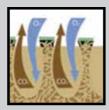
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PlanetAir's shatter knife technology, combined with its unique planetary gearing, creates a lateral and linear blade movement.



The motion of the 48 blades shatters the soil profile creating pore space and allowing water to connect and percolate rapidly through the soil particles. This provides the oxygen delivery system to plant roots and soil microbes.

By allowing oxygen into a large percentage of the rootzone, beneficial microbes which destroy the thatch layer are stimulated and kept healthy.







Tel: +44 (0) 1883 342632 www.kensettsports.com Emul: info@kensettsports.com PlanetAir is equipped with front and rear rollers to follow undulations and firm up the surface. Play is unaffected, as no material is removed during the process. There is no surface disturbance and the only visible result on the greens' surfaces are rows of small incisions that look like stitches from a sewing machine.

These clean cut incisions sever stolons and stimulate vertical shoot growth in the

parent plant, resulting in greens with finer texture and better colour.

PlanetAir can get through 18 greens in under four hours and creates an amazing ONE MILLION HOLES PER HOUR – giving the lucky operator enough time at the end of the job to put their feet up and have a cup of tea – but don't just take our word for it, book a demonstration now. YOU'LL BE AS AMAZED AS WE WERE!

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Down down, deeper and down

To ensure a ready supply of potassium for your fertiliser, as Scott MacCallum found out, a group of hardy potash miners are toiling away 24/7 under the North Sea

There are many things in life which we just take for granted. It may be the fact that the car always starts when we turn the key, or that the light comes on when we flick the switch, or that when you put on an application of fertiliser it does exactly what it says on the tin (or bag).

But like most things that have become so simple and which we barely think about, there is a lot more to them than meets the eye.

You know that NPK stands for the ratio of nitrogen, phosphorus, and potassium contained, but beyond that, how much do you know about that K element?

Potassium is the common name for potash, which comes from deep under the earth's surface and is mined in a similar fashion to coal.

One of the main potash mines is found on Teesside, at Boulby, near

Cleveland, which is run by Cleveland Potash, and owned by Everris, and it ensures a guaranteed supply of potash for its range of fertilisers. Construction on the mine began in 1969, and it began producing potash in 1973.

It is the second deepest mine in Europe at 1400 metres and produces half of the UK's annual supply of potash. As a by-product the mine also produces rock salt, an extremely valuable commodity in recent years and used across the country as a de-icing agent on roads in winter conditions.

Everris recently took a small party of journalists down the mine to demonstrate exactly how this most valuable of natural resources is harvested.

The mining process is extraordinary. Just to get to work face workers need to take a lift, dropping nearly a mile underground, before getting into a truck and driving six miles under the North Sea.

Of a total staff of 900, including contractors, 600 work underground on shifts which ensures continuous 24-7 production.

The lift journey, in one of two lifts – the larger one can take over 30 people while the other can take around 12 - takes around four minutes and the when you arrive the immediate reaction is one of surprise at the sheer scale of the underground operation.

At any one time there are around 60 vehicles, including Land Rovers and even buses capable of transporting up to 12 people, and used to ferry face workers and engineers - and that is not counting the huge sophisticated machinery which is used for the actual mining itself.

These are all taken down in the same lifts, which are temporarily adapted for the non-human cargo.





The atmospheric conditions underground are particularly corrosive and electronic equipment, or even watches, can't be used or worn as they will not survive on return to the surface.

You are also warned that souvenir pieces of potash brought to the surface will quickly turn to dust if left in regular surface conditions.

With one way systems in operation wherever possible, a subterranean sign posting system in place, as well as tried and tested horn blowing procedures when approaching corners or junctions, the journey to the face can take over half an hour with speeds restricted to 15mph.

In effect with 45 minutes to reach the face and another 45 minutes to get back it reduces the productivity of every shift by an hour and a half and makes it all the more vital that the face workers maximise the time they have.

Technology ensures that 2.4 million tonnes of potash are mined at Boulby each year as well as 0.8 million tonnes of the rock salt which is mined two days a week.

The combination of potash and salt is important because the salt seams are much more stable than those of the potash and this makes negotiating the many seams much more manageable.

