Introduced as a result of customer feedback programme the Speed Link system connects both sides of the rear roller with worm gears located on each side of the roller housings. As well as providing much quicker height of cut adjustment than has previously been possible, the worm gears ensure that the adjustment remains in place.

For equally quick and simple height of cut range adjustments, the front rollers also utilise a notch system, which ensures that the rollers are locked into place regardless of mowing conditions. Now attached to the cutting units with clips for easier removal and greater stability, the grassboxes transfer the weight of clippings to the lift arms of the mowers’ traction units, so that cutting height remains unaffected.

John Deere’s new 7200 PrecisionCut trim & surrounds mower features, for the first time on a triplex cylinder machine, the same patented ‘Width on Demand’ cutting system introduced on the company’s 7400 rotary mower in 2008.

Designed to maximise driver comfort and ease of use, as well as increase productivity without sacrificing quality of cut, this mower allows the operator to change cutting width on the move at the touch of a switch, without the need for tools or additional parts.

In the narrower position, the cutting units overlap to ensure accuracy on slopes and tight turns. The wider position is ideal for larger grass areas, so that more turf can be covered in fewer passes.

The 7200 also offers the John Deere Reach System, which enables operators to shift either the front right- or left-hand decks a maximum of 38cm outside the front tyres. This allows safe trimming around bunkers, landscape features and other hazards while keeping the mower’s centre of gravity in a more consistent and stable position.

Following the successful launch of the golf and turf industry’s first hybrid greens mower in 2005, and in response to customer demand, John Deere is introducing the same energy-efficient technology on its new 7500e and 8500e E-Cut hybrid fairway mowers.

Based on the the PrecisionCut line of fairway mowers launched in 2008, the E-Cut mowers have a 48V electrical system that drives all five cutting units eliminating all hydraulic leak points from the reel drive circuit. This removes the potential for such leaks to cause damage to fairways and other fine turf areas, without sacrificing overall reliability, power or cut quality.

This system can also reduce fuel consumption by up to 30 percent.

There are no batteries to charge – the mowers’ 37 and 43hp turbocharged diesel engines drive an alternator, which provides consistent power to drive the cutting units via electric reel motors, even when the mowers are equipped with fairway tender conditioners, groomers or power brushes.

This advanced electrical reel system allows the cutting units to be powered independently of the traction speed, unlike hydraulic reel circuits. This means the operator is able to reduce engine rpm without slowing reel rpm or mowing speed, thus reducing sound levels while maintaining cut quality and productivity.
Toro’s ProCore aerator range has been strengthened thanks to The Toro Company’s recent State-side purchase.

The Minneapolis-based company now owns deep-tine aeration specialist Southern Green’s acclaimed Soil Reliever range.

Established in 1993, Southern Green is considered the leading manufacturer of deep-tine aeration equipment in the US. The seven-strong range of Soil Reliever products – previously distributed in the UK by John Shaw Machinery – is set to be relaunched over here through Toro distributor Lely as the ProCore SR Series.

Offering effective aeration up to depths of 40cm, the SR Series of deep-tine, tractor-mounted aerators alleviate subsurface soil compaction on numerous applications. www.toro.com.
Control algae and enhance the appearance of lakes and ponds with Black Onyx

New Black Onyx from Scotts Professional is a concentrated black colourant which visually enhances water features while preventing the growth of algae when combined with a biological algae control programme.

Used successfully across the USA, the product contains a concentrated blend of dry flowable colourants in a liquid or easy to use, water soluble packets.

Visually, it instantly transforms off-coloured water to a dark black colour, enhancing the reflective properties of ornamental lakes and ponds with stunning results.

It can also be a useful tool in the reduction of algae when used in conjunction with Scotts’ aquatic algicide, ProCrystal, as part of an aquatic integrated pest management programme. The black pigment in Black Onyx creates a shading barrier in the top metre of water creating unfavourable conditions for the formation of algae by limiting UV light and reducing photosynthesis. This then allows for the improved competition of introduced bacteria from ProCrystal for successful biological control.

www.scottsprofessional.co.uk/uk/range/17201473201106.

Wacker Neuson now offers its most compact tracked dumper - the 900 kg capacity TD9 - with a revised design and increased engine performance and functionality.

The TD9 is now powered by the new Yanmar L100N diesel engine which offers an increased output of 7.4 kW and a fuel tank with almost double the volume of the previous model. These features make the new TD9 even more efficient in handling material, with two travel speeds, low-maintenance hydrodynamic drive and a maximum gradeability of 58% as well as a reduced sound power level.

