THE FAST WAY TO TOPDRESS AND GROOM YOUR TURF

The Greens Groomer's Patented design uses 14 separate brushes to move the sand in all directions, gently rubbing it in and filling aeration holes without scuffing or bruising the turf

Used by top courses from St Andrews to Augusta



"It does an excellent job and the faster you go the better it does it. I've also used it to brush the greens for extra speed.

Mr A Cale, Ifield Golf Club



You can even rub in while you spread!



The 17' wide Triple Gang quickly grooms Fairways, stands up the grass before mowing, and disperses dew and worm casts.

Phone for a **FREE** demonstration

GreenTek 0113 267 6000 Dr Stan Williams gives you the low down on English Charcoal, a traditional product which is making a comeback

Charcoal was widely known by stone age man while throughout the ancient world charcoal was one of the essentials for practical alchemy and was used to supply clean, smoke free heat and by its reducing power to chemically transform ores to liquid metals.

The blacksmith's forge and the smoothing iron were also dependent on the product before the advent of gas and electricity and to meet these needs the charcoal maker, cum woodsman, was once as familiar as the proverbial butcher, baker or candlestick maker. Not surprisingly the uses of charcoal to improve soils and growing conditions for all manner of plant life were discovered and experimented with over the ages by the charcoal maker's farming and gardening neighbours.
With the increasing mechanisation

of rural Britain between the world wars, this labour intensive craft went into decline and many uses of charcoal in horticulture were forgotten as it became less and less available.

In recent years, however, it has revived and with increasing awareness of environmental issues charcoal production has followed their lead to serve a large modern leisure market, which imports over 40,000 tons of charcoal annually to feed barbecues. Unfortunately there is a considerable ecological price to pay since much of this import is made from sensitive rain forests and mangrove swamps in clear fell operations. By contrast the traditional harvesting techniques in England exemplify sustainable woodland management.

Charcoal was made from hard-woods such as oak, beech, ash or alder, regularly harvested as coppice or pollarded wood in a sustainable way. Great areas of woodland were carefully managed over long periods of time to this end. The seasoned logs were stacked into clamps covered in turves and fired with careful control of the air supply, so that the fire at the base of the stack baked the wood

to charcoal without burning it away. Today the same process is carried out in large steel kilns like giant wood stoves or else in large ovens called retorts. Both are used in small businesses, often as a diversification of a woodsman's primary business.

The equipment is not excessively expensive but a lot of timber is needed. At least four tonnes are needed to make one tonne of charcoal in a retort and as many as six in the more traditional ring kiln.

English charcoal is distinct

from that imported from the tropics. It is lighter and more porous. Partly this is because of the species of timber being used, but mostly it is because English charcoal is completely carbonised. This gives it all its distinctive properties including those which can aid the turf special-

Charcoal, when properly made, is virtually pure carbon. It is granular, is very porous and has an incredible surface area. The total area of the micropores can be as high as 300 square metres per gram. This surface has a strong tendency to stick to other molecules large and small and will therefore bind metal ions from solution and even trap fungal or bacterial spores. These properties can be useful to horticulturists and also underlie its use for all sorts of purification processes in industry.

Botanists might be interested to know that the micro structure within charcoal accurately reflects the structure of the cells in the timber from which it was made. A tiny chip of charcoal under microscopic evaluation by the experts at Kew can reveal the species of tree and even the diametre of the original log. Given that charcoal is completely nonbiodegradable and is unchanged by anything short of burning, this property has been very useful to archaeologists.

Our forebears discovered the properties of charcoal as described by accident. This led to various traditional uses in horticulture all based on the ability of charcoal to remain porous even when compacted and to allow gases and liquid water to diffuse up or down in a controlled fashion. Just what any badly treated root zone is crying out for. To complement sharp sand charcoal grains have the following properties:

lighter and easier to apply

- porous even when compacted
- retain moisture
- suppress spores
- sterile
- evenly distributes nutrients
- almost neutral pH
- does not biodegrade
- locks up poisons

There are several post war books offering practical guidance on how to apply these principles.

