be "read" by a scanner via radio frequency. This code is fed into Datatag's mainframe computer and registered together with make, type and model of the machine. The frame and engine identification numbers are also recorded. Once the machine is sold, details of the owner are added. In the event of it being stolen, incident details including crime reference, police station and officer handling the case will be fed into the computer. The tags are small and have been designed to withstand vibration. electrical and magnetic interference as well as an acid attack. They are unobtrusively secured to the machine with two-part epoxy adhesive. Visible Datatag decals warn would-be thieves of their presence. Datatag is already the standard method of identification and registration in industries such as motorcycles and watercraft. As a result, the system is universally accepted by Police and Customs who receive, free of charge the equipment to read the tags as well as access to the Datatag computer.

Risboro' Turf would like other garden machinery manufacturers to join their bid to beat crime. "The whole issue of theft is a great problem, and we hope that the rest of the industry will follow our lead. We appreciate the that particularly problems smaller sports clubs and organisations have in funding machinery budgets, and want to do everything we can to ensure their investment is protected. Datatag has a proven track record as a reliable method of identification and retrieval. It is time for the industry to move into the 21st century with a more responsible attitude towards crime prevention," said Richard Taylor.

Many years ago activated charcoal was widely used by greenkeepers and groundsmen to neutralise chemicals or effectively clean through tanks or spraying units. It was effective, but as it was very difficult to use and dirty to handle, it fell out of favour.

Now technology has come to the rescue and produced Clean Carbon offering all the time proven benefits of activated charcoal but in a water dispersible pelleted form which is clean, easy to handle and highly effective.

Clean Carbon has some very interesting applications in addition to its deactivation of organic chemicals in emergency or annual preventative maintenance, such as use as a warming agent. An application of Clean Carbon can warm up the soil surface via the sun's rays by three degrees above ambient temperature for times when those few extra degrees are critical. Clean Carbon also deactivates organic based pre-emergence herbicides when overseeding is undertaken.

Activated charcoal is capable of binding many materials such as organic pesticides, petroleum products and hydraulic oils; as such, it is a very handy product to have around in case of those all too frequent disaster situations.

For further information telephone 01455 234677.

Rufford Top-Dress Supplies has just launched a series of educational leaflets.

The first issue features top dressing and further topics will include rootzones,sands, soils and turf reinforcement. You can obtain a free copy from Rufford Top-Dress Supplies Limited Fairway House, South Stage, Broadway Salford Quays, Manchester M5 2UQ. Telephone 0161-877 8552.

■ Replacing the MULE 500, is the new Kawasaki KAF 300 C Mule 550. The most obvious change is a standardisation – the 550's big brother 2500 and 2510 4X4 both have seating for driver and passenger – to a "two seat" configuration rather than the single front seat of the Mule 500.

The original range of Kawasaki Mules was launched more than five years ago as an extension of the companies All Terrain Vehicle expertise. All are designed on the "low ground pressure" principle offering operators with a minimal ground damage requirement machines with high payloads and simple and thrifty operation.

# PUMPS SPRINKLERS CONTROLLERS

# We service your needs completely.

# **Ocmis Irrigation**

Head Office Midlands Northern Scotland 01460 241939 01789 414604 01924 453102 0131 2202102



#### ARE YOUR WATER HAZARDS REALLY HAZARDOUS?

- Prevent algae bloom Remove surface scum
- Get rid of suspended solids and bottom sludge
- Eliminate odours

#### ALL THESE BY APPLYING ONLY ONE PRODUCT

Aqua-Vive

A natural, biological process for converting organic wastes into water and harmless, odourless gases. Completely safe for humans,

animals, birds, fish, aquatic life, plants and the environment. Takes minutes to apply using water soluble sachets directly into the body of water



AD

REF

AD REF Unit 1, Airport Executive Park, President Way, Luton, Bedfordshire LU2 9NY Tel: 01582 400630 Fax: 01582 401939



AD

REF

386

Do you want to reduce the cost of your greens treatment?



By simply running the RTS mounted Sorrel roller over your greens prior to each treatment you can open up the surface allowing those expensive applications to reach the plant. Minimise your surface runoff and allow your turf to breathe. The RTS Mounted Sorrel fits all category 1 linkage compact tractors and most turf trucksters. The twin drum arrangement allows for consistent work over undulating terrain and most 18 hole courses can be covered in less than 2 hours.