The ergonomically designed control panel includes all the switches and levers needed to operate the TD9 as well as an hour meter which provides constant information about the working hours duration and any upcoming machine servicing requirements.

www.wackerneuson.com

DUMPER REDesign

VISUALLY ENHANCED LAKES

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www.scottsprofessional.co.uk/uk/range/17201473201106.
The Eclipse™ by Jacobsen® is the walking greens mower of choice for keeping surfaces pristine in all conditions. Its industry exclusive features include variable frequency of cut, onboard backlapping and access to set frequency of cut, maximum mow speed, reel speed, weight balance adjustment and more.

Available in hybrid or battery drive; providing power, economy and low environmental impact.

If speed is of the essence, call us immediately for a demonstration on 01473 270000.
Highly respected agronomist, Robert Laycock, offers some excellent advice on how to make the most from the sample analysis you commission.

Soils differ in their fertility. This has been known for centuries, and the fact that plants get most of their nutrients from the soil has been known since the 19th century.

Given modern analytical techniques one would think that how the soil influenced turf growth should be fairly easy to work out. Taking a soil sample and sending it off for analysis is routine for many greenkeepers. But, before you get to consider the figures in the results table, it is as well to remember that there are many things that can influence the results.

First of all there is how the sample is taken. I once visited a golf course where the greenkeeper had been applying elemental sulphur to reduce the pH of the rootzone. I took a soil sample and the analysis showed that far from being high, the pH was low.

“There must be a mistake” said the greenkeeper, “One or other analysis must be incorrect!” In fact neither was incorrect. My samples had been taken to the typical rooting depth of the golf green, about 10cm, while the earlier samples had been taken to a 30cm depth. Repeated applications of sulphur had lowered the pH near the surface of the green so that my analysis showed an acidic rootzone while the pH at depth was still high. At the surface of the green the pH was even higher than my 10cm sample had shown and was adversely affecting plant growth, which was one of the reasons why I had been asked to look at the greens. When sulphur application stopped, the quality of the greens turf improved.

The samples taken need to be representative of the whole area of turf and soil should be taken from a reasonable number of places within it. Many golf greens have been in place for decades. They may have had variation within them since the

REFERENCES
Fancy improving your IT skills?

BIGGA members can access an official Microsoft® Office 2003 Training Library that includes programs such as Excel, Word, PowerPoint and Outlook.

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Microsoft Office 2007 training is also available on request.
beginning and may also have been extended with different soil materials since. Samples should be taken every few metres within the green to overcome this variation.

The time of year when the samples are taken can also affect the results. Most obviously, sampling soon after a fertilizer application should be avoided.

Sample transport and storage is less important with soil samples than with plant tissue samples, such as grass clippings, with the exception that the content of soil nitrogen is related to biological activity in the soil, which is of course related to aeration and temperature. This is why nitrogen is often omitted from routine soil analyses, even though it is easy to analyse for. Useful information on turf nitrogen status is best from plant tissue or from soil analysis on a very fresh sample. Biological activity while in transit can also increase the solubility of other nutrient elements as a result of the decomposition of organic matter, further affecting the results.

The aim of extracting nutrients from soil is to mimic the action of the plant in taking nutrients from the soil solution so that the amounts available to them can be assessed by some type of spectrophotometry. The method used to extract nutrients also affects the amount extracted and thus the values in the results table.

The extent of the root system of the plant also affects how much nutrient it can absorb from the soil. Clearly a plant with an extensive root system is better able to take up nutrients than one with a poor root system.

The problem is that replicating the environment around the root hairs of a particular species of plant is very difficult. It changes from time to time and in some cases the plant can change the environment around its root hairs in order to extract a particular element. For example, grasses produce phytosiderophores (a type of amino acid) in a diurnal rhythm. Not only can they do this, but the grass plants can also identify a low level of iron in the soil solution and release more phytosiderophores to proactively extract a greater amount. A simple chemical soil analysis would not detect that this could occur or estimate how effective it was in releasing iron to the grass plant. The presence of mycorrhizal fungi in association with the roots of some grass species also affects nutrient uptake, particularly phosphorus.

