

# IRRIGATION WATER

**F**inding a suitable source of irrigation water for golf courses is becoming an increasing headache with heavy water charges, stringent abstraction limits and unreliable rainfall. Although automated irrigation systems are helping to maximise the efficient timing and use of irrigation water, these systems can still be limited by a poor quality water source. As a result, existing water features are being used to supply irrigation water together with an increasing number of specially constructed reservoirs.

The final quality of irrigation water is very much dependent upon the management of these water features and the quality of their original source water. The following is an overview of typical irrigation water sources, some problems inherent in them and how these problems can be managed to maximise irrigation water quality.

## **Borehole and Mains Water**

A readily accessible underground water supply can provide a cheap source of high quality water. If

drawn off chalk, however, there can be problems with high alkalinity and some groundwaters contain high metal levels such as iron. Groundwater supplies are also becoming universally nutrient enriched, as a long term result of agriculture – this becomes a particular problem when water is used to maintain lake and reservoir levels.

Mains water varies greatly in its suitability for irrigation, depending upon the area of the country and the original source of supply. Water drawn from an aquifer is typically of the highest quality, whereas river extracted water, that may have passed through several treatment processes in its lifetime, can have a high level of dissolved nutrients and minerals. Chlorine levels can also vary considerably, both from region to region and from day to day within the same region. Holding mains water in a tank before use, allows any residual chlorine to dissipate.

Local water companies will supply a detailed breakdown of the mains water quality in your

area. This information can be used to determine whether water can be used directly or would benefit from blending with another available source.

## **Lakes & Reservoirs**

Golf course water features have long been used as a source of irrigation water. As a greater understanding of how the natural ecosystems of these features work however, we are becoming better able to manage these features to maximise their irrigation water quality. A well managed water feature can improve the quality of an initially poor water source, whereas a poorly managed one will have the opposite effect.

## **Eutrophication**

Eutrophication, or nutrient enrichment, is an almost universal problem in lakes and reservoirs. Nutrient rich ground and mains water sources, combined with surface fertiliser run off, means that excessive inorganic nutrients readily find their way into water courses. The most visible effects of this are heavy fila-

mentous algal growth (blanket weed) and unicellular algal growth (pea-soup water). As well as generating complaints from members, the effects of heavy algal growth in an irrigation lake range from the constant blocking of pump filters, to an accumulation of decaying algae in the sward.

## **Contaminated Water Sources**

Lakes and reservoirs fed by stream or surface run off, are prone to a wide range of contaminants. The origin of a stream may be many miles from the lake it feeds and in the interim can become contaminated with a variety of industrial pollutants affecting pH, salinity, nutrient and cation levels.

Any water sources originating in urban areas have been shown to be universally contaminated with lead and zinc, together with hydrocarbons from fuel and mineral oils. All these pollutants will accumulate in the sediment of a lake, ultimately accumulating in the rootzone through irrigation.



## CRYSTAL CLEAR W.S.P.

BIOLOGICAL LAKE  
CLARIFIER & DEODORIZER

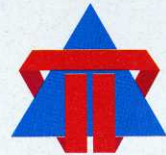


**PROBLEMS WITH ALGAE, SILT OR SLUDGE?**

**REDUCE THESE PROBLEMS THE NATURAL  
BIOLOGICAL WAY**

**SIMPLE TO USE, SAFE TO USE, COST EFFECTIVE**

**FOR FURTHER INFORMATION AND A FACT  
SHEET CONTACT AMENITY TECHNOLOGY OR  
YOUR LOCAL DISTRIBUTOR NOW!**



**AMENITY  
TECHNOLOGY  
PRODUCTS LTD**

The Clock House, 286 Kings Road, Reading, Berkshire RG1 4HP  
Tel (0118) 951 0033 Fax (0118) 951 0044

AD  
REF  
431

**OTTERBINE  
BAREBO, INC.**

### AERATION CLEANSSES LAKES NATURALLY

Aeration, or more specifically Otterbine Aerators, (illustrated above) provide today's answer to water quality management. For details talk to the specialists -

**HYDRO  
SCAPE** THE HYDROSCAPE GROUP  
Water House, Carvers Industrial Estate,  
Ringwood, Hampshire BH24 1JS Tel 01425 476261  
UK distributors of Otterbine Aeration Products.

AD  
REF  
475

## 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**

**Aqua-Vive™**  
Biological Water Clarifier

**AI**  
Anchor Industries Europe

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

AD  
REF  
523



# IRRIGATION WATER



## On Site Waste Treatment

The distance of some courses from mains drainage means that sewage effluent may be treated on site by systems ranging from a septic tank, to a full biological waste treatment plant. This treated waste is typically discharged to a water course feeding an irrigation source.

