

the Golf Course

MARCH 1990



Design

Donald Steel advises that new courses need not be expensive

European Tour

An interview with Bruce Jamieson
Director of Agronomy

Development

Duncan Gray takes the High Road to Loch Lomond

Maintenance

Jim Arthur discusses the problems of increased wear

Fertilizers

Up-date on products for the new season



**INSTITUTE OF
EUROPEAN
GOLF COURSE
MANAGERS**





APPLICATION FORM

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the Golf Course

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RÉSUMÉ



FRENCH

Dans ce numéro, nous présentons deux nouveaux terrains de golf, l'un au coeur même de l'Angleterre o] un fabricant de matériel électronique de Daventry a construit un club privé intéressant sur un terrain qu'il avait acheté à l'origine pour faire courir ses chiens et l'autre, sur les rives d'un célèbre lac écossais.

Hellidon Lakes, dans le Warwickshire, a été construit sur le dessin de David Snell, ancien joueur de tournois de golf, qui, jusqu'à l'an dernier, était le golfeur professionnel du Lindrick Golf Club.

Le terrain sera jouable à la fin de 1990 et sera doté d'un pavillon avec vue sur le grand lac. Contrairement à la plupart des clubs privés de Grande-Bretagne, le 'clubhouse' comprendra également 20 chambres pour membres et invités. Le club a été ouvert officiellement le mois dernier par Bobby Charlton, le footballeur international anglais.

En Ecosse, les travaux ont commencé, sur les rives du Loch Lomond, sur un parcours de 36 trous, dessiné par le professionnel de compétition américain, Tom Weiskopf, et l'architecte Jay Morrish. Construit dans un parc boisé, le terrain appartient au Chef de l'une des plus grandes familles écossaises, le Clan Colquhoun.

Il est prévu que ce nouveau complexe de golf deviendra l'un des plus beaux parcours d'Ecosse. Le parcours High Road ouvrira le premier; le parcours Low Road sera construit plus tard.

Jim Arthur, qui contribue @ notre revue et qui est membre du R & A Greenkeeping Panel, discute ce mois-ci des problèmes d'usure sur les terrains de golf. D'après lui, le nombre croissant de golfeurs 'd'un jour', qui n'appartiennent pas à un club, cause plus d'usure aux tees, aux greens et aux fairways que les entreteneurs de parcours n'arrivent à réparer.

Mr. Arthur aimerait voir une restriction du nombre de parties jouées et l'interdiction des chariots. Il reconnaît que ce n'est pas le chariot qui cause les dommages au gazon mais les golfeurs qui suivent comme des moutons la même piste de trou en trou.

Nous faisons part aussi de la première conférence scientifique pour l'étude des effets du type actuel de club et de balle de golf ainsi que des problèmes qui affectent les golfeurs au niveau médical. Cette conférence doit se tenir cet été à l'université de St. Andrews.



SPANISH

En este número tratamos sobre dos nuevos campos de golf, uno en el corazón de Inglaterra, en donde un fabricante de equipo electrónico ha construido un interesante club privado en un terreno que originalmente adquirió para que hicieran ejercicio sus perros; el otro, en las orillas de un famoso lago escocés.

Hellidon Lakes en Warwickshire se ha construido según un diseño de David Snell, que una vez fue jugador en competiciones, y quien hasta el año pasado era el jugador de golf profesional del club en Lindrick Golf Club.

Será posible jugar en el campo a partir de su inauguración a fines de 1990, con una casa-club que da al lago mayor. A diferencia de la mayoría de clubes privados de Gran Bretaña, la casa-club también incluye 20 dormitorios para socios e invitados. El mes pasado, el futbolista internacional Bobby Charlton inauguró oficialmente el club.

En Escocia, se han iniciado los trabajos en un campo de 36 hoyos en las orillas del lago Lomond según el diseño del jugador profesional de competiciones, Tom Weiskopf y el arquitecto Jay Morrish. Construido dentro de un parque poblado de árboles, el terreno es propiedad del Jefe de una de las familias líderes en Escocia, el Clan Colquhoun.

Se espera que este nuevo complejo de golf se convierta en uno de los mejores campos en Escocia. El campo High Road abrirá primero y luego se construirá el campo Low Road.

Nuestro colaborador, Jim Arthur, miembro del panel de mantenimiento de "green" R & A, trata este mes sobre los problemas del desgaste en los campos de golf. Piensa que el enorme aumento en el juego por parte de los jugadores de un solo día, que no pertenecen a un club, causa a los "tees", "greens" y calles más daño del que pueden controlar los encargados.

Al Sr. Arthur le gustaría ver una restricción en el número de partidos que se juegan, así como una prohibición de carritos sobre ruedas. Acepta que no es el carrito el que causa el daño al césped, sino los jugadores, los cuales al igual que ovejas, siguen las mismas rutas de un agujero a otro.

También informamos sobre el anuncio del primer congreso científico para estudiar el efecto del diseño actual del palo y de la pelota, así como de las condiciones médicas que afectan a los jugadores de golf, a efectuarse en la Universidad de St. Andrews este verano.



GERMAN

In dieser Ausgabe heben wir besonders zwei neue Golfplätze hervor, einer im Herzen Englands, wo ein Daventry Elektronikhersteller einen interessanten Privatklub auf Land gebaut hat, das er ursprünglich kaufte, um seine Hunde spazierenzuführen, der andere an den Ufern eines berühmten schottischen Sees. Hellidon Lakes, in Warwickshire, ist nach einem Entwurf von David Snell, eines ehemaligen Turniergolfspielers gebaut worden, der bis letztes Jahr der Berufsgolfspieler des Klubs im Lindrick Golfklub war.

Der Golfplatz mit einem Klubhaus, das den Hauptsee überblickt, wird Ende 1990 für das Spiel freigegeben. Im Unterschied zu den meisten Privatklubs in Britannien wird das Klubhaus ebenfalls 20 Schlafzimmer für Mitglieder und Gäste umfassen. Der Klub wurde letzten Monat offiziell vom englischen internationalen Fußballer Bobby Charlton eröffnet.

In Schottland haben die Arbeiten an einem 36-Loch-Golfplatz an den Ufern des Lomond Sees nach dem Entwurf des amerikanischen Tourenberufsspielers Tom Weiskopf und des Architekten Jay Morrish begonnen. Das im Inneren eines bewaldeten Parks liegende Land gehört dem Oberhaupt einer der führenden Familien Schottlands, des Clan Colquhoun.

Man erwartet, daß dieser neue Golfkomplex einer der feinsten Golfplätze in Schottland wird. Der High Road Golfplatz wird zuerst eröffnet, und der Low Road Golfplatz wird später gebaut.

Mitarbeiter Jim Arthur, Mitglied des R. & A. Grünverwaltergremiums, bespricht diesen Monat die Probleme der Abnutzung bei Golfplätzen. Er glaubt, daß die riesige Spielzunahme durch die Golfer mit einer Tageskarte, die keinem Klub angehören, eine größere Abnutzung bei den Tees, den Rasen und den Fairways verursacht, als die Grünverwalter bewältigen können.

Mr. Arthur sähe es gern, wenn die Zahl der gespielten Runden begrenzt würde und man auch die Caddys mit Rädern verbannte. Er gibt zu, daß es nicht das Caddy ist, das den Schaden beim Rasen verursacht, sondern die Golfspieler, die wie Schafe derselben Route von Loch zu Loch folgen.

GREENSIDE COMMENT

Some four months have passed since the R & A Document 'The Way Forward' was published and widely distributed to golf clubs in Britain.

It is perhaps surprising that despite its depth of circulation and the resultant press coverage, the amount of discussion in the place where it matters - the Club Committee, has been somewhat meagre. Enquiries among a number of golf clubs has produced the reply that the document has been received, but they have not as yet debated the issues.

Where clubs have grasped the nettle, there has been, what could be described as a jaundiced view expressed over the section entitled - The Club Committee Structure, which probably reinforces the findings of the Greenkeeping Panel that the majority of golf club committees in the UK are old fashioned, resistant to change, using committee membership as a means of achieving a place in the hierarchy.

Few clubs can claim to have a streamlined management structure. Although there is a trend to appoint full time Manager/Secretaries, the majority soldier on with a willing retired member, whose responsibilities are rarely matched by the degree of authority to carry them out.

Day to day decisions often become the subject of debate at the next full meeting of these autocratic and autonomous bodies, whose principle aim is to keep capital expenditure within the limits of annual subscriptions, adjusted to the increase in the retail price index.

No committee relishes calling an extraordinary meeting to propose a subscription increase, because they have to show cause for its justification increase. Attend any such meeting and it will be packed with a majority of the club elders who are quite content to see their day's out on a course shortened to suit their game at a price per round about equal to the tea and sandwiches bought in the club-house.

Fortunately not all British golf is dominated by this malaise. A glance around one's own area of play will spot the club whose foresight has already led to major investment and improvement. These courses will reap the benefit at the expense of their laggardly neighbours.

Golf, in stock market terms is on a high. Now is the time to improve the assets in the private club, both on the course, the equipment, facilities and staff development. New courses are coming on stream at an increasing rate, all with commercial

backing. It from this quarter, competition for membership will emerge. Those that cannot match value for money golf will be returning their fairways to grazing sheep.

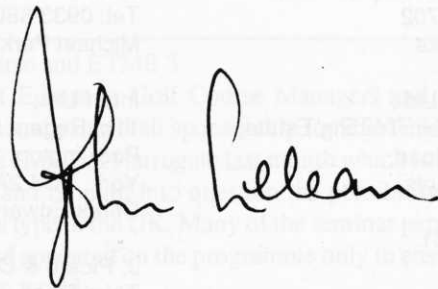
Turning to the main theme of 'The Way Forward', mention must be made of the condemnation of our most prolific grass species - the dreaded poa annua. Committees who have studied the relevant parts of this document have commented that much has been said about the encouragement of bent/fescue greens on the championship courses, the majority being links or heathland where such grasses can thrive, albeit by using approved cultural techniques.

Where, they ask, is there any advice within the document for the majority of inland golf courses, many built 70 to 80 years ago to the approved specifications at the time, designed by names that are now legend in terms of golf course architecture.

These are the golf courses close to centres of population where pressure from increased play by both members and green fee paying visitors has stretched turf maintenance to the limit. Although a bent/poa green surface is possible, to find fescues, is like looking for the four leafed clover.

Whilst accepting that the R & A Greenkeeping Panel are expressing the purists view it must not be forgotten that the backbone of golf is now played, summer and winter on less than ideal courses. We would all like mud free fairways, firm fast greens and a close sward for the tees, but the answer is not the elimination of Poa Annua nor is it practicable or possible, though reduction should be the aim.

Perhaps the next edition of 'The Way Forward' could turn its attention to those of us who are just as keen as the privileged links golfers, but are limited in our weekend pursuits to inland courses built on less than ideal sites, with or without the fescues.



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BETTER PUBLIC RELATIONS

As the new season of golf approaches it is a particularly opportune moment to reflect on the events of the year and the steady advance being made by golf as a sport and the effect it will have on our profession. Many more people will be playing golf this year and it is important that the role of the golf course manager and head greenkeeper are understood and appreciated. The IEGCM can help to do this by better and more effective use of public relations.

The main objective in our effort will be to accurately convey the facts about the course manager's activities. The many golf events now televised bring to the attention of several millions of people the attractive environment of a golf course. By the use of the media with well targeted press releases and an expansion of the contact with the golfing media the IEGCM will be attempting to accomplish a much better understanding of how the golf course manager works.

The understanding we seek however, will not be gained in a short time. Despite the desire for instant results the way forward towards improving the awareness of fact regarding the golf course manager is a long term one. Somewhere along the way we can expect to meet the occasional setback. Many in our profession will have been subjected to unwarranted criticism for a number of reasons. Much of this should be and can be countered with relevant and forceful facts. However, sometimes this is not always possible or even wise because of heat of the moment argument, circumstances or lack of access to the right sort of information at the time. This does not mean that golf course managers and head greenkeepers should adopt a head-in-the-sand posture towards criticism.

The IEGCM and its officials will strive hard towards an effective relationship with the press, golf club officers and organisations involved in golf. Our aim also will be to provide members with continuing back up service in order to enhance the overall atmosphere in which they can achieve professional success. This path towards a better understanding and a higher image in the golfing community will not come overnight. It will only be achieved by a strong resolve, a desire to succeed through working together as golf course managers and by membership of the IEGCM which is already bringing together the many disciplines involved in the golf courses of Europe.

IEGCM, the Golf Course and ETME 3

The principals and committee of the Institute of European Golf Course Managers and the publisher of the Golf Course magazine wish to announce that their sponsorship for ETME 3 has been withdrawn. This decision was taken during ETME 2 at Harrogate last month which in the opinion of the IEGCM received limited support and brought into question the possibility of running a highly successful trade exhibition of this type in the UK. Many of the seminar papers presented had little relevance to UK conditions and appeared on the programme only to ensure reciprocal invitations to speak in other parts of the world.

