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BIGGA ESSAY COMPETITION

GREENKEEPING AND GOLF COURSE MANAGEMENT TECHNIQUES FOR THE 21ST CENTURY

**A play in two acts subtitled:
Next Time Around
Dramatist: Kerran Daly**

The Prologue

'Here I sit so patiently, waiting to find out what price I'm gonna have to pay to get out of going through all these things twice'

Bob Dylan – 'Stuck inside of Mobile with the Memphis Blues Again'

Act 1

It is the end of an era – the 20th century draws to a close

Scene 1

The eclipse of the sun is already dwindling in the mind and the millennium beckons. The burning issues of golf course management during the 20th century have centred around the battle to retain the inherent character of British golf courses against all the odds. During the last 20 years, that battle has been a losing one. The introduction of American style courses during the boom 80's and early 90's has influenced our natural game. Many of these monoliths, which have in the main failed as commercial enterpris-

es, are now the breeding ground for future committee men on some of our best British courses. As their present courses are not designed for playing traditional golf, due to the influence of water hazards and bunkers around target greens and lush, poorly drained fairways excluding the running ball game, the future looks bleak.

The howls of protest, by top Professionals to the presentation of what Henry Cotton or Harry Vardon would have recognised as a typical, traditional test of golf for the 1999 Open at Carnoustie, bear testimony to the fact that as we approach 2000 it may already be too late. Though an understanding of the traditional British style game is still nurtured by some influential members of our

provincial clubs, the legacy of the past 20 years is a certain percentage of golfers who have no experience of and therefore little understanding of the more subtle aspects of the indigenous game. Their influence and unrealistic expectations fuelled by TV hype and the commercial pressures for greenkeepers to please their clientele is set to dilute the current stock of native courses.

The impact of TV on greenkeeping practice in the late 20th century should not be underestimated. The stripping up of major venues due to understandable commercial pressures sent fertiliser and irrigation companies into flurries of activity. The bid by well-intentioned greenkeepers to outdo each other and their American

counterparts in their presentation skills led to similar pressures on those without the proper resources to cope. Fairway irrigation in particular needs a knowledgeable and forceful greenkeeper to effect favourable results. Once installed however, who knows who will end up in control and what other classic course might bite the dust?

The link between too much play and compaction, Poa, disease et al is universally recognised and the restrictions concentrate the mind on radical solutions. As always it is the law and the forces of the market which govern our actions. The law has spoken and market forces must respond. As high inputs to combat wear and tear are no longer acceptable some other doctrine must prevail.

The inevitable result of the relentless commercialism has been a grudging acceptance of *Poa annua* as a suitable surface on which to play golf. What heresy, what treachery, what hypocrisy. When it becomes inevitable that all one can produce is *Poa* dominated turf then *Poa* suddenly becomes acceptable. This unfortunately is the current state of affairs and how to turn this around in favour of more suitable grasses is what must occupy greenkeepers for the early part of the millennium.

Throughout the 70's and 80's King Arthur (Jim that is, not Scargill) roamed the country with his band of loyal knights preaching the gospel and fighting the heretic *Poa*. Under the continual onslaught of ever increasing amounts of play and the incessant call for faster greens many of his followers have fallen by the wayside, weary with the war. Most have justified their desertion as a commonsense approach in a modern world, while some have sited the survival of home and family as more important than the survival of Fescue/Bent.

Our erstwhile monarch now bellows in the wilderness like some lost bull,

abandoned by the herd. Who will pick up the standard, who will be our saviour, where is our white knight? In this dog eat dog world no-one can afford to risk all and go it alone.

Scene 2

A strange newcomer enters the piste. His arm is mighty, his sword is sharp and true and his shield is emblazoned with the motto 'BRUSSELS'. History shows us that sometimes we need to be saved from ourselves. When commonsense is ignored we must resort to the forces of the law to uphold some sanity. The curtailing of our freedom to do as we please is the price we have to pay for our obscene consumerism and blatant disregard for others and for those who are to follow.

