



# WIDE OPEN

Mother Nature gets a helping hand from a crew of seven in preparing for this year's Open Golf Championship. DAVID WHITE reports from Royal St George's

**R**eaching the links at Sandwich Bay, home of the Royal St George's Golf Club and arena for the 122nd Open Golf Championship, is rather like riding a Tardis time-warp machine.

Upon leaving London there's a lovely beginning buzz as thirty or so miles of M2 motorway are gobbled up with rapidity, followed by further encouragement in taking the dual-carriageway which loops around Canterbury, for negotiating that ancient city no longer causes the hassle it once did.

So far, so good, but once free of those 'Canterbury tails' the traveller starts to slip in reverse in terms of modernity. En route to Royal St George's he must negotiate the pretty but twisting and often inadequate A257, following this tiresome frustration with a mere dollop of Sandwich by-pass before plunging aeons back in time to negotiate the town's quaint, mysterious and ridiculously narrow streets, a route infinitely more charming to pedestrians than motorists.

Taking the one-way system, the driver should force himself to ignore the few out-of-character

**"There's a new leader in mowing technology."**

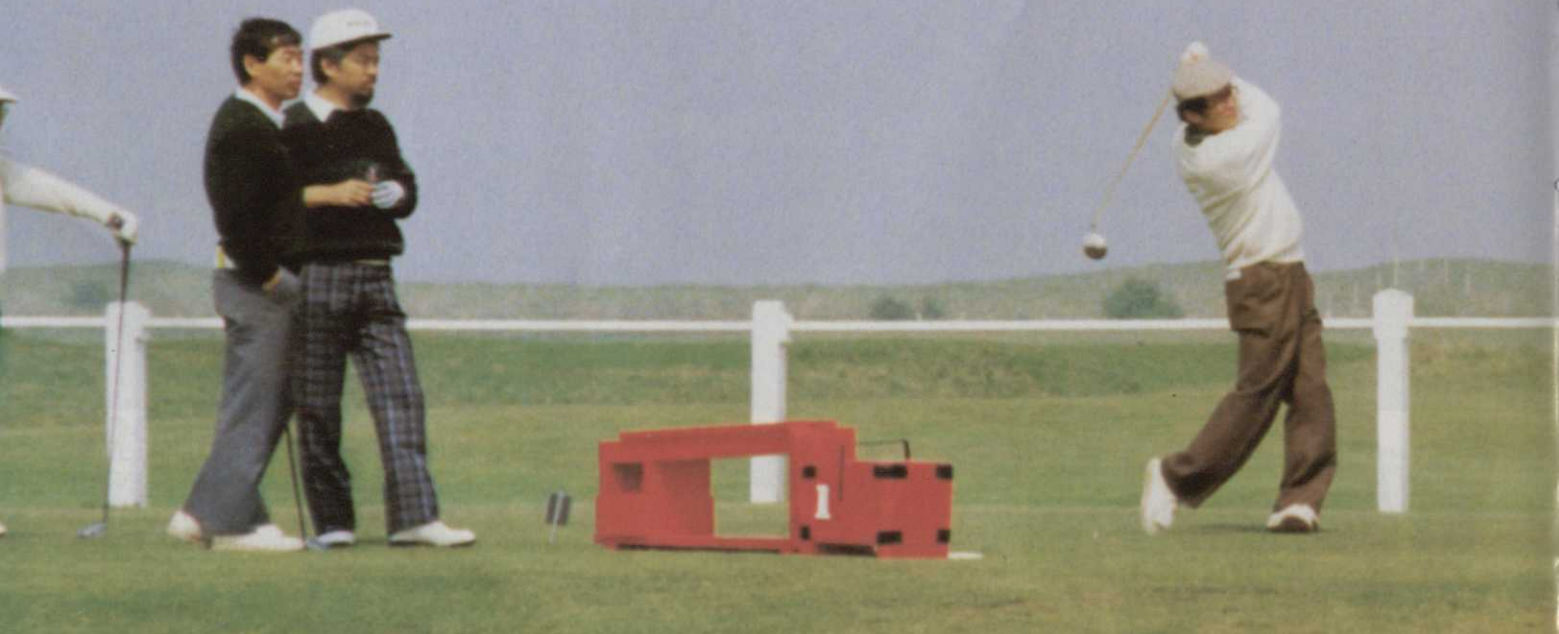


**SABO-Roberine professional grass cutting machinery**

Distributed in the UK by: Claymore Grass Machinery • Tel: (0789) 490177 • Fax: (0789) 490170

AD  
REF  
315

# 'We've never ever seen the need to apply fertiliser on the fairway...'



21 → semi's as he leaves the medieval town of Sandwich behind, for suddenly and surprisingly he will come upon an unimposing driveway leading to a comfortable and imposing clubhouse that once was an old Kentish farmhouse. He will have entered the time warp – a place that transports a body back to a style that has survived almost all onslaught of modernity, together with a golf course that is often called the St Andrews of the South, though personally I liken it more to Muirfield, for it shares the same quality of spaciousness and detachment.