With our future looking towards Europe the Institute and the Golf Course magazine are currently involved in discussions that offer more realistic opportunities on the Continent and which are aimed at bringing together all those involved in the development, construction and management of golf courses.

OUT AND ABOUT

CUSHMAN MOWERS IN NEW CATALOGUE

The newest catalogue covering the full line of Cushman R Front Line Mowers has been published by Cushman, Inc.

The full-colour catalogue covers the 808 and 809 gas-powered, liquid-cooled engine models, the 804 air-cooled gas engine Front Line and the 806 and 807 diesel-powered models. All models can be equipped with either 60-inch or 72-inch mower decks, which have pin-adjustable mounts for eight different mowing height positions.

The catalogue also illustrates the new Cushman Grass Caddy attachment with special Top Flow deck for positive pick-up of clippings and debris.

Also shown is the Cushman Core Destroyer attachment, and the full range of accessories for the Front Line tractors, including snowblower, snow blade, high-output heater/defroster for liquid-cooled models, ROPS and two cab enclosures, blower, flail mower and tine rake de-thatcher.

For a free copy of the new Cushman Front Line Mower and Accessories catalogue see your local Cushman dealer.



THE VICTA RYAN CHANGEOVER

Ryan turfcare equipment will no longer be handled by Victa (UK) Ltd, after July. Ransomes the new owners of Ryan, will arrange their own distribution.

Victa's Managing Director, Bill Brooks said, "To ensure that our customers are not inconvenienced, we have negotiated with Ransomes for spare parts to be available from our dealers until June 1991. Every effort will be made to make the transition as smooth as possible.

For the few months, until the change over, Victa is still very actively involved in promoting the Ryan machines.

KEITH CLEVERLY - A TRAGIC LOSS

It is with sadness we report the untimely and tragic death of Keith Cleverly, one of the greenkeeping profession's most ardent supporters, a man who inspired enthusiasm from not only those he worked with, but all within the turf grass industry. To many, including the staff of The Golf Course, Keith was a valued friend as well as a business associate, an additional reason for the sadness felt in the departure of someone so young at the bloom of his career.



Keith joined ICI in the early 1970's and began his career in one of the development trials teams based at Jealott's Hill, the ICI Agrochemicals Research Station. His potential was soon noticed and in the late 70's a successful commercial career started as a technical sales representative for ICI Agrochemicals UK Sales in the Bedford area where he made many friends within the agricultural community.

It was in the amenity and public health business that Keith Cleverly really made his mark. In 1983 he launched a new business venture, ICI Professional Products. Within six years this department grew rapidly under his stewardship to become leading suppliers of pesticides, fertilizers and pest control products, to the amenity turf industry.

Keith was also involved in many industry committees with the unselfish aim of raising the standards and highlighting the valuable contribution that these, then 'Cinderella' industries, could contribute to the overall pesticide market.

In February 1989 Keith won the promotion

he so justly deserved, leaving a healthy UK Professional Products business to develop the European markets for ICI Public Health. Unfortunately he was unable to meet his new challenge as, tragically, within one month of taking up the appointment, he was taken ill. Despite two major operations, his determination still showed through. Sadly Keith's brave fight, which was an inspiration to us all, ended peacefully on Saturday 13th January.

Keith Cleverly only 37, will be missed by us all, both in business and socially particularly on the golf course where he was a determined and capable competitor. Our thoughts and sympathies are extended to his wife Barbara and his family.

KUBOTA HAVE LAUNCHED A NEW 40hp TRACTOR...

...it has integral power steering as standard and is particularly suited to turf maintenance needs in the golf, sports grounds and local authority markets.

The L3250's additional horse-power, heavy duty dual clutch and gearbox provides the extra power required for turf maintenance on banks and inclines, using the vertidrain or larger gang mower units. The improved linkage geometry also provides the operator with more than 100lb additional lift capacity.

The Kubota L3250 is lightweight giving less ground pressure and ideal for golf courses using special smooth profile turf tyres.

The mechanical shuttle transmission offers 8 forward and 7 reverse gears and creep speed as standard for vertidrain operations. The partially synchronised transmission enables the operator to bring the tractor up to full speed quickly and easily for road travel.



BAGCC - COMMENTS FROM THE CHAIRMAN BRIAN PIERSON

The occasion of my election as Chairman of the British Association of Golf Course Construction provides me with a reason - or excuse to look back on 25 years of Golf Course Construction and to compare conditions at the start with those which exist nowadays.

It may come as a surprise that today there is less divergence of opinion between the main architects and contractors on basic construction than there was at the start of the golf course boom of the mid sixties.

It was then the exception rather than the rule for Architects to specify that greens were built on underdrained stone carpets. Certainly most specifications stipulated the use of local soil topped with 2" of seed-bed compost!

Greens were built in isolation from their environments and the imaginative marrying-in of greens with wide gently contoured surrounds was almost unknown. There was none of the current emphasis on keeping constructional machinery away from vulnerable and very important approaches.

Some specifiers were still advising the use of perennial ryegrass for fairways and only minimal attention was given to construction and design.

What a contrast today! There is almost universal agreement that both greens and

tees must be built on drainage rafts, properly blinded and with a uniform imported sandy soil root zone two mix.

Often entire courses from greens to rough are sown with basically the same fescue/bend seeds mixture, variations occurring only regarding seed rates and perhaps the use of cheaper strains for the rough.

Of course it costs a great deal more to build a golf course today than 25 years ago - from which time there are however plenty of examples of quite satisfactory courses being built for less than £10,000. This is not only due to inflation, but much more to higher standards and more elaborate specifications, including full automatic irrigation.

However, a word of warning may be appropriate. If the need for more golf courses is to be met economically (which does not mean building cheap, bad courses) then money must not be wasted in enormously expensive earth moving operations. Nor must we overly rely on extensive water features, to create character.

Contractors have to build to architects specifications and none of us should be inveigled into accepting constructional standards which have no relevance to our climatic and soil conditions.

Sand greens! Will they ever work!

We, the contractors, have the experience and skill to make good courses to suit our Northern European conditions. It is depressing when inexperienced clients opt

for much more expensive specifications quite needlessly, just because they think if they pay much more they will necessarily get a much better golf course.

The need for more courses is not arguable. How to produce them is, but we should, I feel, be thinking far more about providing for the beginner golfer because if he starts on something better than golf in a field, I feel that the long term future of golf will be in much safer hands.

FRANCE HOSTS GOLF COURSE CONFERENCE AT DEAUVILLE

The French Federation of Golf are to sponsor the first International Salon of Golf Course Maintenance and construction to be held at the Parc des Espositions at Lisieux, near Deauville from 24th-26th November.

The exhibition and accompanying conference is expected to attract over 100 stands. The conference hall is large enough to house 600 delegates and there will be dual French/English translation facilities.

At the same time the French Golf Greenkeepers Association will hold their 5th meeting of members.

Deauville is an ideal venue for the event as the heart of Normandy has become one of the leading areas of France for the expansion of golf. New courses have recently opened at St. Julien, St. Gratien and Caen.

J.D. Greasley

LIMITED

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SCIENCE, MATHS AND MEDICINE INVESTIGATE THE GAME OF GOLF

Golf is to come under the eye of the scientists, physicians and psychologists at the First World Scientific Congress of Golf to be held at the University of St. Andrews this summer.

Already on the agenda of the expected 21 nation conference are studies in swing techniques, the psychology of the successful golfers, club and ball design, and bio-mechanical analysis of the strains and stresses exerted on the golfer's back.

Also to be discussed is the aerodynamic lift and drag of golf balls and the physical principles governing the swing mechanism on the long drive from the tee.

Those who have studied the physiological principles of "The Inner Golfer", know there is far more to shooting a par 4 in level figures than two shots to the green and two putts. How many of us have been told it is all in the mind?

You know the formula, relax, no tension in the arms, slow back swing, down and through the ball. As one golf psychologist says, "Back, wait - hit".

Similar, if less ambitious schemes to unravel the mysteries of the golf swing by a mathematical and scientific approach have not been very rewarding. Those of us who have been around the game for some time, might also remember the famous "Button Boys", the elite band of budding young professionals who were subjected to intense isolated coaching in a bid to turn them into super-stars.

* How many can remember today who they were or what they achieved?

However, the R & A who are reported to be sponsoring the congress to the tune of £25,000 are supporting the five day event because they want to find out, amongst other things, the effects of modern improvements in golf ball manufacture and club design with special reference to course architecture.

We hear Karsten Solheim has accepted an invitation, an excellent opportunity for him to explain his aerodynamic approach to the manufacture of Ping clubs. It has been reported that an aspect of his research was to drive at speed with a club head out of the car window.

The Director of the Congress, Martin Farally, who is also the head of recreation at St. Andrew University says, "The primary aim is to encourage and exchange ideas among scientists, golf course architects, coaches and physicians as well as those who play the game at all levels".

In the last few years we have seen balls that go further, cut free, slice resistant, illuminated for play in the dark and others guaranteed to impart more back spin.

Clubs now bear little resemblance to the spoons, niblicks and brassies with hickory shafts used by Taylor, Braid and Vardon. In little less than a decade we have been introduced to carbon and graphite shafts, metal heads for persimmon, heel and toe irons and copper beryllium as the present ultimate for performance.

To go even better, the Japanese have now introduced the Yonex range, where a set of irons and three woods will give little change out of £2,000.

Perhaps it is time golf was subjected to the scientific approach, otherwise the next step will be the electronically guided laser putter, with the accuracy of an Exocet missile. We already have one member in my club who putts like that - just imagine 50 more!

The Congress takes place July 9-13, registration by the 1st July, at St. Andrews University, fee £130.

* *For the record they were Brian Barnes, Tommy Horton, Mike Ingham, Iain Clark and Alan Ibberson.* J.E.L.

COLLINGTREE PARK PREPARES FOR TAKE-OFF

Collingtree Park Golf Club, the UK's newest five star tournament golf resort due to open in May has appointed John Cook from Henley as resident professional.

Still active as a professional player, his most recent successes include winning the 1989 Hennessy Cognac Clubs Championships in Sardinia and the 1988 Southern Club Professionals Championship.

One of the prime objectives of Collingtree Park is to offer business people a high standard of all-round service. John is particularly impressed by the use of golf buggies, just one aspect of the all-inclu-

sive package members will receive.

"It is an innovative idea which I have not come across at any other British golf course," he says. John will set up and organise the complex's unique Golf Academy, the most sophisticated golf practice facility in Europe, with a floodlit covered 16-bay covered driving range three challenging practice holes - two par four and one par three; a sand bunker and an immaculate putting green.

There is also indoor video to record and analyse members' playing techniques and a computerised custom-fit club centre to enable golfers to select the correct equipment for their game.

NEW TURF CONSULTANT

A new turf consultant has joined the staff of Inter Seeds Ltd., the amenity grass seed and wild flower seed specialists. Mrs Jennifer Waterfield will soon be seen around the South East of England offering help and advice.

Jennifer, joins Inter Seeds Ltd. from a major fertiliser company and her role will be to advise local authorities, landscape architects, landscape contractors, turf growers, sports clubs and golf clubs on the correct choice and use of grasses, wild flowers, fertilisers and biodegradable erosion control matting.



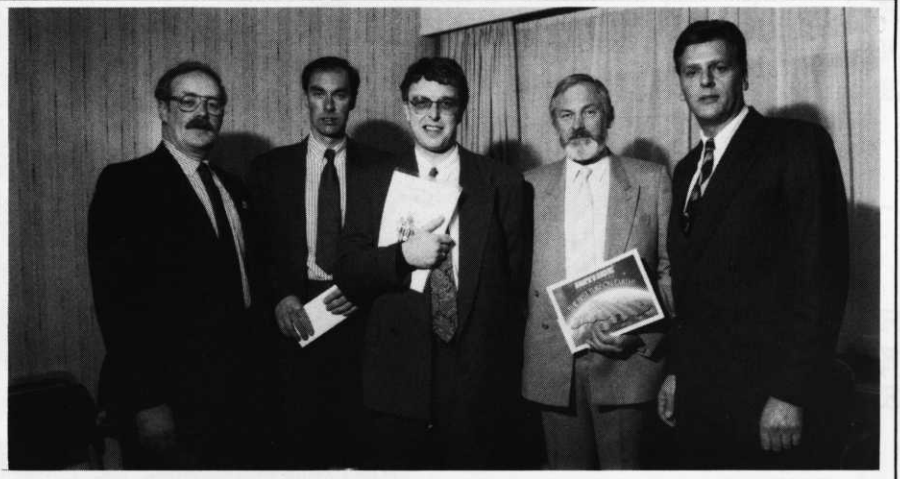
Jennifer Waterfield, Inter Seeds new turf consultant

OUT AND ABOUT

INTURF WINNERS

A trip for two to Orlando, was the prize won by Mr Larry Westlake of Hertford in a competition sponsored by Inturf. The convention lasts for six days and Larry plans to take this opportunity of a trip to the United States of America to visit Disneyland and enjoy the fabulous facilities Florida has to offer. Larry picked up his entry form to the competition at the Cavendish Hotel in Eastbourne, where Inturf was participating in the Annual Conference of the British Association of Landscape Industries.