Throughout the late 20th century it has been the Health and Safety at Work Act that has been largely responsible for the vast improvement in greenkeepers conditions of work. If we had waited for benevolent golf clubs to enact a change through generosity of spirit then many, with the odd worthy exception, would still be waiting.

European law is about to clamp down on the economic madness of free trade with no thought for long term environmental damage. All industry will be forced to work within strict, sustainable guidelines and enforced to clear up its own mess. I believe this will herald the turn around to affordable, sustainable golf played on economically and environmentally sound courses. The

limitations imposed on fertilisers, pesticides, fungicides and water will all force a reversal of the past 30 years of consumerist mayhem. The need to use only renewable sources and to impose recyclable systems will lead to minimalist, organic based regimes remarkably similar to pre-war practices. Nothing will be wasted and greenkeepers will once again assist nature rather than try to control it. It is the greatest irony of all that the impositions of Brussels may well ride to the rescue of King Jim, the great libertarian.

Scene 3

The technology will of course be vastly different but the principles of sound greenkeeping and good housekeeping will return. The wheel will turn full circle as it inevitably does and we can only hope that this time around we will take on board the lessons of the past.

The building of excessively free draining rootzones as we enter into a period of global warming and water restriction, will be seen as sheer folly. The extravagant use of water and fertiliser to maintain such greens will no longer be morally or legally justifiable. Properly built suspended water table greens should survive well, but many others are heading for hard times. The thinking behind the introduction of excessively free-draining rootzones seems fundamentally flawed. Do greenkeepers really regard the rapid drainage of greens so that the course is instantly playable after a winter's deluge as an advantage or

Indoor sports and recreational activities are interspersed with sips of Cappuccino and convivial chat whilst awaiting your turn on the 18 computerised holes, where you can play out your monthly medal, smashing your drive into a virtual reality south-westerly gale at St Andrews or firing a 6 iron into the heart of the 13th green at Augusta, under a blazing sun. It is not the same as real golf but it wets the appetite for the coming season and keeps the swing intact.

is the rest of the course suffering immeasurably as a result?

Whilst the emphasis on watering, nutrition and pest control may have changed due to commercial pressure, the basic practices of greenkeeping remain little altered. Technology has improved the methods and replaced the manpower required but aeration, scarification, mowing and top-dressing are changed merely in their intensity and efficiency. We can only

as the major component of rootzones and topdressings. The term sand bunker may also have to be reviewed.

The waste of water through overhead irrigation will be phased out. The collection and re-use of drainage water through under-soil irrigation systems becoming compulsory.

Act 2

It is well into the 21st century and Brussels has acted.

A strange newcomer enters the piste. His arm is mighty, his sword is sharp and true and his shield is emblazoned with the motto 'BRUSSELS'. History shows us that sometimes we need to be saved from ourselves. When commonsense is ignored we must resort to the forces of the law to uphold some sanity.

guess at what new innovations lie around the corner. A genetically modified disease resistant Fescue which can replace Poa, survive close mowing, withstand constant use and drought whilst remaining green and healthy looking would be a huge commercial success. The monopolies commission and concern from the general public about GM safety may well put paid to that.

The control of worms, leatherjackets and other troublesome pests without chemical means will no doubt spawn organic alternatives or biological controls based on predators or genetics. Failing that the market will be open to innovative cures based on mechanical or electrical treatments.

All machinery will have to conform to the principles of recycling. Equipment will all be returned to the manufacturer for decommissioning and re-use. Outright purchase without buy back will become prohibited and a form of leasing will be standard practice.

Waste products from manufacturing industries may well replace sand

Scene 1

Restrictions are fully in place and the law encourages sound ecological management whilst prohibiting high input regimes based on water, fertiliser and fungicide. Greenkeepers need to use all their skill, knowledge and the advantages of modern technology. There is recognition that past practices were not sustainable and the adaptation to the limitations of renewable resources has required some lateral thinking by all concerned.

