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TREES

ensure the longevity of tree cover. The programme does not have to be intensive as long as it is continuous.

"The need for effective woodland management has never been greater and clubs whose courses were damaged by the storms of recent years should rethink their management to assist the trees and the wildlife they support."

On Course Conservation, Managing golf's natural heritage. The Nature Conservancy Council 1991.

Problems specific to parkland courses

One of the major problems encountered on a mature parkland course is that within the English Parkland Movement trees were commonly used, either individually or in small groups, to frame attractive views or as part of a much larger composition. Care must therefore be taken when undertaking new planting. It has become in vogue to plant as many trees as possible, however in the designed landscape large areas of planting may be detrimental to the overall landscape character of the course.

The replacement of small groups or single trees which are often strategically and aesthetically very important to a course should be undertaken well in advance of their demise. This is a course of action which is often neglected unknowingly and results in either a dramatic change to the landscape or a hole completely losing its strategy. Forward planning is crucial to the long term well being of a course.

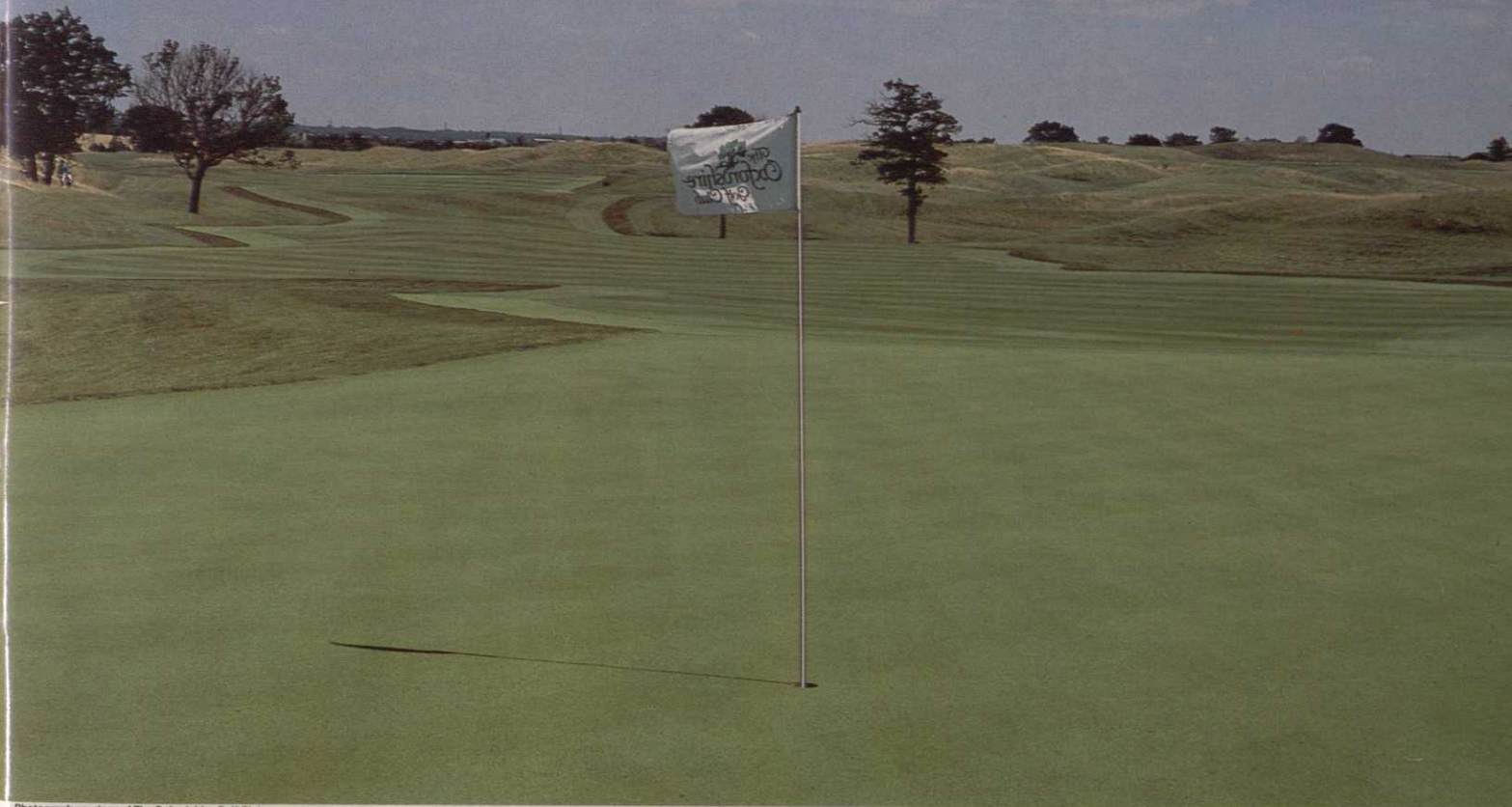
This, as previously mentioned, was proven by the storm of 1987 when many courses were decimated by the loss of tree cover. As a result of the lack of earlier underplanting, the results of the storm will be evident for many years to come. When such catastrophes occur, further problems may arise due to the panic which ensues. What will grow quickly is often the question. Poplar, willow, spruce and cupressus is the answer that comes from the gardening fraternity and so unsuitable species are planted as replacements for grand oaks or majestic beech. These quick; fix answers result in a landscape which loses its identity with the form, shape and colour of trees breaking the unity of the composition.