Second prize went to Laurence Pithie, Course Manager at Michinhampton Golf Club at Stroud. His trip includes a guided tour around two Turfgrass Breeding Centres and two sportsgrounds in Holland. It also includes a weekend for two enjoying the sights of Amsterdam, plus spending money.



Inturf winners centre, with Alex Miller - IOG (left) and Derek Edwards, Inturf's managing director

A day at the races to include entry to the members enclosure, at Newmarket, champagne and £25 stake money went to Colin Jones, the recreation manager with

Welwyn Garden City Council. Inturf supply large quantities of turf from their East Yorkshire headquarters, to golf courses and for other amenity turf requirements.

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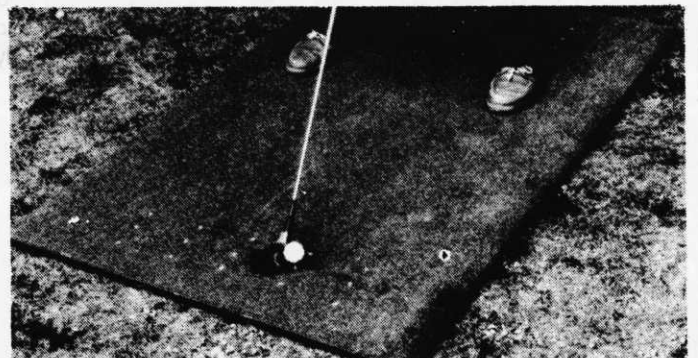
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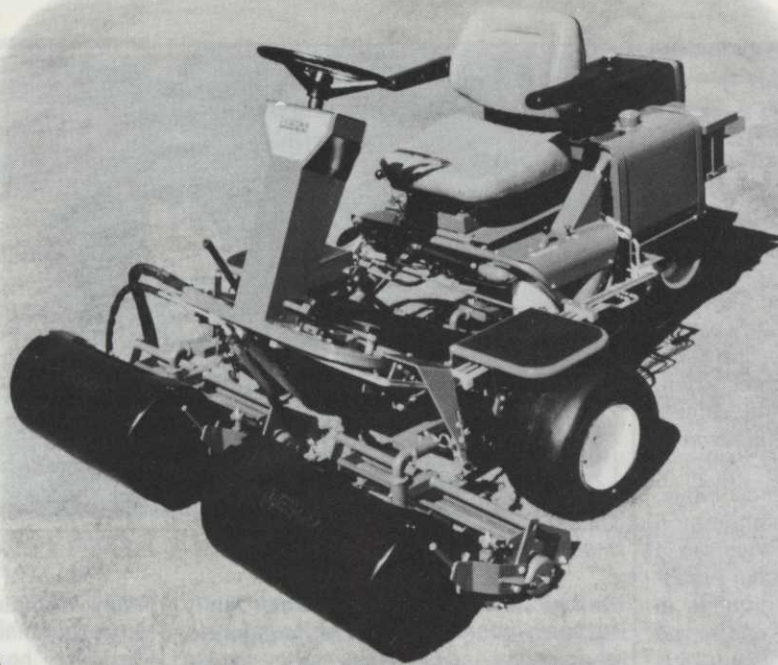
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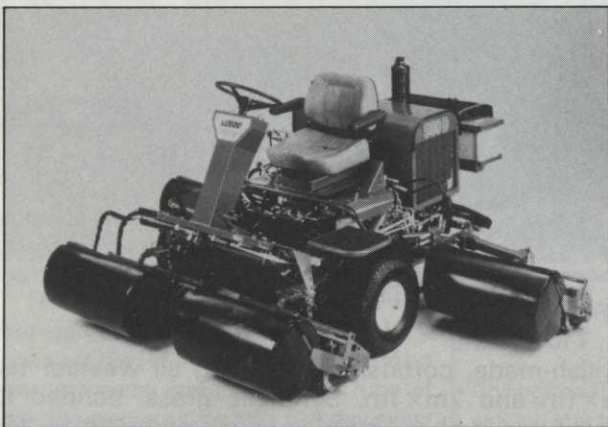
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OUT AND ABOUT

EMPLOYEE BUY-OUT AT TURFMASTER

The staff at grass machinery manufacturers Turfmaster, Lincolnshire, have bought their company from the previous owners, Harlow Agricultural Merchants.

Turfmaster is now an independent company with HAM retaining only a 20% share. HAM, of Bishops Stortford, Essex, were keen to reduce their stake in Turfmaster because the fit with the, "corn, seed and feed" business was poor. Equally Turfmas-

ter's managers and employees felt they were ideally placed to move the company forward into the 1990's.

John deGraft-Johnson, Turfmaster's chairman, says: "Product performance, quality and service are the key issues in the professional market. So employee commitment is paramount.

"In many companies these words are truisms without teeth. But in Turfmaster's case, the employees have backed their words with hard cash. The enthusiasm and dedication is total."

GRASS COSY

A revolutionary cover which speeds up the re-seeding process in the summer and protects the grass from frost in the winter, has been launched by Bristol-based international netting company Kerrypak Limited.

An ideal groundsman's aid and particularly valuable for use on greens and tees, the Tildenet Grass Cover is made of lightweight 85% high density knitted polyethylene, making it simple to move around and store when not required. It speeds up the germination process by retaining warmth and moisture, and protects the area from frost in winter.

Made of netting, the cover encourages uniform grass growth, and allows the grass to breathe. It also protects re-seeding areas from the wind, and pests such as birds and rabbits.

IMPROVEMENT TO JACOBSEN GREENS KING IV

The Jacobsen Greens King IV now comes with newly designed, easy on/off grass catchers as well as easier steering. The Greens King IV gives greens a smooth, beautiful finish. Its cylinders 'float' to follow ground contours. The patented steering action of the units virtually eliminates marking during turns. Cylinders lift with a convenient foot pedal, and stay level while raising and lowering to prevent scuffing. A 62-inch cutting width means 18 average-sized greens can be mowed in under four hours.

The Greens King IV (below) is the only triplex available with the patented Turf Groomer (R) greens conditioner, to make greens healthier and faster.



Linette Carter, Turfmaster's youngest employee, receiving from John deGraft-Johnson, Turfmaster's chairman, the certificate for the shares she has bought in the company

REDS GO GREEN IN MOSCOW

Following the success of Ferrosol Liquid Iron from Farmura in the European turf markets the Kent company have supplied 40 litres of Ferrosol to the organisers of a large Pop Festival in the USSR.

The Ferrosol was used in the Lufhniki Stadium, Moscow following a pop festival in August, televised worldwide.

The organisers were asked to ensure that the stadium's grassed areas looked healthy and green after the event. Several large areas of the turf were covered for some time and it was expected that discolouration would occur.

The Ferrosol Iron was used for greening the grassed areas applied through a Walkover sprayer which was also purchased for the event and sent to Moscow with the Ferrosol.

ICI APPOINT TWO NEW DISTRIBUTORS

ICI Professional Products have completed negotiations with two major companies to join their national network of specialist distributors. In the South East T. Parker & Sons (Turf Management) Ltd., Surrey provide increased representation and sales of ICI Professional Products.

Edinburgh based, Sports Turf Services at Newbridge, will provide added commercial expertise and increased impetus to ICI Product sales in Scotland and Northern England.

David Siddon, Sales Manager for ICI Professional Products told 'the Golf Course' "The appointment of Parkers and STS to our national network of distributors is part of our strategy of ensuring we have the best companies in the market distributing ICI Products to the end-customer, particularly golf greenkeepers."



OUT AND ABOUT

QUALITY PROMOTION

Charterhouse Turf Machinery, the company who introduced the Verti-Drain to Britain, have now complimented this revolutionary aeration equipment by expanding their range of turf culture equipment to include top dressing machinery, with the Bulk Dresser, a Green Dress and a unique Easy Spread.

Last month Charterhouse, launched their 1990 promotion campaign with an eight page full colour announcement in the *Golf Course*.

Asked why **the Golf Course** was **THE** magazine chosen to head the Charterhouse advertising thrust, Managing Director, David Jenkins said a great deal of market research and thought had gone into planning the largest promotion campaign ever initiated by the Surrey based company.

"We knew precisely the people who would be interested in our enlarged range of turf maintenance machinery, which is why after careful investigation into the magazine readership market, we decided to open the campaign with **the Golf Course**."

"We needed to reach the Head Greenkeepers, Course Managers and those that make equipment decisions on golf courses, and your readers fall precisely into that category".

"Reaching the broader based market, sports fields, football pitches, race courses and similar intensively used amenity turf

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areas, pointed us in one direction for an overall coverage of this multi-million pound industry and that was to *Turf Management*, the most widely read publication among those responsible for maintaining leisure turf".

The Verti-Drain must be the most extensively used piece of aeration equipment on Britain's golf courses. There can be few that have not reaped the benefits of its unique method of relieving compaction, improving draining and increasing stronger

and healthier root growth. Although the smaller clubs have in the past hired the Verti-Drain, Charterhouse Turf Machinery, through the introduction of the Pedestrian model, have now put this essential item of turf cultural equipment well within the capital budget of any golf course in the country.

We at **the Golf Course** are proud to have been nominated by Charterhouse as the No. 1 Golf Course Manager's magazine. We wish them every success in 1990.

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Aerial view of the 1st and 11th holes including lake and feed ditch at the recently completed Graveley Golf Course near Stevenage

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NEW DEVELOPMENTS

NEW HIGH PERFORMANCE TURF SYSTEM

A NATURAL system with outstanding wear properties has been developed by BritAg Industries Ltd, a subsidiary of ICI.

The system, called Tecturf, is an important new product as golf courses everywhere face increasingly heavy usage.

Tecturf consists of a sand and fertiliser growing medium which is reinforced by small pieces of plastic mesh. The mesh is mixed within growing medium and forms an interlocking matrix through which the grass roots can grow. This growing medium - 100mm thick for golf courses - is laid on a well drained nutrient holding base. It is then turfed or seeded as required.

The design of the Tecturf system brings improvements in three ways: better drainage, greater resistance to damage in the root zone, and almost nil compaction. This results in stronger root growth and a top surface which recovers from heavy wear far more quickly than conventional turf. For example, divot marks are smaller and show a 80 per cent recovery without divot replacement within eight days.

Once installed, Tecturf requires minimal maintenance, no spiking, verti-cutting or sanding, just normal mowing and top dressing.

The structural properties of Tecturf are

particularly suitable for constructing spectator banking. An angle of repose up to 72 degrees can be achieved with complete stability - there will be no slumping or erosion.

Tecturf is based on patents originally conceived for civil engineering purposes by Netlon Ltd, a plastics technology company. ICI has used its own extensive expertise to develop appropriate grass varieties and fertiliser regimes to develop the system for the leisure industry.

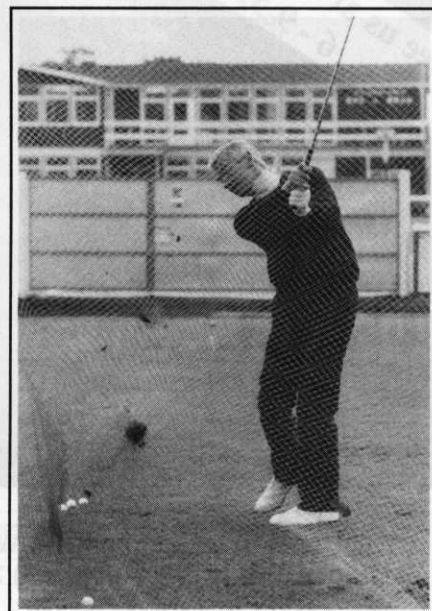
Special machines have been developed to mix the mesh, sand and other materials together and then lay the mixture on the sub-base. Variable proportions of these components are used, depending on the application involved. The thickness of this composite layer is also designed to meet the requirements of each project.

The top layer of the Tecturf system is high-quality grass selected from ICI's extensive list of varieties to suit customers' requirements.

Costs depend on the type of contract involved and the condition of the proposed site. An all-in contract would normally cost about £25 per m² - cheaper than most artificial tees and far more attractive.

A major new development planned for Weston Hall, Crewe, will be the first new golf course in the world to be designed with Tecturf surfaces.