The link between too much play and compaction, Poa, disease et al is universally recognised and the restrictions concentrate the mind on radical solutions. As always it is the law and the forces of the market which govern our actions. The law has spoken and market forces must respond. As high inputs to combat wear and tear are no longer acceptable some other doctrine must prevail.

Scene 2

Golf clubs have understood that nearly all the damage which needed

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Throughout the 70's and 80's King Arthur (Jim that is, not Scargill) roamed the country with his band of loyal knights preaching the gospel and fighting the heretic Poa. Under the continual onslaught of ever increasing amounts of play and the incessant call for faster greens many of his followers have fallen by the wayside, weary with the war.

such high levels of maintenance to put right is caused by winter play. Course closure, temporary greens and trolley bans have all failed to provide the answer and given greenkeepers a bad name. A radical re-appraisal of pricing policy has been the way forward. Golfers now pay on the basis of the damage they cause. There are no course closures, no temporary greens and no trolley bans. However, winter golf is at a premium. Eight-month memberships abound whilst those who wish to play the full year pay double the July price for January golf. You can use a trolley any day you wish but it adds 50% to your round in winter.

The potential for a loss of earnings for the Club has been negated by them becoming centres of social activity during the colder months. Indoor sports and recreational activities are interspersed with sips of Cappuccino and convivial chat whilst awaiting your turn on the 18 computerised holes, where you can play out your monthly medal, smashing your drive into a virtual reality south-westerly gale at St Andrews or firing a 6 iron into the heart of the 13th green at Augusta, under a blazing sun. It is not the same as real golf but it wets the appetite for the coming season and keeps the swing intact.

The 21st century is full of promise and potential for our profession. Education is the key to unlocking that potential and influencing the powers that be in moving things forward in a commonsense direction. It is an unfortunate fact that people are judged on what they know and not what they are, but it is a fact none the less. Our predecessors, quietly plodding down the fairways leading their horse-drawn gangmowers had the wisdom of Solomon but they

doffed their caps to lawyers, doctors and schoolmasters in recognition of their superior education. To succeed we must educate, educate and educate and leave the rest to providence.

the ball properly.' It's a dagger in the heart. A lifetime's hard work dismissed in the puff of a cigar. Rage and fury, cursing under your breath and screaming in your mind. Forgive

The building of excessively free draining rootzones as we enter into a period of global warming and water restriction, will be seen as sheer folly. The extravagant use of water and fertiliser to maintain such greens will no longer be morally or legally justifiable. Properly built suspended water table greens should survive well, but many others are heading for hard times. The thinking behind the introduction of excessively free-draining rootzones seems fundamentally flawed.

The Epilogue

Endlessly trundling up the fairways, trying hard to keep straight. Mind wandering and wondering about what might have been and what will be. Doing your best to dodge the wayward missiles of outrageous fortune heading your way. Feeling fragile and vulnerable behind your glass screen. Pushing on and on, forward to Valhalla, Utopia, suburbia. On and on, moving obstacles out of your path, riding out the wheel spins on the steeper slopes. You must get there, you must get there, you mustn't look back

Back to stare into the face of past experience and recognise the doubts, the mistakes, the regrets, the missed opportunities. The crazy spill of commercial hype dragging you into the confusing mire of new fangled fertilisers, micro-organic soups served up with ladles of gimmicks. Health and safety gone into overdrive, pulling you down while someone just within earshot is saying 'These fairways are bloody awful! The grass is so short and tight that you can't hit

them for they know not what they do. You mustn't look back, you mustn't look back!

I look back.

Oh God NO! The middle unit's not cutting. Like me, blocked up.

Overloaded with stuff and more stuff. I've got to go through all that again. I wonder whose songs I'll sing next time around, I wonder Will think the same thoughts?

