

A Breath of Compressed Air

David Green examines the limited machines available to carry out pneumatic soil fracturing and the specifics of this technique.

Pneumatic or gas pressure fracturing of soil was designed as a process to improve drainage, increase soil oxygen levels, decrease anaerobic bacterial activity, smash compaction pans and so to improve tree and turf health without disturbing the surface. The Pneumatic fracturing process takes air, compresses it to a high pressure, typically between 15 and 20 Bar (200 to 300 PSI), and then releases the built up air through a hollow probe at depth into the soil.

The release of the air is affected by the action of a high speed valve. The resulting shock wave is created as the gas escapes almost explosively into the ground and causes the ground to shake and shudder. This shaking and a slight rise in level together cause the soil profile to crack.

The main charge of air then rushes upwards towards the surface through the newly created cracks and fissures carrying the chosen inoculant material along with the air stream and so distributing the inoculant through the soil.

There have been several machines that have used this principle, many are known and loved by groundsmen and greenkeepers around the country. Sadly at the time of writing none of the machines, except the new Sisis Aer-Aid, are available for sale. A few specialist diehards continue to develop some of the machines for their own use. The machines, in order of age of development, are:

1. The Terralift is the granddaddy of them all, it is the biggest and has a long development history. The Terralift generates and injects large volumes of air at up to 20 bar and at depths of up to 3 metres. The latest developments based on the Terralift injection system are powered by 40 HP diesel engines and have large Atlas Copco piston compressors.

This raw power allows the machines to inject the equivalent of 1200 litres of air at STP per cycle. The latest Terralift derivatives use a massive probe insertion system that is armed with a JCB hydraulic road breaker hammer and hydraulic rams that are capable of up to 4 tonnes of pull. All this power is used to both insert and remove the probe.

2. An off shot of the Terralift is the Aerragreen, which generates its own compressed air and injects large volumes through four probes to a maximum depth of 500mm. Produced in the USA, this machine has seen little use in the UK.

The power comes from a 25 Hp engine driving a 20 Bar Atlas Copco Piston compressor. Probe insertion and removal is achieved by simple pressure from small size pneumatic rams. There is no hammer facility.

3. The Robin Dagger is a small hand held machine that works by injecting air to about 500 mm depth and using a small cam action hammer to insert the probe.

A 50cc 2 stroke engine powers this unit. Such a machine can only inject small volumes of air at modest pressures.

4. The Terravent is a small hand held unit relying on a manual post holer style of sliding hammer to force the probe into the ground to about 1 metre. The Terravent works by injecting nitrogen gas straight from large



The Sisis Aer-Aid System in action relieves compaction, improves infiltration rates and combats Black Layer, claim the company

commercial extra high pressure cylinders. The gas is pulsed as it is released. Calculations from the published nitrogen consumption data suggest only relatively small volumes of gas are released at each cycle.

The use of nitrogen gas, not compressed air is, to my mind, one of the Terravent's weaknesses. All turf men know that the turf we strive to grow well requires 'nitrogen' but in the form of soluble nitrates not as the inert and suffocating gas. Only a few plants, such as the legumes, can assimilate nitrogen gas directly and then only because of their symbiotic relations with nitrifying bacteria.

5. The latest to join the market is the Sisis Aer-Aid that injects 88 Litres per minute of low pressure air straight from a Hydrovane compressor through numerous hollow tines into the top 100 to 150mm of the sward. Airflow to each tine is restricted to a small diameter low pressure air pipe and so there is little explosive power in the air that is injected in this manner. This machine was only launched late 2004, so little is yet known of its performance and long term benefits other than the data published from Sisis. While it undoubtedly injects air it is not a true pneumatic fracturing machine.



The first four machines use the stored, almost explosive, energy in the compressed gas or air they release to break up and loosen the soil beneath the turf surface they are treating. Applied with care all of these four systems can be successfully used to treat bowling greens and golf greens where surface disturbance is unacceptable.

The differences between the four machines are found in the depth of penetration into the ground, the ability to inject beneficial substances in granular or liquid form and the degree of ground resistance that can be overcome. The speed of working and the physical input needed from the operator.