Visiting the course in April, I found it difficult to picture this little corner of Kent invaded by hordes of cashmere-sweatered grockles during Open week, for of all Royal St Georges' great characteristics, its greatest is its solitude. In all of its many guises it is a glorious place to golf – on a day when the sea mists swirl over the 'umps and 'ollows it is a place of mystery, when the sunlight shines and pirouettes on the waves across Pegwell Bay it is in a world of its own, isolated maybe, but the skylarks will sing their lungs out and the white cliffs of nearby Ramsgate will positively glow. As for the the wind, was there ever a links worthy of the name that didn't boast a blow – a links just isn't a links without a force seven charging in from the south west – though when storms roll in off the North Sea, Royal St George's can reduce giants to gibbering idiots and it is altogether

too much for players of moderate skill.

'Mother Nature is quite wonderful', I observed, as the club's head greenkeeper, Derek Scarborough, drove me round the course in his trusty Cushman. 'Yes', he replied, 'though what you see today shouldn't be credited to her alone, for this is down to Nature and seven men – she gets a fair share of help from my crew'. Derek Scarborough

#### PREVIOUS OPEN WINNERS AT ROYAL ST GEORGE'S

1894	John Henry Taylor
1899	Harry Vardon
1904	Jack White
1911	Harry Vardon
1922	Walter Hagen
1928	Walter Hagen
1932	Gene Sarazen
1934	Henry Cotton
1938	Reg Whitcombe
1949	Bobby Locke
1981	Bill Rogers
1985	Sandy Lyle

has been at the club since 1966, leaving Woodhall Spa to become Ralph Davis's assistant and in 1976 taking over the headship when Davis retired. This Open Championship will be the club's thirteenth and Derek's third, though for three of his crew it will be their first. As Derek pointed out, 1981 was undoubtedly a huge challenge as none of

them had been involved in an Open before, though the club is no stranger to the big event and has hosted Amateur Championships, Walker Cups and a European Amateur Team Championship, as well as jointly hosting, with Royal Cinque Ports Golf Club, the public schools 'old boy' spring bean-feast that is the Halford Hewitt.

Derek Scarborough appears the very epitome of calm, a man who seems content to let the madness of the world wash over him – I've never met a greenkeeper so laid back – as though he's preparing the course for a monthly medal. 'Of course', he said, 'preparing for The Open is still a challenge, but it hasn't got any harder, for you must understand that I attempt to keep the course in first class condition all the time'. Point taken, but hadn't certain things changed, I asked. Observing that the course had been relatively quiet prior to the '81 Open, Derek is of the opinion that now it seems everyone wants to play and this has obviously brought about some changes in the course maintenance programme. If pressed, he will admit that the Vertidrain is used a little more frequently, but more than anything he puts Royal St George's fine appearance and irresistible turf down to 'just routine maintenance and good greenkeeping practices. 'Yes', he says, 'the course is marvellous, all down to Nature and the crew' – he grins, but you feel it – I could sense it – he's very proud of his team.

#### THE MEN AND THEIR MACHINES:

- 1 Ransomes five-gang fairways unit
- 1 Ransomes GT
- 6 Ransomes Auto-Certes
- 1 Ransomes 180
- 3 Cushmans, c/w spikers/slitters/top dressers.
- 1 Vertidrain
- 2 Ford tractors
- 2 Massey Ferguson tractors
- 1 Kubota tractor



- 1 Trojan Rough-Cut
- 1 set x 5 Gangmowers
- 1 set Verti-cut units (Greens)
- 1 set Verti-cut units (Fairways)



Looking at the course it is easy to see why he is optimism personified, for he tells me that there are no problems, no diseases, and there's plenty of fescue sprouting. The weather (my visit was in April) had been kind, the course was 'looking great' and now they were hoping for kind weather during Open week. 'And if it rains continuously?', I ask. 'Well, the organisation of the course for The Open under R&A appointed agronomist David Stansfield, along with the club committee and The Championship committee, is programmed to the n'th degree, so nothing is left to chance. Being on sandy soil the course drains well -and I honestly don't envisage any problems in that respect, though we need good weather if only to keep the spectators happy'.

The programme leading up to The Open is one of 'business as usual' - with top dressing for the greens done with a mix of the club's own making, using sandy soil taken from fields adjacent to the course, a source sufficient to last well into the next century. Green cutting, normally done with triplexes, moves gradually toward pedestrian Ransomes Auto-Certes as The Open gets nearer, the better to obtain the finish, desired speeds and consistency required. This cutting routine with the Auto-Certes begins at first twice weekly in May, progressing to three, four, five and finally seven days a week as 'the big one' looms close. Blade settings begin at 3/16"

and are very gradually lowered to a minimum of 1/8" - 'we cannot go lower', he told me, 'for the green undulations just would not permit it'. Verticutting takes place twice weekly, greens are watered 'when necessary' and only 'just enough' is applied to keep them healthy - say five minutes each evening, dependent upon God's own contribution.