The new course is to be developed by Watco Ltd., a consortium comprising the



Ex-Ryder Cup golfer Brian Waite plays off the Grand Ring at the Royal Show Ground, which has been surfaced with Tecturf, at the Golf 2000 event organised by BritAg Industries

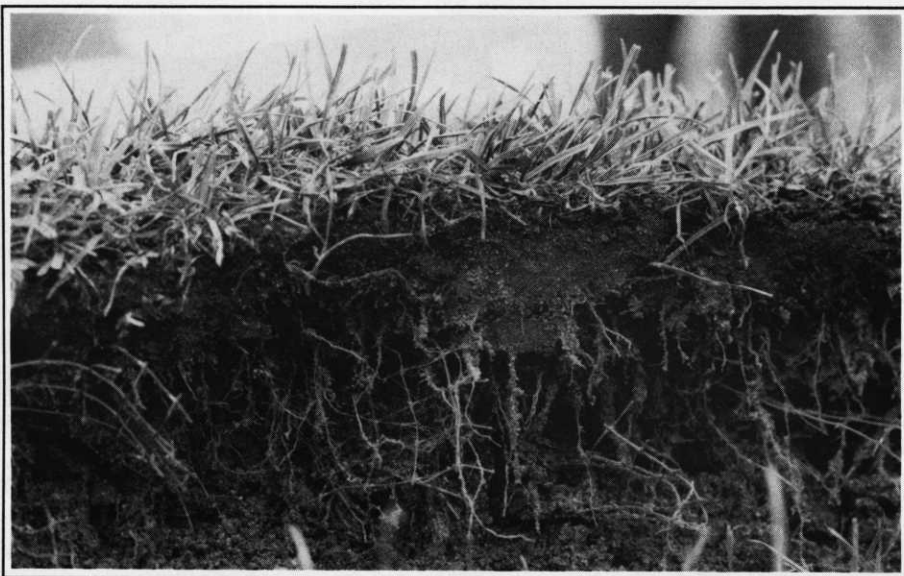
CWS (which owns the land at Weston Hall), Alfred McAlpine Management and the European PGA Tour, and is the first of a series of major new golf courses planned by the consortium for the UK.

The result at Crewe will be an exceptionally 'green' golf course which can cope with all the heavy demands imposed by a major tournament and thousands of spectators, hospitality units and television crews.

One of the first applications for Tecturf in British golf was at Woburn where it was used to build a new tee for the 17th hole in time for last year's Dunhill British Masters. This was necessary in order to extend the 18th hole but would have been a lengthy business using normal turfing methods. With Tecturf the job was completed in one month, about 12 weeks before the event.

During the tournament nearly 600 iron shots were played from the tee and at the end of the week, the surface had suffered very little divoting and recovered its green within a week.

BritAg Industries has also installed Tecturf tees for some of the short holes at Wilmslow Golf Club, Cheshire, with similar success. Tecturf is a registered trademark of ICI plc.



The Tecturf growing medium of sand and fertilizer reinforced with plastic mesh

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NEW DEVELOPMENTS

HELLIDON LAKES - A GOLFING NATURE RESERVE IN THE WARWICKSHIRE COUNTRYSIDE

Electronics expert, Stuart Nicoll and his attractive wife Jackie are both dog lovers. A mere glance at their two fine retrievers, Sam and Sally and one can see why.

A year or so ago a semi-wild wooded valley, within a mile or so of their elegant house in the village of Priors Marston came on to the market and the Nicolls thought it an ideal place for secluded country walks with the dogs, never thinking at the time of its potential as a golf course.

But now, under the direction of David Snell, a former tournament professional and later club professional at Lindrick, this secluded nature reserve has been transformed into a ten lake, 6676 yard golf course.

Hellidon Lakes as it has been named is within eight miles of Daventry, reached by a minor road off the A361 to Banbury. It promises to be one of the best courses in the Warwickshire area when it opens for play in 1991.

Greens, tees and fairways are already laid out to a design by David Snell, the golf director at Hellidon Lakes. The construction of the course and day to day maintenance is in the hands of Les Shaw previously at Ullesthorpe Court, near Lutterworth.

All the greens have been built on a six inch deep base of 40mm gravel covered by two inches of quarter gravel and finished with a ten inch sand/soil mix, with a drainage system running into one of the lakes. The irrigation for tees and greens was installed by Cameron.

The whole course was seeded to a specification from the STRI, using a Chewings bent/fescue mix for the greens, fescue/ryegrass/with a touch of smooth stalk annual meadow grass and bent for the tees, with a similar mixture but slightly different formula for the fairways.

Les Shaw has bought a set of Beaver gangs for the fairways but is making do with a second hand Hahn for his greens until he feels the time is right to purchase a new triplex. During the next few months he will let the course grow in, aerating when necessary and employing the usual cultural techniques.

"It is our intention to have a golf course



Stuart Nicoll (right) and golf director David Snell

playable for the full twelve months of the year", said David Snell. "We will play off the tees not mats, to the regular greens. I am not a subscriber to the shortened course to temporary pin positions in the winter months. The course has been set up to test and reward all classes of player, from a choice of tee position. Most holes offer a challenging and dangerous line of approach or an alternative safer route.

For example a generous sponsor has put up a Cartier watch for the first lady to drive the green at the last. It is a par-4 of 470 yards, but there is a short tempting route over the largest lake on the course."

The clubhouse, yet to be built, will overlook the 18th green with a two tiered members bar giving views over the splendid Hellidon Lakes. As well as a restaurant, conference room and professionals shop, the clubhouse complex will

incorporate 20 ensuite bedrooms, for overnight guests.

"Hellidon Lakes will be a members club, limited to a ceiling of 500, plus 50 junior members, said owner Stuart Nicoll." The subscription has been set at £500, with a joining fee of £2,000 for a member and their partner. Although we have only just opened the lists, around a hundred have already applied, most being established golfers."

To launch the new course, on a fine clear sunny day in February, ex-England footballer, Bobby Charlton flew in by helicopter to plant the first of thousands of new trees and christen the course by hitting golf balls into the major lake.

It was no surprise that he chose the right day to perform the opening ceremony, Bobby's girl is none other than BBC weather forecaster, Suzanne Charlton!



Bobby Charlton and Stuart Nicoll with dogs Sam and Sally

NEW DEVELOPMENTS

INTERNATIONAL GOLF COMPLEX PLANNED FOR BLACKPOOL

Golf Commentators, Peter Alliss and Clive Clark have joined forces to design a new championship course at Blackpool. Blackpool Borough Council are instructing the international construction, engineering and development group AMEC p.l.c. and The Boddington Group plc to develop a 205-acre wasteland site near the resort's Stanley Park, to include the golf course, tennis courts and four-star hotel as well as the construction of 368 homes on the site by Fairclough Homes.

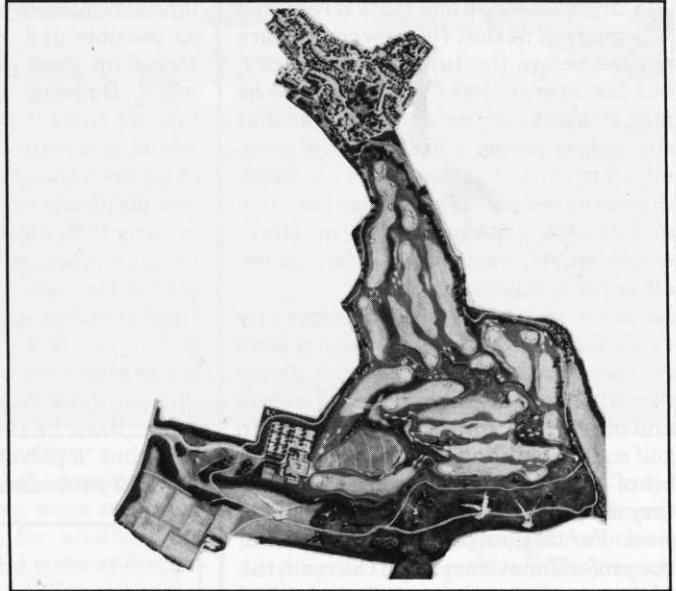
The council endorsed the recommendation of its Policy and Resources Committee to select AMEC to carry out the £45 million project.

The championship golf course, sited on

123 acres, will provide a wide range of golf facilities for Blackpool residents, although it will be open for visitors.

It is envisaged that the course will accommodate up to 50,000 rounds a year, with 30,000 of these being played by visitors.

Right: Herons Reach, Blackpool, will include a championship golf course, a 164-bedroom hotel and 368 homes on the 205 acres east of East Park Drive



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Donald Steel believes golf course construction does *'It does need professional design, construction and the correct specifications'*

Current demand and market research may tell us that 700 new courses are needed before the turn of the century, but the nearer that figure comes to be met, it is more important than ever that courses are properly designed and properly constructed. Design and construction are inseparably linked as Fortnum and Mason, eggs and bacon or Morecambe and Wise - each dependent on the other for maximum effect.

In times of plenty, such as currently exist, there is the risk of invasion from inexperienced "cowboy" concerns, a time also when equally inexperienced clients and developers think there is no more to golf course building than turning over a bit of soil, undertaking some rudimentary shaping and throwing down a bit of seed. For this purpose, they may call in the professional from down the road, the first motorway contractor they can find in Yellow Pages, and quite likely fall into the additional trap of thinking that the overall recipe for success lies in buying a well known star name to tell the world how good it all is.

They are people who always take their toothache to the dentist, their legal problems to a solicitor and their tax demands to an accountant. Quite why therefore they feel at home in "deep waters" or why players of all vintages consider themselves qualified to air their views on architecture as well as greenkeeping, has never been adequately answered. However, it makes it more than ever vital to employ only those capable of giving the correct advice - advice based on proper grounding. After all, it is as easy to do things right as wrong; and it is certainly cheaper.

If Bernard Darwin, who took such an interest in golf course architecture, used to preface any remarks on the subject by claiming them to be "unqualified", it should be seen as a lesson to others. It is a pity that most editors nowadays think that the only item of public interest is a recital of money winnings, but the principles of sound golf course architecture haven't changed all that much. The sad thing is that many architects choose to ignore them in the unenlightened search for something more gimmicky, more trendy.

The greatest qualifications for an architect are a rich imagination, an eye for

land, a familiarity with as many courses as possible and a retentive mind that stores up good points and rejects the bad. Building slavish imitations of famous holes is seldom successful but, whilst welcoming the occasional heroic or all-or-nothing hole, there is probably less emphasis on punishing a bad shot directly than ultimately ensuring that it brings its punishment in the subsequent play to the hole.

Good architects do not come down on the bad player like a ton of bricks but pose a series of options whereby the main onus falls on those players best equipped to cope. Back in 1961, Henry Longhurst said that "a player who can only hit the ball 150 yards doesn't need to find it in a



Donald Steel

sand pit to make the game difficult. It is difficult enough as it is". Yet perhaps the biggest danger of the next ten years is that American architects will spend millions of pounds filling Europe with courses that are unplayable for 90% of golfers.

There is a ridiculous notion that every course must be of championship standard but, in addition to making the best of the land available (within the budget available), the prime responsibility of a golf course architect is to combine challenge and pleasure to all - the significant words being "pleasure" and "all". Losing dozens of balls in numerous lakes while

attempting shots with impossible carries is not everybody's idea of fun.

Professional golfers seem to find it hard to put themselves in the spiked shoes of ordinary golfers but Alister Mackenzie's opening sentence in his book *Golf Architecture* stated that "economy in course construction consists in obtaining the best possible results at the minimum of cost". That cannot mean spending millions to make the best course although every architect needs enough money; and enough is far more than it used to be. So what is the sequence of events most likely to give the best results? Firstly, the proper guidance and advice from official bodies such as The English Golf Union. Their Golf Development Committee (operating regionally) will offer an initial visit but their message to those clients and developers who have not made direct contact with a reputable architect is to guide them on just those lines.

They recommend members of the British Association of Golf Course Architects, a body set up in 1971 to safeguard the public against "unskilled labour". They then tackle each project stage by stage. This starts with a feasibility study to discuss the potential of the land, the technical problems that may have to be overcome and an estimate of cost. After planning permission is granted, the architect is responsible for drawing up the specification of works, drafting whatever necessary working scale drawings and handling the tender documents. Choice of contractors is every bit as important as the choice of architect and the tender list should be based on those with honest reputations, impressive track records and skilled foremen. The architect may be the controller of the contract but he is powerless without the correct interpretation of his wishes, a high level of co-operation and understanding, and a strong respect for each other. It is, in every sense, a team undertaking, the reason for commending members of the British Association of Golf Course Constructors who keep a close hold on the standards expected of their members.

The most worthwhile understanding comes from regular supervisory visits during construction and a policy that is not too rigid. Adjustments can easily be

not need to be expensive

made as you go along but it should be perfectly possible for architects to have the vision to get everything right first time. It is a definite sign of weakness to be forever making changes, although it would surprise many the extent of the changes to which architects commanding the highest fees sometimes resort. It is often said (with truth) that an architect is only as good as his specification and here the most crucial facet is in specifying the correct materials. Good materials are always good, bad materials always bad until such time as they are replaced - at a cost.

This is not the moment to divulge trade secrets but the foundations of a green require the same attention to detail as the foundations of a building except that greens based on bottomless seaside sand need no auxiliary drainage; and they are a joy to shape.

It bears constant repetition that drainage is the main problem on greens all over the world and that any impermeable layers will impede the passage of water. This can limit the powers of



The root zone mix must be uniform

only greens are to be encouraged in Europe. For one thing, some sands are far from ideal and, for another, the maintenance costs and risks of disease are far greater.

Much is being made of courses in Britain costing £3-4 million, although much of this sum goes in the costly preparation of what the Americans call "moving dirt". Many American architects have never

It is somewhat ironic that, as Europe introduces more courses built on American lines, there are signs that America is turning its back on them. They recognise that a return to what one might term traditional courses better embodies the spirit of the game. A couple of years ago, a leading American administrator, referring to recent golf course developments, said "what's happening in my country is insane".

