you phone for a specialist contractor - or reach for your spade?

Now with the launch of the new Greentek Power-Trench PT8, an affordable self propelled trencher, you can do these jobs yourself, without waiting until a contractor can fit you one.

The PT8 has a Honda Bhp engine, hydrostatic drive, and will trench down to 18" x 4". Its wide floatation tyres tread softly on fine turf and a low centre of gravity makes the Power-Trench easy to handle in awkward areas that larger ride-on machines find difficult or impossible to cope with.

Here is CouncilsGreenTek a compact trencher designed to meet the needs of Greenkeepers, and Groundsman, at an affordable price.

For further information Tel: 0113 267 7000.



MOTOKOV UK LTD

Two new TYM tractors have been introduced by Motokov UK Ltd to complement the existing range as well as, in the case of the new 70 HP T700, offering a more specialist machine from its newly formed Grounds Care Division.

The 31 HP T330 Hydro unit is powered by a 31HP Kubota engine, which has already been well proven to provide excellent traction, high lugging power and unbeaten mobility through its use in the TYM T290. The T330 is also supplied, as standard, with a mid Power Take-off (PTO) and offers triple range hydrostatic drive to allow for smooth and safe operation. As with the T290, the T330 has headland management, full road legal lights, a rear working light, seat belts, folding ROPS, flat floor, duff lock and cruise control as standard.

In response to an increasing demand for higher horsepower tractors for the ground care market, TYM has introduced the John Deere turbo powered 70 HP T700 to be supplied in the UK by the Grounds Care Division of Motokov UK.

A 16/16 shuttle gearbox which features creep speed makes the T700 ideal for turf maintenance as well as other horticultural, agricultural and leisure management applications. Accessories such as rollers, mowers and verti drains, etc can be fitted with ease as three rear hydraulic remotes are provided with a wing mounted switch control.

For further information contact: Tel: 01553 817701



NEW DISEASES ARE DEVELOPING FACT OR FICTION?

Kate Entwistle delves into the murky world of fungi and reports the startling fact that there are more out there than you might believe.

I am quite sure that most people working in our industry could name up to ten common turfgrass diseases without too much trouble. However, naming all of the fungi that cause the diseases may be a little more of a challenge. Assume for a moment that you were asked to take a guess at the total number of fungi that could cause disease on turfgrasses. What would your answer be? Twenty, 50, 100, more than that? Actually, there is no correct answer to this because, quite simply, no one knows. However, I would not be surprised if the number were to be far in excess of any that you had thought and the reason for this is as follows:

'Most of the more than 100,000 fungus species known are strictly saprophytic, that is, they live on dead organic matter which they help to decompose. Some, about 50 species, cause diseases in humans and about as many cause diseases in animals, most of them superficial disease of the skin. More than 10,000 species of fungi, however, can cause diseases in plants. All plants are attacked by some kinds of fungi and each of the parasitic fungi can attack one or many kinds of plants.' Agrios, 1997.

It has been estimated that we have identified only around 10% of the total number of fungi on the planet. That being the case, it is fair to assume that there are likely to be about 1,000,000 different fungal species on the planet and although only a proportion will attack plants and a smaller number cause disease on turfgrasses, we are still talking about a large number of potential pathogens.

Although turfgrasses make up only a proportion of the total number of plants in the world, there are still a large number of potential pathogens that we know of. Changes in the pathogen populations and turfgrass cultivars, not to mention the introduction of new turfgrass species, means that the potential number of fungi capable of causing disease is increased still further.

So if any given fungus can cause disease on one particular grass, why can't it cause disease on all turfgrasses? The answer to this is genetics. The combination of genes within the turfgrass plant (the host) and the fungus (the pathogen) will determine firstly if disease is likely and secondly what type of disease it will be. The expression of any symptoms of disease will be modified by environmental conditions and this will ultimately determine the severity of the turfgrass disease.