Dawson's Practical Lawncraft, first

published in 1939 (latest edition 1977) states that charcoal is excellent as a top dressing and at the rate of 0.25 - 1Kg per square metre the colour of the grass deepens. For firm well estab-



lished turf a fine grade, 1.6 mm to dust, is recommended and for wet places larger grains 6.4 - 3.2 mm should be used. In either case the dressing must be worked in with harrow, chain mat or drag bush. This view is endorsed in J. R. Escritt's book the ABC of Turf Culture (1978) who states that "when surface conditions tend to be too moist and airless a proportion of a material such as granular wood charcoal may be

useful in the top dressing".

Martin Sutton's book Lawns and Sports Grounds (1962) also advo-cates charcoal to improve soil structure in poorly draining and aerated soils. The options suggested are to add hard structures, sand or charcoal, or to precipitate clays with gypsum. Only charcoal, however, adds a unit of structure which is more or less permanent and is in itself porous. Sutton advises that charcoal, 6mm to dust at up to 1 Kg per square metre is "exceedingly valuable for turf surfaces liable to become badly saturated". Advice is also given for sites in preparation where granules at 1-2 tonnes per acre can improve the porosity of the top soil. It might be that charcoal back filled into slit trenches gives better access to pipe drainage than sand.

Below: Showing the before (top) and after (bottom) effects of careful coppice management







Often "black layer" is the least acceptable outcome where turf has become compacted, wet and anaerobic. A. J. geon in Turfgrass Management (4th comments that this is due to anaerobic bacteria producing sulphide gases either by acting on normal soil compots or perhaps on a sulphur dressing added to reduce pH. Either way the soil spaces are clogged with metal sulphides (iron, manganese, magne-sium) and all oxygen is excluded. The addition of charcoal will trap the sulphide gases which cause the problem and provide immediate airways for a better microflora to re-establish itself. extreme cases hollow tining and backfilling with charcoal grains could the problem.

gestions for more chemical uses are made by W. H. Daniel and R. P. Freeborg in Turf Manager's Handbook (1980) where an application of 50 - 100 Kg per acre is suggested to "tie-up" organic chemicals used to . If you have had a spillage of hydraulic oil on the 18th green then the rapid application of a generous of fine charcoal will absorb the noxious chemicals. Horticulture exploits this property in the band treatment of seed rows. Seeds are planted in rows and covered with a

band of charcoal. The whole area is then sprayed with herbicide and the carbon protects the emergent seedlings. A sort of pre-GM-technology for introducing herbicide resistance

Our product has been used at the Brampton Heath Golf Centre, Northampton, this spring to treat the worst areas of black layer on one or two of the greens. After hollow tining, charcoal fines 5-2 mm were brushed in to back fill the pores. Steven Grass, the Head Greenkeeper, reports that the charcoal definitely did the job of capturing the sulphurous gases and increasing the greenness of the sward.

This was the first application on these areas and had the desired positive effect on the symptoms of black layer. In bad cases several treatments over one or two seasons are likely to be cumulative by permanently changing the physical structure of the root zone.

When making comparisons between various materials as top dressings it must be remembered that the density of charcoal is relatively low. You get about one tonne of sharp sand in a cubic yard, but the same weight of dry charcoal fines would be four to five times the volume, the larger mesh sizes being less dense. If you are buying by weight and thinking of the volume of the spread, then this factor of four or more must be borne in mind.

Rates of application depend greatly on the needs of the turf but from the literature of traditional uses about 0.5 Kg per square metre would be a mid-range application and would equate to approximately two litres of material. If this is spread evenly the layer will be 2mm thick, just enough to make a complete cover on a hard surface. On turf, of course, the granules are rapidly distributed vertically and hidden among the blades of grass when worked, so the dressing has

little if any cosmetic effect. Charcoal has never been cheap! Carter's Blue Book of Gardening, of 1931, has horticultural charcoal at four shillings and sixpence for a bushel bag' i.e. about 40 litres, weighing in the region of 12 Kg. In 1931 "four 'n' six" would have bought a couple of pounds of steak, say £12 in today's money, but at that price charcoal was still considered very good value.