There is as always a balance to be struck between the disruptive power of the air blast at the heart of the process and surface disruption. The powerful blast that is so welcome below ground and through the compaction panned layers is most unwelcome if it reaches and destroys the surface. Only the Terralift derivatives guard against accidental surface disruption close to the probe by holding the surface in place with a large steel plate held firmly against the soil by the weight of the machine. This plate also stops the turf lifting as the probe is withdrawn allowing rapid withdrawal.

There are numerous ways of mechanically treating compaction and aerating the soil from the purely agricultural mole plough, through the vertidrain, now an almost generic name for that type of heavy duty reciprocating spiker, and its imitators to corers, slitters and tiners that may or may not shake rattle and roll their way across the turf. All these mechanical operations vary in their ability to treat relatively shallow, up to 300mm deep, compaction pans, as depth of pan increases so the number of capable machines drops away. The deep spikers struggle to penetrate to 500mm in all but the most favourable soil profiles and are really challenged when they are also required to.

MATERIAL INJECTION

Only the Terralift, Aerragreen and Terravent can inject materials with their gas/air blast. The Terralift uses the greater volume of air at the highest pressures and can inject up to a litre of granular material per shot. The Aerragreen and Terravent probes are much smaller in diameter than the Terralift probe and so have lower capacity for injection with each blast of air.

BACKFILLING

The probe holes produced by these machines form valuable drainage and aeration pathways from the surface to the subsoil and if they can be made to remain open they provide a long term improvement to local surface water drainage. The large probe holes of the Terralift derivatives at nearly 40mm diameter are of a size that can be filled with an inert aggregate. Any coarse aggregate will do but the aggregate of choice is Lytag. This man made lightweight aggregate is sterile, inert and nutrient free.

Lytag's most important property is the honeycomb internal structure that allows this material to pass through greens mowers without damaging the finely set blades. The probes of all the other machines that measure less than 25mm in diameter leave probe holes that are too small to backfill.

SOIL CONDITIONS

Regardless of sales blurb there are strict limits to the type and condition of soils that benefit from pneumatic or gas fracturing. The first requirement is a sufficient depth of soil and subsoil so immediately strike out. In particular chalk and limestone soils of most types do this because the bedrock is generally too close to the surface. The same is true wherever igneous or hard sandstone rocks form the country rock and lie close to the surface.

The second requirement is a capacity to drain water away, however limited into the subsoil. Where heavy clay overlies a free draining chalk stratum the results of pneumatic fracturing can be almost magical in the speed with which the turf improves. The soil has to be moist enough to treat but not so wet that the injected air is effectively being pumped into liquid mud that has no ability to form fissures.

Dry Sand does not work because the air blast dissipates through the coarse pore structure without disturbing the soil.

Moist sand works well. Wet sand rarely exists. Dry clays are simply too hard to penetrate and if it moves at all when blasted with air then it tends to form large hard plates that crack and split at the surface. Moist clays generally work well, wet clays are less successful.

Frozen soils are untreatable and while they remain frozen leave the surface free of plucking. The Aerragreen has 4 x 500mm long probes but in UK conditions 300mm is about the limit of its penetration.

The Aerragreen also lacks any form of hammer to drive the probes through heavily compacted layers and resistant layers such as Iron pan.





Terralift machines, L-R, Airforce Tracher, Airforce Scamper and Airforce.

WORKING DEPTH

Below 500mm depth the field is therefore left clear for the Robin Dagger, Terravent and Terralift and its derivatives. Both the Robin Dagger and the Terravent are, at the time of compiling this article, unavailable for sale and any already in use are unsupported by its manufacturers and the Terralift derivatives are not available except for contract hire.

WORKING PATTERN

As the depth the probe goes so the air pressure increases and so the area around each probe hole that is treated increases. The shallow 500mm depth of the Robin Dagger and the Aerragreen mean that the probe holes need to be spaced no more than a metre apart to fully treat the area.

The 1 metre depth and higher working pressures that are used by the Terravent and the Terralift derivatives allow the area to be fully treated with probe holes 2 metres apart in lines that are themselves 2 metres apart.

WORK RATE

Penetrating between 500mm and 1 metre into the soil can never be done rapidly, particularly when there is a solid compaction pan to be broken through on the way down. Here raw power and machine weight are vital to force the injection probe through any obstruction in the profile at an economically viable time of between 45 and 60 seconds per cycle. Such a work rate will severely tax the human part of any human powered machine and so limit its use to a short period for each operator.