We know that the environment of the root hairs in the soil solution tends to be acidic and it is this that dissolves nutrients from the soil particles, but which extractants best replicate this? If you want to extract all the nutrients from the soil you can use a very powerful acid to totally dissolve all the organic matter, sand, silt and clay particles and analyse the resulting solution. This would tell you exactly what was in the soil but it would not tell you what was available to the turfgrass plants. Conversely, you could extract nutrients from the soil using the simplest of extractant - deionised or distilled water. Undoubtedly, some nutrients would go into solution. However, the true situation is somewhere in between these two. In fact, in an ideal world a different extractant would be used for every plant species and every single plant nutrient that one was investigating.

A review of soil potassium extractants in 1992 2 showed that 13 different soil extractants were in use to extract potassium in soil laboratories around the world. The reasons for this wide range of extractant solutions are to some extent technical, based on the range of typical soil types in the countries concerned but also on historical relationships between countries. Different extractants provide different results. This is important to greenkeepers who may be working abroad and need to interpret soil analysis results obtained locally - BIGGA is an international organisation after all!

In the USA, much research has been done on developing new soil extractant materials and a range of different extractants is used. For example, eight different extractants for phosphorus are used in the USA 3. They all produce different results, which correlate with each other to a greater or lesser extent, allowing for comparisons to be made among them.

Interestingly, it has been discovered that Coca-Cola, because of the same rules on its manufacture, is a more reliable and stable material in some countries than local water supplies and its acid content means it can be used as an extractant for micronutrients 4 - no I don’t drink it!

A common source of soil analysis for greenkeepers are the fertiliser salesmen, who use analysis results as a marketing tool. Beware of these people. If you want independent advice about money matters you should go to someone who is not trying to sell you a financial product, and so with advice about plant nutrition you should not get it from someone who is receiving a salary and possibly a commission based on the amount that they sell. They are inclined to try to sell you as much as possible. They may be nice guys, but at the end of the day they are trying to make a living.

At the end of the day, it is the interpretation of the numbers which is the important thing. I came across a case some time ago where one adviser had advised the use of acidifying materials to improve golf green performance while another adviser, advising on the same greens, advised the use of lime to reduce acidity.

In the late 1970s, when I was working at the Sports Turf Research Institute, soil analysis results, as now, would be used to decide which fertiliser should be applied to sports turf surfaces. STRI provided recipes of raw materials, including sulphate of ammonia, superphosphate, bone meal, sulphate of potash and sulphate of iron, for greenkeepers to mix up into a fertiliser and apply with a carrier of screened soil or compost. A typical spring fertiliser for fine turf, described by the then Director of the STRI in 1978 had an analysis of 7.2% N: 9.1% P2O5: 4.5% K2O and 2% Fe 1.

In those days, the STRI and the late Jim Arthur held very opposing views on plant nutrition. Using the same soil analyses, STRI were still advising the use of high phosphate fertilisers on golf greens while Jim Arthur, then the R&K agronomist, took the opposite view, saying that zero phosphorus fertilisers were adequate in most situations and that only nitrogen was required for healthy turf growth on most golf greens. Mr. Arthur was dismissive about the use of soil analysis in general while the STRI used them to devise fertilisers which it is generally accepted now were too high in phosphorus.

This rather extreme situation continues today. My advice to greenkeepers is that to some extent it is not the numbers in the soil analysis results table which are important but the advice that you are being given. Various advisers, given the same soil results, could give very different advice as a result of their philosophy of agronomy or their commercial interest - or just the current agronomic fad. The important thing is to find advisers who are knowledgeable, independent and whose advice you trust, based on your experience and the experience of others who have used their services.

Robert Laycock has worked in turfgrass research and agronomy for the last 35 years and specialises in golf course agronomy. Regular golf clients include The Belfry, Welwyn Golf and Country Club and the London Golf Club and all the Marriott UK golf venues. He is a Chartered Biologist and a Fellow of the Institute of Horticulture and a founder member of the Register of Independent Professional Turfgrass Agronomists.

www.robertlaycock.co.uk

about the author

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A QUICK GUIDE TO...

TREE PLANTING & MOVING TREES


Tree spades have been used since Georgian times when hedgerows would often be moved and even Capability Brown was known to be familiar with them.

The first consideration when either planting or moving a tree is whether the location you are moving the tree to is a correct one. Here is a useful check list which you should use to assess the situation however expert advice is also essential and I would of course say this! However to quote Alistair Mackenzie “perhaps the most serious mistake made by a golf committee is that they will save money by neglecting to get expert advice”

The following are therefore only guidelines for consideration:

1. **Consider the Location**

   Consider the location of planting in relation to greens, tees and fairways - light and air are essential to maintain good disease free playing surfaces. Also think about the eventual height and form of the trees to be planted, they do grow and do extend sideways as they mature!