For information and an entry form for the BIGGA Essay Competition 2000, please call Ken Richardson, Education and Training Manager on 01347 833800 or email: ken@bigga.co.uk

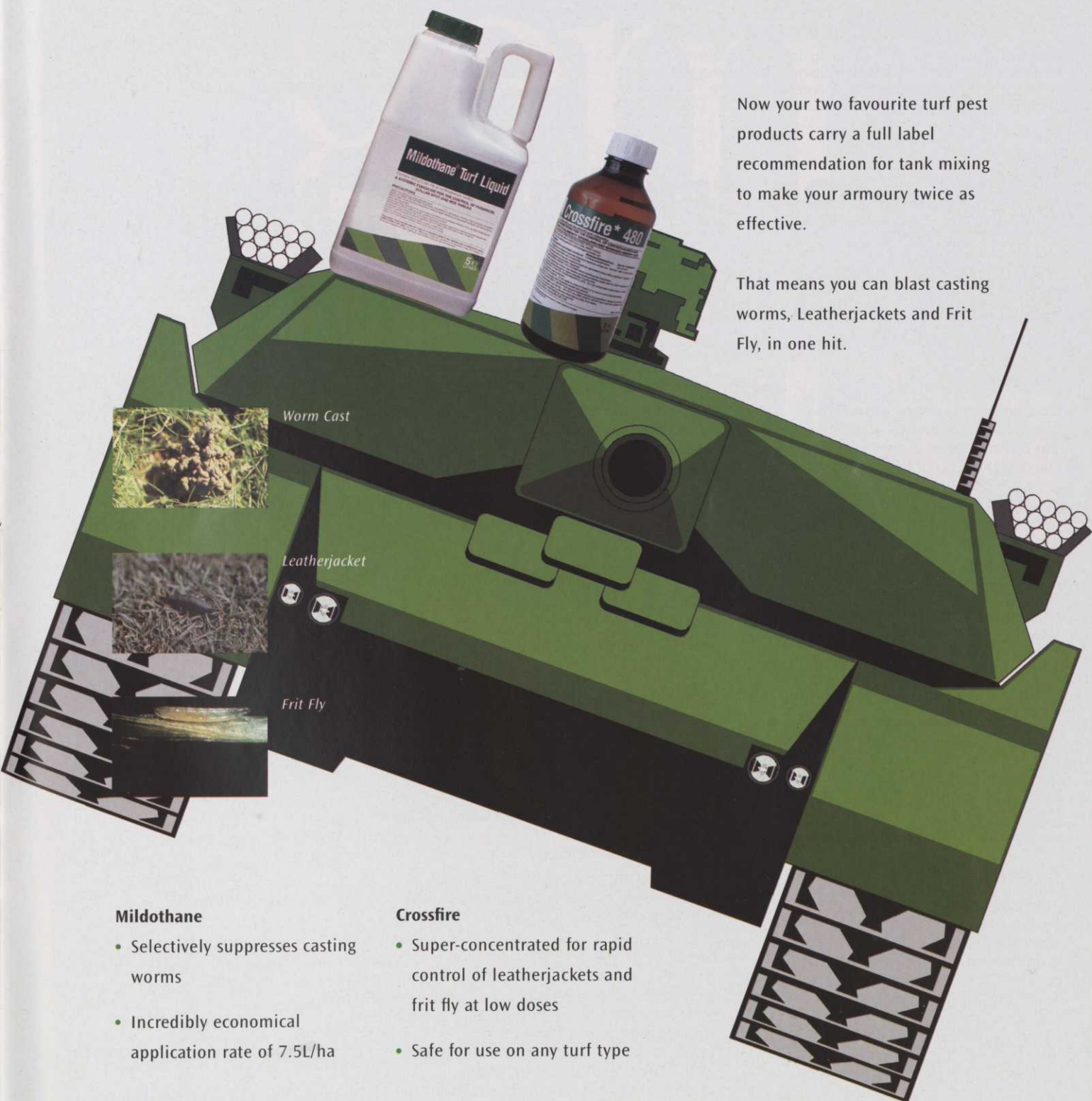


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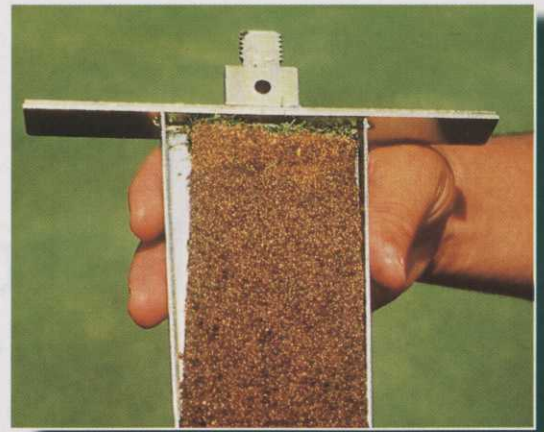
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Compaction and soil structure breakdown are ongoing problems for the turf manager. Constantly saturated soil or a build up of fine soil particles, cause the loss of air availability and this effect can break the soil structure down into even finer particles increasing the clogging effect. When these pores become unpenetrable, water and air transport stop.

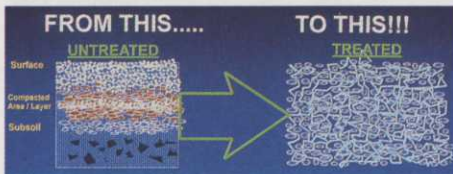


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Apply two applications of Integrate at 14 day intervals at the rate of 1 litre per 1000 square metres (10 lt/per ha).

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Following the initial applications, additional half rate treatments may be required depending on the severity of the original problem or to maintain improvement. Apply Integrate at the rate of 0.5 litre per 1000 square metres (5 lt/ha) every 2-4 months to maintain healthy soil structure.

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Scott MacCallum travelled to Lancashire to visit BIGGA's latest Golden Key Supporter, Gem Professional...



A real gem



One of the most difficult balancing acts to achieve with any degree of success must be retaining all the identity and heritage of a traditional family company whilst developing, or matching, every new advance in one of the fastest moving industries in the country. Gem Professional, based in Oswaldtwistle near Accrington, in Lancashire, and BIGGA's latest Golden Key member, has achieved just that.

The company has been in the Metcalf family since its origins back in the 1880's, and has strong claims to be the largest independently