Even the biggest and most powerful machines developed from the original Terralift struggle to treat more than 3000 square metres a day. This is simply due to the time taken to get the probe into and out of the ground. A 45 second cycle time, of which probe insertion takes 20 seconds, probe withdrawal is 10 seconds and the rest is movement and blasting time. This 45 second cycle gives 80 cycles per hour that covers just 320 square metres. This is less than the area of an average golf green.

The Aerragreen with its four probes and 300mm penetration can just equal this daily total despite its manufacturers claims for 3728 square metres per day. Treating 3000 square metres per day every day with either

the Robin Dagger or the Terravent appears to require the stamina of marathon runners and the strength of an Olympic Weightlifter. The Sisis Aer-Aid can easily beat this 3000 square metre per day target but because the Aer-Aid operates to such a shallow depth and has around 40 times it is more of a surface spiker than a true deep soil aerator and decompaction machine.

The soil moisture requirements mean that there is a definite seasonality to the use of the Pneumatic Fracturing technique with work being most effective in the wider spring and autumn periods.

David Green is Managing Director of Terrain Aeration and can be contacted on 01449 673783.

AIDING AIR

The Sisis Aer-Aid system is the latest piece of machinery to come on to the market in this area. While not a true pneumatic fracturing machine this is one of the only pieces of kit of its kind that can be purchased rather than contracted out.

Most compaction is found in the top 100mm of the soil. In compacted ground air passage is restricted and more water is held also hindering the passage of air. Grasses starved of air at their roots cannot grow properly. Ultimately Black Layer can form, particularly in poorer quality sand based rootzones and in areas growing in shady conditions.

The Sisis Aer-Aid System enables turf professionals to give their turf a blast of air, directly into the rootzone, every time they aerate. The cam trigger system ensures that the air is always expelled at the bottom of the tine penetration, ensuring a targeted, precise and constant working depth to a maximum of 127mm. Working at 150mm spacing, air is introduced at a rate of 88l per minute. Trials have shown significant improvements to infiltration rates after use of the Aer-Aid and hardness is reduced.

The Aer-Aid System has received two major industry awards and, in addition to the many now working around the UK, there are also machines in South Africa, Japan, Sweden, Hong Kong and Canada.

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NEW PRODUCTS

Launched at Saltex 2005

LOOK NO HANDS

A new robotic golf ball collector from Turfmech Machinery is set to make the retrieval of golf balls from practice ranges a far safer and less labour intensive job. Known as Ballpicker, the high tech machine uses the same advanced operating systems as the Bigmow robotic large area mower.

Fully automatic with manual override available as and when required Ballpicker works completely randomly within a pre defined area bounded by a buried low voltage cable across which the machine will not pass. As the battery powered Ballpicker moves across the ground, it sweeps up all golf balls lying in its path and drops them into an on board container with a capacity of more than 600 balls.

When the container is full, or earlier depending on machine programming and battery condition, Ballpicker returns automatically to the golf ball release station which doubles also as the recharging point for the machine's batteries. Once docked at its release station, Ballpicker offloads its basket of golf balls and readies itself to set off across the range on a new collection schedule. The release station can be linked to virtually all golf ball conveyors.

For further technical information Tel: 01889 271503, Website: www.bigmow.biz.



GETTING HEAVY

Rustons Engineering has introduced a new heavy duty high capacity mower and waste collector that has been designed for particularly demanding working conditions.

The Reco Panda 1805 is a versatile machine that can be used for mowing various surfaces from amenity areas to rough grass and for collecting leaves and other debris. With a scarifier fitted, it can scarify, mow, mulch and collect in one pass. It is built for long hours and arduous conditions and weighs 2.25 tonnes.

The 1.8 metre mowing rotor incorporates specially designed heavy duty flails that not only cut but also create a powerful suction effect. Cuttings are mulched by the flails and blown through a high capacity outlet to the collection hopper, which has a 5m³ capacity. The hopper lifts hydraulically and can tip at a height between 90cm and 2.2 metres from the ground.

For further technical information Tel: (01480) 455151, Website: www.reco.co.uk.