- Twin drum for consistent results
- Multi purpose headstock fits most prime movers
- Ballast trays provided for hard conditions
- Sealed self aligning ball bearings for long life
- Hexagonal replacable tines
- Two years interest free finance available.

Want to know more? Ring us for details or to arrange a demonstration on 01844 274127 or contact us on our web page: http://www.risboroturf.co.uk/rts





# THE COMPLETE UTILITY TASK FORCE

#### Powerful. Economical. Versatile.

Kawasaki Mules are lightweight taskmasters built to tackle the toughest utility duties. Helping you do your job with the greatest speed, ease and comfort. To experience the power behind the work, call freephone 0800 500245.

Or call into your nearest Kawasaki dealer.



# NEW PRODUCTS

While the visual changes are obvious Kawasaki has carried out detailed work to further enhance the small Mule's performance and ease of operation.

Price: £4050.



BTME 97 was Wiedenmann UK's most successful show with enquiries and sales up considerably on previous years.

Pictured with the most popular product on the stand, the Terra-Spike P160 are from left: Director, David Rae; David Bate, Regional Sales Manager, England and Wales and Michael James from the Scottish sales team.

Director David Rae said "The Terra-Spike Speed Link which we believe to be the most versatile deep-spiker in the UK marketplace was making its first appearance at Harrogate. We recently introduced the new speed linkage which enables the machine to be operated at much higher speeds, resulting in an increase of over 80% in productivity and this naturally created a great deal of interest at the show including a number of sales.

"This is our seventh visit to Harrogate and we have always found it to be a very worthwhile event for us. Going by this years results, there is no doubt we will be back."

■ There are now strict European Standards for personal



SEE HOW YOU CAN TRANSFORM YOUR GOLF COURSE! SURE STEP is a patented sand filled synthetic carpet system which provides a tough pathway surface, while maintaining a natural green sward appearance.

> The Way To Combat Ground Erosion To request your product information pack please contact:



Also suppliers of: Synthetic Golf Mats, Golf Course Driving Platform, Synthetic Golf Putting/Pitching Greens. DURA-SPORT LTD, UNIT 12, CORNWALL BUSINESS CENTRE, CORNWALL ROAD,

IGSTON, LEICESTERSHIRE LE18 4XH. TELEPHONE 0116 277 0899 FAX 0116 277 0433 \_\_\_\_\_ Sure Step is protected by VHAF Potent No. 0174755 protective equipment for users of hand-held chainsaws to minimise risks.

Stihl of Germany, has developed and produced a new design for boots for users of chainsaws which have been tested and approved.

The boots are to EN345 which indicates that they have passed stringent cutting tests at a chain speed of 20 metres per second achieving Class 1 status.

They are made of brown leather in sizes 4 to 14, cost £99 per pair, and are zero rated for VAT.

The boots are just one of many items of Stihl personal protective equipment and the full 1997 range of Stihl power tools available in the latest Stihl catalogue.

Freephone 0800 137574 or send a postcard to Department S24 Stihl, FREEPOST, Camberley, Surrey GU15 3BR.

■ Improved traction, engine cooling and ease of maintenance are three important features of the new Front Line 933 ride-on rotary mower being launched by Ransomes for the '97 mowing season.

Based on the T-33D, which it replaces, the Front Line 933 is a rugged and powerful rotary mower designed to appeal to golf courses needing a 4-wheel drive machine with a choice of 60in. (1.52m) rear discharge, 63in (1.6m) side discharge or 72in (1.8m) side or rear discharge decks.

In common with its larger stablemate the winged 1951, the new Front Line 933 uses Ransomes' patented cross-flow four wheel drive and differential system which ensures excellent traction on slopes with minimal turf damage when turning. Other improvements to the hydraulic system have produced an increase in transport speed to 15mph when twowhee1 drive is selected. Also included on the new Ransomes Front Line 933 are audible alarms for high engine temperature and low engine oil pressure, alerting the operator of any problems.

Price is £19,220 fitted with a 72in rear discharge rotary cutting deck.





## A Salt on Larne's 7th Hole

The Bell Hole at Larne may only be 105 yards long, but its sheer physical position, bounded by the Irish Sea and with a carry across rocks from a high tee, make it intimidating.