If the natural world is to have a future then we must all strive to contain and where possible to reverse the ecological damage that has been done over the last few decades. This will mean in practice that everyone in society must be educated on the issues and be aware of the implications of their activities.

There is no quick fix, and the optimum solution will undoubtedly combine both the old and the new. Although the idea of an organic golf course with no use of fossil fuels or man-made chemicals is a wispy daydream, it would be realistic to teach everyone that a bit of Mother Nature, good environmental practice and above all patience and quote from the March 2000 issue of Greenkeeper International (Lessons Learned page 28).

This is perhaps where English charcoal fits in, both on the golf course and with its production helping the wider environment of our countryside.

Dr Stan Williams is Senior Director of E-CO Company Ltd, a Kentish company dedicated to the sustainable use of English woodlands

Winners from Witax

Estermone

- Controls a wide range of weeds on all areas of turf.
- Showerproof formulation, resists wash off by rain.
- Low application rate the most cost effective turf weedkiller in use.
- Can be tank mixed with 50-50 liquid turf fertilisers or Seaturf soil conditioners.
- Concentrated formulation reduces storage and disposal problems.

TO REW ESTERMONE STORY OF THE S

PACK SIZES 5 litre & 10 litre Contains 2.4-D and dicamba

Fairy Ring Destroyer

- Controls all types of Fairy Ring eg Type I (Marasmius oreades), Type II (Agaricus, Lycoperdon and Scleroderma spp) and Type III (Hygrophorus, Psilocybe and other basidiomycete species).
- No unsightly spray deposits Fairy Ring Destroyer is a clear liquid which mixes readily with water and does not leave a powdery deposit on leaf surfaces.
- Easy measure pack Comes in an easy measure 1 litre pack which delivers accurate doses every time without spillage and without waste.
- Good grass safety record Fairy Ring Destroyer has been used successfully on a wide range of turf types, including fine turf areas such as golf and bowling greens.

Tecto

- Provides excellent control of Fusarium Patch (*Microdochium nivale*), Dollar Spot (*Sclerotinia homoeocarpa*) and Red Thread (*Laetisaria fuciformis*).
- Curative effect on contact even at low temperatures. Stops disease and established infection quickly and effectively.
- Systemic action prevents reinfection.
- Controls several minor turf diseases including Leaf Spot (Cladosporium spp) and Powdery Mildew (Erysiphe graminis).

Twincarb

- Provides excellent control of Fusarium Patch and Dollar Spot.
- Excellent control of casting worms, at economical rates.
- Systemic action prevents reinfection.
- Easy to use non-irritant formulation.
- Five litres treats up to 6250 sq.m. (1½ acres) for disease control and 12500 sq. m (3 acres) for worm cast control.



PACK SIZE 1 litre
Contains thiabendazole



PACK SIZES 1 litre & 5 litre

Ultraflo

- Once-a-year treatment. Ultraflo's highly effective wetting action persists for up to 12 months - normally eliminating the need for subsequent treatments.
- Low foam, non-ionic wetter easy to mix even in cold water and in cold conditions.
- Rapid and deep penetration through thatch and dry patch affected turf.
- Improved wetting reduces risks of runoff from sloping ground, flooding and waterlogging of turf.
- Ideal pre-treatment for deep seated fairy rings.



PACK SIZE 10 litre

Ultraflo Granular

- All the benefits of Vitax Ultraflo liquid in an easy-to-apply granule.
- New formula gives faster penetration.
- Totally biodegradable carrier.
- Rapid granule breakdown.
- Cost effective one pack covers 500 sq.m.