ANTI THEFT EXCAVATORS

Kubota has responded to market demands by introducing their key based Anti Theft System as standard equipment on its mini excavators. It's based on an individually programmed key for each machine that replaces the current universal starter key. The key has an identification code embedded in an IC chip that incorporates a state of the art immobiliser system.

It starts and stops the engine like a conventional ignition key and also opens the machine's cab door, fuel filler cap and engine canopy. Without it, the fuel, hydraulic and electric systems are fully immobilised. Any attempt to start the machine with an unprogrammed key activates the system's alarm. Two preprogrammed keys are supplied with each new machine. A third master key gives users the opportunity to easily reprogramme the machine.

For further technical information Tel: 01844 214500, Website: www.kubota.co.uk.

BLOW HARD

From the STIHL stable comes a new generation of backpack blowers that really show their strengths when cleaning large areas in parks, leisure facilities, stadiums, car parks and private gardens. Promoting a cleaner environment in more ways than one, the new Stihl BR 500, BR 550 and BR 600 not only sweep up fallen leaves, cut grass, hedge trimmings, paper cups and tin cans in no time at all, they are also particularly eco friendly thanks to the Stihl 4 MIX engine. Powerful, fast and economical, the machines are also comfortable to use.

They are among the quietest in their power class and included in the range the Stihl BR 500 is specifically designed as a low noise model. Ideal for use in noise sensitive areas, it features extensive sound proofing including an enlarged muffler on the blower tube. The ergonomic carrying frame with active breathing properties can be adjusted for optimum comfort, while an effective anti vibration system enables the blowers' use all day, without the need for extra protective measures.

For further technical information Tel: 0800 137574, Website: www.stihl.co.uk.



RAKING IT IN

Sisis has improved on their Auto Rotorake Mk4. The new Auto Rotorake Mk5 has specially designed hooked blades which can be supplied with or without tips, and are designed for increased thatch removal and improved 'throw'. An alternative, 3 point blade is also available for verticutting.

The 6hp Robin engine and wider working width of 500mm gives improved performance and a faster work rate. Controls have been designed to be user friendly and the larger capacity grass box is easy to fit.

For further technical information Tel: 01625 503030, Website: www.sisis.com.



DOCTOR IS WAITING

Allen Power Equipment is launching a new Turf Doctor Scarifier this autumn. The machine has a 22in (56cm) working width and is powered by a Honda 5.5hp engine.

Manufactured by MacKissic in the USA, the Turf Doctor will join a line of professional scarifiers bearing the Turf Doctor name, up until recently manufactured by Allen themselves.

To encourage air and moisture to the treated surface, the new Turf Doctor has a reel fitted with triple line of 32 tines which are virtually unbreakable though can be easily replaced in minutes when worn. Working height is via a single lever and pneumatic tyres all round ensure the very best in turf protection.

For further technical information Tel: 01235 515400, Website: www.allenpower.co.uk.



THERE IT GOES

The high speed Shibaura CM364 out front mower, which can travel at speeds of up to 24kph, has been launched. This latest ride on mower is powered by a 35hp, 3 cylinder, water cooled diesel engine. Meeting current EU and US emission standards the engine boasts exceptionally low noise and low vibration.

Running in two wheel drive under normal conditions, the mower automatically engages four wheel drive in slippery conditions, helping to avoid damage to the turf. Highly maneuverable and with the ability to lock the front differential the mower operates well even in wetter conditions and is equally at home on rough terrain or areas requiring a smoother finish.

When cutting large areas of grass, power steering and cruise control help provide maximum operator comfort. A quick hitch system, together with an infinitely variable hydraulic weight transfer system, means a wide range of attachments can be accommodated with ease.

For further technical information Tel: 01244 671166.



THE FAMOUS FIVE

Hunter Grinders has launched their Series 5, that consists of the Jupiter Series 5, Jupiter ATI Series 5, Juno Series 5, Amazon Series 5 and the Orion Series 5. All of these machines now incorporate as standard a number of features that are aimed at addressing any health and safety issues that have arisen in recent years, and in particular to ensure the operator can achieve a precision edge for maximum quality of cut, with greatest ease, speed and safety.