Britain has the architects and contractors to build the best courses with much less song and dance than those from overseas and, in keeping with the tradition of Alister Mackenzie, much more economically, although they could, if asked, spend £3 million as well as the next man. However 700 new courses will not be built if they cost £3 million and, if they do cost £3 million, you will price out of the market all those whom you want to attract. Golf is popular in Britain because it has always been within the pocket of the average man and woman; and that has only been the case because our courses have been comparatively inexpensively built.

True, some have been too cheap and we are learning that lesson, but we have not learned all the lessons. It is an undeniable fact that, in the present buoyant market, there aren't enough expert architects, contractors and greenkeepers to go round in spite of moves afoot to increase their education. Nevertheless, that is no excuse for defying logic and ignoring common sense by employing those with none of the right credentials. You wouldn't dream of engaging a butcher to render a heart transplant.



The use of special plant and good materials are essential

recovery after heavy rain or set up conditions of compaction which may not be able to be tackled satisfactorily. Compaction can be caused by the traffic of contractors, another reason for employing those who insist on the prescribed working disciplines.

It is imperative that the rootzone mix is absolutely uniform (however it is composed) if roots are to penetrate their full depth, but that is not to say that sand-

been able to accept the contours as they find them and hence indulge in extensive earthmoving practises which invariably make the natural look artificial and may upset the drainage. I have stressed earlier that sufficient funds are essential and I acknowledge that limited, fairly local earthmoving can be distinctly beneficial, but spending twice as much doesn't necessarily make new golf courses twice as good.

INCREASED WEAR IS A MAJOR PROBLEM ON BRITISH COURSES

says . . . Jim Arthur

Many are the problems that beset those in charge of our golf courses in this changing age - but the worst is caused by the success of the game in attracting so many new entrants, aided and abetted by televised golf, which in 30 years has turned what was, south of the Border anyway, a rather elitist game into possibly the second most widely practiced participator sport, now looking to overtake even angling at the top of the tree. The problem is *wear*, caused by all that extra traffic. It is not helped by so many new golfers being unable to obtain membership of a club, that might inform them as well as control them. The clubless golfer today cannot be reached through the normal disciplines of club structure and administration and only if at all through the media.

Whilst the worst effect of extra traffic is undoubtedly wear and the resultant damage to playing surfaces, it is not the only one. We must also consider the insensitivity of golf's new entry or some of it, towards course maintenance which must never according to their books, get between them and their game.

There have, of course, been aggravating factors which have affected course-management - chiefly the effect of constantly changing direction (in every sense) as regularly changing Green Committees, desperate to assuage complaining members, impose one cure after another - with predictably unsuccessful results. Whether these changes are effected with the complaisance of, or against the expressed views of the Course Manager, the results are the same.

Frankly, the situation has now got to a point where the influence of greenkeeping, as such, has little or no effect on the problem. Intensive aeration, all the year round is banned by the over-sensitivity of those in command to members' complaints. As one example, Vertidrainage is ordered to be carried out far too late in the season, so as not to interfere with the last monthly medal - and then when surfaces are disturbed heavy sanding is ordered, resulting in smearing, smothering, disease and wheel marking and many a good greenkeeper has been

reprimanded, and some indeed actually dismissed, for obeying management instructions, often given to them in writing. A lawsuit for wrongful dismissal is scant compensation for losing not only a job and possibly a house, but the link with a course to which the victim has given a section of his life in terms of dedication and enthusiasm, so it is no wonder that fewer and fewer good men are willing to stand up and put their jobs on the line - and why should they!

For too long advice has been aimed at the converted, who are often relatively powerless to implement it. In greenkeeping, very rarely does one isolated treatment achieve a dramatic solution. It is more the case that sound routine measures prevent the problem arising.

There is an old Scottish adage relating to wear, to the effect that if all the golfers could be got off the course altogether, it would always be in perfect order. While this may be humourously meant and impracticable, there is nevertheless a measure of truth in it.

Membership of golf clubs may not actually have increased, in total, dramatically in the past 25 years but not only today do all the members now play - and all the year round too - but they play more frequently. Scotland excepted, in the not so distant past, save in holiday periods, mid-week play was greatly reduced and winter play virtually unknown, save on links courses, except for a handful of hardy enthusiasts and exiled Scots! Not only is there now more traffic from members, but too many clubs are increasingly reliant on the financial returns from massive invasions by golfing societies and visitors. Figures of £100,000 per annum as 'green fee' revenue are no longer unheard of - indeed very few even 'unremarkable' clubs take much less than half this amount and think nothing of it. Some of this revenue may go back into the course - but most is used to keep subscriptions down, thus hiding the effect of the increasing costs required to maintain increasing standards all the year round, but at the expense all too often of course condition.

For too long the emphasis on course presentation has been influenced directly and indirectly by the professional Tour, whose members play no competitive golf in this country for more than six months of the year - and the most difficult six months at that! Too much is sacrificed to the urgent demands for courses to be 'all right on the night' - no matter what this costs in serious course deterioration later - as a critical examination of the current condition of far too many of the venues for the main events on this seasons golfing calendar will confirm. Peaks are always preceded and followed by troughs. If winter play is so vital - and we play golf under 'winter' conditions for more months than under summer ones, then we must encourage winter (or all the year round) grasses to dominate by correct management and eschew annual meadow grass which is satisfactory for perhaps five months of the year at most.

If greenkeepers are pressurised into tarting up courses, not just for major events but even for those on the club calendar, then they cannot also produce all-year excellence, under our climatic and budgetary restraints. We thus come to the crunch - that the problem lies with direction and not with management.

Something has to be done about the trend of non-member golfers, soon to exceed in total the numbers of club members. They are subject to few disciplines and have no long term interests, in all year round condition of the courses that they visit. The provision of additional facilities for them, I will return to in a future article. However it is the limitation of traffic on existing courses to which we must bend our minds.

Crisis induced by the effects of prolonged droughts such as 1989 (and 1976) may concentrate a few minds but given the amazing resilience and natural recovery of our native turf, it is not long before the causes return and with them, the inherent problems. There can indeed be only one deduction. The first step to improving the all-year round playing condition of our courses is to eliminate Green Committees and the sec-

ond is to improve greenkeeping education at all levels and the third to limit traffic.

Green Committees were never a good idea but worked in the past, especially when they effectively consisted of one 'amiable dictator', but essentially they are a relic of the days when greenkeepers were poorly educated, willing stalwarts, thinking nothing of getting on with a day's work after mowing eighteen greens with a hand pushed Certes. Today Green Committees are all too often a way in which misguided but determined new entrants to the game

can achieve the power to produce course conditions which suit their game and their television-induced ideas of what quality standards are all about - failing to realise that there is total incompatibility between such artificial standards and all year round playability. This is not to denigrate the efforts and motives of some devoted members fulfilling a thankless task, merely to comment that they have had almost to a man no training to carry out what is an increasingly complex and technical task. Constant change is even worse, as individuals fight to impose their ideas in the short term of office available to them, and a clash with sound men with a lifetime's experience in course management is inevitable. There must be a change to a permanent management structure of professionally qualified individuals and this team should include

the Head man or course manager, but not the professional (any more than the catering manager or steward, as they are not involved and have their own spheres of responsibility).

Then and only then, can a course management policy document be drawn up and continuity of both policy and management assured.

There are of course many ways in which winter playing conditions can be improved and wear reduced, other than by reducing numbers of players. These vary from routine management, sensibly but rigorously carried out without excessive interference from outside factors, to special measures. Those experienced managers presenting their links courses for such events as the Open Championship pride themselves that they could take the Open on their course at any time given six weeks warning, but for the rest of the circus even six months is

not enough! Tarting up is not for them!

Special measures vary from sensible appreciation of the factors causing problems to very long term planning. Golf Architects have, especially in the past decade, taken traffic very much into consideration, in thinking of alternative wide walk-off points in contrast to a single line between flanking greenside bunkers; alternative tee positions, even to the extent of siting them left and right of the previous green; and in controlling planting or advocating major clearance of en-

pressure and related compaction in defending buggies are so irrelevant. If the offending vehicles spread their routes widely the damage would be less, but necessarily and inevitably they converge on the most vulnerable areas, off tees; around average drive-landing areas; approaches and around greens. This is why I hope we never see the buggy situation which occurs in so many (if not all) American courses, where the only answer to course damage has been to build hard roads all round the course to which buggies are physically confined, which leads to rounds lasting five hours and more. It is also worth considering that if, when trolleys are banned, caddies replace them, then we get a double set of wearing feet!

Those responsible for the direction of club management and course presentation must balance the advantages of the revenue from non-members (visitors and society) golf against the problems of extra wear and sadly disproportionately greater damage through both lack of proficiency and understanding of the rules. High scores are often directly related to greater punishment of the course, and there is a case to be argued that the whole of the extra revenue should be diverted to repair work and remedial measures, instead of, as is so often the case the bulk being used to



croaching trees to improve light and ventilation.

There is some scope on most inland courses for systematic woodland management to get air to turf and so reduce disease and discourage massive annual meadow grass invasion, in itself one of the poorest wearing grasses but admittedly one of the quickest to recover.

Paths are really no answer, they merely transfer the problem to the end of the path. I have seen paths off tees extending further and further into the fairway, until eventually older members were hard pushed to reach turf off the tee!

Banning trolley's in winter is always unpopular but necessary, not because the wheels do the harm but because those towing trolleys always follow one line like sheep. This is why arguments about tyres and ground

keep subscriptions from rising in direct proportion

to costs. Any course in any given year can only take so much punishment, that is why we must restrict the number of rounds and have not only a balanced financial budget, but a balanced ecological one as well.

In the end however, there is no substitute for sound greenkeeping principles and an even greater need for correct independent education coupled with the establishment of a uniform interpretation by the ever increasing number of training colleges of what is at best a confusing and ambiguous syllabus. Equally, these courses must be open to non-greenkeepers for although we would all wish to do away with greens committees it is inevitable that even if they are reduced in size (to only one!) that the real power will always tie with the members and not the clubs employees.

LOCH LOMOND

"The finest piece of land we have ever been given to build a golf course"

. say Tom Weiskopf and Jay Morrish



Looking out across Loch Lomond from Rossdhu House, the stately home, later to become the club-house

Having played on the Tom Weiskopf/Jay Morrish designed Troon golf course in Scottsdale, Arizona just after it opened in 1985, and finding it to be one of the best courses I have ever seen, I couldn't wait to look at the layout of the new Loch Lomond golf courses being designed by the same pair.

That's how I came to be ploughing through six inches of mud a few weeks later trying my best to avoid the multiple diggers and soil haulers that seemed to be everywhere, on a typical, wet and misty Loch Lomond day.

When I eventually found the historic and impressive 'Rossdhu House', which is to be the clubhouse for the High Road course, I thought right away the journey was going to be very worthwhile. I was met by project manager Alan Wilson who was more than willing to fill me in on the lead up

Duncan Gray takes the High Road to Loch Lomond, but can't wait to return along the Low Road

to getting the whole project off the ground, and the construction progress to date.

David Brench, a self confessed golf nut, conceived the idea around five years ago, and spent the next four years in discussion with members of the Clan Calquhoun family, owners

of the land concerned, and the Dunbarton local authority, before eventually negotiating a 128 year lease and gaining planning permission. During this time Mr Brench had been trying to contact Jack Nicklaus, who, I would say luckily, never returned the calls. Through a quirk of fate he then visited Scottsdale on a golfing holiday with good friend Eamon D'Arcy, and after playing Troon, voted best new private course in the States in 1986, Eamon introduced him to Tom Weiskopf. Two hours later Tom had agreed to look at the Loch Lomond site. A decision Tom now says was one of the best he ever made, as he feels it is by far the most beautiful site for a golf course he has seen.

David Brench has certainly put together a strong team to ensure the success of this project. Tom Weiskopf and Jay Morrish as designers, Alex

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Looking over an inlet of the Loch towards the 17th green

Hay as management consultant, the late Sir Peter Scott to create a nature preserve, and forestry expert Nigel Hastle to ensure the preservation of the gorgeous woodland abounding on the site.

The Rosisdhu estate, home o' the Chiefs o' the Clan Calquhoun, is steeped in history... (note the chinese drawing room must remain intact through any alterations...) The plan is for two top class golf courses. The High Road and The Low Road, each with their own clubhouse, a centrally situated professionals shop with large practice area, a five star hotel, a boating marina, and traditional Scottish hunting lodges for sale as time-share units. All this is in a landscape covering 1200 acres of pure Scottish grandeur. The thick woodland at the Northern end includes 500 year old hardwoods, huge redwoods which were imported from America over 200 years, as well as lovely Scotspines, and countless rhododendrons and azeleas. This is the area that the first of the courses, The High Road, has been routed through. Everything is more or less shaped and drained ready for top-soiling and seeding in the Spring of 1990. A nice balance has been achieved with six holes through thick woodland, six through lightly wooded grassy areas, and three water holes on each nine. The par is 36-35, SSS 72, and a length off the back tees of 6845 yards.