PACK SIZE 15 kg

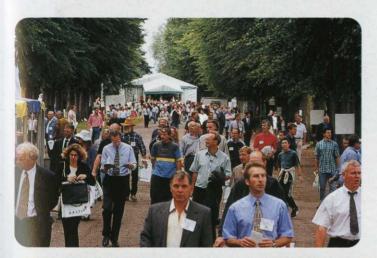


Always read the label: Use pesticides safely.

IOG SALTEX (Institute of Groundsmanship's Sports, Amenities and Landscaping Trades Exhibition, Windsor Racecourse, 5-7 September 2000) has announced details of its free seminar programme

Saltex 2000

Windsor Racecourse, 5-7 September 2000







This year's SALTEX seminar programme covers five separate themes - sports surfaces, play, horticulture/arboriculture, groundscare and landscaping. The seminars are free to all visitors but visitors will be able to pre-book places at all of the seminar sessions via the lOG SALTEX website, www.iogsaltex.co.uk

Among the line-up speaking as part of this year's programme is Jim Robertson, Landscape Manager, at Legoland Windsor; John Hewitt, Managing Director of Hewitt Sportsturf, whose company provides a consultancy service to Premiership football clubs like Arsenal, Chelsea and West Ham, while returning for a second year, due to popular demand, is Chris Wood, pitches consultant for the England and Wales Cricket Board.

BIGGA will have its usual strong presence at the Show with a well appointed stand welcoming existing and prospective members. Anyone with questions to be answered, forms to hand in or merely wanting a chat will be most welcome to the Stand - G1.

Among the companies providing an insight into the latest industry thinking as part of IOG SALTEX's free seminar programme are Bernhard, Farmura, Greenlink International, HSE Woodworking, Milliken Chemical, Nomix Chipman. Sybron Biochemicals, Toro and SISIS, who will be leading a panel discussion of problem solving experts just waiting to help solve your problems.

SALTEX is an occasion when the whole open space management industry gathers together and as a result operates as a forum for exchanging information and ideas.

"Nobody has a monopoly on all the good ideas. You can always pick up new ideas if you are prepared to listen. The seminars give people the opportunity to look at a situation or deal with a problem in a different way." said keynote speaker, Jim Robertson,

To reserve your place at any of the free seminar sessions or for free tickets to IOG SALTEX visit www.iogsaltex.co.uk or call the Free ticket hotline number on +44 (0)810 751 1510.

How to get to Saltex

SALTEX is held at Windsor Racecourse. About 20 miles west of Central London, Windsor is easy to reach by rail, road and air. Heathrow is only a fifteen minute drive away; Gatwick and Luton are within an hour's drive.

BY ROAD

From the M25. Leave the motorway at Junction 15, where you'll join the M4, heading west.
From the M4: Westbound - leave M4 at

junction 6. Eastbound - leave M4 at junction 8/9. Then follow brown and white signs for Windsor racecourse.

BY BUS

Windsor Express bus numbers 700, 701, 702 and 703 connect London with Windsor. The 718 Royal River Route service connects London Victoria with Windsor

BY RAIL

From London Paddington: Leave the train at Slough and join the local service to Windsor and Eton Central Station. Approximate journey time is 35 minutes. From London Waterloo: Leave the train at Windsor and Eton Riverside Station. Approximate journey time is 45 minutes. Information about British Rail services is available on 0345 484950. A bus shuttle runs from the stations to the showground.

FROM THE AIRPORT TO SALTEX

From Heathrow: Bus nos. 701 and 726 for Windsor or M4 route, as above. From Gatwick: M23 Northbound to exit 7. M25 Westbound to exit 15. M4 to exit 6. Then follow 'By Road' directions, above.

From Luton: M1 southbound to exit 21. M25 Westbound to exit 15 to M4. Exit 6 for Windsor. Then follow 'By Road' directions, above. SALTEX 2000 Covered pavillion Stand 16/17

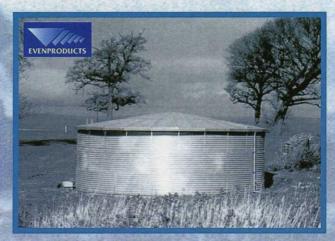








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AF Trenchers Stand C27

At SALTEX 2000 A F Trenchers Ltd introduces their new WIZZWHEEL 75 tractor mounted slit trencher. It combines the best feature of the well-known WIZZWHEEL 55 with a maximum digging depth of over 750mm, a new high capacity conveyor, hydraulic crumber and pipe laying facility.

