

IOG SALTEX REVIEW 2003

Excellent weather greeted the visitors to Saltex '03 and those who made the trip to Windsor Racecourse were treated to an excellent three days. The BIGGA stand was exceptionally busy with members using the facility to talk with BIGGA staff and prospective members finding out more about the Association and collecting membership forms.

SPRAYING SUCCESS

Saltex was the venue for the presentation of a free, state-of-the-art 300 litre Gambetti Barre tractor mounted sprayer to Tall Pines Golf Club, near Bristol, winners of the 2003 Blazon "SprayWatch" competition sponsored by GreenLink International.

From a large number of entries nationwide, Tall Pines was the first name to be drawn and BIGGA Chairman, George Brown, in company with Deputy Executive Director, John Pemberton, made the presentation on the Gambetti Barre stand.

Unfortunately, neither the Head Greenkeeper of Tall Pines, nor a member of its management, was able to attend the presentation as the club host an annual charity match that coincided with Saltex. Instead, the Avoncrop Amenity Products representative Neil Westlake, who entered the club's name into the draw, received the sprayer on the club's behalf.

The 2003 Blazon "SprayWatch" promotion celebrated a decade of campaigning for safer spraying techniques to be adopted by the amenity industry and the number of golf clubs incorporating a spray pattern indicator into their spray management programme has increased year on year. In that time ten clubs throughout the UK, from Scotland down to the South West of England, have benefited from a free sprayer.

"The addition of a spray pattern indicator such as Blazon to the spray solution is a simple and economical method of ensuring total accuracy and control of the spraying operation. With a visual indication of the spray pattern, more of the chemical reaches its intended target, less is wasted through excessive overlap and a more professional result will be achieved," said Richard Fry speaking on behalf of the sponsors GreenLink International.



Left to right: John Pemberton, Chris Briggs (Avoncrop), Patrick Dixon (Gambetti Barre), Neil Westlake (Avoncrop) George Brown and Jonathan Harmer.

25 YEARS AT SALTEX AND STILL GOING STRONG

Twenty-five consecutive years of a representative attendance was celebrated on the Sherriff Amenity Services stand at this year's Saltex.

Chris Rudkin (on the left), one of the company's 13 amenity specialists, was awarded with a bottle of champagne and a congratulatory handshake from Mark Pyrah for attending his 25th Saltex exhibition as an exhibitor.



Chris, who is a well known and highly regarded representative covering Surrey and the London boroughs stated, "I have enjoyed this year at Saltex as much as my first visit 25 years ago and look forward to many more annual visits in the future".

Presenting Chris with his memento in recognition of this achievement Mark Pyrah, Sherriff's Sales Director stated "This is indeed an occasion and perhaps even a record, highlighting as it does an individual's commitment, consistency and support for what is an essential show date in everyone's calendar."

HAPPY BIRTHDAY

The champagne corks popped on the Sisis stand at Saltex as David Luxford's colleagues drank a toast to his 60th birthday.

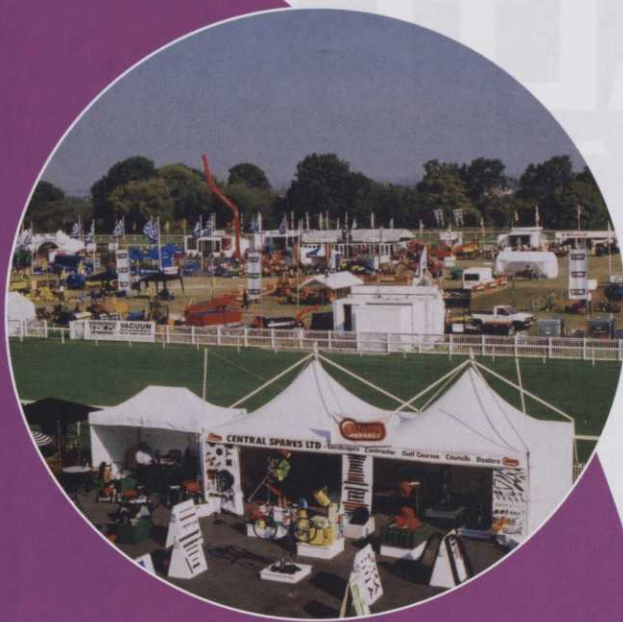
David joined S.E. turf machinery dealer Paice and Sons straight from school and has worked in the turf maintenance industry ever since – and for the last 14 years as S.E. Regional Manager for Sisis.

He is a keen cricketer, still playing for his local team (when they are desperate!)

David demonstrates his dedication to duty every year as both his birthday and his wedding anniversary are during Saltex week.

The surprise party was attended by his Sisis colleagues including joint Managing Directors Roger and William Hargreaves, Keith Vertigan, David Harrison and Lynn Hilton.





CHRIS IS ON COURSE

Saltex was the venue for presenting the prize of the internationally acclaimed 'OnCourse' golf course management software package to Chris Carpenter MG, Course Manager at Brookmans Park Golf Club, Hatfield, Hertfordshire.