Indeed a two and a half metre high potash seam is so porous it will shrink back to nothing in the The second deepest mine in Europe at 1400 metres, producing half of the UK's annual supply of potash. As a by-product the mine also produces rock salt, an extremely valuable commodity in recent years and used across the country as a de-icing agent on roads in winter

space of little more than a couple of years.

Indicators are placed in the roof to highlight the rate of compaction, while bolts are drilled into the roof to provide additional stability.

Walking through narrow seams of potash, six miles into the North Sea and a mile from the safety of the lift shaft, can be an unsettling experience, especially when creaks and groans can be heard coming from the roof or walls. However, safety is the bedrock of everything and accident statistics show Boulby to be an extremely save working environment.

Underground everyone wears bright orange clothing to ensure that they will be easily visible at all times.

Off the regular tracks are cavelike expanses where miners have gone in to remove whatever extra potash can be safely extracated miners are incentivised to produce as many tonnes as possible each day. At any one time up to four faces are being mined at one time selected from a map, which bears a close resemblance to the London Underground map.

At the face itself, a team of around six carry out various functions – from stabilising the roof with bolts; operating the remote controlled but massive cutting machines; to driving the mobile conveyor belts which are used to transport the potash from the face to the main conveyor belts which then carry it back to the main shaft for delivery to the surface.

As the mine stretches further out into the North Sea production costs rise and while the viability of the mine is dependant on the worldwide price of potash – too low and the profit margin disappears, too high and the demand drops - the immediate future of Boulby is secure and a ready supply of K for those NPK Everris fertilisers is guaranteed.



STRI Golf Enviror Awards: 2011 Wit



The winners of the 2011 Golf Environment Awards, supported by BIGGA, are announced. Richard Stuttard, of the STRI, reveals all...

Loch Lomond Golf Club (and inset)



STRI is delighted to announce the winners of the 2011 Golf Environment Awards. The scheme is designed to

highlight the 'greener side' of UK golf and inspire others in the UK and further afield to kick start the environmental side of their operations.

Overall Achievement Award

The top award this year is presented to Loch Lomond Golf Club. David Cole and his team at Loch Lomond have been driving towards environmental sustainability for a number of years.

The setting definitely has natural beauty, however a great deal of work is required to maintain the golf course to do justice to its surroundings. To win our top award, clubs

must be achieving exemplary work in each of our key performance areas: nature conservation, waste management, water management and turfgrass management, and Loch Lomond ticks all these boxes.

Conservation Management is largely directed by Deputy Course Manager, Darren Marshall, with the full backing of the General Manager and the Director of Golf.







nment nners







The club works to a detailed management plan, covering scrub, grassland, tree and water feature management.

The club is also responsible for the conservation of three Sites of Special Scientific Interest (SSSIs), covering the loch shore, veteran trees and lichen rich habitats.

Waste Management is also dealt with very effectively and through diligent management planning the club recycles 92% of all waste generated, including clubhouse and on course water, tins, card and plastics.

Their aim is to manage the turf to the highest quality based on proven agronomic techniques, with the greatest emphasis placed on Integrated Pest Management (IPM). Sound cultural practices are key as Loch Lomond is located in one of the most challenging areas of the UK, annually experiencing over 2,000 mm of annual rainfall, poor

light levels, high humidity, poor air flow and inherent poor soils.

Effective drainage on the course helps to improve playability; being able to remove the excess water expediently ensures good turfgrass health and prevents course closure.

The turfgrass nutrition programme for their USGA specification greens is based on a "light and when required" feeding programme using soluble applications.

Amounts are dependent on

weather conditions, clipping yield, tissue analysis, size of green, traffic flow and visual health.

A key aspect at Loch Lomond is the drive to continue awareness among all the greenstaff so that potential problems can be identified quickly and efficiently.



Conservation Greenkeeper of the Year – Antony Wainwright, Turton Golf Club

Turton Golf Club is set within moorland on the southern slopes of the Turton Heights, outside the town of Bolton, Lancashire. The course, extending to over 56 hectares, has traditionally been managed with four greenstaff with little thought (initially) to developing its conservation potential. This all changed with the promotion of Antony Wainwright to Assistant

Head Greenkeeper in January 2011.