But for head greenkeeper, Davie Craig it's not keeping the ball on the green that's the problem, it's maintaining its sward. Sea-spray can completely burnoff the bents and fescues he tries to establish.

Last spring he'd almost given up hope of ever having a resilient grass cover. Now, twelve months on, he claims that the Fortiva treated seed which he bought through JA Humphrey Agriculture has transformed the green into the best it's been in 20 years.

"I was resigned to the STRI's view that it would be better to move the green," he says. "However, we've now got a good sward with no sign of damping-off or fusarium.

"Having used seaweed extract prior to overseeding, I'm very impressed with the result," says Davie.





AD

REF

507

#### Hugh Tilley speaks to greenkeepers about their methods of aeration – and the equipment used

ne of the golf greenkeeper's greatest preoccupation in growing grass is with aeration and compaction. In simple terms for optimum growth turf needs air at its roots and open soil structure to allow diffusion of gasses. Both toxic gas and soil pans inhibit root growth thus it is essential to eliminate compaction and aerobic conditions. USGA specification greens with drains covered by a stone drainage carpet and a mix of course (sand) particles in the growing medium above are one way of keeping the root zone open, but many old established greens are not built this way, nor do tees and fairways have the same attention as greens. As a result most courses have some need for some mechanical means of ensuring or opening up the soil structure.

Surface compaction and other impediments, such is an organic matter layer can be alleviated or nullified by slitters and corers, and these will be covered in subsequent features, however it is essential to get the structure right at greater depth and this may mean machines such as the Vertidrain – the word has become generic as there are now other machines which do a similar task. There are also several alternatives which have arrived on the scene in the last decade, such as the Terra-Vent and Terra-lift (don't confuse the two they are totally different companies) and the Robin Dagger Soil Ameliorator, all of which rely on a blast of compressed gas or air injected through a spike inserted deep into the soil, and this blast 'heaves' the soil to fissure it. The Terra-lift company use their own operators and incorporate seaweed meal into the fissures and inert material into any holes left in the surface. Some other machines have the same capability. More recently the 'SubAir' has been introduced into UK, this operates on USGA spec. (or similar) greens to suck or blow air through the soil using an engine driven fan. An essential prerequisite of this system is that the soil is already reasonably 'open', and has an under drainage system. Originally introduced in USA the system is being franchised for UK by Industrial Power Units.

#### SubAir at Puckrup Hall GC

Trevor Williams, course manager at Puckrup was one of the pioneers with the SubAir System in UK, partly because his brother works for IPU, which give him inside and early information about the system. Since that time IPU have modified and refined the ground fittings, improving the efficiency of the system, but Trevor is still happy with 'his' system and plans to extend it so that it can be used on more of his greens – currently he uses it on just three. The system is different

## INVEST IN THE HYDROJECT AERATOR.

A CAMANON





from mechanical aerators in that it does not attempt to make fissures, but simply to move the 'air' within an existing sub strata by either building a partial vacuum or a pressure in the (under) drainage system built into the green. The main advantage of the system, according to Damien Monaghan, the assistant who mainly uses the machine, is that it significantly increases playing time, and it can be used to draw water down and out of the green.

At Puckrup Hall the machine is taken out twice a week and coupled up to the drainage sump at the edge of each green for about fifteen minutes per hole. Connecting is quick and simple, just a matter of plugging a spigot into the drain, and the motor is started. A large bore pipe with quick release clips fits to either fan input or output depending on whether the system is needed to suck or blow. At Puckrup they alternate between sucking and blowing. IPU have a sophisticated

gas analyser, but Puckrup do not feel any need for this, nevertheless Mick Tinning of IPU has analysed the root zone gas and says that the machine is being effective at replacing the undesirable - or stale air with fresh and getting the oxygen level up to the desirable 20.9% level. However on the basis that the proof of the pudding is in the eating, root development on the treated greens can be seen to be as much as twice the length and bulk as on untreated areas. Nor does it just tend to grow down a spike hole.

The machine at Puckrup Hall is a trailed model which is light and easy to hitch to a Cushman or similar. It is powered directly by a Briggs and Stratton Vanguard petrol engine with self-starter, and this has proved reliable and a 'good starter.' There is minimal servicing and the unit does not appear to be excessively noisy no complaints have come back from golfers.