Chris won the prize in the annual Blazon 'SprayWatch' campaign and his club was the second to be drawn from a large number of entries nationwide.

The presentation was made on the Sherriff Amenity Services stand by Sami Collins representing the education and training department of BIGGA in the company of Chairman George Brown and Deputy Executive Director John Pemberton.

Chris Carpenter is one of a select band of turf professionals holding the qualification of Master Greenkeeper which will allow him to gain the maximum benefit from the computer software and the on-site training that accompanies the package.

Speaking on behalf of the sponsors GreenLink International, Richard Fry stated "Education has always been at the forefront of our campaign to achieve increased numbers of end-users including a spray pattern indicator such as Blazon in their spray programmes. Our technical literature, the 18 Ways to Spray leaflet and Spray Watch safety sticker have all contributed to spreading the message. Our approach has met with great success as, year-on-year, more operators adopt this simple and economical method of ensuring total accuracy and a professional approach to the spraying operation.

Picture: Left to right: George Brown, Chris Carpenter, Sami Collins, Mark Pyrah, Sherriffs, John Pemberton and in foreground, Richard Fry, GreenLink.



JOHNNY "THE BURGER" BECK

Sherriff Amenity Services, Johnny Beck is well known for his superb halfway houses at BIGGA events in the South East of the country but to enable a wider audience to sample his wonderful range of burgers and hot dogs at Saltex he first had to sit a food hygiene exam. No one had any doubt that Johnny would pass with flying colours but next time you bite into one of his rolls you can do so in the full knowledge that he is now "qualified". Johnny, and his colleagues, is pictured right as he faced an enormous queue on the Sherriff Amenity stand.



NEW BAGMA INITIATIVE

BAGMA, the UK trade association representing the interests of machinery dealers serving the groundcare and land-based industries, launched a unique 'joined-up' approach to groundcare technician training, in order to ensure a sound basis for the education of apprentices.

Under the forthcoming Groundcare Technician Training Scheme (GTTS), 10 colleges and 11 manufacturers have teamed up to provide dedicated resources and machinery nationwide to train technicians for employment with dealers serving in the domestic and professional equipment sectors.

A leaflet detailing the GTTS, which is being co-ordinated by Writtle College, was launched at Saltex. BAGMA regards the Scheme as an essential development in helping dealers attract new entrants into the profession.

"It will provide a platform for a rewarding and valuable career. BAGMA urges dealers to give their full support to the Scheme and their apprentices," said Director General Ian Jones.



BACK TO NORMAL

Windsor Race Course is set for its first meeting following Saltex, thanks to swift remedial treatment to relieve compaction.

"Airforce", Terrain Aeration's hydraulic terralift machine, swung into action 16 hours after the show officially closed, injecting compressed air and dried, milled seaweed particles into the two course crossing areas which had been covered by aluminium track 14 days previously.

The company, who had been camping out in a caravan during the show, while Airforce remained dormant on their stand, treated the areas, inserting the machine's probe 500 times at two metre spacings before backfilling with Lytag to keep the vertical drainage channels open. The only glitch in the operation occurred when two wayward vehicles, one tractor and one lorry, escaped the barriers and drove over freshly de-compacted ground, dictating a repeat of the aeration process.

The IOG, who take responsibility and cover the cost of restoring the racecourse following Saltex each year, estimate that between 9,000 to 10,000 pedestrians and 600 to 800 vehicles, from cars to articulated lorries, cross each of these tracks during the four-day event.

David MacKinnon, who has been Windsor Race Course Manager for just over three years, says he is happy with what Terrain Aeration has done. "It's highly likely that "Airforce" will be back to repeat the operation next year," he commented.

TURN OVER TO SEE A SELECTION OF NEW PRODUCTS THAT WERE LAUNCHED AT THE SHOW. MORE WILL BE FEATURED IN NEXT MONTH'S ISSUE...

GROUND GUARDS

Protect your turf from damage by vehicles

- **Guaranteed unbreakable** by vehicles up to 50 Tonnes!
- Protect turf and tarmac from wheeled and tracked vehicles
- High tech 100% recycled plastic
- Virtually indestructible – use them again and again...
- Lightweight to carry
- **No more bogged down vehicles** or rutted turf!
- Will also clip together for semi-permanent roads/car parks
- **2 YEAR GUARANTEE**



0113 267 6000

GreenTek
GUARANTEED TO DO WHAT IT SAYS
-OR YOUR MONEY BACK!

SOIL COMPACTION IS A MAJOR PROBLEM FOR ALL SPORTS TURF MANAGERS EVERYWHERE!

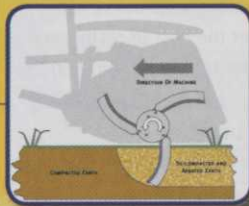
So, WHAT'S THE SOLUTION?

TREMOR

EARTHQUAKE TREMOR

Available models:

- T155 - 1.54m
Max working depth 260mm (10 1/4 inches)
- T220 - 2.2m
Max working depth 350mm (14 inches)



- Consistent decompaction to full working depth and width of the machine.
- For use on golf greens, tees, fairways, winter sports pitches, racecourses, polo pitches, cricket squares and parks.