One of the things I particularly liked was the constant changing of direction, although with so many trees about you would hardly know at times in which direction you were heading.

The construction work is being carried out by Nagolfco Inc. of Las Vegas, to an extremely high spec, especially from the drainage point of view. They have obviously done their home work on the rainfall figures in that area! As if to argue that point though, a full greens, tees and fairways irrigation system is being installed just in case.

All the playing areas were first stripped clean of all top-soil, then thousands of tons of base material carted in to shape and contour greens, tees, fairways, mounds, bunkers etc.

Once this shaping was finished the drainage system was introduced. To aid the drainage, several ponds were dug in the lowlying areas. These yielded large amounts of peat which will be used as part of the top-mix for the

fairways and tees. The greens are constructed to the USGA specification, that is, a base with drainage system, a six inch gravel layer, a 2" blinding sand layer, and 12" of rootzone material consisting of 80% sand and 20% soil. Not pure sand you will notice. Thank goodness for a more sensible approach. Even links greens are not pure sand.

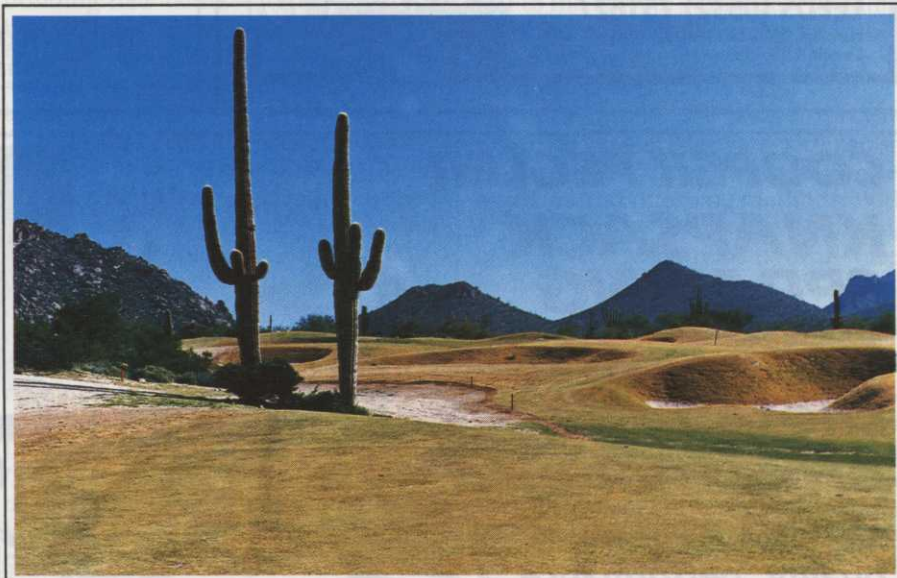
At the time of writing it had not been decided which seed mixtures to use, although the original specification for pencross was certainly being changed, and there would be no rye grass.

One thing I have to get off my chest is that I gather from what was said that an American Superintendent is being engaged to look after this superb new complex, which is a right good slap in the face for the greenkeeping profession in this country. There are a good number of greenkeepers I know of who are perfectly capable of handling a facility like this to international standards, and it is time someone made a stand in this matter with the government.

Back to the purpose of this article however. I have to congratulate David Brench, Tom Weiskopf and Co., on their, so far, brilliant work, making excellent use of the natural lie of the land, existing features, and conservation work.

The second course, The Low Road, will be over more lightly wooded ground, but still very impressive and should prove to be an ideal partner to The High Road. Opening schedules are Spring '91 for the High Road and Spring '93 for The Low Road.

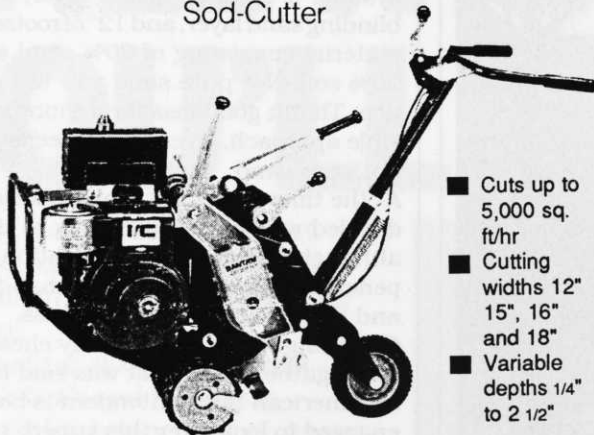
There is no doubt this, is going to be a real gem in Scotland's crown of golf courses, and I for one can't wait to play there.



Weiskopf's major design to date is Troon Golf Club, built in the Arizona Desert to the north of Phoenix

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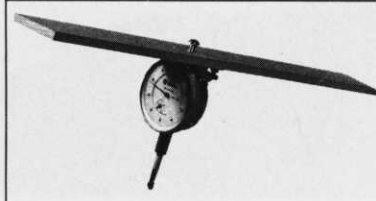


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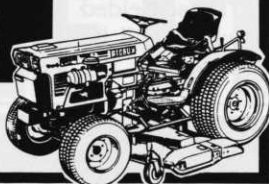
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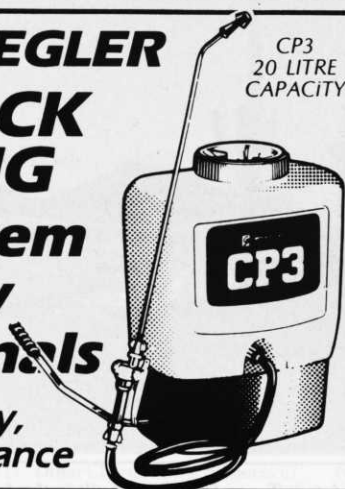
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Irrigation expert expands his team

When Philip York first launched himself into the business of golf course and landscape irrigation consultancy in 1985, it was an act of optimism bolstered by his twenty-five years experience in the fine turf market-place.

"I realised it would not be easy", said Philip. "Even in '85, automatic irrigation was still a luxury of the future in many people's minds - especially in the UK landscape industry, but having been part of a gradual, but increasing development of the golf course market - especially in Europe - I concentrated my initial efforts in that direction".

With his mind made up, Philip set himself up in a small office and faced the fact that he had to handle the whole of the technical advisory side of his business alone. A part-time secretary, and Philip's wife helped with the administration!

That was four and a half years ago. Today, the depth of experience invested in Philip York and Partners has developed into a business acknowledged by many as probably being Europe's most experienced independent irrigation engineering design consultancy.

Back in 1986 the picture at Ringwood was a different one. Involved almost exclusively in golf course irrigation system designs - for both UK and European courses, Philip York became increasingly aware that like it or not, his professional activities were, by demand, forcing him to ignore opportunities emerging in the landscape markets.

This problem was solved in 1988 when Bruce Parker joined the Consultancy. A District Technical Advisory Officer for the Ministry of Agriculture, from 1973 to 1978, Bruce subsequently spent a number of years in the Middle East, working as a consultant Irrigation Engineer, mainly involved with landscaping projects.

"Bruce's knowledge and practical know-how relative to the landscaping industry (and horticulture) provided the perfect balance with my own sports turf irrigation experience".

Commuting regularly from Hampshire to visit customer's sites in Portugal, Sweden, Spain, Norway, Finland, France as well as around the UK, the two consultant engineers gradually realised that they needed yet another experienced 'head' to help them cope with steadily increasing market de-

mands.

So, in the Spring of 1989, Philip York invited Mike Martin to join the Consultancy. Specialising in agricultural irrigation system design, Mike also has extensive experience of pumping and water sourcing procedures. Like Philip, Mike gained his in-depth knowledge of large scale irrigation with Wright Rain Limited, the company who pioneered the use of sprinkler irrigation for UK farming and horticulture during the sixties.

"Between the three of us, we now have an integral mix of technical experience which enables us to cope professionally with just about any type of irrigation design concept thrown at us!", says Philip York.

So how does all this experience benefit the average golf club? we asked.

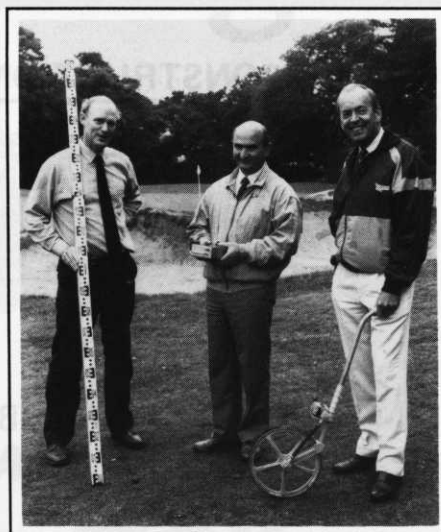
"First and foremost, we can, because we are completely independent of any trading company, offer clubs contemplating spending money on irrigation systems, an objective and unbiased opinion".

"This facility is available to clubs who have an existing system but who are unhappy with its performance - we are, for example, currently reviewing the system installed some years ago at the Aloha championship course, in Spain. Having assessed it, we shall put forward recommendations designed to up-date the system - and its performance".

"Equally, we are able to advise architects or developers responsible for building new courses. The recent 18 hole China Fleet development at Saltash, Cornwall, is just one of several UK golf courses where we are totally involved".

"Earlier this year, the local authority, which owns the 18 hole public Queens Park course in Bournemouth, retained us to prepare a feasibility study and design a viable pop-up system. Constructed back in the thirties, the course had traditionally been watered by ad-hoc methods - our design will not only automate it, it will provide regular, consistent water coverage far superior to anything ever achieved there before.

"Because there is now a proliferation of irrigation equipment and control systems available on the market, it is extremely difficult for a green committee, developer or purchasing authority to choose wisely and to invest many



L to R: Bruce Parker, Mike Martin and Philip York probably Europe's most experienced team of golf course irrigation engineering design consultants.

thousands of pounds effectively".

"We are totally conversant with the range of equipment available today and therefore we can recommend that which best suits a particular need.

"So far we've talked about irrigation system design - but our advisory services go much further than that. If requested, we will oversee the entire project. Having walked a course, we will produce a viable design, invite tenders - usually from three reputable companies - assess those tenders, evaluate the capabilities of the installation team, agree a contract, (that's most important) then visit the site to ensure that the work is being carried out to the correct standards, commission the completed system and then when we are satisfied, and only then, we hand it over to the club.

"In addition, we are able to provide practical - assistance with water sourcing and storage, the provision of power supplies and pumping methods. With Mike Martin's knowledge of drilling bore holes, we can help with water extraction!

Peter Beverly has now joined the team as Field Engineer to the Philip York Partnership. Peter, who has some fifteen years experience of UK and overseas irrigation systems, will be responsible for the important task of managing irrigation installation projects on site. His brief, to ensure that installation standards are met and maintained right through to the commissioning stage.

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BRUCE JAMIESON is the Director of Agronomy for the PGA European Tour

* * *

In an interview
with John
Lelean on the
Algarve he
discusses the
Tour's plans for
tournament
courses

QUESTION...What is your role as the PGA European Tour Director of Agronomy?

ANSWER...It is rather a hard question to answer. Part of my role is to co-ordinate the direction of the tour, relating to the presentation of golf courses. Apart from organising and co-ordinating this conference, my role is to visit clubs involved with tournament events where there is a need to raise the standards over and above what they can normally achieve, not that I am the only person able to do that. Richard Stillwell our greenkeeping consultant is probably the best person to do that on a short term basis.

We used to look for a height of cut, but this is now recognised as totally impracticable as certain grasses will not survive the strain of being cut below 3mm. The height of cut has very little relevance to the speed of the green. (As Barry Carter told the conference he cut to 1.25mm and produced a stipmeter reading of 13 feet.) At Valderama for the Volvo Masters, the cut was 3.25mm to achieve a reading of 11.1 on the first day of practice of the tournament, to 11.2 on the final day. Weather conditions, fertilizer applications, underlying thatch, verticutting, the new machinery and cultural practices all play a significant part in the production of green speeds for the three days of a tournament.

QUESTION...How many staff do you have as Director of Agronomy?

ANSWER...That's easy, there is Richard and Roger Stillwell as consultant greenkeepers, Lesley Kilpin, my secretary and me. Through the season, we visit most tournament courses to give advice when necessary.

QUESTION...This is a relatively new appointment for you Bruce, what was your previous position?

ANSWER...I was a Tournament Administrator, concentrating on the rules exclusively for six months and now could discuss the rules of golf with anybody. The rules are laid down by the R & A, but they are subject to interpretation.

Later I became interested in banner-ing, sighting of TV camera points and the many other aspects involved in presenting a tournament and from there, with my experience in greenkeeping, became involved in the course presentation document, issued as a guide to greenstaff. The guide has been in existence for many years, though it has been updated on numerous occasions. I am now re-writing it.

QUESTION...How much in advance of a tournament would you make the initial visit to a course?