Also new is the very competitively priced range of AFT ATTACHMENT BACKHOES for skidsteer loaders and tractors

from 15hp.

With maximum digging depths from 1.4 to 3.6 metres, all these sturdy backhoes come with built-in hydraulic tank and filters, 180° rotation and full sideshift with hydraulic clamps.

Quick to attach and easy to operate with joystick controls, these backhoes convert any tractor in a professional (mini) excavator.

Advanta Seeds UK **Stand F22-24**

Amenity grass seed breeder Advanta Seeds UK will be presenting five of the company's most popular branded mixtures at Saltex this year. Grown specifically for the event by Greenkeeper Turf in Nottinghamshire, the displays will demonstrate how well Advanta's cultivars perform when grown in a mixture. On show will be MM10, MM50 and MM60 from the premium 'Advanta MM' range, and Premier Sport and Estate from the 'Designer from Advanta' portfolio. Visitors will also have the chance to win one of two £50 instant cash prizes each day in the 'MM50 lucky dip golf ball competition'.

Amazone Stand B₁₁

Versatility, Performance and Application - With Amazone Groundcare products you get all three.

See for yourself or view on our Interactive CD Product Guide Groundkeepers - Mow, Scarify, Roll, Collect or Mulch - not only grass.

Profihopper - Self propelled, zero radius turning with a unique auger collection system. Wet conditions -

No Problem Combination Units - Seeding, Overseeding, Burying, Maintaining New, Existing, Artificial or Special Playing Surfaces Topdressers & Spreaders - Fine or Coarse materials. Single or twin disc, trailed or mounted through to high capacity trailed units with PTO or Hydraulic drives. Slitter/Aerators - Simple and Effective

Amentiy Land Services Stand Ro8

Lebanon fertilister range - only from ALS!

The Lebanon range of professional products is now recognised as the number one choice World-wide for greenkeepers and discerning turf managers. This superb choice of products is now available in the UK and Ireland, exclusively from Amenity Land Services Ltd. Within the range are the following outstanding turf products: Isotek is a range of homogeneous fertilisers with dual source slow release nitrogen (Ibdu+Methylene Urca) which is ideal for fine turf areas. This provides turfed areas with an unmatched nitrogen package in a dust-free homogeneous granular form. This is regarded as The All-Weather, All-Terrain fertiliser. Within the Pro Range, for larger

areas such as fairways and outfields comes the unique controlled fertiliser Poly-X PRO whose coating allows granules to break down slowly. The turfed area therefore receives both consistent feeding and results. The coating provides a resistance to fracturing, despite the blending, bagging and spreading processes. All the Pro range comes in optional amounts with slow release nitrogen. The Perk 4-0-10 stress relief formula product is a unique, homogeneous formulation of essential turfgrass nutrients, engineered to avoid stimulating growth. Over 25% of this product are derived from organically compressed iron. A further example of the Lebanon style of product, for fine turf areas. The full range can be inspected at Saltex 2000 on Stand No. R08.

Amenity Technology Stand D71

Since launching "Amenity Update", the latest and greatest trade magazine, Amenity Technology has reached an even wider audience with our range of high quality, innovative, golf and turfgrass products. The magazine, which reaches over 16,500 industry professionals includes, educational features, competitions, job vacancies and much more. Visit



stand D71 to pick up the new edition and to subscribe for free. Also on display will be the latest additions to the Amtec range and a free gift for early visitors to the stand

Aventis Stand T2

A major feature of the Aventis stand will be the launch of a new ultra low-dose fungicide which will treat five entire, average size golf greens from a single 250ml pack. A new CD version of the popular Technical Manual will be available, included an expanded weed identification library, printable product technical details and more sprayer and calibration data. Workstations on the stand will enable visitors to view the free CD.