Antony has achieved a BSC (Hons) in by undertaking a full time course at The Bolton Institute. This, coupled with his promotion and passion for working on the golf course, has enabled the adoption of new management practices relating to rough grasslands and other 'out of play' areas on the course that are now paying real dividends.

Antony has utilised his broad knowledge of ecology to produce a very detailed management plan for the course, which is providing a clear direction to the clubs ecology related work as well as highlighting clear aims and objectives.

This year, the main areas of work include managing the rough grasslands to develop corridor habitat along the fringes of several holes and providing tall rough through certain carries.

Scrub and tree removal has been significant in reinstating important acid grassland and lowland heath habitat. Recognition has also been given to retaining and managing the dead wood habitat resource and to the erection of bat and bird boxes. Pond and water feature management is also high on the ecological management agenda.

Northern Regional Winner - Wilmslow Golf Club

Steve Oultram is well known for working within golf course ecology and conservation, not least for his recognised effort and desire to improve the ecology of the grasslands over the course. Steve manages the grasslands through an ongoing programme of cutting



and baling through the wider rough and the cutting and scarification of the fringing rough.

The programme is being directed through a five-year repeat management plan. Tree management includes the recognition of the importance of dead wood and pond management and is also a key element of the greenstaff's annual workload.

The club retains an affiliation with the 'Cheshire Butterfly and Moth Conservation Trust' and encourages visits and species recording. A particular highlight at Wilmslow relates to the extensive hedge laying work (following staff training) that has proven very effective in restoring good condition to several hundred metres of boundary hedge.

Southern Regional Winner – Thorpeness Golf Club

Thorpeness is a very special site offering a wide range of habitats and providing opportunities for a wealth of wildlife. There is a very much a team spirit between Course Manager, Ian Willett, and his crew and this is clearly highlighted by the amount and standard of work achieved both on the playing surfaces and through the 'out of play' areas of the course.

In recent months extensive work has been undertaken around the site to maintain and enhance more favourable habitats. Bracken has been controlled through 'bashing' techniques and this is allowing gorse and heather to develop in greater quantities.

Elsewhere, areas are being subtly 'roped off' to prevent buggy access and allow heather to establish without disturbance. Gorse continues to be managed on a rotational cycle and the large lake has recently been cleared of all invading vegetation and is now a superb feature for both golfer and wildlife to enjoy.

Scottish Regional Winner – Royal Aberdeen Golf Club

The visit to Royal Aberdeen came at the time of the Walker Cup and, as could be seen from the TV coverage, the course was in superb condition. The playing areas were outstanding but the highlight was the work clearly evident through the management of the fringing grassland rough and using this to delineate and set up each hole was impressive.

Robert Patterson and his team have shown how the rough can be used to envelope bunkers, and





ABOVE: Thorpeness GC BELOW: Wilmslow GC





how by thinning and working the rough a good balance between golf and grassland conservation can be achieved. Royal Aberdeen has also put considerable effort into gorse management, which combined with the grassland are important features through a number of holes.

Welsh Regional Winner – Bull Bay Golf Club

Bull Bay Golf Club is a hidden gem of a course tucked away on the northern coast of Anglesey. Situated in a breathtaking setting the club could be forgiven for relying on this aspect alone as the main draw of the course, yet Course Manager Andy Peel and his team have worked hard to maximise the visual and strategic potential of the course by maintaining high levels of biodiversity across the site. Deep roughs are presented in a good manner and maintained to support ground nesting birds and small mammals.

They also provide stunning definition across this coastal site. Gorse is also well maintained and the club are not afraid to leave dead wood in-situ for the benefit of wildlife. Turfgrass management is of the highest order here, with Andy, through cultural management practices, significantly reducing thatch levels and developing predominantly fescue greens. No fungicide has been applied in over 17 years and the course supports quality playing surfaces all year round.