- Virtually no surface disturbance
- Single depth change point
- Low Maintenance
- Instantly adjustable to suit all conditions



For instant relief from compaction associated problems and a free no obligation demonstration call: 01889 271509

Quote ref. number 123

**Earthquake
Tremor**

Earthquake
Turfcare Limited
New Road Ind. Est.
Hixon, Staffordshire
ST18 0PJ

LOOK! A fully bunded Fuel Station for under £1000

Trust *CourseCare*
The Turf Professional's Choice
to come up with a winner!

The Harlequin Mini Fuel Station holds 1450 litres diesel and is supplied with:

- Integral 240 volt pump
- 4 metre hose
- Auto nozzle
- Bund Alarm
- Emergency isolation switch

and all for £995!

Don't risk prosecution install a bunded tank now!



If it's Tanks - Talk to us!

Highspeed Lubricants Ltd,
Riverside, Newbridge
Industrial Estate, Pitt Street,
Keighley BD21 4PQ

Call us now on 01535 611103,
Fax: 01535 611546 or
e-mail: info@highspeed.co.uk
www.highspeed.co.uk

The Bunded Tank Specialists
full range of sizes up to 10,000 litres

Trilo now vacuum, sweep, scarify, cut, spread and blow!



The world's No1 in Vacuum Sweepers

With 35 years' experience and a range of quality machinery, it's easy to see why Trilo is the world-leader in vacuum sweepers.

Built to an extremely high standard, the wide choice of models and numerous options available ensures you can trust Trilo to make your job easier and more efficient.

Now incorporating a range of quality, high specification groundcare equipment which offers the complete solution for scarifying, cutting, spreading and blowing.



TRI502



SG400



FLEXISPREAD



TD2000



HIRE, SALES, PARTS & SERVICE

MJT Contracts Ltd

Wadebridge Farm, Landwade, Exning, Newmarket, Suffolk CB8 7NE
Tel: (01638) 720123. Fax: (01638) 720128 www.mjt.co.uk

Call us today for a demo



NEW PRODUCTS

WARM AS TOAST

HotWired is a new range of comfortable heated clothing for the grounds care professional. The range comprises socks, mittens, overtrousers and working jacket using heating pads sewn into the lining of each garment to provide a soothing warmth just moments after plugging in.

Instead of a single wire running through the garment, there are over 250cm of heated wire in each heating pad, which are strategically placed throughout each garment. Instead of hot spots or cold spots, warmth is evenly distributed throughout. The result is a warm, comfortable ride in even cold, windy, and damp weather. Just plug into a 12-volt power source.

The jacket and trousers are made from 100% nylon with a urethane coating on the inside together with sealed seams. The result is a virtually windproof and highly water resistant garment that keeps the cold and wet out and the heat in.

The mittens are exceptionally light and strong and made from the same nylon material with a waterproof and breathable insert providing exceptional protection from water and wind. The mitten heats the entire length of each finger as well as the back of the hand. They plug into the sleeve plug of the jacket or can be worn by themselves with a purpose-designed harness.

The socks heat from the top of the foot all the way down to the bottom of the toes, surrounding the entire foot with warmth. Similar to the gloves they plug into a socket in the trouser leg or can be worn by themselves with a special harness.

For further information Tel: 01473 270000



A CUT ABOVE

STIHL launched two new brushcutters, the FS 100 and FS 100 R brushcutters. Employing the new mixture-lubricated 4-MIX engine, the new STIHL brushcutters combine the benefits of two-stroke and four-stroke engines in one, driving high torque and powerful performance through these versatile machines with optimum eco-properties.

On steep slopes and uneven ground the new STIHL FS 100 and FS 100 R brushcutters, cut through long grass, strong weeds and tough scrub. With their powerful performance, operating convenience and environmental compatibility, the new models sit at the top SS of STIHL's light brushcutter range. The machines owe their performance and optimum eco-properties to the newly developed STIHL 4-MIX engine. Unlike a conventional four-stroke engine, the STIHL 4-MIX is fuelled with a mixture of petrol and oil. No need for a separate oil tank, oil pump and oil filter; no need to check oil levels, change or dispose of the oil.

STIHL 4-MIX brushcutters are particularly eco-friendly. The efficient flow of combustion and exhaust gases, thanks to valve control in the 4-MIX engine, eliminates scavenging losses and significantly reduces emission levels; and the new machines already meet the emission ceilings which will apply in the USA from 2005 and in Europe from 2007. They are equally beneficial where noise is concerned. Running on the four-stroke principle, the 4-MIX engine noise is in a lower frequency range than a conventional two-stroke and thus perceived as more pleasant by the human ear.

For further information Tel: 01276 20202.

HONEY I SHRUNK THE ...

JCB is developing a new Groundcare division, building on the already very successful licensing business that has seen the JCB brand extend into leisure, work wear, safety wear, power tools and garden machinery.