The stand will feature such well known brands as Spearhead, Helmsman, Roval Green, Vitesse, Crossfire 480, Mildothane, contact and barrier herbicide Zapper and 3-way turf selective Sirocco together with Ready to Use CDA products Vanquish and Xanadu.

Avoncrop Amenity Prods Stand H70

Avoncrop Amenity Products are again exhibiting at IOG SALTEX this year and invite you to come and discuss your turf and amenity requirements. Members of our sales team will be available throughout the show to talk you through the products, new innovations and services that we offer.

We are a major distributor for premier manufacturers of fertilisers, chemicals, wetting agents, topdressings, golf and sports ground equipment and sundries. We also supply top grass seed varieties and microbial products.

We shall be focusing on the need for turf managers to adopt an integrated approach to turf management, considering not only traditional fertilisers and chemicals, but also microbial inoculants, bio-stimulants and other organic products to enhance turf performance.

Barenbrug UK Stand 112

Barenbrug UK, specialist breeder and producer of grasses for the sports and amenity turf market invite Saltex visitors to their stand to see a demonstration of the superior quality of their grass seed.

Their technical team will be staging short presentations at regular times during each day which will show how Barenbrug's grass seed surpasses even the highest quality standards, ensuring that users get more of their top performing cultivars in the bag! Barenbrug will be proudly displaying their latest top performing cultivars and mixtures yes, some key new players, Bareine, perennial ryegrass and Barcampsia, tufted hair grass will be there!

Bernhard & Co Stand P68

Bernhard and Company Ltd, will be using Saltex 2000 as a launch pad for the very latest addition to their precision range of professional grinding equipment, the Knife Rite 1000 bottom blade grinder. Bench-mounted this dry grind machine is highly accurate and easy to operate.

Designed specifically for golf clubs with more restricted resources, this machine makes affordable inhouse grinding a viable option. Test after test demonstrates how vital it is to keep mower blades really sharp - says Stephen Bernhard, Managing Director. There is much less tissue damage which lowers the risk of infection. This results in lower demands for water and nutrients to maintain a quality sward.

Visit Bernhard at SALTEX. Stand P68, or telephone 01788 811600, e-mail: info@bernhard.co.uk

Charterhouse Stand W28

Charterhouse Turf Machinery will welcome visitors to their extended stand so that they may enjoy products from any of their four operating Divisions:-

The Tractor Division will continue to show new and established items in the Carraro Tractors range including reversible tractors, articulated tractors and Local Authority multipurpose tool carrying units. Also on show will be our range of ancillary Carraro equipment.

The Richmond Division will be presented in force showing their wide range of hand tools, forestry equipment and tree surgery equipment. All these items and many more are displayed in their



hatever their sport, players deserve a surface that can absorb all they dish out and bounce back for the next fixture. From rugby pitches to golf courses, Johnsons grass playing surfaces can cope with the best of British sport – and the worst of British weather.

Our new range of seeds gives you all the benefits of one and a half centuries of breeding.

So when you want to bring new life, strength and disease resistance back to your playing surface,

Johnsons will deliver the goods, season after season.

Perryfields Holdings Ltd. Thorn Farm, Inkberrow, Worcestershire WR7 4LJ

catalogue, which will be available

free to any visitors. The Turf Machinery Division will be showing its full range of Verti-Drain, Aeration, Seeding, Top Dressing and Scarifying/Sweeping machinery. The Connoisseur Division will have on display its range of DR Trimmer/Mowers, All Terrain Mowers and Powerwagons, together with all their latest introductions.

Eagle Promotions Stand D₅8/60

Eagle Promotions provide an extensive range of services to Golf clubs from the initial course measure through to scorecards, yardage books and other point of play accessories. This exhibition enables us to show our exciting choice of signage for the Golf Industry. Our signage is developing around our ability to create any image etched into zinc plate. These mounted on stone, moulded rock and wood create truly spectacular sign systems.