When working efficiently, a waste treatment plant produces large quantities of inorganic nutrients, nitrates, phosphates and minerals, as a result of organic degradation. These nutrients will accelerate lake eutrophication and reduce water quality. When working inefficiently, which they do for a number of common reasons, a treatment plant will discharge undegraded organic solids, together with high levels of ammonia and nitrites and other ecotoxic compounds. Unless heavily diluted, these pollutants will seriously damage a lake or reservoir and will have a similarly damaging effect on fine turf and soil microflora. The problems associated with irrigating with treated effluent are becoming common in southern Europe where water restrictions demand more recycling. It is

important to be aware of the downstream effects of inefficient effluent treatment so remedial action can be taken before long-term damage is caused.

Many fine turf problems resulting from poor water quality are cumulative, with the cause being masked as a result. Most irrigation water related problems can be determined however, through analysis of water sources and a survey of the lake or reservoir.

## pH Fluctuation

In trying to maintain acid conditions on greens, the use of high pH water presents the most obvious problems. Most lakes are naturally slightly alkaline but degrees of alkalinity vary greatly throughout the country. Alkalinity is typically countered with acid dosing direct to water or by the use of acid releasing fertilisers.

A heavy algal bloom in a lake or reservoir will also significantly raise the pH of the water due to the photosynthetic process. The pH rises through the day reaching a maximum in the evening and then lowers through the night to reach its lowest point in the early morning. If algal growth is heavy, irrigation can be timed accord-

Save yourself some  
**STRESS**  
this summer



Applying Levington® wetting agent and liquid feeds in combination this summer will help keep your turf free from stress and in the best condition.

Aquamaster® can be safely tank mixed with both Levington Seafeed® and Greenmaster® Liquid and applied at an application rate to suit you.

- Aquamaster wetting agent increases water penetration in dry soils and combats dry patch without the risk of scorch.
- Seafeed seaweed extract aids drought resistance, increases fertilizer uptake and encourages root development.
- Greenmaster Liquid Fertilizer (15:0:0 with 0.5% Fe) gives a rapid turf response with fast green-up.

ALTOGETHER AN UNBEATABLE COMBINATION.



If you would like to know more please call our Technical Services Manager on 01473 830492 or contact your local Area Sales Manager:

South - Chris Briggs

Tel: 0378 603103 (mobile) or 01273 675966

North - Roger Moore

Tel: 0378 603052 (mobile) or 01832 710076

Scotland - Craig McClymont

Tel: 0378 603050 (mobile) or 01383 851007

AQUAMASTER, GREENMASTER, LEVINGTON and SEAFEED are registered Trade Marks and THE LEVINGTON DIFFERENCE is a Trade Mark of Levington Horticulture Ltd.  
© Levington Horticulture Ltd

**AD  
REF**  
102



# IRRIGATION WATER



ingly to reduce the effect of alkalinity.

## Abstraction

Abstraction methods can be tailored to minimise some of the problems inherent in a water feature. Where there is a contaminating water source, water should be drawn off at the furthest point to take advantage of the natural purifying capacity of the ecosystem.

In shallower lakes, where there is a problem of accumulating silt, pump inlets should ideally be floated on the surface to avoid the uptake of any bottom sediments, as these have been identified as one of the causes of anaerobic 'black layer' on greens.

Deeper lakes, especially reservoirs, are prone to seasonal stratification. In some cases, this results in algal growth being limited to the surface layer, making a deeper abstraction point beneficial. Stratification problems can be prevented through effective

'Modern biotechnologies are being used to combat the problems of eutrophying water bodies with applications in the control of algae, the reduction of silt and the improvement of water quality'

aeration, which will also help to oxidise pollutants in the water and reduce the accumulation of organic sludge.

## Ecosystem Management

Effective management of a water body can reduce the occurrence of irrigation water problems as well as limiting the impact of a polluted water source. Combat-

ing heavy algal growth is a priority which can be achieved in several ways. Planting a range of marginal submerged and floating plants is an effective means of long term management however, the nature of the water body and its seasonal fluctuations in water levels will determine the most suitable plant types.

The prudent use of herbicides; triazines for blanket weed and glyphosates for floating plants can help to restore a highly eutrophied lake. These products should always be applied by qualified personnel and the timing of application is also critical. The algicidal effect of decomposing barley straw has long been used for algal control with the latest research indicating that the production of the chemical requires light and aerobic conditions. Floating the straw loosely packed in netting therefore, is recommended over sinking whole bales. Certain plants such as the milfoils have also shown

algicidal effects and can be encouraged in shallower water

Modern biotechnologies are being successfully used to combat the problems of eutrophying water bodies with applications in the control of algae, the reduction of silt and the improvement of water quality. Unicellular algae can also be temporarily controlled by the use of environmentally safe flocculants.