JCB Groundcare will market part of the current product range including the Micro Excavator and Dumpster to specialist Groundcare users and will develop its own range of Groundcare machinery. The JCB Groundcare range will continue to uphold the JCB name for performance, value and reliability.

Marketed through a network of specialist, professionally trained, factory backed dealers.

The smallest machines JCB has ever manufactured were shown at Saltex as the company geared up to grab a slice of a growing market.

As part of its Groundcare division JCB is offering two micro excavators - the JCB Micro and Micro Plus - weighing in at 1,063kg and 1,237kg respectively.

JCB is the first major manufacturer outside of Japan to produce micro excavators and their introduction opens up new markets for the company. The JCB Micro and JCB Micro Plus will be the first micro excavators to be designed to effectively power a breaker. By using high strength componentry from the JCB 8015 mini excavator. JCB HM60 can be used on the Micro and Micro Plus.

JCB Groundcare also brought another miniature machine to Saltex 2003.

JCB is planning to increase its range with the addition of a smaller backhoe.

The machine - which weighs in at 1480kg - will feature:

- A 20hp diesel engine
- A centremount backhoe with a dig depth of 2.54m, 180° slew angle. 1.98m loader
- Single lever loader controls
- JCB Plus excavator controls
- 2 wheel drive single speed hydrostatic transmission
- Maximum shovel height of 2.18m
- Shovel capacity of 0.23 cu metres
- An excavator loader height of 1,96m
- 300mm std. bucket width

For further information Tel: 01889 590312



Ground Force



G25



G30R



GX & GXH



F



CX

Whatever the size -
we can cover all
your grounds care needs

Ranging from 21 - 102hp

McCormick tractors are a force to be reckoned with. For grounds care, nurseries, greenhouses, vineyards, orchards, grassland and municipality work, our range covers every application.

From the small but multi-talented G25 mini tractor to the powerful, all-round capability of the CX, we offer individual solutions to meet individual needs. All our tractors are designed with the driver in mind. Supreme versatility is a feature of every model. So too is outstanding productivity throughout the year.

Shouldn't you be joining forces with your McCormick dealer?

RSM Beare Exeter	01392 841322
RC Boreham & Company Chelmsford	01245 231320
Burgess Chester (covering the North West and North Wales)	01244 881331
Burgess Shrewsbury	01743 235046
Burgess Barton Under Needwood	01283 711622
Burgess Bakewell	01629 812568
Burgess Banbury	01295 253671
Chichester Tractors Chichester	01243 531298
Collins Services Pontrilas	01981 240681
David Evans Machinery Llancarfan	01446 781711
James Green Farm Machinery Studley	01527 857857
Harper & Eede Hurstpierpoint	01273 832331
Johnson Bros (Fakenham) Ltd Fakenham	01328 863812
K&M Mowers Brough	01482 667004
Olivers Kings Langley	01923 265211
PJS (Ag Services) Ltd Hungerford	01488 648685
JE Rees & Sons Llandysul	01559 370601
Rickerby Ltd Hexham	01434 604131
Rickerby Ltd Carlisle	01228 527521
Stalham Engineering Co Ltd Stalham	01692 580513
Suffolk Agri Centre Pakenham	01359 232155
Thornycroft (1862) Ltd Huntingdon	01480 891642/3
Truro Farm Machinery Truro	01872 278471
Uphill & Son Ltd Somerset	01761 241270
RH Young Kirknewton	01506 880413



McCORMICK

Brochure Hotline: 01302 328323

McCormick Tractors International Ltd.,
Wheatley Hall Road, Doncaster DN2 4PG, South Yorkshire.
www.mccormick-intl.com



A member of the ARGO Group

NEW PRODUCTS

ON YOUR BIKE

Making its debut at Saltex was a new all terrain mower from Etesia - the Attila A180. This latest machine, which is unique in the European market, provides commercial end users with an efficient mower for use on areas such as motorway and river banks; industrial estates; or grassed areas around reservoirs. On sites like these, the safe use of grass cutting machinery on banks is an important Health and Safety issue.

With the launch of this new mower, Etesia have addressed the problem. Depending on ground conditions, Attila A180 can be used on slopes up to 27 degrees. The special feature of this mower is its hydraulic automatic self-leveling system which ensures that the operator, engine and controls are always in the vertical position, while the floating cutting units follow the terrain's contours. This provides total comfort and safety for the user during bank work. In addition, there is a fully adjustable suspension seat with armrests and seat belt, together with a Roll Over Protection System. For added safety, an alarm buzzer sounds when the machine is nearing the 27 degree limit.

Attila A180's 71" (180cm) cutting width comes from two 36" (91.5cm) fully wheeled rotary decks with double acting rams on castor wheels. These rear-discharge cutting units adjust independently to all angles to provide an even finish when mowing in ditches, over crowns and hillocks and on uneven terrain. Hydraulic drive allows them to mow in any position.