owned company in the industry, but it is still at the cutting edge when it comes to providing modern day greenkeepers with their day-to-day requirements.

The beginnings of Gem Professional lie back in the 1880's when the Metcalf family were what were known as dry salters. It is an old fashioned name for the supplying of chemicals etc, for use in heavy industry. They also crushed bones for hardening steel and bone meal and hoof and horn meal were by-products of that process. In 1924 Joseph Metcalf first started mixing the

organic fertilisers with sulphate of ammonia and potash to produce Metcalf's Complete Fertiliser for use on bowling greens, golf greens and Local Authority parks.

Records show it was 19 shillings and 6 pence (97.5p) per bag which was considerably more expensive than a comparative price today. The range also included Earlybird Worm Killer, Velvas Grass Seed, straight fertilisers and mowing machinery.

The Company moved from its factory premises in the centre of Accrington to its present 25 acre base in nearby Oswaldtwistle in 1973.

A real gem



Here, a vast range of fertilisers and growing media are produced for both the Professional Amenity and amateur garden markets.

"Two years ago we took a look at ourselves and employed a market research company to work on our behalf. In return we were given some home truths. We knew some of the things which we wanted to improve upon but needed someone else to confirm this," explained Clive Pearson, UK Sales Manager.

To emphasise the point Gem, under the guidance of Managing Director, Brian Metcalf, and Clive, have recently repositioned the Gem Professional range under the Pro Formula brand and changed the company logo.

They have also amended the packaging to make it much easier to understand by the end user.

The point is followed up by Brian who took over the reins of the company from his father in 1968 with a handful of staff and has guided it through to today when over 200 people are employed.