The fish population of an irrigation lake should also be monitored and managed. Ideally, planktivorous fish numbers should be limited as they graze on the invertebrates that graze on the algae. Bottom feeding fish should also be restricted in new or developing lakes as they prevent plant growth. Large resident and visiting waterfowl populations should be discouraged, where possible, as their polluting effect on water quality is becoming an increasing problem.

■ David Ward is Senior Biochemist at Symbio.

# NEW PRODUCTS



Ray Malt of The Ridge Golf Course using Bio-Lube

## Environmentally friendly oils: the way ahead?

There is a worldwide concern at the scale of environmental pollution due to a wide ranging source of contaminants, particularly those from mineral hydro-carbons. The lubricants market has long been the target for environmental groups particularly when one considers that, allowing for natural consumption and reprocessing, within Europe a staggering 0.5 million tonnes of mineral oil remains unaccounted for.

To put this into perspective two litres of oil can contaminate one acre of water with the potential for serious effects on aquatic species in the lower food chain and excessive growth of algal blooms resulting in de-oxygenation of the water systems.

Therefore any equipment in direct contact with soil or water is a prime source of contamination and can be considered to be a potential source of pollution. Chain saws are a classic example as the total loss lubrication system employed by them is calculated to deposit approximately 5,000 tonnes of

pollutant into the eco-system. Furthermore it has been calculated that approximately 80% of the total usage hydraulic oil used in agricultural equipment is lost through leakage and/or accidental spillage.

While mineral oil free lubricants have been available for some time it is a misnomer to assume that biodegradability automatically means environmentally friendly as, during the process of biodegradation it is not uncommon for toxins to be generated which can readily accumulate in the eco-system with catastrophic results to flora and fauna.

Bio-Lube (UK) Ltd will be the first oil company to be totally committed to marketing a range of biodegradable lubricants, based on natural vegetable oil technology, with minimal impact to the environment. This has been achieved by carefully selecting raw materials and additives which are completely non-phytotoxic and yet which still meet or exceed the specifications of most engine

and pump manufacturers.

Particular application which will benefit from the all round advantages of the Bio-Lube range of products are:

Golf courses (Reduces potential for damage to greens and fairways due to leakage and spillage) water authorities, forestries, local authorities, power boat users and enthusiasts.

Or in fact any consumer of lubricants who wants to reduce the pollution impact of mineral oils.

The range of products currently on offer includes: hydraulic oils, diesel engine oils, chainsaw oils, 2 stroke oil, rust preventative, animal repellent.

John Le Mar, Managing Director of Bio-Lube (UK) Ltd, believes there is a change in attitudes towards the ever increasing threat of pollution to the environment. With the expected tightening of pollution controls just around the corner, companies who work on the land will have to consider carefully the products they use in the future.

Local seminars will be held and anyone wishing to attend or requiring information/technical data on the complete range of biodegradable lubricants, please complete the card attached inside the back cover of this magazine.



Following the introduction of Hoef chemical weed control system Wolverhampton based IPU has launched the Parsasene Weed Wand, an environmentally friendly approach to weed control that leaves no chemical residues, so treated areas are safe for the public. This a unique tool which resembles a walking-stick which uses a 185 gram butane canister is light and easy to operate. Just a touch from the high temperature flame at its tip destroys the cell structure of the weeds and they die in a few days. Because of its precise application it can be used close up against walls or between cracks in paving and even on flower beds. The unit is ideal for



Staffordshire-based Turfmech Machinery has introduced a revolutionary way to incorporate liquid or dry materials into greens and tees with virtually no disturbance to the playing surface. Materials being injected are pulled into the ground up to eight inches

deep through the swift moving action of high pressure water jets. The water blasting at extreme force relieves soil compaction while soil amendments, sand or insecticides are placed at the root of the problem.

Tel: 01889 271503.



# NEW PRODUCTS

use in shopping areas, precincts and car parks in fact any public areas which require weed treatment without leaving chemical residues For the commercial operators and gardening contractors the Weed Wand is a inexpensive addition to their fleet which safely simplifies the task of spot weeding on all types of applications including driveways, paths and patios. The Weed Wand is available direct from IPU at £34.99 inc VAT.

■ The most recent addition to Vermeer's range of rugged stump cutters, the new 252 SC is designed to be both easy to use and environmentally-friendly.