## SO EFFICIENT, PLAY RESUMES AT ONCE.



The finest of turfs - that's what this greenkeeper achieves with Toro's unique water injection HydroJect aerator. Able to tackle very wet or rock hard ground conditions, it allows play to resume immediately. On the golf green, bowling green, cricket wicket or tennis court, HydroJect



complements conventional aeration methods. And for large turf areas, Toro's Fairway and HC4000 heavy duty aerators cover up to 1.5 acres per hour with ease. They're each examples

Deep penetration and water injection

of how we've worked to provide you with precision engineered tools for the perfect finish. Give us a call.

We'd like to walk your course with you and discuss your needs. You can trust Toro expertise and quality. For a down to earth investment simply telephone 01480 476971 and we will arrange for a local dealer to contact you.



to play.

REF

TORO DISTRIBUTED BY LELY (UK) LIMITED, STATION ROAD, ST NEOTS, HUNTINGDON, CAMBRIDGESHIRE PE19 1QH TELEPHONE 01480 476971 FACSIMILE 01480 216167

The expectation is that use of the SubAir will save any need to deep tine aerate the greens, however the club does have a tine aerator for use on other areas.

Trevor admitted that it was early days in using the machine, but he has sufficient faith in the effect and approvement that he expects to incorporate the sump fitting into more greens so that the SubAir can be used on them too.

#### Terra-lift at Worlebury GC in Somerset

*Greenkeeper International* spoke to greens' chairman Derek Mogg about the Terra-lift system. In fact the club has used the C&P Soilcare company's 'deep drill' rather than the Terra-lift, this being as the name implies a drill. It expects to continue using this service every other year. The Worlebury course is situated on 'a hill of limestone rock' and often this rock is close under the surface on the greens, thus it is essential to get a machine which can cope



such conditions – the 'Deep Drill' does, drilling through the rock, furthermore the machine is hired complete with operator which solves staffing. Another point Derek made was that the drills do not break up the surface nor leave large holes. The machine has been used on all parts of the course.

#### Huxley Soil Reliever at Tylney Park near Hook

Tylney Park is an eighteen hole

private parkland course situated on clay. It was opened in 1975 and had relatively small greens and very limited tee space, something which it is planned to rectify shortly with remodelling and some extension of several holes –

# SubAir. The perfect answer for a perfect green.

SubAir is a revolutionary approach to aeration and drainage stimulation for modern greens.

Optimum root zone conditions are created all year round by SubAir's unique ability to make a green breathe and to control root zone moisture conditions.

- Strong, deep root growth, not thatch build up
- · Black Layer becomes a thing of the past
- Temperature moderation to defrost and prevent summer scorching
- Stimulation of natural microbiological nutrient production

The bottom line is healthier greens that spend more time being played on and less time in maintenance. Simple but effective.

If raising the quality of your greens while keeping the members playing is high on your score card, call Mick Tinning today on 01902 452138 and find out how SubAir can reduce your courses handicap.



Industrial Power Units Ltd Sutherland Avenue Wolverhampton WV2 2RA Great Britain Telephone +44(0)1902 452138 Facsimile +44(0)1902 454159 making it a par 71. Peter Henderson took over as head greenkeeper two years ago and says that he is already getting members praising the improvement. One of the most important machines in this improvement has been the Huxley Soil Reliever which the club bought two season's ago and has used extensively ever since.

Peter said that getting the grass roots down is particularly important. In the past getting grass to grow has been difficult, and there has been little root growth making it very easy to rip the turf up. As a result the machine is used on greens with no 'heave'.

Both hollow and solid tines are used, of 3/4in diameter, the former going down to about 150mm deep – any deeper and tines snap, while the solid tines which are also used for approaches, are put in to about twice this depth. Peter said that they had tried thinner tines but began getting breakage or bending. It would be possible to get the solid tines in deeper, but the friction and vibration becomes excessive and so penetration is limited to about 300mm (12 in.).

Tylney Park had several competing machines out on demonstration before buying the Huxley machine. Peter commented that the Soil Reliever did the best job and was the fastest thus this was the one bought. An essential



'option', at least for the Tylney course in Peter's view, was the hydraulic top link as this allowed easier and faster depth adjustment which can be carried out while the machine is working.

Regular coring of the greens is "bringing up a lot of rubbish," Peter commented. A 70/30 top dressing is used with incorporated seaweed meal to provide nutrition. A top dressing of two bags of gypsum per green has also been used in an attempt to improve the soil structure.