2. **Consider the Trees’ Appropriateness to the Landscape**

   Consider the trees’ appropriateness to the landscape as ornamental trees can destroy the natural appeal of a golf course. It should not be forgotten that most of the great courses not only have a sound layout but also have a natural landscape. With the exception of Augusta I cannot think of an ornate course which receives much acclaim.

3. **Consider the Effect of Proposed Planting on the Maintenance of the Course**

   Encroachment can cause uneven wear to tees as players will naturally favour the unimpeded line of play, often effectively reducing the size of tees.

4. **Consider the Impact of Planting May Have on the Strategy of the Golf Hole**

   This can remove the adventure from a risk and reward situation. Trees form a strong three dimensional hazard which can often conflict with strategic golf. How often have I seen doglegs forced by trees and when asked why you receive the answer? “Well Bill can drive this green so we stopped him!” When perhaps a pat on the back would have been more appropriate why would you want to stop a good shot being rewarded?

5. **Increase Sustainability and Cut Costs**

   If possible grow a tree in situ from a small size this will produce a better specimen long term and will establish quickly if the correct maintenance is employed. It is also much more cost effective. Also if possible plant copes as the long term sustainability is improved as you are not relying on one tree.

6. **Less Root Means Less Chance of Survival**

   If instant height is required for safety or other reasons then a tree spade may be the thing. However the temptation is always to be too greedy and move a tree which is too large, be careful to select a good strong well formed specimen. It is essential that the size of the root ball is appropriate to the size of the tree which is to be removed, less root less chance of survival! Tree spades come in a variety of sizes ranging from 1 metre to 3 metres generally.

7. **Take Care!**

   Take care that you are not moving a tree which has been sheltered into an exposed position.

8. **Plan Ahead**

   If possible move the tree over a three year period, severing the roots on two sides the first year then the other two the following season. This will ensure a compact root ball is created for moving in year three.

9. **Ensure the Tree is Secured Properly After Planting**

   Any root movement will cause inevitable death and make sure that the trees are watered the following season after planting from spring to the end of summer.

10. **Keep an Eye on Tree Health**

    Monitor the trees’ health, looking at leaf cover and shoot extension.

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John Nicholson, of John Nicholson Associates, Tel 0191384 2556 www.johnnicholsonassociates.co.uk
Our monthly puzzle page to keep you entertained when you’re forced indoors...

CROSSWORD

Quick ‘Nine Hole’ Quiz

1. Stuart Cink won The Open at Turnberry last month but who are the other winners of Turnberry Opens?
2. Name the three teams who were promoted from the Championship to the Premiership this year.
3. Name the coach of the 2009 British and Irish Lions.
4. In which sport do you start the game with a “Throw Up”?
5. London is hosting the Olympics in 2012 but in which two other years did the city host the Games?
6. How many racecourses are there in the UK 41, 51 or 61?
7. When was the only occasion that the Open Championship was held in Northern Ireland and who won?
8. How many separate pieces of wood are there on a cricket pitch at any one time?
9. Who was the commentator who uttered the words “They think it’s all over. It is now”?

Across

4. Temporary craze (3)
8. Large public exhibition also called Expo (5,4)
10. Main artery of the heart (5)
11. Shallow-fried dish of leftovers (6,3,6)
12. Administer, give out in portions (5)
14. In golf, a shot which is also called an ace (4,2,3)
15. Force which is instrumental in (often social) change (7)
17. Kenya’s capital (7)
19. Sperm whale secretion once widely used in perfumes (9)
20. Japanese raw fish dish (5)
21. French underwater explorer, co-developer of the aqua-lung (7,8)
23. Unpolluted (5)
24. Clumsy, lacking in refinement (9)
25. Soluble substance used for staining or colouring (3)

Down

1. Of a product, carrying the label of the store which sells it (3-5)
2. Thick, wormlike larva (4)
3. A block of less than 100 shares (3,3)
4. Cartoon character whose catchphrase was based on the Brylcreem slogan “A little dab’ll do ya!” (4,10)
5. Rum and lime juice cocktail (8)
6. 1986 album and single by Cyndi Lauper (4,6)
9. Creator of detectives Hercule Poirot and Jane Marple (6,8)
13. In US football, a position behind the defense (10)
16. John P ---, writer of the Mr Moto spy novels (8)
18. Wretched, worthless (6)
19. Group of elements comprising a unified whole (6)
22. Online auction company which owns PayPal and Skype (4)

Monster Sudoku

Fill in the grid so that every row, every column and every 4x4 box contains the numbers 0 to 9 and the letters A to E.