For more information please contact Philip McInley on Stand D58/60 or call on mobile No. 0860 239354. We look forward to seeing you at Saltex 2000.

Tel: 01883 344244

E-mail: eaglepromotions@compuserve.com

Website: www.eaglepromotions.co.uk

Envigro Stand K24

Visitors to the EnVigro (tm) stand (K24) at this year's Saltex will be able to discover for themselves why the product is fast becoming one of the UK's most popular organic fertilisers and soil improvers.

Produced by a fast composting process EnVigro is a highly versatile balanced organic fertiliser that is ideal for a broad range of landscaping, parks and horticultural applications. The compost breaks down slowly and uniformly, and so delivers a steady and even supply of humus and nutrients to the soil over a long period. This means no further feeding is required during the growing season. With its high humus content, EnVigro also possesses excellent water retention properties, whilst the absence of nitrates means it can safely be used without the risk of leaching into water courses. Crucially, EnVigro contains the correct balance of nutrients ('N' 3.5%), ('P' 2.1%), ('K' 3.4%) that is essential to strong, robust growth in both the root zone and top growth. In response to the continuing upsurge in demand for EnVigro, the company is currently investing in a new £350,000 'Silo Cage' production facility - details of which will be available on the company's

As a general purpose organic fertiliser, EnVigro is variously used as a top-dressing for established lawns and sports pitches, for shrubs, trees and perennials and for annual bedding. Another frequent application is the restoration of the soil's ecosystem where chemical treatments and/or failure to maintain the soil's organic content have altered the natural balance.

Eric Hunter Grinders Ltd Stand P6o

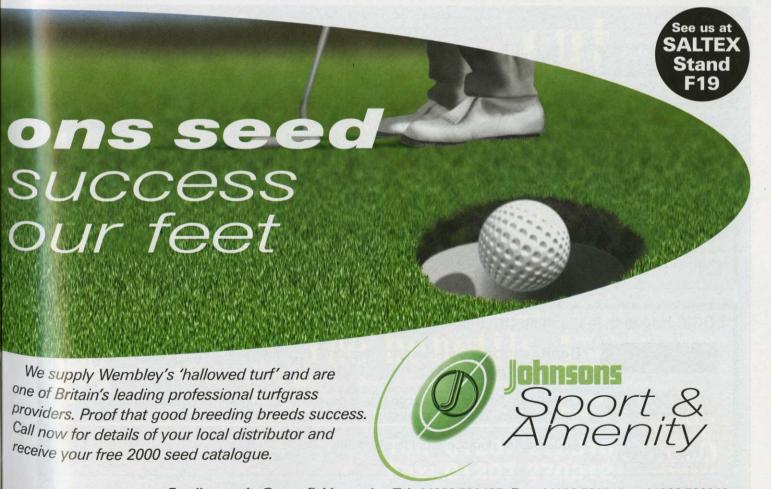
The range of machines on display includes the Jupiter 2000 grinder seen at Saltex for the first time. The Jupiter 2000 is the next generation of grinders. It will relief grind cylinder and bottom blades of pedestrian mowers in-situ with accuracy second to none. Set up and change over procedures are simple and demolish the argument for purchasing separate machines for cylinder and bottom blade grinding. The Jupiter 2000 combines accurate grinding with versatility. It is 'One-Stop' machine for all uses without compromising on performance and at a price that is hard to beat.

Other products include the OMEGA a new grinder specifically for sharpening circular chipper blades.