For ease of operation, the 252 SC has a simple control panel, preventing distractions while operating hydraulic controls to feather the sweep of the cutter precisely for optimum results. It

also features Vermeer's Auto Sweep system, that makes stump cutting easier for the operator and reduces stress on the machine.

Tel: 01933 274400 Fax: 01933 274403.

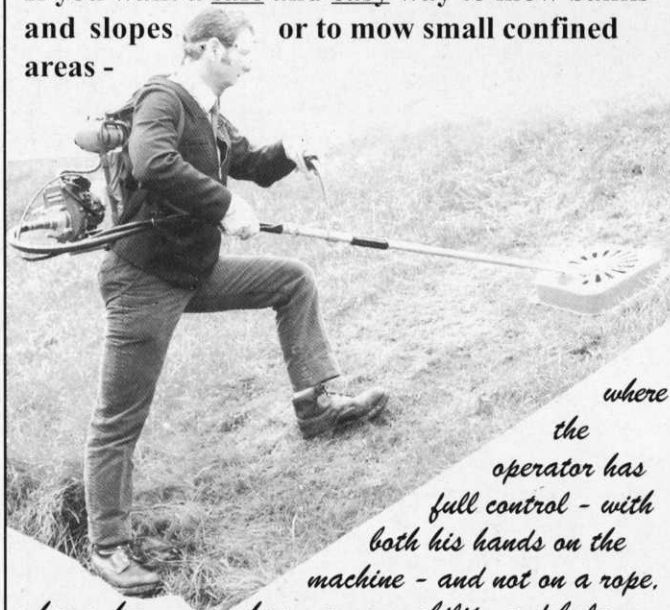
■ Roffey Brothers Ltd of Bournemouth has added a new range of slow release fertilisers to its catalogue.

The latest polycoated technology directly from the United States is now available exclusively from Roffey Brothers Ltd.

The new range is very attractively priced, particularly when comparing nutrient analysis and application rates with other competitive products.

The accuracy of polycoating provides a much more consistent quality of coating and ultimately a more reliable pattern of release. The new polycoatings

**If you want a safe and easy way to mow banks and slopes or to mow small confined areas -**



*where the operator has full control - with both his hands on the machine - and not on a rope.*  
*where he has manoeuvrability and balance*  
**- then you need the Dixon & Holliday Knapsack Hover Mower**

A wide range of other heads allows D & H knapsack machines to trim, mow, hedgecut, cultivate and much more

**Dixon & Holliday Ltd.**

Unit 2, Sheppards Farm, Draycott Foliat, Swindon, Wiltshire, SN4 0HX.

Telephone :- works 01793 741173, sales 01462 700547  
 Facsimile: 01793 741020



■ Spaldings has extended its range of Truecraft Air Tools to include a mobile Air Greasing System.

Air Powered Greasers, says Spaldings, are the best and quickest way of ensuring consistent grease pressure reaches all bearings. This ensures reliable machinery lubrication at all times.

The Truecraft Air Greaser is

trolley mounted and has a high performance pneumatic pump and grease control gun. It can be used with any standard 12.5kg Grease Keg and has a minimum operating pressure of 30 PSI.

The system is supplied with 6.5 metres of delivery hose and gun, and can be run by any tank fed compressor of 2HP and above.

are stronger and less prone to damage that may be caused during application or subsequent maintenance operations.

The range includes three minigranular Nutralene based fertilisers for fine turf with analysis suitable for both summer and autumn application. Nutralene's success is its controlled release mechanism which assures a 10 to 12 weeks of sustained release under a broad range of environmental conditions and enriches the soil microbiology at the same time.

For further details contact Roffey Brothers Ltd. Tel (01202) 537777 or Fax (01202) 532765.

■ Amenity Technology Products Ltd has launched Crystal Clear WSP, a concentrated microbial product that can be used to reduce algal growth by removing nutrients and organic matter from

the water supply.