The presence of the designed landscape often goes unnoticed as the quality of the naturalistic designs of Brown, Repton and Kent were so effective that the layman does not realise that they were contrived. It is interesting to note that a comparison can be drawn between the development of parkland design and that of golf course architecture. The gradual departure from the formal symmetrical patterns of the Tudor and Baroque styles parallel in some ways the evolution of the golf course from the early days of square bunkers and rectangular greens to the natural rolling contours which typified the designs of Colt, Mackenzie and Ross.

Trees are a welcome component of any landscape and an important feature of most golf courses. However where there are many thousands of trees and only one castle, every effort should be made to return the vistas that were such a prominent part of the original concept, even if at the expense of some trees. The complexities of managing and sustaining woodlands within such environments are such that professional advice is essential. A balance must be reached between safeguarding the strategy of the course and maintaining the landscape. Below are listed a few guidelines to maintaining unity with the classic English parkland.

- Species selection should be in keeping with the original design.
- If there is a dominance of any particular species, ensure that mixed stands do not break the unity of the composition.
- Do not block scenic views or vistas.
- Avoid symmetry.
- Maintain the original positions of clumps or stands of trees when replanting as these will be an integral part of the design.
- Take care to retain the shape of stands when underplanting.
- Control unwanted regeneration which may alter the balance of the composition or block views.
- Be brave and remove regeneration or poor planting which has a detrimental effect on the landscape.
- John Nicholson is an Associate Consultant with Eamonn Wall & Co the Woodland Design and Management Company that specialises in the management of trees in the golfing landscape. Telephone: 0191 384 2556.

From TEE to GREEN



Photograph courtesy of The Oxfordshire Golf Club

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Golden Oldie



Tenby is the oldest golf club in Wales and it revels in being as energetic as any in the country as Scott MacCallum found out.

Question: What do Royal Blackheath, Royal Burgess and Tenby Golf Clubs have in common? Answer: They are widely regarded as the oldest clubs in respectively England, Scotland and Wales.

Of the three the odd one out is Tenby. Not only is it the only one not to have the Royal prefix but it is also the only links course of the three.

Being the Principality's "Elder Statesmen" however has not prevented Tenby from being one of the most go-ahead golf clubs and a visit to the holiday town course on the south west coast reveals some forward-thinking and no little investment.

Everywhere you turn the club born in 1888 is active with a new clubhouse development well under way, three new holes edging their way to readiness and a maintenance unit boasting some of the newest and finest turf maintenance equipment – the club recently took delivery of the UK's first Kubota Super B Series compact tractor, supplied

by AM Garden Services of Caerfyrddin.

It is the fact that the club has such a positive philosophy that leaves you confident that the erosion problems which Tenby shares which most of the UK's links courses will be overcome.

"The erosion is in two areas – coastal and soil," explained Head Greenkeeper, Chris Jenkins, who has been at the club since the early 70s.

"It is a very tight golf course, you'll not find a tighter golf course in Wales," he said, and the point was made when a look at the construction work outside the clubhouse revealed sand foundations topped by no more than an inch of top soil.

"The fairways lack a depth of moisture and nutrient retaining top soil, a problem which can only be properly addressed by levelling them and adding good quality top soil to encourage a good sward of grass," said Chris.

The coastal erosion perhaps is the more pressing and no more is it apparent than on the magnificent stretch of land earmarked for one of the three new holes.