The Soil Reliever is used behind an Iseki 545, which has a creep gearbox. These very slow ratios allow the club to get very intensive tining, and typically a 75mm square pattern is used. Faster operation, while possible, is seen as causing greater damage to the surface.

The machine had not suffered any undue breakdowns, and although (accidental) operating the power take off too fast has inflicted some damage to tinwork and the rear guard, this was no criticism of the machine itself. Routine greasing round and maintenance is undertaken by the greens staff while more major service work is carried out by Huxley's - very well and very promptly.

In summing up the Soil Reliever, Peter said, "I can't have a bad word about it - it has been a breath of life for these greens".

#### Wiedenmann Terra Spike at **Celtic Manor - Newport**

At Celtic Manor there are two Terra Spikes, the newest being a 'Speed Link' model which was introduced at the end of last year. Although both are similar the Speed Link has several modifications including a new higher speed gearbox, modified tine carriers with a different 'heave' adjustment, and a new setting bar. Setting is easier and more accurate and Patrick 'Cal' Callaby, head mechanic, commented that the new machine offered greater versatility and greater choice in setting it up. The new model also has heavier and better guarding. The original machine is two seasons old and has undertaken a lot of work being used on tees, fairways and approaches over two courses. Most of this is carried out using 25mm solid tines, spiking down to about 200mm and normally with a medium degree of 'heave' set, but some work has been done on hollow tining approaches.

Celtic Manor currently has 36 holes but within the next two years will offer a third course. A feature of the soil is that when wet it can pack and pan like clay, thus making intensive aeration essential. A major underdrainage scheme is to be undertaken shortly.

Jim McKenzie, course manager, stated that pressure on keeping the courses open throughout the year will be increased as the associated hotel is currently being enlarged considerably, and there is also a major conference centre to be built. He added that annual rainfall in South Wales was very high, averaging about 450 inches per annum. The first Terra Spike was bought after careful consideration, and a belief that it was a better machine than its competitors.

Both Terra Spikes are used with MF 362 tractors which have creep gear ratios - although often the work is carried out in a faster ratio. The machines are supplied and supported by Ted Hopkins Agricultural Engineers, who is local but well known and trusted by Celtic Manor Hopkins have extended their turf care work considerably in recent years.

Some repair work has been needed on the original machine. Metal fatigue on the main frame required some welding work, and a strengthening gusset was added - this modification has been incorporated into the newer machine. That Wiedenmann (UK) were prepared to listened to the user and act on greenkeepers' suggestions was a strong plus point.

Greasing round has been extended from twice a day to once a week, but the grease used has been altered to the Lubrica-



# Free air miles ...from Hardi

The free flow of air through the soil is an essential requirement for the development of healthy, dense turf.

Compaction of the soil restricts the passage of air, together with moisture and nutrients to the grass roots and is



a major cause of plant stress.

construct 12

Coremaster 12 with its fully adjustable aeration system will break through compacted

Coremaster 12 Fully adjustable time depth from  $0-4^{"}$ (100 mm). Any combination of time pattern and depth is possible.

break through compacted soil to a depth of up to 4" (100 mm) introducing some 8 miles of air passages to an area of just 500 square metres.

Gentle on greens, yet fast on fairways, Coremaster 12 offers a wide range of tine sizes, patterns and coring depths to accommodate varying turf situations and operating conditions.

Mounted on the rear of a compact tractor it's high speed action will allow 18 greens to be treated in just one day. Air travel, made easy by Greencare.

Coremaster 6

Walk-behind machine options also available.

• <del>, - M</del>aster



We've got it covered







tion Engineers high viscosity grease. This has also minimised the likelihood of getting grease dropping onto the greens.

#### Charterhouse Verti Drain at Kenilworth Golf Club in Warwickshire

Kenilworth's machine, pictured, is now about five years old, it is a 1.45m wide Greens model which is used behind an Iseki Compact tractor of 36hp. Keith Weston, course manager, said that they have been using it almost continuously since about September last winter and it has been used on greens, fairways and approaches, several times over, but seldom on tees as irrigation pipe was laid too close to the surface and so is liable to damage.