Stability is a crucial factor in a machine designed to accommodate heavy mowers/cylinders. The process of accurate grinding places huge demands on the construction of the grinder. All models in the Series 5 range are now built on cast iron beds for unbeatable stability and strength and, in addition, linear bed rails have been introduced again as standard for enhanced accuracy when grinding. All models now operate on 240volt single phase, with all Jupiters having fully enclosed interlocking guarding. There are a huge variety of mower units manufactured, so Hunters have incorporated many new features to assist the operator in handling the different mowers and cylinders with ease.

For further technical information Tel: 01207 270316, Website: www.huntergrinders.com.



TAKING THE STRAIN

Today's greenkeeper frequently has to transport large loads of materials such as drainage spoil, top-dressing, aggregates, turf, and bagged goods. To carry out these tasks Campey Turf Care Systems unveiling the Dakota 550 and 525 Turf Trailers.

Designed for use in golf course maintenance, the machines have fast work rate to provide maximum efficiency. They are built for robustness with an A-frame construction but minimise the pressure exerted on grassed surfaces by the use of full width floatation tyres. Although a heavy duty workhorse, Dakota Turf Trailers cover undulating ground without marking due to 4-wheel walking beam axles. The tipping operation is controlled by the driver in the tractor and rises to an angle of 65°. The tailgate opens automatically for efficient unloading of the contained material.

For further technical information Tel: 01260 224568, Website: www.campeyturfcare.com.

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PERFECT FORM

More power, increased torque and lower fuel consumption are features of John Deere's new small chassis compact tractors, which are based on the same modern styling and overall design as the mid and large chassis models in the company's 20 Series range.

The 24hp 2320 and 26hp 2520 employ larger capacity, fuel efficient Tier 2 engines, which generate up to 10 % more power than the models they replace, but with lower emissions. Both models offer a new two range hydrostatic transmission, with a higher maximum forward speed of 22kph on the 2520 model.

Both front and rear axle loads have been increased, and maximum lift capacity at the category 1 three point hitch is now 650kg. The operator's station incorporates a number of new features including the hand throttle, instrument panel, ergonomic pedals and comfortable seat, while the new optional deluxe cab offers improved visibility.

For further technical information Tel: 01949 860491, Website: www.johndeere.co.uk.



BOMFORD'S PROTOTYPE

Bomford Ltd have showcased a completely new concept in verge mowing, as they demonstrated a new prototype reach arm flail mower and collector, which has been designed in conjunction with Trillo.

Based on a 5.0m reach Bomford Falcon reach arm mower, the unit is designed to cut and then transfer verge mowings into a hopper for collection and subsequent disposal, in order to boost wildflower levels on verges. To achieve this, Bomford has designed a new heavy-duty flail head which, in addition to the standard double helix flail rotor shaft, also incorporates an auger behind the rotor that moves cut material to the centre of the head, where it is sucked into the accompanying vacuum collector that is trailed behind the mowing unit. This has the benefit that when not required for verge collection work, by just reverting to a standard flail head the Falcon can be used for hedge or other verge maintenance work.

For further technical information Tel: 01789 773383, Website: www.bomford-turner.com.

NEW SMALL VERSION

Charterhouse Turf Machinery launched a new version of the Verti-Drain aerator specifically designed for use with the smallest compact tractors. The 7110 Verti-Drain is expected to create demand from golf clubs that will be able to use their existing compact tractors to power the machine.

To power the new verti-drain a tractor of only 16hp is required, with a lift capacity of 450kg. It has a one metre working width and can operate to a maximum depth of 150mm. The 7110 can be fitted with solid, hollow or cross tines of various lengths and diameters, enabling its performance to be matched to specific turf care tasks. It weighs only 750 lbs so that it exerts minimum pressure on the sward.

For further technical information Tel: 01428 661222, Website: www.charterhouseturfmachinery.co.uk.



BROADWOOD SPREADING

The Broadwood SnowEx truck spreaders have now become even more versatile with the launch of a new trailer chassis. Robustly built, the chassis enables all models, with capacities ranging from 400L to 1500L, to be used for highway service.