Beneath the reinforced steel decks, the cutterbar has swing tips, which can be fixed for use on shorter grass. Concentric design of the cutting units creates a 3cm overlap which ensures that no central band of grass is left uncut.

Designed to cope with a wide variety of grass conditions, Attila A180 has a powerful 3-cylinder 30hp Yanmar liquid cooled diesel engine. The machine is highly manoeuvrable, with easy-to-use hydrostatic drive, power steering and good all-round visibility. This, added to the fact that when in operating mode the central "bike" remains in the vertical position, puts the user in full control, especially in difficult working conditions.

For further information Tel: 01926 403319.



ORGANIC SUPPLEMENT

Scotts launched a new organic turf supplement at Saltex that enhances sward health and vigour through stimulating soil microbial activity. New Greenmaster Blade is an advanced combination of carbohydrate and seaweed technology which, over a series of independent trials, has resulted in increased turf density and vigour and greatly enhanced disease resistance.

The key benefit of including Greenmaster Blade within an overall turf maintenance programme is the impact on root development. During trials, users reported improved rooting to depths of seven to ten inches. The turf is therefore able to take up nutrients and water more efficiently, resulting in accelerated top growth and sward density.

In practical terms, this means that the turf is harder wearing and resilient, better able to resist the effects of drought and disease and shows improved colour.

Greenmaster Blade works indirectly. Instead of feeding the turf, the carbohydrate and seaweed spray feeds and stimulates the beneficial micro-organisms in the soil surface. Modern turf management often results in a near sterile environment in the

upper inches of the soil, starving the micro flora and fauna and preventing the natural recycling of organic matter into plant nutrients. This has contributed to the increasing problems turf managers experience with thatch build up and conditions such as black layer.

Greenmaster Blade provides an energy source to reinvigorate the activity of these organisms. The result is an acceleration of natural composting - breaking down thatch and black layer, improving air and water flow into the soil and continually releasing new plant nutrients to the turf roots.

This stimulation also benefits turf disease resistance by enhancing the activity of beneficial mycorrhizal fungi in the rootzone. These fungi develop on the outer root surface and work in co-operation with the grass plant, helping in the transfer of nutrients, protecting against disease ingress and also supplying vital vitamins and amino acids.

Greenmaster Blade is an easy to use liquid spray, supplied in returnable containers, and is now available through the Scotts distributor network.

For further information Tel: 01473 830492

GRADEN ZERO TURN MOWER

2003 will see the launch of the exceptional 'Diesel' Graden Zero Turn mower by Turfmasters. This fast and highly manoeuvrable ride on mower is powered by a 26hp Yanmar Diesel engine, or a 34hp Kubota, and is ideal for cutting cleanly and quickly through tight, restricted areas. The Zero-Turn mower has a forward top speed of over 15kph, and as the rear wheels are independently controlled, this gives a turning radius of ZERO giving the operator full control for manoeuvring in any situation. There are 2 cutting widths available, 62" and 72" with an option of side or rear discharge.

For further information Tel: 01577 863864



IT SUCKS

Making its first appearance at IOG Saltex was a 2.5m (8ft 2y 2in) wide suction pick-up head for Turfmach's TM5 high-tip vacuum collector.

The development of the 2.5m suction head was prompted primarily by demand from turf growers needing to collect and remove grass clippings quickly from newly-mown turf. Apart from the cosmetic factor, leaving the clippings in place, especially during periods of warm, damp weather, can lead to potential disease problems and unsightly yellowing of the valuable grass beneath.

Fully height-adjustable, the new 2.5m suction head is equipped with a full-width powered debris-loosening brush, of similar design to its narrower stablemate. The combination of agitation brush and powerful suction makes the TM5 ideal for the collection of leaves, litter, grass clippings and other light, loose, damp or dry debris from turf or hard surfaces.

All material picked-up by the head passes through the TM5's impellor before being blown forcefully into the machine's five cu metre capacity hopper. High-tip emptying of the hopper is achieved hydraulically from the tractor driver's seat at a discharge height of 2.35m (7ft 9in), sufficient to clear most high-sided vehicles, skips and refuse containers.

Price of the vacuum collector complete with the wider 2.5m suction pick-up head is £17,330.

For further information Tel: 01889 271503

NEW PRODUCTS

NEW PRODUCT LINE FROM B&S

Briggs & Stratton is re-positioning its Power Product line. The product quality by which the company has become renowned is now being extended to end-user products for the very first time. All the petrol-powered products are exclusively equipped with Briggs & Stratton engines.

Briggs & Stratton will position these end products, targeted with their core line of generators, at distinctive market groups, ranging from consumer use to the demanding commercial sector.

The product line is established based on usage and audience requirements includes:

ProClassic: High performance, value for money, generators for use at home or by professionals; They are maintenance-friendly and powered by quick start Intek 1/C OHV engines.

ProPlus: These Synchronous generators designed for maximum performance and endurance and are powered by commercial Vanguard engines. They are suitable for any number of professional applications.

ProMax: The ProMax line of generators provides the performance and endurance benefits of the ProPlus line plus long run fuel tanks and accessories for demanding professionals.