'We've never overseeded the greens', Derek declared, 'we don't need to, though of course we repair divots on tees and fairways using a proper selected mix. What's more, we've never ever seen the need to apply fertiliser on the fairways'.

In truth, the main cause for concern comes not from golfers but from those terrible twins, wind and erosion - and it was erosion that prompted the Royal St George's committee to instruct Brian Pierson a year or so ago to undertake the complete restoration and revetting of some 75 bunkers - representing about three quarters of the total bunker population. If solitude is one of Royal St George's outstanding characteristics, its bunkers are another - not flat and purposeless like the seashore, but greedy, jeering obstructions that have as great a psychological effect as any I've ever experienced. It's as though they lie around, challenging and defiant, waiting to put the player completely off his stroke. Pierson's have done a wizard job.

Another contractor had recently vacated

the links, having achieved what Derek described as 'a good kill' - in a single day of labour wiping out the irritation of daisies and clover on all the treated fairways. The staff meantime had applied Supertox to the greens and this also had achieved the desired effect - weed free putting surfaces.

Those putting surfaces are Royal St George's third outstanding characteristic, for many a match has been lost on its teasing and mischievous greens when the player's talent elsewhere has been beyond reproach. Most are big, all are undulating, each has hidden fall and slope to catch the unwary - all are infuriatingly cunning... and a drying wind can make them skin slick.

Come the hour the team - comprising Tony Adamo, Chris Marsh, Robin Holloway, Graham Royden, Neil Metcalf and Dennis French - will be on tenterhooks. The course will close for seven days to permit a last roundelay of fine-tuning and the greens will feel the mower blades nip over them at least twice a day. Sandwich's solitude will evaporate, but at a time when too many championship courses have compromised their integrity, were the ghost of Dr Laidlaw Purves to return he'd find the old girl he created much the same as when he left her, deceptive, mean, magnificent - and a terrific test of golf... which should cause Derek Scarborough's men to feel rather pleased with themselves.

# GRASS



In this, the first of a two-part feature, straight-talking agronomist JIM ARTHUR gets back to basics

There will of course be many who read this article who are expert at grass identification – an essential facet of advanced greenkeeping education. Nevertheless, I never cease to be amazed at the very poor level of skill in the identification of grasses in mown turf, and not just by new entrants to the profession.

Yet accuracy in this aspect of greenkeeping training and practice is equally vital to both sound advice and sound management. This inability to pick out even half a dozen of the commonest grasses in mown turf is by no means confined to practical greenkeepers. Advisers, who should know better, not only mis-identify species but confirm their errors in writing! I have in my possession a report from an agronomist purporting to show that on the course he was advising, 'the greens are some of the best annual meadow grass greens I have ever seen' – and those were greens which had been managed on sensible lines for a score of years and which were dominantly *Agrostis*! In another case, the virtues of *Pennecross* were being extolled by one designer whose enthusiasm was matched only by his ignorance, saying it was an excellent, rapidly establishing grass entirely suitable for our climatic and soil conditions, as demonstrated by the greens on his fairly recently built course in the south east – when their grass cover was in fact 100% *Poa annua*, all the *Pennecross* having been killed by a combination of bad management and our cold wet winters.

I well remember on one north-

ern California course, their superintendent defending his statement that his 100% *Poa annua* greens were *Pennecross*, on the grounds that they spent so much money every autumn on overseeding the greens that 'they had to be *Pennecross*'. But then he added that he was a chemist not a botanist!

Mis-identification is not confined to confusing bad species with desirable ones. I remember one unconvinced greenkeeper swearing that the 'invading' *Agrostis* and fescue in greens, responding to better management, was in his view annual meadow grass and 'his' annual meadow grass greens were, he swore, *Agrostis*!

I fully accept that identification is not always easy and I confess that I have been picked up more

than once by on-the-ball greenkeepers, when confusing fine-leaved native links bents with equally fine-leaved fescue, relying on the colour change – in winter – of *Agrostis*, often bronze or purple tinged due to frost. So was the fescue. We all make mistakes! It is, in fact, the general appearance and colour, different of course at different times of the year, which give the first clues, but closer examination is always wise, as I know full well, despite the problems of getting down to eye level, with my arthritic knees.

One thing is certain. There is very limited value in teaching grass identification from the examination of mature grasses growing in 'museums' or as 'pot plants'. Any reasonably observant person can be trained to identify common grasses in the flowering head stage. Thrusting bouquets of seeding grasses into students' hands is no way to teach them what is undoubtedly the most important aspect of their craft – the identification of grass species in mown turf.

Luckily, there only a relatively few grasses which are of economic importance in turf, either as beneficial species or as undesirable weeds. I am fully aware that there are well over a hundred grass species (excluding cereals) in the family *Gramineae*, as well as an enormous number of strains. Many, however, are so rare and so localised that even in a lifetime of botanising there are

still a few that I have not seen. My 'life-list' was immeasurably helped by being trained in the field over 45 years ago by a botanist with an international reputation, Bingley's senior adviser, the late Richard Libbey, and on our joint visits to links courses we wagered the first round of drinks that evening on the number of grass species identified in the fairways.