"Customers don't always seem to appreciate just how large a company Gem is". One question asked 'Which of these companies do you perceive as being a manufacturer?' The customers didn't have a clue," said Brian.

In fact, the company has been manufacturing an extensive range of fertilisers and turf dressings since 1924 and owns its own sand quarry, peat reserves and bark processing factory. In response to this breakdown in communication, Gem has produced a lavish new ring binder manual which includes everything anyone could possibly wish to know about the company and its products.

"We spoke to our customers, including many greenkeepers, before we produced it and what has emerged is what is basically a training manu-

al which makes our customers' lives so much easier," said Clive.

"The binder has been designed so that a Greens Chairman or Secretary can also understand the products and relate to the Greenkeeper's choice or recommendation. Committees must be able to understand the entire package which we are offering because that is extremely important," he added.

"Sometimes you find in this industry that a Greens Committee may have to take half an hour discussing a differential of a few pounds per tonne on turf dressing or a few pounds per bag on fertiliser due to lack of knowledge. This valuable time could be better spent evaluating larger capital commitments or course improvement projects. Now this manual as been introduced people will be able to appreciate our type of products with confidence and develop an understanding of their functions and performance. They must be able to compare like with like."

Additionally, the manual is easily and quickly updated as and when new specifications or products become available.

"ISO 9002 accreditation was achieved in 1987 and now forms a central plank of company policy. Continuous self assessment, benchmarking and improvement strategies are in place which are linked to technical innovations and product development," said Clive.

Gem Professional seek to improve products and performance under the guidance of Geoff Bone Dip.C.H., Group Technical Manager. Geoff sits on the Product Development Committee and is ultimately responsible for bringing products to market. This process is facilitated by the company's in house laboratory where a dedicated team of technicians perform a multitude of analytical tasks. This work is two fold.

Routine jobs involve testing raw materials used in the manufacturing processes to ensure they meet the tight specifications laid down. A batch coding procedure is in place which guarantees traceability of a finished product right back to the basic raw materials used in production. Only suppliers who meet our strict requirements are used. Finished products are likewise examined and tested to ensure conformity before being released into the warehouse prior to despatch to the customer.

Project work is the keystone to new products and product improvement and the laboratory is heavily involved in this function. In addition, fertilisers, dressings and all growing media are subjected to field trials under

Geoff's supervision prior to being accepted into the company's portfolio.

"For example, the Super Range of controlled release mini granular fertilizers were subjected to independent trials over six months at Liverpool University," said Clive.

A further function of the laboratory is particle size examination and analysis of turf dressings. Gem own their own sand deposits at their Wroot Quarry near Doncaster where reserves are in excess of 20 years.

"A number of companies claim ownership of their sand deposits but they don't have the name on the gate," said Clive. "Ours has."

At Wroot strict ISO 9002 controls are also in place. The graded soil and washed sand for Turf Dressing is metered into the steriliser in exact proportions as per the specification, not rough bucket fulls, and our analytical records prove our technical data conform; a distinct benefit to the customer. The laboratory is also equipped to undertake soil analysis and this service can be arranged through our team of field representatives.

The decision to become a Golden Key supporter of the Association was the final piece of the jigsaw for a company which has been heavily involved with the Association at Section and Regional level for quite some time.

"We have 10 technical representatives and every one is involved in his local Section - in fact Ian Sellars, is Section Secretary in Surrey. When I was promoted to Sales Manager two years ago I felt strongly that we should get more involved with the BIGGA Education and Development Fund. It is a very good idea and I believe we should be putting something back in," he said.

The company already hosts greenkeeper visits from all over the country with the excellent training room being used to its full advantage.

"The greenkeepers learn about our products and we learn about which products they are looking for," said Clive, "and they can also see first hand our manufacturing facilities."

"So we had already put a lot into BIGGA without being fully involved and becoming a Golden Key member was the final step for us," said Clive.

You can be sure that Gem Professional will be around for many more years to come providing the greenkeeping profession with exactly what it needs. Indeed, a Gem of a company.

Gem
professional