ANSWER...Let's take for example Las Brisas where they will be staging the Mediterranean Open in March this year. We have used the course before for the World Cup, but I will be going in January, because they had eight and a half inches of rain in one day, which turned a lovely golf course with a river running through, to a river the width of the course. It was so bad that our scoreboard Volvo truck is still stuck up to its axles on the side of the practice ground.

QUESTION...Have you found a shortage of equipment on tournament courses?

ANSWER...Certainly not on the Continent, where the equipment is very up to date and at a high standard and they have the people to use it. All tournament courses are well equipped with all the necessary grass cutting machinery, they appreciate the need for the correct maintenance. I usually inspect machinery as part and parcel of the advisory visit.

QUESTION...What involvement do you have with pre-tournament maintenance programmes?

ANSWER...Well I have worked out long and short term programmes for golf courses for the past eight years prior to joining the Tour.

If a course is in good conditions it can be brought to tournament standard within four weeks.

QUESTION...Returning to the course presentation document you mentioned you were updating, what are the major changes you may be contemplating?

ANSWER...One of the big changes will relate to the previous stipulated height of cut. Now we will be recommending a stipmeter greenspeed of between 9 1/2 to 10 1/2 feet. We will be aiming for a similar speed from the practice round to the final day.

Fertiliser applications a week or so prior to the event can lead to a growth flush, particularly if it rains. This can lead to a much slower greenspeed during the afternoon.

On the final day, the best players go out last in the afternoon and they are entitled to an examination paper at least equal to those who tee off earlier. We will now recommend that fertilisers should not be applied less than four weeks before a tournament.

QUESTION...What sort of complaints do you receive from tournament golfers?

PROFILE



Bruce Jamieson is the Director of Agronomy for the PGA European Tour. The son of the professional at Turnberry, his life has been dominated by the game of golf since he first caddied at the age of 12. He worked on the course as a part time greenkeeper until leaving school at 17, with not unreasonable academic qualifications and then decided that the life he wanted was a career in turf management, with a leaning towards golf.

Taking the art of greenkeeping seriously, he obtained the three stage levels of his City and Guild Certificate at Elmwood College, most with distinctions.

In October 1979 he joined the greenstaff at Sunningdale for seven months, before returning to Turnberry as second assistant, moving on to Powfoot as Head Greenkeeper in November 1980.

With a desire to broaden his horizons still further, Bruce "emigrated" to South Wales in January 1983 to take the position of Course Manager at Royal Porthcawl, where his thirst for knowledge motivated him into further studies of turf culture as well as Employment Law and Industrial Relations, through the Institute of Industrial Management.

During this time he also became an examiner for the NPTC in the use of Pesticides on golf courses.

The Welsh club recognizing his drive to gain experience also allowed him the scope to expand his knowledge through project work with other courses in South Wales, an opportunity for which he holds Royal Porthcawl in high regard. At the end of June 1988 he joined the administration staff of the PGA Tour, after preparing his course for the Amateur Championships. Last July he was appointed to his present position of Director of Agronomy.

Aged 32, married for eight years, he lives near Basingstoke, but spends much of his working life away from home, flying, driving and putting in up to 14 hours a day during the three days of a tournament.

ANSWER...They make exactly the same complaints as any golfer, amateur or professional. If we have a specific complaint from a number of players then obviously we will take the matter up.

QUESTION...What new courses will be played this year?

ANSWER...Well, one will be St. Mellion, the championship course designed by Jack Nicklaus, where I have already been and met David Webb, Roy Battishall and the course owners Hermon and Martin Bond.

At a 9.30am general discussion with the staging manager Richard Brown, we talked about crowd movement from the 7th to the 9th fairway round the back of the eighth green and the need for a path construction.

"You want it", said Martin Bond "and you shall have it". By 2.00pm, two JCB's operated by real experts, were on the course digging out the pathway. This is the sort of commitment that the PGA European Tour appreciate. It does not affect the design or playability of the course.

We also have the Catalan Open in Catalonia this year which although just in France straddles the border with Spain.

Other new venues are likely to be announced shortly, though we are reluctant to take on any new venues which do not come up to scratch, which is one of the reasons for this gathering at Penina.

QUESTION...Do you insist on the closure of a course prior to the start of an event?

ANSWER...Not at all. It is up to the course management how they organise their tournament preparation. We know some like Woburn, Valderrama, Turnberry and Quinto do Lago where they close the course prior to the event. Quinto do Lago has 3 sets of 9 holes, and this enables them to close down 9 holes at a time for maintenance.

QUESTION...Is there a likelihood of the PGA Tour building their own courses similar to the development in the USA by the USPGA Tour?

ANSWER...Yes, we have plans afoot for developments in England and Spain. We hope to develop European Tour Clubs in each of the countries where the Tour visits. We envisage that these will be designed and constructed with our members, sponsors and spectators in mind. It is our intention that these new venues become the backbone of Tour venues over the next two decades.

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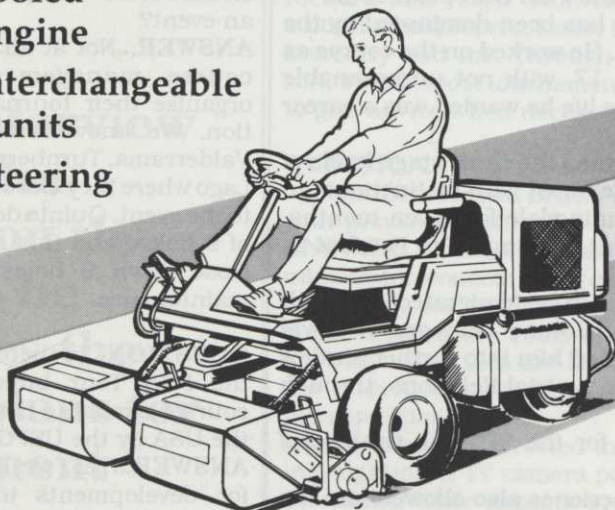
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TOPICAL TURF TIPS

The Golf Course problem page, gives expert advice to management problems

QUESTION

We have a number of "rights of way" across our golf course, used mainly by ramblers, joggers and dog walkers. It would not be so bad if they kept to the path, but so many seem to think they have a right to wander all over the course. The dog owners in particular view an open fairway as the moment to let the animal off the leash.

Is there any action we can take?

ANSWER

Not a lot. The law of trespass is hardly enforceable as it has to be proved that damage is caused, such as destroying growing crops. This would be virtually impossible to sustain in a court of law relating to walking on grass.

It would be possible to take out an injunction on a persistent offender such as a jogger who regularly runs off the path through golfers on a Sunday morning, but it is expensive and it only applies to the person you take action against. If his mates take up the cudgels against the club, you are back where you started.

To minimise the problem, mark the paths with tape or arrows set in the turf, mow out a path strip where it crosses a fairway and site some appropriate notices at entrance points. It is a matter of learning to live with the neighbours.

QUESTION

Following a very dry summer, earthworms have emerged in huge

numbers on parts of the fairway and this is particularly noticeable where we have cut out some temporary greens on approaches and aprons. Total chemical control is very expensive, is there any other method we can use to stop worm casting?

ANSWER

A question published in the October issue referred to worms in a query relating to the use of chlordane. This product can still be used on golf greens for the next two years, but is banned for large scale areas such as fairways.

Experimental work at the Sports Turf Research Institute has shown that an application of sulphate of iron at a rate of between 4 and 8 g/sq.m has inhibited earthworm casting for 2 to 3 weeks. Worms do not like an acidified turf and the sulphate of iron has shown it is a way to keep them away from the surface.

Not only are worm castings unsightly, but they are the ideal medium as a seed bed for weeds. Not to take action now could produce other problems later in the year.

QUESTION

As the course manager for a municipal golf course could I query the answer you gave in September regarding the "grandfather clause" relating to the spraying of chemicals. I sent the staff on a chemical spraying course this year only to find that it had been conducted by people who

were not certified to give the instruction. This resulted in a certificate of attendance only and not a certificate of competence. As they were all born before 31st December 1964, can they continue back-pack and tractor mounted spraying?

ANSWER

We stick by the original answer that those over 25 can spray, but they must be supervised by a certificate holder. That is within sight and sound and under the certificate holder's personal supervision.

An attendance at a course, even one deemed to be given by those not certified to teach, is better than no course at all. The Pesticide Legislation Act, like so many government guidelines is open to differing interpretations. The crunch comes if one of your uncertified staff has an accident, either to himself, another, or the environment. Unless you are fire-proof and can prove it, the results can be expensive or maybe even criminal.

Ignorance of the law is not a defence. As for being innocent until proved guilty - forget it. Our advice is ensure that you fully understand your obligations under the Act and have complied with all the recommendations.

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The result of these investigations has enabled ICI to bring together a range of products to suit all these different needs. In particular ICI identified the need for a zero phosphate fertilizer and this is why Finegreen NK is a key part of their fine turf range.

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"One of the major reasons why the Longlife range has made such an impact in the UK market is the incorporation of the unique nitrification inhibitor Didin" states Patrick Goldsworthy, ICI's Products Technical Manager. "Nitrogen in the soil is subject to a number of transformations: one of the key processes is nitrification. This involves the relatively rapid oxidation of ammonium (eg ammonium sulphate) into nitrate by soil bacteria. In the absence of a nitrification inhibitor, grass will use nitrate as its prime nitrogen source. However, the grass plant can absorb nitrogen in both the nitrate and ammonium forms; but the ammonium form, which is less prone to leaching, is used more slowly by the grass plant resulting in a reduced flush and a longer period of growth.

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The Golf Course has invited a number of leading firms supplying fertilizers to golf courses to contribute details of the latest developments in this field.

that the majority of nitrogen present in the rooting zone is in the ammonium form. This results in a prolonged feed from one application and a more efficient use of nitrogen due to less leaching.

Both IBDU and Didin were available, but we considered that Didin offered many advantages over IBDU.

Didin activity is temperature dependant. As temperature rises and the turf grows more rapidly. Didin releases nitrogen over a period which parallels the growth patterns of the plant. Didin is economically priced, which allows Longlife to be extremely competitive not only against IBDU slow release products, but also when com-

pared with standard conventional fertilizers. It also significantly reduces nitrate leaching.

Research into the activity of Didin is continuing. Originally developed by SKW Trotsberg of West Germany, large user trials in agriculture within the UK and exhaustive laboratory tests on nitrate leaching have been undertaken. Didin is under a long term trials programme at the Sports Turf Research Institute and preliminary results have shown significant differences with comparable products, included in the trials.

The granule itself is of high quality with excellent spreadability. Both the size of the granule and its quick breakdown (due to its organic-based formulation) will ensure minimal mower pickup. An additional benefit is that the mini-granules will not blow away as can be the case with powder fertilizers. Companies like ICI are continually watching what is happening at grass root level. Quality and evenness of application is as important as the quality of the product. There is an increasing need for high quality spreaders and the greenkeeper should be prepared to pay extra for the best spreader that performs the task and lasts, rather than "buy today throw away tomorrow", current practice.

There will be a general need for more nitrogen as increased wear and tear takes its toll on turf regeneration and as sand green construction takes place. However, this nitrogen release must be controlled by inhibitors such as 'Didin'.

Nitrate leaching will also have a high profile in the turf industry following concerns expressed by the "green" movement 'Didin' reduces leaching.



FISONS PUT WIMBLEDON EXPERIENCE TO GOOD USE

This spring will be the first opportunity for greenkeepers to try the new Fisons Greenmaster Zero Phosphate fine turf fertilizer. This product was developed and first used at the most famous area of fine turf in the world. The all England Lawn Tennis and Croquet Club, Wimbledon.

Following this venture, Fisons Horticulture and Wimbledon have reached agreement to recognise the product's origins across the whole turfcare range. The need for a fertilizer of this particular formulation (14.0.7) at Wimbledon was established during discussions between Fisons Professional Horticulture turfcare adviser, Keith McKee, and the head groundsman, Jim Thorn. Between them, they developed a renovation programme to bring the courts back to their former quality after the problems of the 1988 championships.

Fisons first manufactured the 14.0.7 fertilizer as a special order for Wimbledon. Seeing its successful performance publicly confirmed by the extremely good playing quality of the courts during the 1989 championship. Now Fisons are making it available to the rest of the industry.

The introduction of Greenmaster Zero



Phosphate brings the number of formulations in the range of seven. This increases the flexibility of the Greenmaster range in use and further helps meet the needs of the professional turf manager.

Answering questions at a recent Turfcare Seminar Keith McKee returned to the thorny question of slow release fertilizers.

He said, Fisons Levington Research Station has carried out more research in connection with fine turf into the product IBDU (isobutylidene diurea) than anybody else in the country.

Work first started in 1967 and during

trials, interesting points have arisen. The size of the IBDU granule was very important. If it is too large, it gets mown off and if too small, it releases too quickly. This is why the granule size in Fisons Greenmaster Super N is 0.6-1.7 mm, not too large and not too small.

Fertilizers containing 100% IBDU has a very slow start up rate. In fact, it can appear for some weeks that no fertilizer has been applied at all.