However, if any young (or indeed older) greenkeepers can reasonably accurately identify a very small number of useful species and half a dozen harmful or undesirable 'weeds', then he will have the edge on many 'experts', ranging from university professors to so called turf doctors. Any educational course on grass identification in turf must be based on turf samples (hole cuts from mown grass). You do not see many grasses flowering in close mown turf and even that ubiquitous pest annual meadow grass hardly throws up flowering stems, but flowers and seeds under the blades of the mower.

Of course, practice makes perfect and in time species which can be easily confused, especially at first glance, can be picked out. Initially it is enough to be able to identify the relatively few useful species – when all the rest can be dismissed as irrelevant to greenkeeping, if not actual weeds – in the sure knowledge that few will be able to contradict you!

What then are these species on whose identification correct management must be based? In today's greenkeeping there are really only three species which it is essential to correctly identify, if

## THE RAKE'S PROGRESS ...

If you are over 30 you can probably remember when a bunker rake, in a bunker, was something of a rarity, even on our most prestigious courses. Nowadays we are approaching the point when a golfer expects to find a rake in every bunker on every course. But there are rakes and rakes. Heavy steel (usually rusty), aluminium (often with broken teeth), even lumps of wood with a row of nails! Certainly few traditional rakes give members cause for pride in their club. Ours are different and very much better. Gleaming white 'RIGIDEX' heads which will never break. Even whiter tubular P.V.C. shafts for instant visibility and inherent flexibility. Topped with a comfortable one-handed grip. Guaranteed to improve any club's image. In accordance with R&A recommendations we no longer fit spikes as standard but they are available at modest extra cost.

Write on club notepaper for a FREE sample rake. Dept I G4



14" HEAD  
£8 + VAT  
21" HEAD  
£8.50 + VAT

**BOB ANDREWS LTD**

1 BILTON IND. EST., LOVELACE ROAD, BRACKNELL, BERKS RG12 8YT.  
Phone 0344 862111 or FAX 0344 861345

# IDENTIFICATION

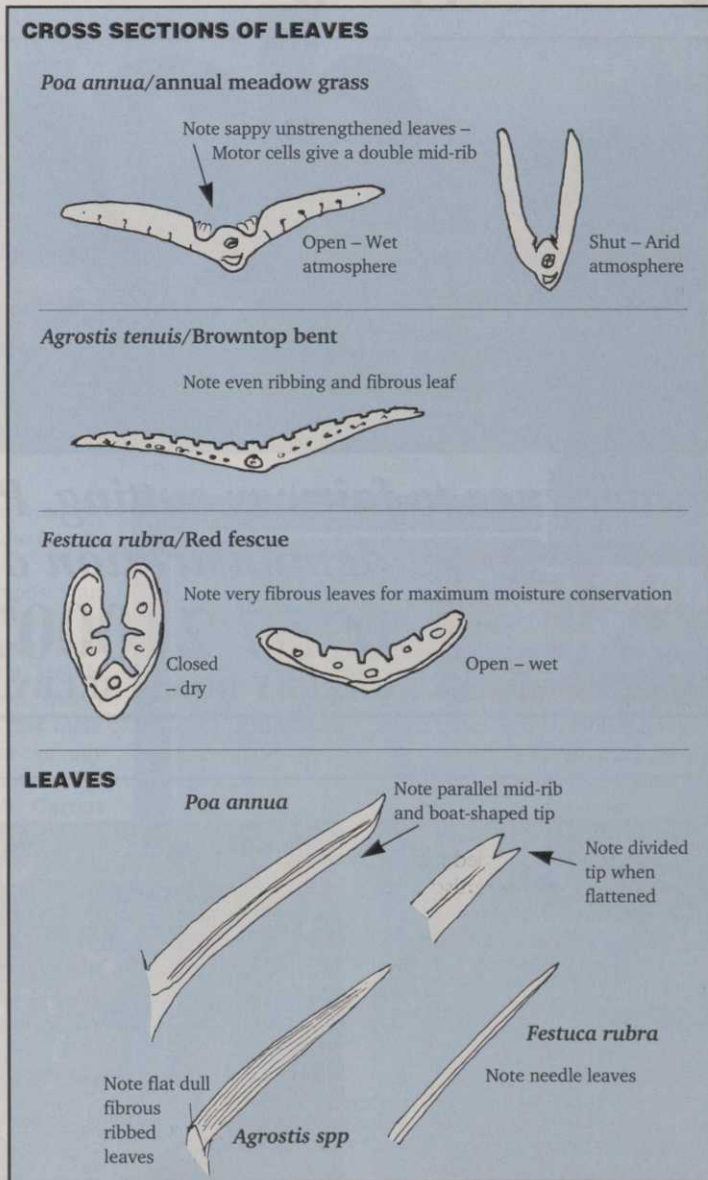
only to be able to assess the progress or otherwise of a line of management or to identify and treat problems (or otherwise), which the dominance of a particular species indicates. These three are the bents (*Agrostis spp*), fine fescues (*Festuca rubra*) and the meadow grasses (*Poa spp*). It is a quirk of botanical fate that the last two, the first so much our ideal grass and the last containing that enemy of greenkeeping, *Poa annua*, are botanically closely related.