"Since 1993 we have had a coastal erosion committee and the club has been trying to act as a catalyst to get other concerned members of the community involved," explained Peter

Chris Jenkins, left, on the beach at a point where the erosion is particularly bad. Top picture – taken from the tee on one of the new holes – shows how the sea has eaten into the course

Geoff Pearson, Tenby secretary, left; Chris Jenkins and Peter Williams, chairman of green



Williams, the club's Greens Chairman. "We don't want to lose part of the golf course."

Consultants were brought in and produced a report to show how the erosion was becoming an increasing problem. Over the last 70 years at least 50 yards, including an entire bank of sand dunes, has been lost to the sea.

"There is already water encroachment on the golf course when there is a storm and it is hoped that a topological study can be carried out to establish where the flood channels are should the sea water break through.

"The problem is that erosion doesn't happen at half a metre a year. When you have a major storm you might lose a lot all at once," explained Peter.

"We know we are going to be in for a third of the bill for the work which has to be done but there should be European and Welsh Office money to help," explained Club Secretary, Geoff Pearson.

"The golf club is a major attraction in Tenby with many people visiting the town to play here," explained Geoff, who noticed a fall off in green fees on the strength of the major oil spill last year which, although thankfully missing the golf course, left an odour which hung over the area for quite some time.

The problem faced is that the erosion is constantly changing and that another series of reports may be required to up-date the position.

"Hopefully they will execute some sort of emergency measure, perhaps by dumping rocks at a place where the erosion is at its worst," said Peter.

Like so many other courses Tenby also has a rabbit problem and Chris has recently introduced a rabbit control policy with two people going out in the evenings to shoot them.

"It is not unusual for them to shoot as many as 60 in a night. Until recently there wasn't a cull and the rabbits were so tame they would come right up to the golfers," explained Chris.

If everything goes according to plan Tenby could be one of the very few 21 hole golf courses in the world.

The current layout involves 15

traditional links holes and three, on the other side of a railway line, are more semi links.

"The Welsh Golfing Union put it into our minds because, although we already hold events up to a certain level including the ladies Amateur and the Welsh Open Stroke-play, they would very much welcome seeing the new holes turn the course into a full links course before we can attract events like the Home Internationals," explained Geoff.

Unusually it would not mean 18 holes plus three practice holes but something much more than that.

"The course consists of many loops of three so we will be able to close three for maintenance in the winter and still carry on with a full 18," explained Chris.

"The main course will consist of the full 18 links holes, though," he added.

Looking at the land which has already been roughly laid out for the new holes it is easy to see why they are so keen to complete the job. Ironically the one hole which is most at risk from the erosion is one which would make any golfer lick his lips. A dogleg right, from the back tee it involves a drive almost over the magnificent beach to a tight landing area before a middle iron to a green cut out of a dune.

"We will ask the club's management team for its comments on tees, fairways and type of green etc and it would be our recommendation that we should hire an architect to liaise with the greens committee and come up with the initial drawings and costings. Then it is up to the members whether they want to invest the

money to go beyond that," said Peter.

"A large part of the land is under the Nature Conservancy Council and we would have to get approval for our plans from them and once we have them we would apply to the R&A for a grant. The R&A encourages the development of new links type holes, the stipulations being that they are properly costed and architect induced."

The club used its VAT windfall to buy a third of the course so that they now own two thirds of it – the remaining third belonging to the MOD which uses it as a firing range, and is currently using Sports Council money for the new £200,000 clubhouse development.

The excellent financial planning which goes into the club extends to the club's machinery.

"Over a five year period we are up-dating all our machinery," explained Geoff.

"In the past if something went wrong with a machine we were suddenly faced with a huge bill to replace it and had to wait for the committee to decide whether to replace it or not. It was all done out of whatever cash was available. Now we have a properly costed plan of machinery capital investment."

It is that type of thinking which has seen Chris have some excellent new equipment to use on the course.

"The new Kubota Super B tractor is superb," enthused Chris. "It is extremely powerful but also light weight which helps with regard to the erosion problems and also means we can take it onto the greens, although I

wouldn't advocate it for everyone's greens. It also has a strengthened rear section so a lot of our equipment can go on the back"

The Super B boasts an environmentally friendly engine which has passed the California State Emissions regulations regarded as among the toughest around.

Tenby may be the oldest golf course in Wales but its energetic forward-looking approach and the way in which it tackles problems is a model for many of its younger colleagues.

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How to get the message across

World wide web, multimedia and e-mail have become buzzwords of the 1990s. If you haven't got a mobile phone, a computer with a modem or an internet service provider, you're told you are out of touch and likely to be missing out on vital developments taking place somewhere on the information superhighway.