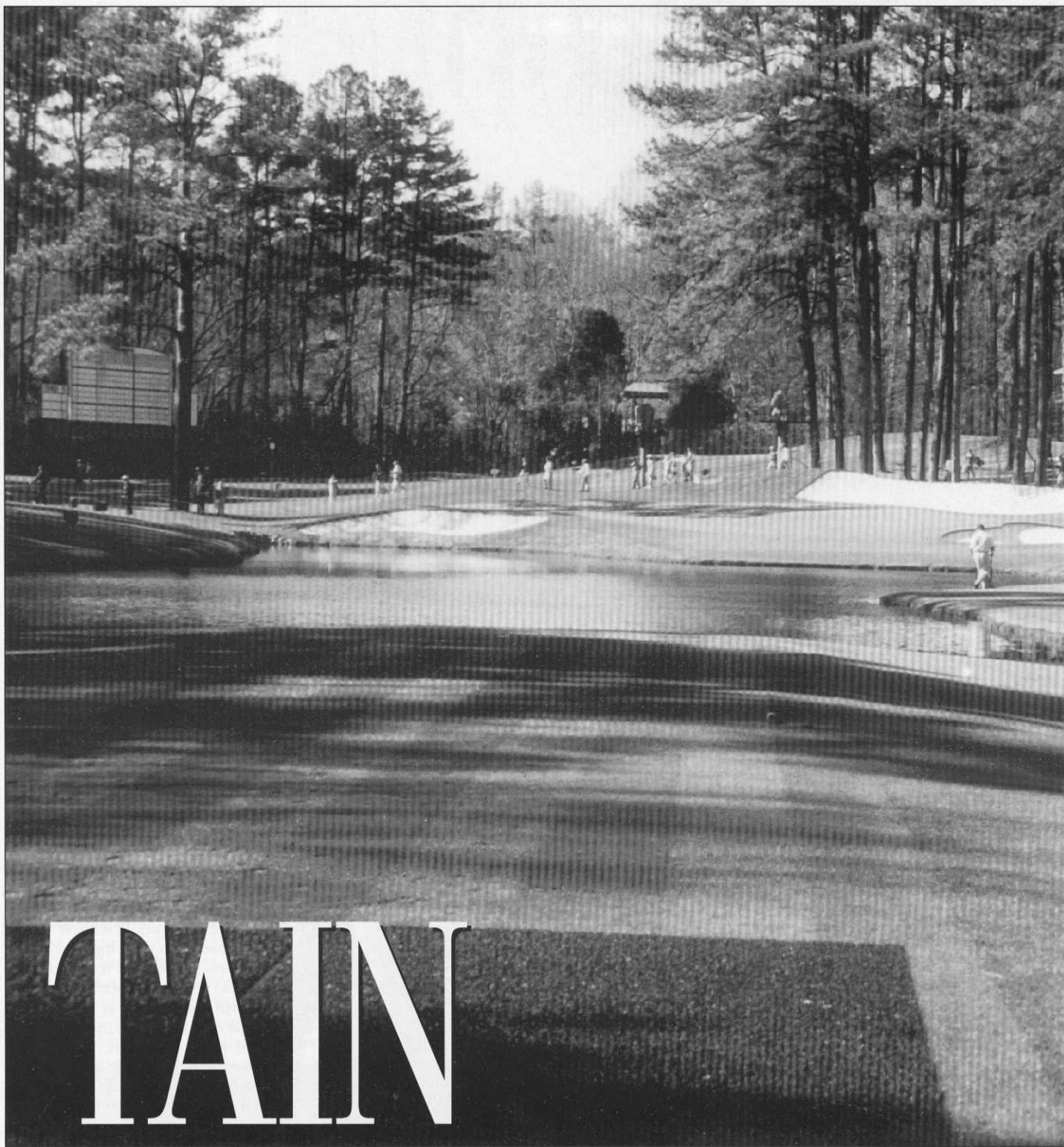
It retails at £87.50 per case of six WSPs which is sufficient to treat, on initial application 1,500,000 litres.

For more information contact Amenity Technology Products Tel 0118 951 0033.

**THE ONE THING I JUST COULDN'T WORK WITHOUT IS:**



"My Kawasaki Mule"  
**Chris Yeaman, Swanston GC,**  
 (Course which climbs to be higher than Edinburgh Castle)



# TAIN to AUGUSTA!

**I would defy anyone not to be just a little envious when they read Iain Macleod's trip to the States. Seeing the Masters live and playing Pine Valley? I ask you.**

**A**t the 1995 Open Championship at St Andrews my American friends Steve Cadenelli and Shaun Barry introduced me to Dr Rich Hurley of Loff Seeds in New Jersey. Two days