Operation with 3/4 in. solid tines is usually down to about 11in. deep, and the fairways have been treated two and three times during the last winter. Keith has used the machine with 1/2 in. tines to give closer spacing, but found some bending but, more importantly, he found stones can get jammed between the tines so causing the ground to be ripped up. The club has also used 3/4in hollow tines on the greens, but mainly as a dethatching tool – thus at very little depth.

The 'heave' adjustment has been used but in Keith's experience soil conditions are far more important than the actual setting on the machine. He admitted he found adjustment something of a mystery. The other fact he has noticed is that as the soil structure at Kenilworth has improved so the effect or ability to 'heave' has diminished.



In common with other machines of this type there are a considerable number of bearings to be greased, but Kenilworth too have changed to Lubrication Engineers 1233 grease which they find stays in the bearings longer, they now only grease round every other day. Keith commented that the grease was "really sticky – you don't want to get it on your clothes." Again this has solved the problem of getting old grease pushed out of the bearings and falling onto the turf.

In summing up Keith said that he found the Verti Drain so much better than any other option on the course, he does no slit tining on fairways, and he certainly wouldn't be without the machine. Repairs during the whole time the machine has been at Kenilworth have been minimal, just two new main bearings in the last year and one or two shock absorbers to be replaced but no major problems nor any structural damage.



### THE DEEP DRILL SERVICE FOR SPORTS TURF

Why suffer turf problems associated with compacted soil? Our Deep Drill machine will create a pattern of sixty %" holes, up to 10" deep, on a 5" spacing, in one movement, leaving an unmarred surface.

RESULTS IN • Relief of compaction • Improved aeration and percolation of water to the root zone • Deeper, wider and more vigorous root development • Holes offer a way of introducing fresh media to the soil • Healing time of three to four days • Drills through dry patch.

BENEFITS WITHOUT SIDE EFFECTS FOR GOLF FAIRWAYS, GOLF TEES, GOLF GREENS, RUGBY PITCHES, BOWLING GREENS, HOCKEY PITCHES, CRICKET SQUARES, CROQUET LAWNS, AND FOOTBALL PITCHES



C & P SOILCARE LIMITED, Unit 3, Bush Farm, Nedging, Ipswich, Suffolk IP7 7BL. Telephone/Fax: 01449 741012 Mobile telephone: 0860 493521

# SubAir makes greens breathe.

SubAir is the revolutionary system of green aeration that has a unique ability to make a modern construction green "breathe".

A high volume airflow in the drainage system draws fresh air deep into the root zone and purges the gases

AD

REF



poisonous to grass roots. All without disruption to the playing surface. Simple but effective.

If raising the quality of your greens while keeping the members playing is high on your score card, call Mick Tinning today on 01902 452138 and find out how SubAir can reduce your courses handicap.



AD

REF

# So trustworthy, you could call it Fido.

Over the last fifteen years, greenkeepers and groundsmen have come to rely on good old Super Mosstox.

Always effective and reliable, Super Mosstox just gets straight on with the job of controlling moss - on fine turf or hard surface areas.

And it's just as good today as it's always been. So when moss makes an unwelcome comeback, just remember faithful old Fido. It won't let you down.

# Super Mosstox

Contains 345 gL (27.9% w/w) dichlorophen KULLS MOSS IN TURF AND ON HARD SURFACES

IRRITATING TO EYES AND SKIN Altituder Codemons Rul Little To table and Code / a la Sumon E social and Code / a la Sumon E social and Code / a latitude E social and Code / a latitude

AN ALL PRECAUTIONS BEFORE LIEE (MARPE OSCIO) (CODINE Control of Substances Hasteribus to Insult: Regulations may apply to the unit of Os CoDI and the Control of Substances Hasteribus to Insult: Regulations may apply to the unit of Os CoDI and the CoDI bus detailed and code on the structures based to the attractive base of indexed the term DIMECEDIDE FRANCE. On a contentions under the contentions of approximation

50



Rhône-Poulenc Amenity, Fyfield Road, Ongar, Essex CM5 OHW. Telephone 01277 301115 Fax 01277 301119. SUPER MOSSTOX CONTAINS DICHLOROPHEN. READ THE LABEL BEFORE YOU BUY: USE PESTICIDES SAFELY. (MAFF 05339) SUPERMOSSTOX IS A REGISTERED TRADE MARK OF RHÔNE-POULENC AGRICULTURE LTD. © RHÔNE-POULENC AGRICULTURE LTD 1997.