Communication is what it's all about and there is little doubt that the world is becoming smaller, figuratively speaking, thanks to rapid advances in computer technology, telephone networks and the associated electronic wizardry.

Our ability to transmit in seconds a document or picture to someone on the other side of the world would baffle our great-grandparents. But what about communicating within our own workplace?

There is a fundamental need to provide information to other people within a golf club. No matter whether you are a club employee, official, greenkeeper, member or visitor,

communications can only help improve the running of the club and the education and understanding of the people involved with it.

While many clubs produce regular newsletters for members, there is an accompanying need for the greenkeeping staff to keep everyone informed about the work taking place on the course and matters which affect all playing the game of golf.

Such information does not have to appear on a frequent basis, just sufficient to keep members and others informed about course maintenance and associated work and developments which will benefit from being brought to the attention of a wider audience.

So how do we get our message across?

Written information is by far the most effective as it is permanent and can be read at any time convenient to the recipient.

For those greenkeepers who do not wish to produce their own bulletin, the simplest method is to provide details to the person compiling a members' newsletter. If this is not possible, then get the information typed up into a single or two-page sheet which can be pinned to the club notice board or

playing of golf and the work being carried out on and around the course.

Compilation of any greenkeepers' newsletter should, of course, take place in consultation with those committee members or officials responsible for greenkeeping matters at the club. There is no point in alienating someone who should be an ally and who could be of assistance in producing such a bulletin. After all, the chairman of greens often has a message to get across to members which will be very similar to that of the course manager or the head greenkeeper.

Appearance of any bulletin or newsletter is all important. Unless you have access to desk-top publishing (DTP) facilities, most newsletters will take the form of one or more typed A4 pages produced, at best, by a word-processing computer.

If possible, lay the words out in two columns as this will be easier to read and go for a type size a little larger than the type used on this page. If you are using a computer, you should have the ability to introduce different type styles which will help grab the reader's attention and also differentiate between each article.

Always use a headline to introduce each item, which should be short, snappy and provide just enough information to tell the reader what they need to know. If the subject interests the reader, then they can always seek out further information if required.

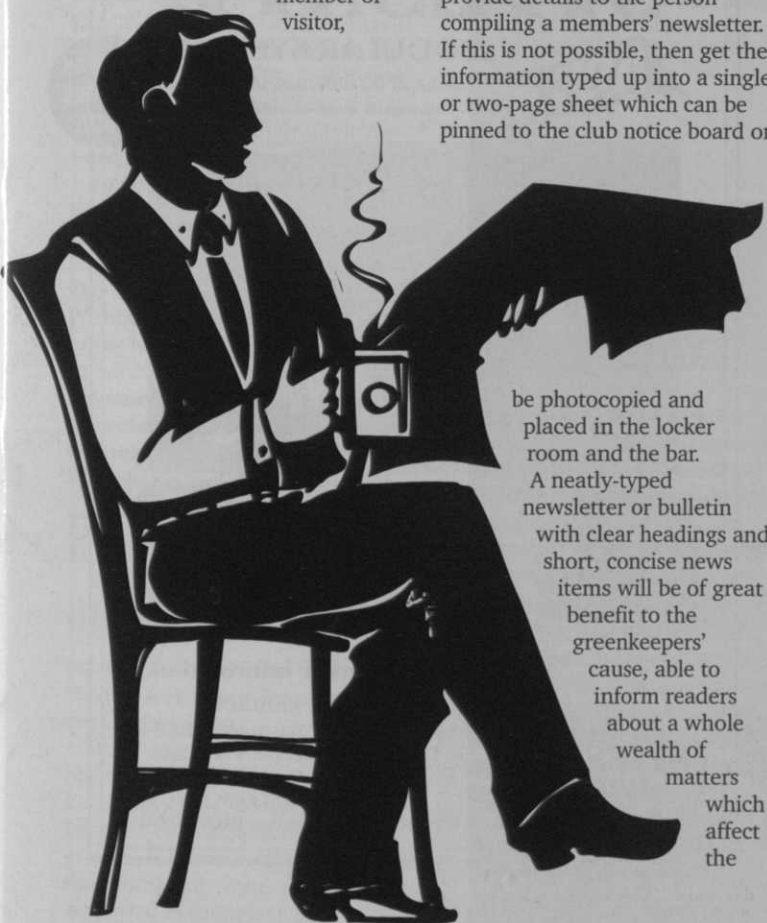
The most advanced DTP systems allow photographs, logos and drawings to be scanned in to the computer and positioned within the text to illustrate an article or news item. If you want to use photos or pictures but can't justify a scanner, then a photocopy can be acceptable but be aware that the original quality will be reduced.