There is of course no substitute for field training by a really knowledgeable grass man. It is, I suppose, the same with bird watching. For someone like myself who has been bird watching for 65 years – (and what a suspect hobby it was pre-war and how sophisticated it has all become, with all the twitchers 'artillery' and communication systems) – a glimpse of a bird will tell me at once either what it is – or more important still, suggest that it is something out of the ordinary. There is much in common with bird and grass watching. The first glimpse is equivalent to the first impression – the 'jizz' of the bird. Colour (so variable with the season), texture, reflected light, turf density, upright or spreading growth – all help to group the turf under dominant species.

Some grasses never blend easily with others in a multi-species sward. Fine fescues especially tend to grow in distinct zones, whereas *Agrostis* generally but not invariably mixes well with annual meadow grass (*Poa annua*). In passing, look carefully at the margins of such zones. If they are clearly defined, this indicates active growth outwards and so management is favouring that grass. If the margins are indeterminate, with other species 'probing' into the zone, then that grass is suffering and present treatment is not favouring it.

Experience is the best teacher in such matters – you will quickly get to recognise the distinctive greyish or yellow green colour of fine fescue in winter. (Of course, when greens are growing fast, whether fertilised or not, and a uniform green, this masks any colour variations.)

Bents, especially creeping bent



(*Agrostis stolonifera*), turn almost purple after frost and because they have ribbed leaves which do not reflect the light, always look dull. Closer examination will confirm the species within reasonable limits of accuracy. Cross sections of leaves (illustrated) show what to look for. The bents (*Agrostis*) with very close parallel ribs on upper leaf surfaces are quite distinctively different, even to the naked eye, from the fibrous needle leaves of fine fescues and especially the soft, stubby, sappy leaves of our old enemy annual meadow grass. Indeed all the *Poa* species show the same twin parallel mid-rib, (created by two lines of motor cells which open and close the leaf blade in response to wet or dry weather, to produce

the effect of a double, parallel mid-rib as illustrated. Note that all the *Poa* family have leaf-tips shaped like the bow of a boat, and if flattened out, the point splits to give two tips (as illustrated).

One of the problems of grass identification is that the same species can have very varied forms, none more so than *Poa annua*. These forms range from the coarse open growth of the short lived (10 week life cycle) invasive type, colonising any bare ground, to the biennial fine leaved form which characterises old established, over-fed and over-watered greens – in extreme cases forming 'pads', to the detriment of putting surfaces but in its best form responding to frequent mowing and verticutting to pro-

duce tolerable, indeed sometimes excellent, putting surfaces in the growing season.

Two other *Poa*'s are found but are not important in golf greenkeeping. Rough stalked meadow grass, (*Poa trivialis*), is a surface growing (stoloniferous) perennial which is useless in turf. Smooth stalked meadow grass (*Poa pratensis*) has masses of rhizomes and is sometimes advised for tees and fairways. Its main disadvantage is that it dies out under close mowing. Its characteristic blue green leaves (with marked boat-shaped tips and double mid rib) are unmistakable – giving it its US name of Kentucky blue-grass. It is not in my view as important as some would have us believe.

Equally, the *Agrostis* species can be very variable. The characteristic surface running stems of creeping bent (*Agrostis stolonifera*) are not often seen on greens, but more commonly on less frequently or closely mown surrounds. They contrast, not just with browntop (*Agrostis tenuis*) but with the Penncross family (*A. palustris*) (which is not to be confused with our creeping bent, though often so described on the other side of the Atlantic). This grass is totally unsatisfactory for any area where there is a long, drawn-out, cold, wet winter, as it becomes dormant, sickly, pale and weak under these conditions. For those areas where there is no winter (and no dormancy therefore) or where there is no winter golf, as courses are under feet of snow, it is ideal, being a rapid establisher and with proper management, money and man power it can produce superb surfaces, whether this be in Mediterranean zones, Asia, NZ North Island, or of course certain areas of the United States, but by no means all of them. Under more temperate climates it produces thatch second to none and after dormancy it is so weakened that it soon becomes invaded and eventually replaced by annual meadow grass, even with the skilled management and high budgets which enable it to survive longer.

■ Next month we will deal with the useless or weed grasses, always remembering that what is a rubbishy weed to a greenkeeper can be a productive crop plant to a farmer.