Nature Conservation Award – The Manchester Golf Club

The team at The Manchester Golf Club, headed up by Course Manager, MarkJones, and his team, and assisted by keen environmentalist and member, Gordon Yates, have in recent years begun extensive management work across their vast site. The course supports large areas of woodland with many fairways and greens being treelined.

The team have recognised the importance of woodland thinning (and restocking) work for the benefit of wildlife as well as for the strategic, visual and turf health aspect of the golf course and have in place a management strategy for trees and woodland which has already made a massive improvement to many areas.

Heather restoration has been carried out across several areas of the course with great success and the purchase this year of a flail collector has allowed grassland management, heather seed harvesting and scrub removal to be carried out on an even larger scale.

Such is the level of interest by the team, bumblebee colonies have been introduced to the site and detailed records of wildlife are maintained by Gordon allowing a full appreciation of the impact of these projects.

Water Management Award - Lymm Golf Club

As former winners of our Turfgrass Management Award, Lymm Golf Club are no strangers to good environmental practice. This year Stuart Yarwood MG and his team have been doing great work with regards to water management on the course.

Water inputs to the playing surfaces have continued to be reduced, whilst the standard of surface remains high.

The club has also upgraded its existing waste water cleansing system within the maintenance area to incorporate capacity for 'worse case scenario' diesel spillages.

Perhaps most commendable in this category has been the club's

Royal Aberdeen Golf Club





achievement of being the first golf chemicals or inorganic products club to receive funding from the Million Ponds Project.

This scheme, in place to provide further habitat for, amongst others, great crested newt, common toad and water vole, has provided financial assistance and guidance to allow the club to construct three new ponds on the site.

Although in their infancy, the ponds have been constructed to a high standard and will quickly establish top quality features. The level of commitment to securing this funding by Stuart and his team is highly commendable.

Waste Management Award -New Malton Golf Club

This year's Waste Management Award goes to New Malton Golf Club in Hertfordshire. The 230 acre site here is managed entirely with the environment in mind. Indeed some 100 acres is outside golf and managed in varying ways to promote biodiversity.

The approach by Owner, Paul Stevenson, and his team to waste management stood out from the crowd this year. If you consider the best practice order of dealing with waste streams as being 1. Eliminate, 2. Reduce, 3. Reuse, 4. Recycle, 5. Dispose, New Malton very much fits into the 'Eliminate' category, with hardly any waste produced at all. On the course, no

are ever used and in the clubhouse large amounts of produce are grown on-site.

The ultimate aim of New Malton Golf Club is to be self sufficient and by all accounts they are not far off. Even the waste that is produced is put to good use. At the time of my visit to the club, empty plastic kegs were being used to construct a raft which would be planted with vegetation and floated into the clubs irrigation reservoir, to create further wildlife habitat. A fine example to the golf industry.

Turfgrass Management Award - Aldeburgh Golf Club

Aldeburgh Golf Club, in Suffolk, is a course that delivers on many levels. The course supports considerable opportunities for wildlife and the habitats present are developed and used by the club to great effect in terms of the added value they bring to a top quality venue. The approach by Course Manager, Mark Broughton MG, to turfgrass management has been of particular interest this year.

Despite a challenging year weatherwise, to say the least, Mark has maintained playing surfaces that really are of the highest order.

They are delivering fescuedominated, firm, fast and true surfaces all year round. All the more impressive when you consider that no fungicides have been applied for years and this year only 3kg/ha of nitrogen has been required to keep the surfaces at this high standard.

It is clear that Mark and his team have developed an incredibly sustainable routine of greens management, incorporating cultural methods and close monitoring. Even irrigation is kept to an absolute minimum - simply enough to keep the plant alive, and Mark is informed of the necessity to water through the regular use of a moisture probe on all surfaces.

As always, the Golf Environment Awards could not take place without the valued input of our sponsors and also the continuing support given by BIGGA. A big thank-you to all involved.





Golf Club INSET ABOVE LEFT: Lymm GC INSET ABOVE RIGHT: New Malton GC BELOW: Aldeburgh GC

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Surviva the fitte

Jason Hunt coped with the exacting conditions best of all to become BIGGA's 2011 Champion Golfer