Also suitable for the newly launched SnowEx V-Maxx spreaders the trailer chassis includes suspension, light and braking thereby enabling the machines to be used for highway service of speeds of up to 60 mph where applicable. The trailers also enable SnowEx spreaders to be quickly and easily towed from site to site or around large premises using a wide range of vehicles from small vans and road sweepers through to 4x4s and larger trucks depending on their towing capacity. An in-cabin controller enables on-the-move adjustment of spreading width and application rates to suit operating conditions.

For further technical information Tel: 01794 388881.

ADDING TO THE RANGE

New Holland has added powerful 4-cylinder models to its TND-A and TNS-A line-ups of utility tractors. The introduction of the 82hp TN85D-A and TN85S-A models, and the 90hp TN95D-A, means that the TN-A Series now incorporates four models from 59hp-90hp, covering all requirements.

The 4.5-litre, Tier 2 engines give more power, higher torque and enhanced performance for high work-rate professionals. To accommodate the larger power unit, the three new tractors feature a longer bonnet and an A-pillar exhaust to provide an unimpeded view forwards.

The tractors can be specified with New Holland's 'Blue Cab'. Its pressurised cab sealing system ensures that only air that has been passed through the anti-pollen and air recirculation filters enters the cabin for a clean, safe working environment. The Blue Cab also provides air conditioning and can be specified with carbon filters for those spraying chemicals.

For further technical information Tel: 01268 292580, Website: www.newholland.com.



SILENT SWEEPER

Designed to meet the highest possible standards of operator comfort with low noise and vibration output the Kersten Vela Silent Vacuum/Sweeper is simple in operation and offers outstanding performance against competitive machines in the same price bracket. It will cope with not just leaves but general rubbish, twigs, clippings and cans and plastic bottles equally as well.

Equipped with a Honda low noise engine the Vela Silent Vacuum/Sweeper has a variable speed hydraulic transmission and its 350 litre collector is now available with 2 hydraulic sweeping brushes, giving a working width of over 1.2 metres. The versatility offered makes this machine ideal for those with estate management responsibilities within schools, universities, hotels, country houses, parks, golf courses and almost any location where there is the need to bear in mind both public safety and the benefits to be derived from the appearance of a well kept facility.

For further technical information Tel: 0118 9834337, Website: www.kersten-machines.com.

CLAYMORE LOAD IT ON

Claymore Grass Machinery has introduced a 48in front end loader for their Simplicity Legacy XL model tractor. The new loader bucket has a lift capacity of 225kgs and is able to be operated with the mid mounted mower still installed, plus is supplied c/w ballast box.

In addition, the loader can be disconnected from the tractor by means of a four way joystick control without the operator leaving his seat. The Simplicity Legacy XL tractor is offered in two and four wheel drive configurations. Powered by a 27hp Briggs & Stratton liquid cooled engine, the unit has hydrostatic transmission with cruise control and is supplied complete with a 137cm (54in) free floating three blade mower deck. As standard, the 4WD version is fitted with a rear PTO and three point hitch.

For further technical information Tel: 01789 490177, Website: www.claymoregrass.co.uk.

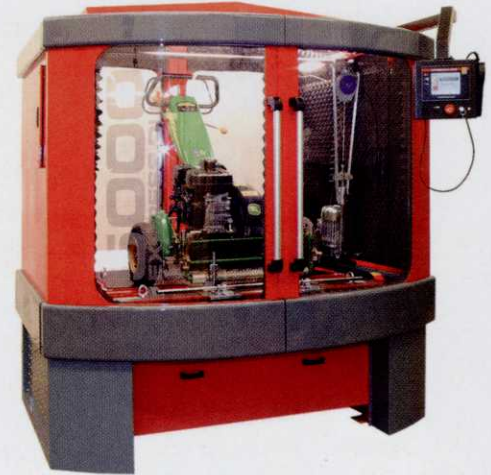
FEELING CHIPPER

Chipper blades can be kept extra sharp by using the newly upgraded Chippermaster from grinding specialist Bernhard and Co. Green waste accounts for 95% of municipal waste, so the new dedicated chipper blade sharpener has a vital role to play in the chipping cycle.

This latest Chippermaster is simple to operate and configurable to allow the operator to grind flat blades or hollow grind blades. Powered by a powerful 1.5 kilowatt grind motor, a removable coolant tray takes dirt and debris away from the grinder. Producing a highly accurate grind with fine tolerances Chippermaster comes in an illuminated cabinet as standard.