# ANTONIO CARRARO



## TRACTORS FROM 28-67HP

Articulated or rigid, equal size wheels, reversible, high horsepower-to-weight ratio

# For all your golf course tasks



*From greens maintenance to fairway cutting. Phone now for a demonstration on your course:*

# ANTONIO CARRARO



**0757 210007** (Evening: 0522 530115)

BARLBY ROAD, SELBY, NORTH YORKSHIRE

AD  
REF  
409



## The Name Behind Britain's Top-Rated Turf

**When it comes to quality, we don't mess around.**

Take, for example, our soils. We use the best soils in the country for growing turf. Selected to grow turf that's strong and easy to lay, with no wastage. Selected for free-drainage of rain and irrigation water. And then there's the grass seed. We choose only the top-rated varieties of grass from the STRI Merit Lists - to give you not only the best instant effect, but the best long term results, too. And with a range of different grades, you can choose the most suitable for your purpose.

**Guaranteed delivery time.**

With a guaranteed delivery time for single-drop

loads, you won't be paying your men to stand around doing nothing. And if there's no fork-lift on site, don't worry... our mechanical off-loading facilities will ease the burden.

**Big or small roll.**

As you can see in the photo above, you can have Tillers Turf in either big or small rolls. To give you even greater flexibility, we offer a laying service too. Which means that if your staff are flat out with other jobs you can rely on us to deliver the turf, off-load it, and lay it to a high standard of workmanship. Of course, you may want to lay the big roll yourself, in which case we can loan you a suitable machine free. For a prompt quote, or to find

out where our distributors are nationwide, give us a call on **0652 650555**. We will also send you a copy of our brochure. And to see for yourself why Tillers is the name behind Britain's top-rated turf we can send you a sample next day, as well.



## TILLERS

Tillers Turf Company Ltd., Castlethorpe, Brigg,  
South Humberside DN20 9LG.  
Telephone: 0652 650555. Fax: 0652 650064.

AD  
REF  
292

# Keep in touch

MICHAEL BIRD examines communications on the golf course

**“O**K then Steve, tell me why you wouldn't recommend Citizens Band radio for on-course communications?”

Silence, while Steve Garrett composes an appropriate answer: “Let's put it like this,” he begins. “If I say that CB radio is the equivalent of a crazy golf course and Private Mobile Radio is the equivalent of St Andrews, then I think your readers will understand that there is a world of difference between what can only be described as amateur and professional wireless communications systems.” Mr Garrett ought to know. As sales manager for Cotswold Telecommunications Ltd. he is responsible for advising on and supplying two-way radio systems, cellular radio telephones and radiopaging systems to customers throughout southern England. The company secured the British Standards Institute's BS 5750 part 2 accreditation more than a year ago and is the largest privately-owned provider of mobile communications services in the region with additional sales and service centres at Newton Abbot and Truro.

“Don't think I'm out to knock CB radio,” continues Mr Garrett. “As a public access system, it has an accepted role to play as a low cost means for people on the move or on their own to keep in touch. However, if you want a private conversation with one or more of your staff without worrying about a complete stranger listening or butting in, then CB is not the answer. It has to be Private Mobile Radio, normally known as PMR.”

Why Private? Because each system is allocated a specific operating frequency by the Department of Trade and Industry enabling private communication between all equipment tuned to the same frequency. To prevent others 'tuning in', all equipment has to be pre-set by the supplier to the frequency given by the DTI to each licence holder for use on the assigned channel, with other users within a prescribed area – usually up to 40 miles radius – being 'locked out', preventing access to your designated frequency.

There are four principal frequency bands available to PMR users, each offering a different transmitting characteristic to suit the loca-



**Top:** Hand portables offer maximum flexibility but can be limited in their range in hilly or built-up areas. In these cases, a fixed base station or community repeater service can improve signal reception.

**Above:** A base station with appropriate amplifier and aerial can be used to communicate with mobile and portable radio sets over a radius of up to 25 miles.

tion, topography and density of buildings and other obstructions. The bands are VHF low, mid and high, and UHF, each with their own range of frequencies one of which is allocated to the user by the DTI. A preferred frequency band can be indicated on the licence application although if a specific channel is required, the reason must be given.

In London, because of the high demand for PMR during the late 1970s and early 1980s, no new frequencies have been allocated for more than five years, new users having to wait until someone else gives up an existing fre-

quency. Although the UHF band is geographically restricted, it is ideal in built-up areas due to its ability to penetrate steel and concrete better than VHF signals. On the other hand, radio waves produced on VHF low band hug the contours giving good coverage in hilly areas while VHF high band is able to travel long distances in a straight line, producing a high quality signal on open terrain.

These variations in signal characteristics make a thorough site survey the fundamental starting point for anyone considering installing a mobile radio communications system. Mr



AMENITY LAND SERVICES

Let ALS take the bother out of the job!

# CONTRACT SPRAYING

For Selective Weed Control on Fairways and Sports Fields

A large number of golf courses and schools regularly use our contract services and are pleased with the results.



Why? Because:

- We start early and finish early, with minimum disruption to play.
- Our operators understand the game and how to behave properly on a course.
- We know pesticides and what will give the best result for your situation.
- We are cost effective and can supply and apply for little more than you will pay for the pesticides from the usual trade outlets.
- We save all the bother imposed by legislation. COSHH assessments, operator spraying records and health monitoring, pesticide storage and records, disposal of used pesticide containers, operators' certificates of competence, sprayer calibration to name but a few!
- We carry out the job accurately and professionally with purpose built equipment leaving your staff free to get on with their routine jobs.