Never be frightened to ask for assistance. If the club produces its own newsletter, seek help or advice from the person who puts it together. Alternatively, take a look at local newspapers and magazines for ideas. You could also talk to the Editor of *Greenkeeper International* who

will be pleased to provide suggestions on style and appearance.

Content is another matter altogether. What, you might ask, should I be writing about for a greenkeepers' bulletin? Listed below are 10 suggested subjects or topics which could be looked at during the year. Prompted by this, you should be able to generate many more ideas. As stated above, there is no need to write an essay – simply give the facts and leave it at that.

- Introduce the greenkeeping team, their background and experience if relevant, education and their specific responsibilities on the course.
- Write about the turf maintenance programmes which will be carried out over the coming months and how they will affect play.
- Provide regular updates on progress with course developments such as new bunkers, reshaped fairways, additional tees, etc.
- Give advance warning of the winter measures that will be introduced on the course highlighting special measures affecting any specific area.
- Introduce new machinery and equipment purchases, why they have been bought, how much they cost and what they will help you achieve.
- Introduce new pesticides, fertilisers and grass seed mixtures that will be used on the course. Tell people where they are to be applied and why.
- Write about the environmental aspects of the course, highlighting any specific features such as wildlife habitats and rare or unusual plants and trees.
- Highlight the importance of replacing divots and repairing pitch marks by costing the time and materials used by staff to do the job.
- Explain in detail some of the tasks you have to carry out on the course, why they are needed and what the alternative would be. Hollow coring, top dressing and spraying are three good examples with which to start.
- Remind golfers of the safety points which need to be observed during play, especially when staff are out on the course.



be photocopied and placed in the locker room and the bar. A neatly-typed newsletter or bulletin with clear headings and short, concise news items will be of great benefit to the greenkeepers' cause, able to inform readers about a whole wealth of matters which affect the

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AD REF 56

First class competition is a credit to us all

Through *Greenkeeper International* I would like to thank Miracle Professional Products for sponsoring the Miracle Professional Premier Greenkeeper of the Year Award. I had a very enjoyable time at the finals at Aldwark Manor where Miracle men Richard Minton and Roger Mossop, with the help of Pat Murphy, looked after us really well.

I would also like to congratulate Cedric on becoming the Miracle Professional Premier Greenkeeper of the Year. After meeting him and discussing views with him it is a title he thoroughly deserves. It was also great to meet the other finalists and discuss greenkeeping over a beer (Hugh and Pat. Hope you recovered OK).

I also took the opportunity to look round the BIGGA offices to meet the hard working girls, discuss the magazine with Scott MacCallum and see first hand the problems they are having with the lack of space. Hopefully they will manage to sort something out in the near future.

Once again sincere thanks to all and it is a competition which I would recommend to anyone out there to take part in, and if you know a greenkeeper doing a first class job then put their name forward to your Section Committee.

Finally I would like to thank my chargehand Robbie Allan and all the rest of my hard working staff and also Area Officer, Sandy Scott and Client Officer David Grant. Without their support I would never have been able to progress so far in the competition.

Stewart McBain - Second in Miracle Professional Premier Greenkeeper of the Year.
Hazlehead and Balnagask GCs

Professionals are spoiled

In reply to Alistair Connall's "Hung Drawn and Quartered" in the October issue.

From my own opinion, and having visited these so called PGA European Tour courses - most have not even achieved one year's growth, it becomes apparent that the European Tour seems only interested in money.

To put it another way, they are damaging the image of the greenkeeper and at the same time giving club golfers sub-standard courses.

The professional of today is spoilt from having played too many manicured American type courses and is waited on hand and foot from the time he arrives at the tournament until such time that he picks up his prize money. In between that he has destroyed the course with criticism.

It seems to me that the old ruling "Play the course as you see it" is dead and gone.

As for Mr Connall, I would not worry too much about what has been said with regards to the course by the pros, I only hope those in authority stand behind you.

Have a look at some of the courses built by golf professionals. They seem to forget that we are in a European climate with European soil conditions and that we do not have the man power we would dearly like. Perhaps if they were more aware of these things they would appreciate our position a bit better.