Evenproducts Stand CP16/17

As the UK distributor of Hunter Industries' range of products for turf, landscape and amenity irrigation, Evenproducts can supply an internationally recognised brand which will be installed to the highest standard by your local Hunter Dealership, backed up by Evenproducts who have been established in the irrigation industry for nearly 50 vears

In addition Evenproducts supply Carson valve boxes, pipework and fittings in PVC (imperial and metric), Galvanised steel and MDPE as well as our own manufactured steel sectional water storage tanks and roofs together with all relevant associated components. Contact Richard Smith on: 01386 41212 Fax 01386 423769



Gem Professional Stand D62

Saltex 2000 promises to be yet another exciting and successful show for Gem Professional. As both a manufacturer and distributor of fertilisers and top dressings, Gem will be launching some exciting new products including two new calibrated spreaders for application of Gem Professional products as well as additions to the Proformula range of turf dressings and the fertispray range.

Gem Professional look forward to welcoming you to Stand D62.

Golf Car UK Stand Q42

Golf Car UK shows expanded club car vehicle range at Saltex.
At the Saltex Exhibition, Abingdon-based Golf Car UK will be showing an expanded range of vehicles from Club Car. From general people carrying to turf maintenance and construction work, Golf Car UK can offer a full range of CLUB CAR® utility and transportation vehicles as well as the market-leading range of CLUB CAR golf cars. The CLUB CAR range is the industry's only line of rustproof aluminium frame, chassis, cargo bed and golf

vehicles offering many advantages for applications in the sports, amenity and landscaping industries. The all aluminium construction offers another advantage - a low overall weight spread evenly across the A frame aluminium chassis, a key feature for turf work.

Groundsman Industries Stand D12

Groundsman Industries, Europe's leading manufacturer of Turf Aerators are now offering five models of pedestrian machines from the model 345MD 18" swath vertical action aerator priced below £3,000 to the highly manoeuvrable 460SDR designed for golf greens. Two tractor mounting units with 48" and 72" swath complete the line-up. This unique range do not require the traditional turf retainer rails. A large range of tines and holders will be on display and available accessories include the highly successful core collector attachment enabling coring and collection in one pass! New launches include the Groundsman TC300 turf cutter a high performance machine built for professionals but with a modest price tag. See this impressive range at SALTEX Stand D12.

Hayter Stand W₁₅

Hayter is showing a versatile range, with a particular feature being the T424 five-gang ride-on mower, complete with a new ergonomically designed cab.

The largest mower on show is the TM739 heavy-duty gang mower with a width of 4.78m. Hayter golf course machines on show include the FM524 five-gang midweight fairway mower and the GM56 precision pedestrian greensmower. Also on display will be the excellent LT322, LT324 and T224 triple cylinder mowers and the high output R314 rotary mower. Completing the line up is the condor pedestrian mower with optional rotary and cylinder attachments.

John Deere Ltd Stand V4

Functionality, durability, reliability and a quality finish - you get all this and more from John Deere's comprehensive range of equipment for the professional greenkeeper, backed by industry leading parts and dealer service support. Among the newest machines on show are the operator friendly 2500 greens triple mower; the 1600 wide area rotary mower and its brand new stablemate, the 1620, with 2.4m (96in) wide Lastec articulating deck; John Deere's biggest compact tractor, the 48hp model 4700, the most powerful machine in its class to feature hydrostatic transmission; and the Roberine 1903, a self propelled five gang mower with optional luxury cab and standard air suspension seat, providing the ultimate in operator comfort.

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LOGIC manufacture Aquarius irrigation equipment:

Aquarius Impact sprinklers: Rugged & dependable. **Aquarius** 2100 and 2400 controllers: 2 wire simplicity with Aquarius decoders.

Aquarius Universal PC system: Update existing TW2, SC3000, CIC, Primetime & Robydome systems.

Aquarius Radio Remote: Gives you mobile control

while on the golf course.



Logic Irrigation has now been appointed as an official distributor for the entire Hunter Line.

Please contact our sales office for more details.

LOGIC Irrigation is the main UK. distributor for:



Bear gear drive V-I-H sprinklers and replacement inserts for Toro and Rain Bird sprinklers



LR Nelson Turf and Landscape gear drive pop up sprinklers, controllers and the new Solorain Battery operated programmable valve/controllers.



Aquamaster aeration fountains and sub surface aerators