Contact ALS for a quotation for your spraying requirements without obligation or for references from other golf courses or schools we spray.



0952 641949

AMENITY LAND SERVICES, LONG LANE, WELLINGTON, TELFORD, TF6 6HA

AD REF 408



INSTALLATION SALES & SERVICES ON NEW & EXISTING SYSTEMS

## COTSWOLD TELECOMMUNICATIONS LTD

- Two way radio systems
- Cellular radio/mobile telephones
- Radio paging systems
- Car to car repeaters
- System consultancy & engineering

34 Stroud Business Centre, Oldends Lane, Stonehouse, Glos. GL10 3SA

Tel: 0453 828615 Fax: 0453 827626  
Mobile: 0831 227227

Also at Newton Abbot, Devon - Tel: 0626 835550 Fax: 0626 835551

AD REF 410

alprene

EUROPE'S LEADING BACK-PACK SPRAYER

Alprene, the low price high quality Back-Pack Sprayers from Europe's leading specialists.

Far superior to many other makes. Alprene Back-Pack Sprayers conform to specifications set by the International Pesticide Application Research Protection Centre, UK and IPPC, America.

Overall dimensions: 59cm (Height) x 38cm x 20cm



Only £59.95 PLUS VAT

ALPRENE FEATURES:

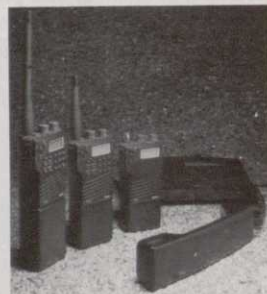
- ▶ Dual Piston Pumping Mechanism
- ▶ 15 litres usable tank capacity
- ▶ Airtight pump and tank
- ▶ Left or right interchangeable pumping lever
- ▶ Automatic pressure control
- ▶ Adjustable waist & shoulder straps
- ▶ Spares storage container

TORO

To order, simply send a cheque for £70.44 (inc. VAT) to the sole UK distributor, TIL IRRIGATION, MILLSTREAM TRADING ESTATE, RINGWOOD, HAMPSHIRE BH24 3SD U.K. Toro Irrigation Distributor

AD REF 412

The Sender is here from Nabishi



A Compact Programmable 5 Watt Transceiver  
Programmed by keypad or IBM-compatible PC to give you a host of features including

- PAGING ● SCANNING
- DTMF (connect to telephone system)
- Battery save function
- Unit comes with or without keypad

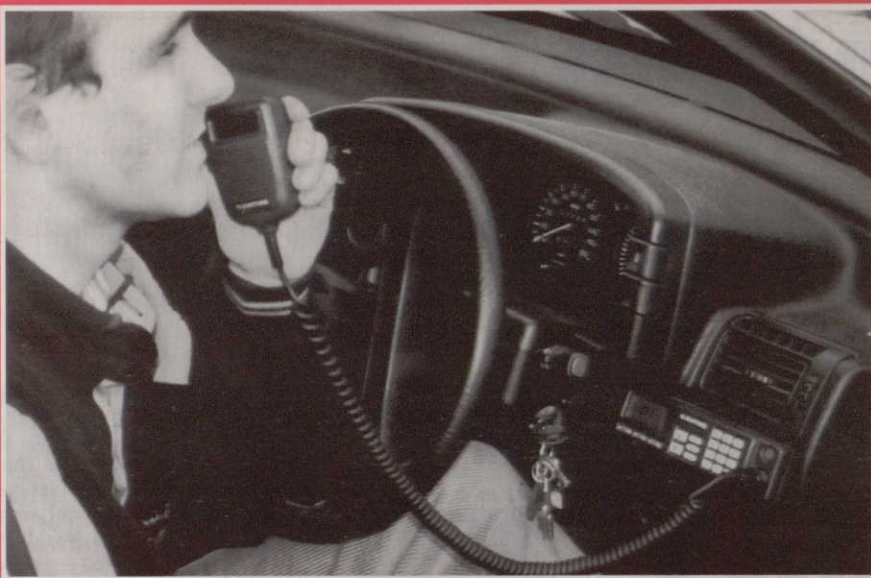
Designed to fit your pocket

**Nabishi**  
RADIO SYSTEMS

Nabishi UK, Nabishi Building, 3/5 Cremoill Road, Reading RG1 8NQ  
Tel: 0734 568181 Fax: 0734 567166

AD REF 411





Mobile radios are suitable for installing in most vehicles enabling two-way communication with other mobiles and a base station, according to the licence type.

# Keep in touch

regional or local coverage at lower cost and this could be appropriate for a club within the M25 area where new PMR frequency allocations are restricted.

If two-way voice contact is not essential, then the most economical form of communication is the pager. Comprising a simple one-way system, it uses a similar national network of landlines and relay base stations to that used by National Band Three. The basic pager uses a 'bleep' signal to alert the carrier that he or she should make contact with base. On more sophisticated systems, a message can be displayed on the pager's screen while the most advanced offer one-way voice communication. The disadvantage with most pagers is that communication can be from the base only, eliminating the opportunity for a conversation between two handsets.