ProSilent: This innovative line presents generators to be used in places where the neighbour is better left undisturbed: such as camping, catering or near home. They are powered by Vanguard commercial engines for maximum durability and can run for hours without refuelling.

ProDiesel: Powered by diesel engines and suitable for professionals, these generators are designed for durability and low operating cost.

Pro Weld: For use by consumers or professionals alike, these AC and DC generator-welders are designed for performance, durability and long run time. They come equipped with Vanguard commercial engines.

ProWash: These high performance pressure washers powered by Vanguard commercial engines, are suitable for the most demanding consumer and or professional needs.

Pumps: Briggs & Stratton's 2 and 3 inch high capacity water pumps are powered by Intek 1/C engines, providing high power to pump water in most conditions. These are suitable for both consumer and professional use.

For further information Tel: 01708335600

BIG DEAL

David Jenkins Turfcare Equipment has received a substantial order worth in excess of £400,000 from The England and Wales Cricket Board (ECB).

The ECB and Channel 4 will purchase 45 trailer-based turf management systems from David Jenkins having first seen the system at Saltex

David was first approached by Bruce Cruse, ECB Facilities Development Manager last year.

Cruse has been working with a group of 45 County Pitch Advisors for over two years with an objective to create a national network of specialist groundsmen who could assist in the improvement of recreational pitches throughout the country.

Bruce identified that each Adviser needed their own set of equipment to conduct Seminars, Training Programmes and assist with rectification work and realised that the David Jenkins Turfcare Trailer System could be adapted to suit his project perfectly.



FULLY GEAR UP TO THE HIGH-TECH ERA

Grinding specialists Bernhard and Company has fitted a NEW colour graphical touch-screen to the top of the range Express Dual 3000DX.

Giving improved functionality, a series of coloured icons replace the normal panel with a selection of buttons.

"Operators will find the animated instructions simple to follow," said Managing Director Stephen Bernhard.

"Our philosophy is not to make constant changes just for the sake of it, but only in the interests of end-users.

"We learn most from greenkeepers hosting tournaments and incorporate their constructive comments into upgrades," he said.

"With our Express Dual grinders being used world-wide this new screen means operational instructions can be understood universally."

Just touching the screen to make things happen - at the start of the grinding process, to load the mower on to the grinder, the clear animation displays a picture of a mower on a lift table which moves up.

For further information Tel: 01788 811600.

STUCK ON YOU

Mag Knife is a revolutionary new system for attaching the bottom blade to a greens or fairway cylinder mower and will inevitably change the face of mower maintenance in the future. Exclusively available from Ransomes Jacobsen, this new system uses powerful magnets with a force exceeding 19kgm together with special locating dowels, to position the bottom blade firmly.

With no screws to remove, the time required to replace worn or damaged bottom blades is reduced from hours to minutes with this new patented technology.

Traditionally, the bottom blade is held in position by up to 18 retaining screws which, as any golf greenkeeper or maintenance technician will confirm, are notoriously difficult to remove, particularly on older machines. When a new bottom blade is fitted using the traditional system, tightening the screws distorts the blade, which then has to be ground true.

Using location dowels and a series of extremely powerful natural magnets MagKnife, the screwless bottom blade, is held firmly in position on the backing plate by a uniform pressure along its full length, eliminating the tedious and time consuming need to grind true using the 'old' system.

During extensive laboratory and field tests in the US, a surprising benefit of the new design was discovered. Fairly substantial objects such as broken tees, twigs, small pebbles, discarded spikes and even coins passed between the cutting cylinder blades and the bottom blade without damage to either during the extensive testing period.

The magnets, with their powerful field, provide enough strength to hold the bottom blade securely to the frame, but allow it to 'give' when an object is encountered, allowing it to pass through harmlessly before snapping back into place.

A special patented removal tool is required to break the magnetic hold and, once done, the process of refitting can be achieved in seconds.



David Withers, Sales and Marketing Director at Ransomes Jacobsen, speaking at the Saltex launch, said, "We are convinced that MagKnife will revolutionise the maintenance of golf mowers as we know it. We have the exclusive use of this patented technology, which has been extensively tested in the USA.

"Jacobsen has always been known for innovation, launching the first hydraulic greens triple, the first lightweight fairway mower, the first and still the only true turf groomer, FlashAttach reels and now, MagKnife.

"We are committed to providing productive, environmentally-friendly products as a continuing company policy and we believe that MagKnife will enhance the productivity of golf courses around the world."

For further information Tel: 01473 270000

MORE SALTEX NEW PRODUCT LAUNCHES FEATURED NEXT MONTH

What does the Future Hold?

Bob Taylor looks at the work that is going on in the wake of the tightening up of pesticide legislation.

With pesticide legislation becoming increasingly stringent, environmental issues dominating our daily routine and with growing pressures from statutory government bodies and environmental groups over the fate of nutrients, particularly with regard to the impact they may have on surface and ground water, it is perhaps not surprising that products and technologies are being developed to help turf managers in their quest for perfect putting surfaces.