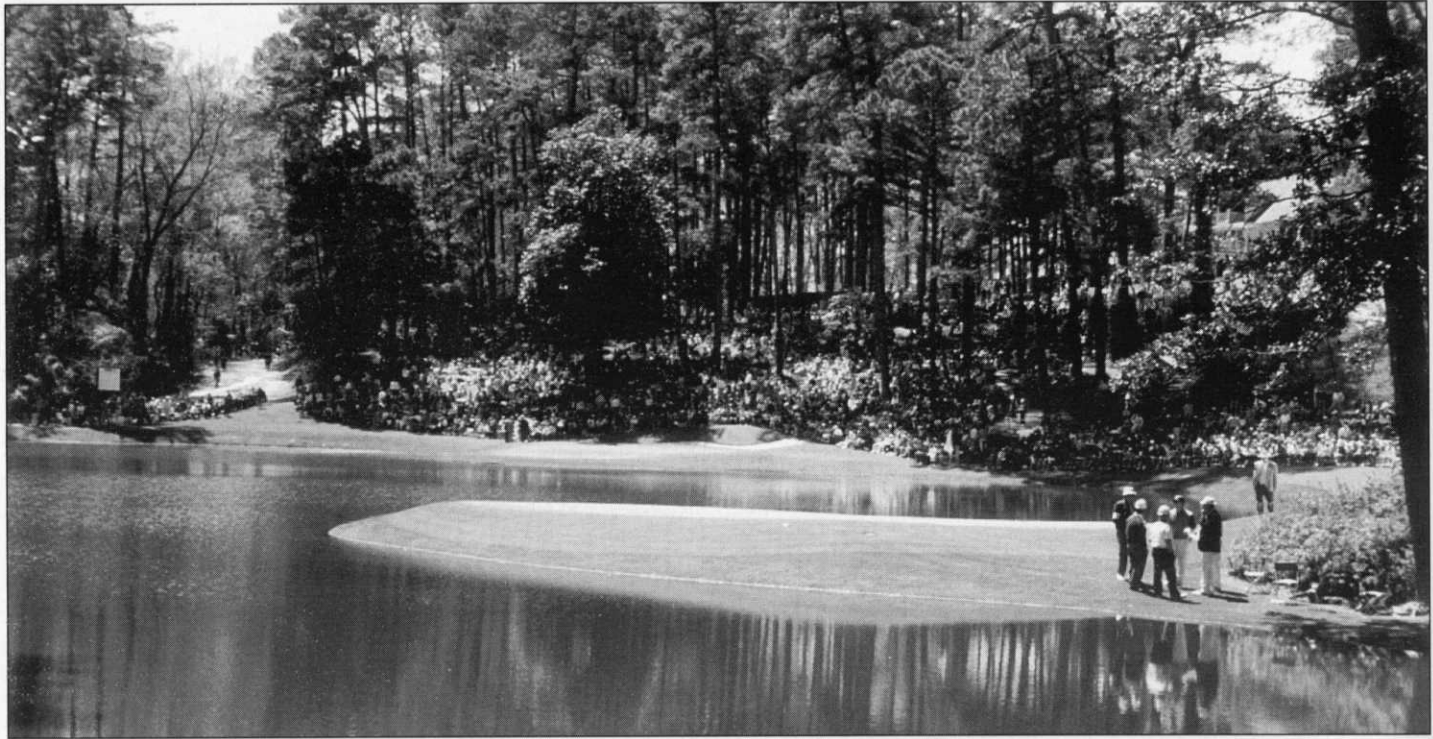
later Dr Hurley was inviting me over to the 1996 Masters at Augusta as his house guest. This was clearly a chance not to be missed if at all possible. Fortunately my good wife, Barbara, agreed and

with considerable help from Steve and Shaun, nine months later, I was flying to New Jersey for the holiday of a lifetime.

On my first day Steve, Shaun and I travelled to Essex County



# TAIN to AUGUSTA!



Augusta Par 3 course. Previous page: the 170yds 16th, tee shot

Country Club to play with another good friend, Ed Walsh. We had a great day playing over Ed's superb course in glorious sunshine.

We spent an evening in New York City, doing a bit of sightseeing including a visit to the Empire State Building.

On the Sunday we were due to play Steve's course, Metedoconk National but the weather was against us so we decided to leave it until the following week.

We stayed overnight in Baltimore before travelling the short distance to Caves Valley Golf Club, Owing Mills, Maryland where Steve's brother Bruce is Superintendent. The three of us played this fine course unhindered as it is officially closed on Mondays. After thanking Bruce for his hospitality and congratulating him on the excellent course, we set off on the next leg of the journey, a seven hour drive to Pinehurst, North Carolina. We actually spent the night at the Hampton Inn, Aberdeen, North Carolina.

The next day we played 36 holes at The Pit Golf Links, Pinehurst. Another lovely course and I experienced playing to my first



Iain with Donald Ross!

Island green. We visited Pinehurst with its eight courses, the number two course considered to be Dornoch man Donald Ross's finest creation. Shaun, another superintendent Dave Pease a man whose reputation owed much to the Lithuanian blood in him, and I travelled down to Augusta and to the house that would be my home for the coming week. That night Dave and myself sank a few Buds (his two for every one of mine)

and another golf related friendship was forged.