Sudoku

Fill in the grid so that every row, every column and every 9 box shape contains the numbers 1 to 9.
Scottish Region

Ayrshire

Hello all, Hope you’ve all enjoyed the recent good weather and hopefully it has continued through ‘Open week’. At time of writing Roger Federer has just outlasted the courageous Andy Roddick and the 09 Claret Jug holder is two weeks away.

Having worked at Turnberry for seven years, it seems we’ve been preparing for ages and it is exciting now to think the moment is upon us! I’m sure if the weather obliges that all involved that week will have had an enjoyable time and a worthy winner will have been found. I’ll try to give a better account after the dust has settled.

Cathkin Braes GC hosted the Scottish National Tournament on June 11. Over 80 Greenkeepers played the well presented course in glorious sunshine. Willie McMeikan (Turnberry) took second in the First Class and Duncan Gray (Pines) was so confident of retaining his Second Class Trophy, he left it on his mantlepiece! Well done to those Ayrshire boys and to the secretaries. My own two ball was one and a half. Well done to the greenkeepers seven and a half to one.

Our spring meeting was held at Caldwell Golf Club on a glorious sunny day, there were 38 members in attendance the scores on the day were:

Apprentice prize Brian Ramsey 28pts, Trade prize Stuart Clayton, Southile, 35pts Visitors’ prize Ryan Brenan, 12pts.

Congratulations to all the prize winners, also many thanks to the Captain of Caldwell Golf Club for giving us courtesy of the course; to Kenny Morrison, Club Manager, for all his help and to Paul McNair and his team for having the course in fantastic condition.

Also to the catering staff the food was fantastic especially the fish and chips better than you get in the chip shop.

Our Scottish National Tournament was held over Cathkin Braes Golf Club once again the sun was out for the 90 players in attendance, the course was in great condition many congratulations to Douglas Mcintosh and his team.

As I said earlier on in the year we plan to arrange some semi-finals towards the end of the year dates will be made available as soon as possible.

Fraser Ross 079703660355 Karen.ross@tesco.net

West

Welcome to this month’s report. It’s great to see some better weather for a change watering greens and fairways turning brown. I apologise for the lack of reports over the last couple of months, which has been due to family illness.

During May the Greenkeepers played the Secretaries in our annual match at Strathaven Golf Club. The result on the day was a resounding win for the greenkeepers seven and a half to one and a half. Well done to the greenkeepers who played on the day and better luck next year to the secretaries. My own two ball was the only team to be beaten on the day. Hopefully I can keep my place for 2010.

The course was in first class condition for so early in the season so many congratulations to the green staff, also to the catering staff for the first class service and standard of food.

North

Hope all is well and that everyone is keeping busy. You can’t complain about the weather we’ve had recently although having said that it has begun to cool down a bit in the last few days.

This is a true story honest, it will make you laugh! John Geddes from MacDonald Golf Club, Ellon, recently attended a match versus the Secretaries’ Association, at Strathaven Golf Club. While driving back home, John’s companion saw a deer emerge from a wooded area at the side of the road, bounding straight for them. John’s companion panicked and shouted “John... Deer”, John thought his companion was going to strike up a conversation about Green’s Machines and never saw the deer. Unfortunately seconds later the said deer ended up on John’s front bumper. What are the chances of that? Thankfully both John and his companion, James McCormack, were not injured. However, if anyone is looking for some cheap venision you know who to ask.

The Scottish National Tournament was held at Cathkin Braes GC and four members from our Section travelled down the night before as you do. They ended up at Hamilton races and the aforementioned James McCormack showed the other guys the ropes. They thoroughly enjoyed themselves but any tips that James gave them didn’t come in so they were pretty skint for the next day’s golf.

Speaking of outings we have our own Autumn outing courtesy of Alyth GC. Hopefully there will be a good turn out for Brian Cocker, he has been a great supporter of the Section over the years and it would be good if we could show our appreciation with a healthy turn out. We are looking forward to it.

Stu Addison, from Meldrum House GC, has become a dad. Congratulations on behalf of the Section. His new baby girl, Hannah Louise, weighed in at