He added that very small amounts of IBDU in a mix are really a waste of money as they serve no useful purpose. "Our trials and experience show

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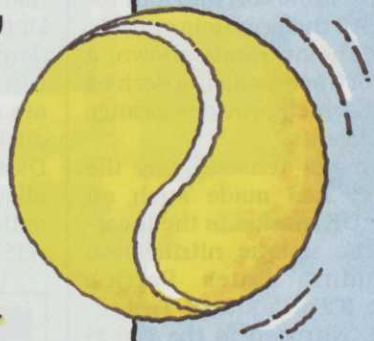
Last year the All England Lawn Tennis & Croquet Club Wimbledon chose the two newest members of the Greenmaster team for the Wimbledon championship courts. The application of Zero Phosphate for turf preparation pre-tournament and Turf Tonic as a late summer feeding afterwards has proved an ideal combination, highly commended by Jim Thorn, Head Groundsman.

Greenmaster's free flowing granules are easy to apply and ensure excellent coverage. Therefore giving a uniform turf response of balanced growth and good colour.

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that at a standard application of 35g fertilizer per square yard, at least 10 units of IBDU are required in the product formulation to achieve truly extended turf growth and colour response. The chart Fig. 1 shows the reaction of IBDU as compared with a conventional release fertilizer.

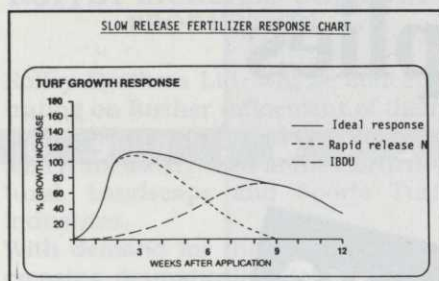


Figure 1

The dotted line shows the release pattern for conventional, rapid release fertilizer which releases to peak after about three weeks and eventually runs out after about eight weeks."

"The dashed line shows the release pattern of IBDU. This takes about three weeks to start working and then releases to give a twelve week release."

"Conventional fertilizers release quickly and have a shorter life. Pure conventional release has a longer life, but a delayed start."

"The ideal is shown by the continuous line. This is a mixture of rapid and

controlled release. Fisons Greenmaster Super N contains 50% controlled release fertilizer in the form of IBDU and 50% rapid release fertilizer so giving the ideal release pattern."

NEW DEVELOPMENT FOR STA-BRITE

Sta-Brite, who have just moved from Farnborough into a newly fitted-out freehold warehouse and office complex in Basingstoke, are sole UK distributors for Schweizer Fertilizers. This unique range of time-proven formulations is geared to specific turf problems, with golf courses very much in mind.

In all there are 10 granular fertilizers, one to suit every type of sports turf whether in good condition or poor and on every type of soil. Of these, Nitro-green-32, Certoplant Golf, Sport-Green Golf and Turfextra Golf, are micro-granulated to under 1mm and suit the finest turf on golf greens, while the others are fine-granulated to between 1 and 2.5mm for golf tees and fairways.

Schweizer Fertilizers are based on blends of top quality Nitrogen sources, including IBDU and UF for slow release and organics for faster action, plus well balanced P, K and Mg content and essential trace elements.

Certoplant is worthy of special mention as the international best seller and a totally unique product which improves the penetrability of the soil via silica and ion exchanges, thus stimulating root growth. It is recommended for combatting a variety of turf problems and is ideal both for pre-seeding and maintenance.

BASF SPECIFIED FOR SAND GREEN CONSTRUCTIONS

BASF, the German chemical giant, produce a range of slow release fertilizers in the UK under the Floranid label. The Floranid Turf, 20:5:8 with 2% magnesium is specially suitable for the pre-fertilization of sand green constructions and a number of golf course constructors are advising and specifying its use.

A 36hole complex at Calverton due to open in April has specified the product, as well as 18 holes under construction at the Marlwood Golf Centre, near Bristol and it is being used by Southern Golf with their construction at the new Denham Court golf course, to the north-west of London Airport. As well as the general purpose Floranid NPK 15.9.2, used as an economical turf fertilizer for low intensity areas, there is Floranid NK

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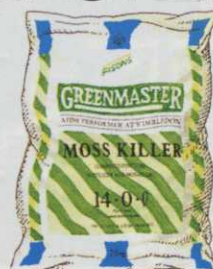
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14:0:9.3 for fine turf application, requiring potassium and nitrogen, but where there is an adequate level of soil phosphate. The usual recommended use is with Floranid N providing an ideal balance between the quick and slow acting nitrogen.

ROFFEY INCREASE COMPOST PRODUCTION

Roffey Brothers Ltd. will be concentrating on further refinement of their extensive range of quality composts which are widely used in the Horticultural, Landscape and Sports Turf industries.

With demand for their products increasing dramatically, Roffey Brothers Ltd. produced over 25,000 tonnes of sports turf dressings and golf green construction mixes last year. The company has now established an enviable reputation for consistently high quality products.

During 1990, major investment will be made in additional bulk handling and packing capacity, whilst further quality control systems will be initiated to ensure that the high standards are maintained.

The company manufactures a standard range of RBL XYLORGANIC, but specialises in producing specific formulations, based on the results of soil analysis, to suit the individual greenkeeper's requirements.

As all sports turf dressings manufactured by Roffey Brothers Ltd. are screened to 3mm this has enabled greenkeepers to make lighter, more regular applications of dressings containing major nutrients, trace elements and soil conditioners, which are readily assimilated into the turf structure giving more even growth patterns and true surfaces.

Five years ago, they introduced RBL XYLORGANIC fine turf dressing, a unique product which has become an established favourite with many

greenkeepers. The combination of three soil conditioning materials, including seaweed, a wide spectrum of trace elements and a sand which is produced to a very tight particle specification, has resulted in a dressing material which helps the greenkeeper combat the severe effects of compaction caused by the pressures of modern, all year round play and maximises the availability of nutrients from applied fertilisers.

As a result of the analyses the specification of RBL XYLORGANIC will be altered slightly to adjust the relative ratios of the trace elements to increase the proportions of Magnesium and Sulphur.

It has been found that, although many fertiliser manufacturers are including Magnesium in their products, the rates of incorporation are only sufficient to replace that normally lost during normal growth and mowing operations. If soil reserves are seriously depleted, it seems to be more effectively applied in the top dressing, particularly after tining operations.

MELCOURT'S DEDICATED TOP DRESSINGS AND SOIL CONDITIONERS

Choosing the right formula top dressing is a vital factor in grasscare generally, and the golf course is no exception. Melcourt Industries, specialist suppliers of organic landscaping products, have three ready-mixed top dressings, each dedicated to a specific application, which will enable the groundsman to maintain a firm, fertile and well conditioned surface.

HR top dressing is specifically formulated for use in higher rainfall areas, allowing free drainage while providing a good buffer of top quality loam, to encourage grass growth. On the other

hand, LR top dressing should be used where water retention is desirable, in lower rainfall areas for example and is a particularly good choice for playing fields and amenity areas.

Finally, Melcourt's HT Sports is a high quality top dressing created specifically for golf courses and bowling greens, where a free draining yet thatch resistant surface is required.

In each case, a high humate content works together with a high action exchange factor to help the long-lasting release of nutrients and encourage growth.

All three Melcourt top dressings are 100% organic and of a completely consistent formulation. This means the greenkeeping professional can rely on achieving the same firm, fertile and well conditioned surface next time round, without having to put up with unpredictable fluctuations in quality and mix. For the groundsman who wishes to mix his own, Melcourt will supply loam and other ingredients to suit individual requirements.

Melcourt also produce soil conditioners, such as Adheart, Super Humus and Composted Garden Bark. Adheart is a high humate concentrate which enhances the texture and structure of the soil by improving drainage and breaking down clays, and is ideal for golf and bowling greens. Its movement through the soil stimulates growth at all levels, particularly the root zone.

Super Humus is ideal for giving impoverished soil an instant enriching humus boost, while Composted Garden Bark, processed from conifer bark, will enhance fertility, improve drainage and stimulate healthy root growth in all types of soil.

All Melcourt's products are distributed nationally in either bagged or bulk form, with "walking floor" trailers available for uneven sites or where storage space is a problem.

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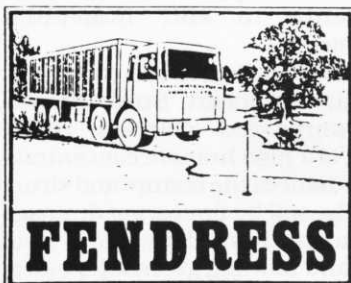
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Flo-Gro range offers the modern turf manager liquid fertilisers in a combination of nutrients that are designed to suit a wide range of situations. Some of the Flo-Gro products contain "Didin Fluid" the slow release nitrogen inhibitor which phases the amount of nitrogen available to the plant.

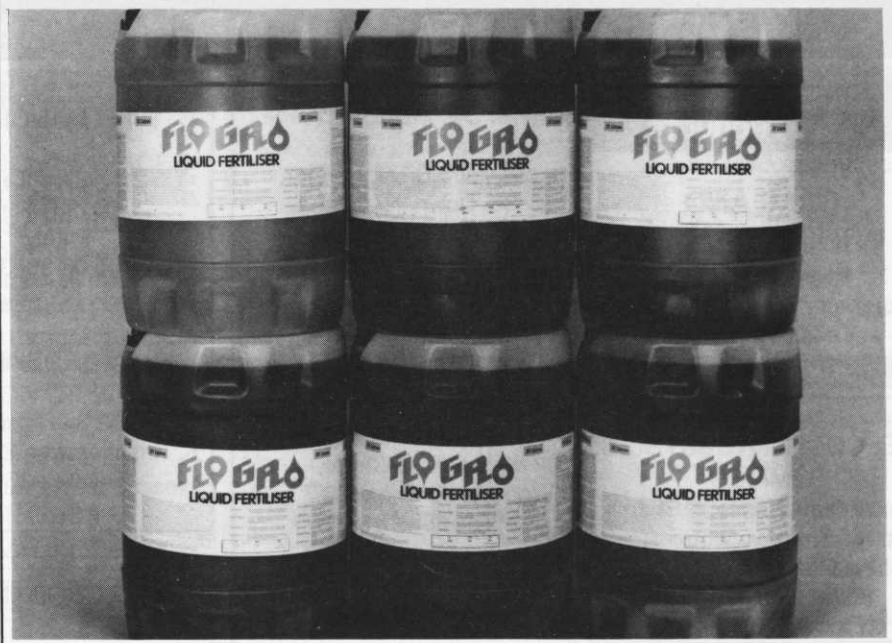
These liquid fertilisers eliminate unsightly powder and granule residues and mower 'pick-up' on fine turf. Formulated as liquids Flo-Gro ensures more accurate and simple measuring and application can be combined with pesticide and other liquid turf care products.

Initially six Flo-Gro products will be available for use on turf and each is packed in 20 litre plastic containers, each product is colour coded to ensure easy recognition.

Farmura is well known for its role in pushing the introduction of environmentally safe turf management products for greenkeepers, have now taken on a new roll.

The 'Turf Iron' is a one man operated self propelled machine utilising a unique three roller system, each one being three feet wide, that gives putting greens a look that they have just been 'ironed' without, the manufacturers claim, any compaction.

Advantages gained by using the 'Turf

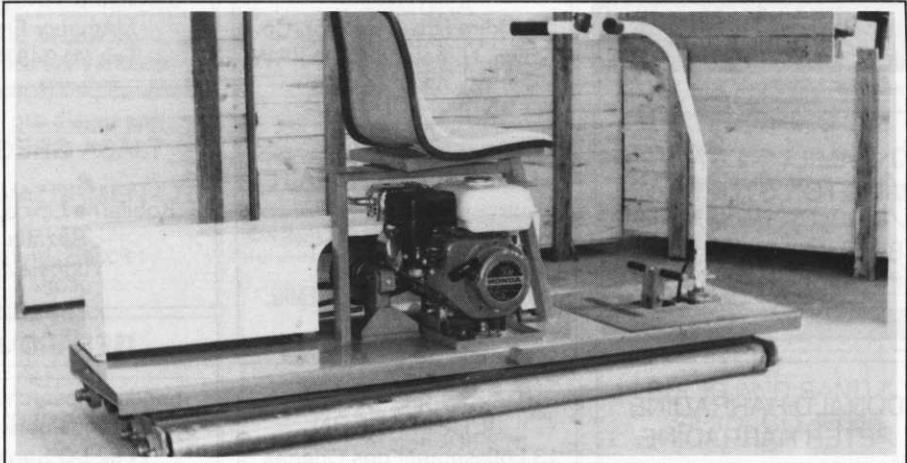


Iron' are faster, more even greens, longer life for mowing machines by not having to cut as low and better control of moisture content.

The 'Turf Iron' is powered by a Honda engine and very simple to operate using only two foot pedals and handle bars

to manoeuvre the three 36" x 41/2" rollers. The complete unit comes with its own roll-on-roll-off trailer fitted with heavy duty tyres. At the ideal operating speed the 4-5 mph an average size golf green of 600 sq. yds. will take about ten minutes.

below: 'The Turf Iron'



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