The house is actually owned by a gentleman unfortunately named Mr Shanks, and yes he is a golfer. It is rented for Masters week each year by Dr Hurley's Company to entertain guests etc mostly Course Superintendents it seemed.

On the Wednesday morning Shaun, Dave and I travelled the short distance to Augusta

National Golf Club. Wednesday is final practice day and the Par Three Competition. I find it hard to describe my first view of the course without going overboard, awesome springs to mind. The grass looked so perfect and uniform in colour, there is no rough, the area under the trees is cleared of grass and pine needles are spread. The ponds have perfect coloured water in them. Even Georgia had suffered this Winter, so the beautiful colours were not so evident as usual, but they got better each day as the hot weather arrived.

The greens looked excellent and so undulating, something I noticed about the whole course as television certainly levels things out. In fact, looking at the fairway bunker at 18 makes me realise what an incredible shot Sandy Lyle played when winning here back in 1988. I took my camera with me as during the afternoon the course is closed so it would be my only opportunity to take photographs of the course and green-staff working. I walked a few holes watching the Pros' practice then went over to the par three course to watch some of the competition.



**Fairway cutter complete  
with tennis ball!**

I met up with Steve and Shaun and we went out onto the course to see the greenstaff in action. At the 11th we witnessed 12 Ransomes fairway mowers cutting the fairway, each one slightly set back from the other. They cut the fairway one way from green to tee and it takes two passes. Each machine operator has a tennis ball on his control panel and if the machine in front develops a fault he throws the ball ahead and the operator can stop work immediately. The greens were being mowed by Jacobsen pedestrian mowers, two per green. The pond banks were being flymoed with flymos that had nylon line instead of metal blades. We were told that the whole course is cut in about 53 minutes! I soon realised that the six rolls of film Ed Walsh had most generously given me were all going to be used.

Thursday morning we were up early to go and watch the Ceremonial Tee Off at 7.45am. Sam Snead, Gene Sarazen and Byron Nelson opened the tournament by teeing off at the first hole. We spent the rest of the day watching the golf, most of the time at the par three 6th sitting on the bank behind the green. Unlike The Open over here where you can get all kinds of food, sandwiches and crisps were just about all that was available inside the grounds. The sandwiches were excellent



and very cheap as, well. Something I noticed about everything for sale inside Augusta National was the fair prices, even in the golf shop.

It was good to see a few Brits up on the leaderboard on day one, but Greg Norman was the man in form shooting 63.

On Friday morning we decided to try and get a game at the course on the estate where we were staying, Jones Creek. Shaun and Dave had left on the previous morning to head back to New Jersey, stopping off to play golf on the way. Steve, myself and Joe O'Donnell Manager of Sunbelt Seeds, Atlanta who was staying at the house with us, managed to get a time for the afternoon shotgun start at 1.30pm. We were joined by a local member to make up a four ball teed up at the 7th.

Joe calculated that with two full shotgun starts a day during Masters week the club would take in around \$250,000 in green fees alone. We had a very enjoyable game on a very undulating course, where I managed to get up and down five times out of six from greenside bunkers thus earning the nickname "The Highland Sandman" from Joe. The free bar at two tees around the course was much appreciated on this lovely sunny day.

Saturday was spent at the course watching Greg Norman stretch his lead as none of his nearest challengers made a move. Nick Faldo remained in second place but was six shots back, surely too far to prove a threat now! For the second day running I had the shorts on and with the help of my Masters sun bloc the

tan was coming along nicely. Also down at the waterfront is a bronze statue of Arnold Palmer, the start of a Golfers Hall of Fame which is due to open in 1998.

Sunday. The day of reckoning and a stroll in the park for Greg? With only 42 in the field the golf was not starting until 11am, so no need for an early start, which was just as well as we had sampled downtown Augusta night life the previous evening. We walked a few of the early holes to start with and then found a good seat in the stand at the 13th green to watch all the matches come through. The scoreboard behind us started to tell the amazing story of Norman's collapse and the gallery were clearly upset, except for me of course resplendent in my Leeds United shirt so everyone would know I was a Brit. When Nick and Greg arrived Nick was already two shots ahead. We watched both birdie the 13th and then moved to the left side of the 16th to watch play to the 15th green and 16th hole. I think Greg's ball was closer to us than the green at 16 as his dreams vanished in the water. As everyone now knows Nick Faldo closed with a 67 and won the 60th Masters by five shots, which was great for me, a Brit winning when I was present. But you have to feel very sorry for Greg Norman and hope that he recovers from this major disappointment. We stayed on for the prize giving ceremony held on the putting green after the televised event in the Butler Cabin. After the prize giving I spoke with a couple of friends from the R&A, David Rickman and Mike Stewart, from the European Tour who were over



Augusta 11th, fairway mowing 455 yards



# TAIN to AUGUSTA!

Pine Valley 16th, 433 yards tee shot



areas of sand and trees. The Caddie's advice, to keep the ball in play or you will get double bogies or worse, was spot on. The sand areas are all treated as bunkers, but because of the size they are only raked once a week so when I put my tee shot into one at the 232 yard 5th and found it in an impossible lie the Caddie just said "Welcome to Pine Valley!" We had a great time on a great course and I managed a couple of bridles for good measure.