Ronald Kennedy
Course Manager
Bayreuth GC
Germany

On course

The Ohio State University International Golf Course Turfgrass Short Course, held in Florida, saw 27 international turfgrass students from Australia, England, Ireland, Portugal, Scotland and Wales attending the two day workshop on turfgrass management. After completing a one year internship on golf courses in the United States, the students will return to their home countries to finish their college education. Sponsors of the short course included the Ohio State University International Agricultural Intern Program, CIBA, Finelawn Research, Inc., ISK Bioscience, Rhône-Poulenc, Terra International, Zeneca, and the Golf Course Superintendent Association of America (GCSAA).



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YOU CAN'T FIGHT NATURE

BY GUY LONGSHAW

Greenkeepers are increasingly looking at ways to improve the quality of turf surfaces in a time of increasing demand from golfers while at the same time attempting to reduce the use of chemical fertilisers and pesticides

They have moved away from the heavy feeding and watering which has in the past produced "Poa puddings" and are now using more efficient and frequent aeration, top-dressings and trying to be more sparing with fertilisers and irrigation water.

Reducing pesticides

Many greenkeepers are keen to reduce pesticide use for a variety of reasons, pressure from the environmental lobby, cost, inconvenience of dealing with hazardous chemicals and increasingly because of the realisation that fungicides kill beneficial soil micro-organisms as well as the pathogens (disease-causing fungi) they are intended for.

What greenkeepers are often battling against, particularly in the case of older soil based greens, is an imbalance between the processes of "production" of new grass and "decomposition" of dead grass. See fig 1.

Compaction, poor surface drainage and the use of fungicides can all reduce beneficial soil bacteria and fungi, thereby reducing the amount of natural decomposition occurring in the rootzone. Fertilisers are used to increase growth, so it is easy for an imbalance to occur, with dead organic matter (thatch and/or soil organic matter) tending to accumulate in the greens.

Vicious cycle

The greens can then get stuck in a vicious cycle which is difficult to break. The turf environment favours diseases such as fusarium, so fungicides are regularly needed which also kill off beneficial bacteria and fungi and upset the relationship between microbial decomposition and plant growth.

Symbio began working on ways to address this imbalance in sports turf in the UK in 1990 but the development story begins way before this in the early 1980s with a team of scientists working with the French Ministry of Agriculture. The way of thinking behind their

research, has been adopted by greenkeepers in several situations.

Mediterranean "sewer"

The original team was looking at pollution in the Mediterranean and began research to investigate the natural processes of decomposition of the pollutants. The plan was as follows:

1. To identify the species of micro-organisms responsible for breaking down the various organic substances and to culture and refine these strains.
2. To deliberately introduce these strains into to the waste treatment plants to boost their efficiency and improve effluent quality.

Stage 1 was very successful but Stage 2 led to what could be described as an "environmental problem". The introduced bacteria had problems with their new environment insufficient or variable aeration, fluctuations in nutrient levels, difficult pH conditions and if that wasn't enough - toxic chemicals entering the

system which were added to control pathogenic microbes.

If you are beginning to wonder what this has to do with greenkeeping think of fig. 1 as a chart showing just some of the "environmental factors" affecting bacteria and fungi in a rootzone.

"Biofixation"

The research team then began looking at ways of protecting their "bugs" in this hostile environment in the form of various mineral substrates introduced with the micro-organisms under laboratory conditions.

By adapting various naturally occurring minerals the team began producing mineral "carriers" which could protect and enhance the activity of the bugs. By the late 1980s this had led to the patenting of the process called "Biofixation".

The scientists now had a highly porous honeycomb-like mineral structure and a way of attaching their beneficial bacteria and fungi within the internal spaces.

"Superbugs"

The 'Biofixed' micro-organisms had huge advantages over free bacteria and fungi - they were very effective at out-competing 'undesirable' bacteria (such as filamentous bacteria which can cause problems in sewage works); they formed into robust colonies despite harsh environmental conditions; they degraded their "food" more rapidly and, crucially, they could withstand biocides at up to 200 times the concentration sufficient to kill the same "free-floating" bacteria and fungi.

By 1988 companies across Europe were being set up to market these "Biofixations" and expand the product development effort.

In 1990 Symbio was launched in the UK at a time when the research had increased to take "Biofixations" into several new areas such as degrading specific industrial wastes, decontaminating urban lakes and ponds, and cleaning up polluted soils.

At this stage, the research team now had a store of industrially useful strains of bacteria and fungi which they were able to "Biofix" and target particular environmental problems. The list of effective strains which they could 'fix' was also growing all the time.