These developments fall under the umbrella of "organic management" the strict definition of which relates to any product or compound supporting a carbon base derived from plants or animals. This definition embraces any substance of plant or animal origin and would include substances consisting of bacterial or fungal origin. It could and is being extended to include all vegetation management performed without reliance on chemicals. This may include the development of buffer zones around watercourses, and the extension and development of the rough grassland to accommodate predatory beetles to assist in pest control. It may include composting, organic weed and pest control, grazing, manual removal of weeds and improving light, air flow and other more routine cultural practices to remove water, reduce thatch and improve turf condition.

In fact, a different or a possibly more familiar way of approaching organic management would be to think in terms of Integrated Pest Management (IPM), not a new concept but one that is rarely fully adopted.

CULTURAL GREENKEEPING MANAGEMENT

The traditional art of golf greenkeeping is not dead or dying, it is however changing to embrace new machinery that will be equally or more effective in its particular job of work. It will hopefully make life that bit easier for the greenstaff. Aeration formerly undertaken by hand is now given over to slit, solid, hollow tine and Verti-drain machines. Scarification is now the preserve of thatch control and thatch removal equipment. Top dressing can be applied and "worked in" with very capable machines.

The essence of the above is that all of the cultural management techniques developed by our ancestors are probably more important now than they have ever been. The only consolation for the greenstaff is that, thankfully, life may be a little easier. Continuing this theme, if greenkeepers have a problem with thatch, they scarify, top dress, and reduce water and fertiliser input. If black layer or poor root development is the issue on a green, then aeration in whatever form, if deemed appropriate, is administered. All of the above however may be being lost in the hope that new revolutionary organic products are being produced which will "eat thatch", increase rooting, improve shoot growth, improve colour and destroy the black layer. Such products may also reduce disease so "saving our bacon" when the current round of pesticide reviews have resulted in a total revocation of all chemicals currently used to combat disease.

SO WHAT ABOUT BIO-STIMULANTS?

Microbial inoculants, it is claimed, increase soil-borne bacterial populations, leading to healthy plant growth arising from improved environment conditions around the rhizosphere. Research has shown that an average golf green contains between 0.001% and 2.0% of the microbial population usually found in healthy grassland. Relatively sterile then, you may think, time to switch to microbial products? The figures quoted are log values and therefore possibly somewhat misleading. It is, however, not unusual to find between 1 and 10 million colony-forming units per single gram of soil, averaging over 10 billion colony-forming units when additional species are added and even figures such as this only represent a small fraction of the soil microbe species that scientists can quite easily culture. Mike Kenna (USGA Green Section Record, May/June



Some of the articles on the subject

2001) has shown that repeated use of fungicides has not significantly decreased populations of soil micro-organisms. Even soil fumigation in trials carried out on Bermudagrass greens failed to sterilise the soil and as such is unlikely to kill all the beneficial soil organisms.

The lower levels encountered may be due to a combination of compaction, lack of oxygen, chemical use, sterile top dressings, sand rootzones, close mowing and removal of grass clippings.

Research undertaken to date has shown that there can be a stimulation of root mass with some products but this is relatively short lived. Thus, the products will need to be applied regularly to be effective. For example, Dr Joe Vargas has shown in trials using pseudomonas species that they need to be applied almost daily as this species commonly used in microbial inoculations has difficulty establishing in soil. Even using a BioJect system, the above has been shown to be the case. Some greenkeepers however have seen positive results, while others have reported negative results. Manufacturers claim that any result may not be immediately obvious, rendering measurements taken after application somewhat unreliable. There has been much discussion as to whether the bacteria and fungi used can be damaged or killed by ultraviolet

light but again the manufacturers suggest that the microbes washed into the surface work within the rhizosphere and rootzone and are therefore protected. Dr Noel Jackson (USGA Green Section Record, May/June 1999) showed that *Trichoderma harzianum* will establish within the rhizosphere and can supplement microbial communities sufficient to produce soil-borne disease. This occurred using two spring and two autumn applications of the fungus. Work continues with *Trichoderma* in biological disease control programmes. *Trichoderma* spores have been sprayed onto turfgrasses to reduce foliar disease. Research here again shows that frequent applications are required and any conventional fungicides applied are lethal to *Trichoderma*.

There have been several case studies reported in-house from product manufacturers supporting the beneficial effects of microbial stimulants.

The first concerned a bowling green where 6-7 cm of thatch was preventing water movement down into the rootzone. Scarification, hollow tining and overseeding gave reasonable results but fungi building up within the thatch layer prevented new grass establishment. The Parks Manager used microbial stimulants and found the results to be quite dramatic. New grasses came through and the original grass began to be sustained. By August they looked like brand new greens – no further treatments for fusarium have been necessary. Fertiliser applications have been reduced by 50%.

A study from an English golf club using microbial stimulants for three years in conjunction with a sound fertiliser and aeration programme has successfully controlled thatch levels, hollow coring is no longer required and wetting agents are not needed.