Single or double sided blades can be ground, individually or in sets, and special fixtures can be made, to order, to accommodate specific blades.

For further technical information Tel: 01788 811600, Website: www.bernhard.co.uk.



GEM ADD EXTRA

ProCote Extra is the latest development from Gem Professional. A controlled release fertiliser specifically designed for the autumn and winter seasons. Used in most fine turf situations this fertiliser will not only last for four months but will enhance the quality of the turf ensuring consistent growth throughout the season.

With an analysis of 16:2:32+1.25% MgO + Fe, ProCote Extra is used between September and February and only requires one application per season to obtain the full effects of the product. Easy to apply with a uniform granulation it provides immediate, medium and long term nutrients; this includes two stages of potassium and nitrogen release. Potassium will aid the turf hardening process whereas the nitrogen will encourage dense sward.

Spring and summer 2006 will see further additions to the ProCote Extra range, including the opportunity for bespoke mixes tailored to your individual needs. ProCote Extra is available now in 25kg bags.

For further information Tel: 01254 356611, Website: www.gemprofessional.co.uk.

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TALKING HEADS

Compiled by Gareth Jones

1

Does emergency work get in the way of your pre planned winter work?

CONSTRUCTION



Name: Richard Cutler
Years as a Greenkeeper: 14
Club: Montrose Links
Course Type: Links (36 Holes)
Region: Scotland
Number of Staff: Course Manager, plus 9

Hopefully not this year. Our Medal course suffers from coastal erosion and in previous years teeing areas have been lost to the sea. We now have alternative tees ready to use on some of the most threatened holes, but you can never be exactly sure what shape we'll be in come the end of winter.



Name: Tony Smith
Years as a Greenkeeper: 42
Club: Teesside Golf Club, Stockton On Tees
Course Type: Parkland (18 Holes)
Region: Cleveland
Number of Staff: Course Manager, plus 5

Yes. To keep the course open and playable at all times is our first and foremost duty to the membership, neighbours and to conform to Health and Safety regulations.



Name: Ian Upton
Years as a Greenkeeper: 19
Club: Rye Hill Golf Club, Banbury
Course Type: Heathland (18 + 3 hole academy)
Region: Midland
Number of Staff: Course Manager, plus 4

Even the best planning cannot prevent the occasional emergency. My view on this is do deal with any emergency quickly, utilising my staff at all times to deal with the situation with minimum fuss. We work on flexible time basis and in case of extreme circumstances everybody will stay on until the job is done.



Name: Lee Squires
Years as a greenkeeper: 26
Club: Harwich & Dovercourt Golf Club, Essex
Course Type: Parkland (9 Holes)
Region: South East
Number of Staff: Head Greenkeeper, plus 2

Yes of course it would. If you have a full programme of works anything out of the ordinary is bound to have an impact. But isn't that life, not just greenkeeping?



Name: Roger Myatt
Years as a Greenkeeper: 10
Club: Knighton Heath Golf Club, Bournemouth
Course Type: Heathland (18 Holes)
Region: South West/Wales
Number of Staff: Course Manager, plus 4

Yes, emergency work can defiantly affect our pre planned work. However, typically this emergency work will only affect our pre planned ventures if it is costly or highly time consuming.



Name: David Lenham
Years as a Greenkeeper: 30
Club: Milltown Golf Club, Dublin
Course Type: Parkland (18 Holes)
Region: Ireland
Number of Staff: Golf Course Superintendent, plus 6

Not really, unless we have a semi hurricane. This happened in 1987 when we were clearing up storm damage and fallen tress, around 350 of them, for about 8 or 9 weeks. Generally any emergency work would only be short term, pumping flood water or emergency tree surgery following storm damage.



Name: Dick Gray
Years as a Greenkeeper: 25
Club: Jupiter Hills Club, Florida
Course Type: Parkland/Links (36 Holes)
Region: International
Number of Staff: Superintendent, plus 44

Hurricanes cause the problems. Last year we took two direct hits and lost over 1000 trees. Lightning is a large problem. The bigger issue is the damage done to the irrigation system. A bolt will hit a tree, move into the roots, blow the sprinkler head apart and the ensuing flood will create a hole bigger than a pick-up truck.