Rick took us to their ten hole short course after our round. Most of the holes are replicas of either the par threes on the main course or the second shots into the par fours, ideal for practising. Eric is Course Superintendent at a new course in Atlantic City, apparently nine of the holes are modelled on Pine Valley and nine on Augusta, so I look forward to visiting him and playing there one day.

Tuesday April 16 and my final day. Shaun took me to see Robert Hansen at his family owned Bel Aire Golf Club. Robert has an incredible collection of antique golf equipment and he very kindly showed us it. I think it is time to start searching the antique shops. The next stage of the plan was to meet Steve at Metedeconk for golf, but alas the weather was against us again. We visited a shopping mall so I could buy some presents and had lunch. With time running out we headed for Newark airport and my 7.40pm flight home. My return journey was very smooth and by 11.30am I was unpacking at home in Tain, sad that my holiday was over but happy to be with my family.

I have so many people to thank for making this trip possible and for all the great times on it, but will not bore anyone with a list here, I have personally written to all concerned and hope to be in a position to return the favours some day, anyway I have to go back to play Metedeconk National Golf Club.

One final thing I must say is that this whole trip became a realty all because I am a greenkeeper in BIGGA, and had I not been, then I would not have met these people and ended up at Augusta National Golf Club.

working at the Tournament. During the day several British folk said hello on recognising my shirt.

We dined at an Indian restaurant just down the road from the golf club to let the traffic get away, yes folks there are even Indian restaurants in Georgia.

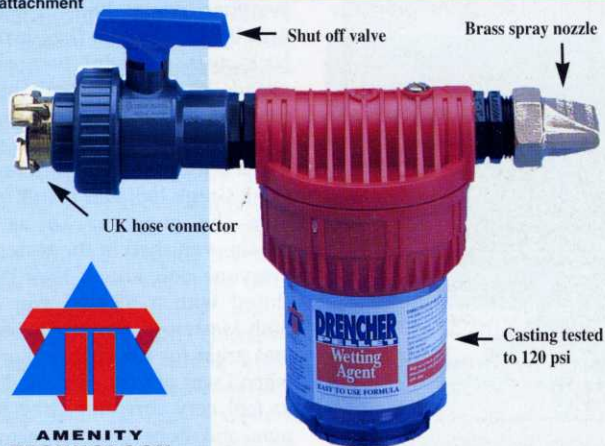
That night there was only one other person left at the house with Steve and myself. Paul was a Hungarian who had been at the prize giving representing the Hungarian Golf Federation. He owned a golf course in Hungary and was planning to build more so was in search of greenkeeping knowledge. Maybe we should get him to join BIGGA and avail himself of our knowledge. We went to bed at Midnight and were up at 4.30am to drive to Columbia Airport in South Carolina to catch a flight up to Newark, New Jersey at 7am. Shaun met us at the airport and we drove the two hour journey down to Pine Valley to play what many consider to be the number one golf course in the World. Steve's other Brother Eric met us and Course Superintendent Rick Christianson joined us. Here we were on the World's number one course playing a five ball with the course to ourselves as it is shut on a Monday, and no green fee to pay, just caddie fees.

The course is superb with large

- Labour saving
- Full control at hose end
- European design and manufacture
- Easy application
- To be used in conjunction with either:  
Drencher WA Wetting Agent Pellets or Drencher 123 Pellets, containing Drencher WA, Micro-nutrients and Growth Recovery Stimulants
- New for 1996 optional rose attachment

The UK's Number 1  
**DRENCHER GUN**

Hose end  
Applicator



**SPECIAL PURCHASE FOR 1996**  
Save up to £60.50

With every applicator purchased you will receive:

6 x Drencher WA Pellets For £1  
or  
6 x Drencher 123 Pellets

Available through a network of distributors throughout Europe



**AMENITY TECHNOLOGY PRODUCTS LTD**

The Clock House  
286 Kings Road  
Reading,  
Berkshire RG1 4HP  
Tel (0118) 951 0033  
Fax (0118) 951 0044