SO, WHERE DO WE STAND WITH MICROBIAL PRODUCTS – DO THEY WORK OR DON'T THEY?

STRI has recently conducted a commercial trial using microbial stimulant products on a fescue-bent turf growing on a USGA specification rootzone. The main plots received either low, medium or high fertiliser inputs and 16 separate commercial product treatments were applied within the individual sub-plots. These were randomised within each main plot, with applications repeated at ten to 20 day intervals between May and November 2002. Irrigation was applied on four occasions and aeration took the form of a single solid tine treatment and two light surface treatments using a Sarel-type roller. The whole of the trial area was subjected to simulated golf-type slip wear equipped with golf shoe studs and measurements were taken on a monthly basis. Live grass cover was assessed visually and the rooting depth from surface was measured. All of the results were subjected to a statistical analysis of variance and the results are outlined below.

Two products only produced a significant enhancement in turf colour, both however contain nitrogen (NPK 5-2-10) and this, particularly in the plots within the main plot supporting a lower fertiliser rate, is to some degree to be expected. In most cases, the visible assessment of turf cover showed no statistically significant effects from the microbial treatments when compared to the control. However, one treatment containing the above NPK fertiliser did produce a significantly greater density of cover in relation to the control. Towards the end of the trial, significant effects on visible turf cover were noted from two products providing greater live grass cover than the control.

The results for root depth measurements in all soil rootzones showed no significant effects either from fertiliser application or through microbial treatments.



In summary, the only effects on turf quality were obtained for the depth of turf colour and turf density. This was affected primarily by the fertiliser programme but two treatments containing some fertiliser did augment colour depth slightly. One product on one assessment date did produce a ground cover of 74% in comparison to 64% for the control.

IPM

Much of the hype around organic stimulants repeatedly calls for “use in conjunction with an intensive cultural maintenance programme” – an IPM strategy, for want of a more meaningful description.

Most greenkeepers tend to work towards creating an environment where slower-growing fine-textured grasses are favoured, the “Acid theory”, reducing the pH to acceptable “acidic” levels. Microbial products work best at pH values between 5.0 and 8.0, raising the pH to accommodate microbes would inevitably lead to greater nutrient availability (due to the microbes breaking down thatch!) which in turn would lead to slower green speeds through increased grass growth. Microbes added to the surface are light sensitive, so applications are advised in conjunction with aeration to ensure microbes enter the rhizome. With top dressing, research has shown that only 5% of the material enters the hollow core holes (assuming 50 mm spacings), so 95% potentially stays on the surface. Why should microbes work differently? A short period under high light conditions will effectively kill the microbes. It is therefore likely in such circumstances that it is the aeration work that is creating any visual improvement to the turf.

One could strongly argue that with adequate spiking, growing conditions will improve without the use of “beneficial microbe” products. If your problem is of a physical nature then it would make sense that a physical solution is necessary.

Clearly, environmental and site-based characteristics are so variable that it is difficult to make a definitive and qualitative judgment as to the benefits or otherwise of these products, although all of the available research does give quite a strong reserve to the overall benefits of microbial stimulants. To satisfy your desire once and for all, it may be possible to undertake small scale trials on a replicated basis but great care will be required as inconsistencies are not what managing putting surfaces is about. I have seen greenkeepers applying different stimulants at different rates which, on one course, resulted in a serious decline in turf quality and major disease problems on six greens which almost left him without a career. Trials therefore must be subtle and not overly impacting on putting or playing quality. Any trials should continue for at least one full growing season and assessments made for turf colour, root depth and incidence of disease. Nutrient status should be checked before, during and upon completion as was the case with the STRI trials. When considering purchasing micro-stimulants, ask:

- What research has been undertaken on the product and was this in-house or independent?
- Was the research field-based or laboratory-based?
- What was the nature of the growing medium and is it compatible with that of the golf club?
- Were statistical analyses used and how many replications were made?

KEEPING THE BALANCE

A healthy rootzone consists of 45% mineral, 3-5% organic, 20-30% air-filled pore space and no more than 20-30% water-filled pore space. This will provide an adequate growing medium for soil microbes. They are present and will fill all available niches. More importantly for Course Managers is just how the rootzone is being maintained and in this respect it is all about “keeping the balance”. Thus, we must look much more widely other than relying on soil stimulants or other quick-fix solutions. We need adequate sunlight, the drying effects of the wind, carefully monitored irrigation and nutrition, and sensible mechanical and cultural practices carried out during favourable ground conditions when the soil is growing vigorously. This is an extension of IPM techniques that when considered in relation to creating grassland buffer zones, ecological corridors for invertebrate and other wildlife movement, and a balance between putting surface conditions and the wider environment would be best thought of as holistic management.

Holistic management and ensuring a package of cultural techniques and an effective IPM approach will be an essential component of future golf course management, possibly seen by many as a step backwards into the historic past when such practices were commonplace. We are, to some extent, being seduced by the hype and this is out-pacing the basic science, leading to unreasonable expectations of what can be achieved without evidence to back up the claims.