And what about cellular telephones? Steve Garrett reckons that he can dissuade anyone working in a fixed location from investing in a mobile telephone for routine or even emergency communications with fellow members of staff. "A mobile radio system can be installed and operated for a known monthly figure, with no call charges," he points out, "If you're always going to be talking to the same people, a mobile telephone will usually prove a far more costly alternative."

A final word of advice concerns after-sales service. "Don't assume that the equipment you choose is going to prove totally trouble-free," he comments. "Dust, water, vibration and knocks can upset even the best-protected electronic circuitry. Mobile radios also need retuning from time to time. Buy from a reputable company able to provide the level of service that you would expect from any other supplier of golf course equipment. There is no mandatory requirement for suppliers of communications equipment to be members of any industry association or governing body, so beware of shady operators who may not be around tomorrow."

27 ➤ Garrett points out that no-one wanting to do the job properly should attempt to do it themselves. "There is plenty of cheap equipment advertised, but once purchased, you could very well find yourself on your own," he says. "Although it is possible to apply for a licence and be up and running within a few days, users can find that they have selected the wrong equipment, the wrong frequency or even the wrong licence for their specific requirements."

There are two basic types of licence appropriate to golf course applications, both costing from £120 a year. The first is 'local area', permitting wireless communications within a 3km (1.9 mile) radius of a permanent base station transmitting at a maximum five watts power. This system can be used to link a base station in the office with mobile radios in vehicles and hand portables carried by staff. If all the work is carried out within the confines of the course, a local area licence may be appropriate for all one's needs, depending on the findings of the site survey.

If, however, there is a need to keep in touch with staff and management over a greater area, particularly when leaving the course to collect parts or to maintain other leisure facilities in the locality, then a 'wide area' licence is likely to be more suitable. This licence normally allows a maximum transmission signal strength of 25 watts from a permanent location, with coverage averaging about a mile per watt of output, depending on the lie of the land and any obstructions such as buildings.

The basic wide area service operates on a dual frequency basis, enabling the base station radio to talk to mobiles on one frequency and receive calls on another. It does not allow for direct mobile to mobile contact. For this, one needs to apply for a 'talk-through' facility, using the base station as a relay to enable one mobile or hand portable to connect directly to another. Here, aerial type, location and direction are vital for the optimum operation of the system. "A fixed base station with a permanently installed aerial at or close to the highest point on the course will produce a consistently better signal on undulating terrain than two hand portables with built-in aerials," points out Mr Garrett. "For that reason, where a site survey highlights variable signal strength, we

would advise routing all communications via the base station using a talk-through facility. "A further option is to use a 'connection' service via one of the community repeaters which have been installed by communications companies nationwide and available on a monthly air time rental of around £10 to £15 per mobile radio set, inclusive of the licence fee but not the equipment.

Cotswold Telecommunications, for example, has community repeaters located on masts on most of the highest hills from Worcestershire down to Cornwall. Consisting of an aerial and transceiver (combined transmitter and receiver), it enables subscribers to communicate with other mobile radios on the same frequency over the complete area covered by the community repeater's aerial - typically a 30 to 40 mile radius.

With a base trigger station in the office linked to an aerial pointing at the community repeater, all mobile and hand portable radios on the course should be able to communicate with each other, subject to the terrain, at considerably lower cost than attempting to overcome the problem using all one's own equipment. Indeed, there need be no capital outlay at all, as rental options are normally available for the full range of mobile telecommunications equipment available, irrespective of the licence type or system selected.

A further option which provides nationwide mobile radio coverage, yet is suitable also for those in cities where new frequency allocations are restricted, is National Band Three. Using a network of land lines and hilltop aerials, this service is used principally by distribution and haulage companies throughout Britain paying a monthly subscription per mobile set, with no call charges. National Band Three is available also with just



Mobile communications equipment will need servicing, repair and occasional retuning to the manufacturer's specifications. Ensure that your supplier has the facilities and expertise.

# Why must we flounder with inconsistent advice?

It was great to see such well argued and thought provoking articles by Arne van Amerongen and Tony Howarth in the May issue. My first reaction was to note that the subject matter was basically the everlasting debate about *Poa annua*, fescue and bent. All this indicates to me that after twenty years of political in-fighting between rigid dogma and liberal experimentation by agronomists, we are no further forward toward any consensus on even the basic ground rules, such as grass species and subsequent management.

I am sure we all agree that pure fescue greens licked keen by sea breezes are the only true golf greens. On established greens anywhere, management by Arthurian principles is the best way to try and emulate them. New constructions on inland sites are, however, surely a case apart. The specification of the seed mix and in many cases the planning of the aftercare is generally in the hands of agronomists.

Some stick doggedly to sowing fescue where it is surrounded by *Poa annua*. The new sward, subjected to heavy play and minimalist policies can only result in a weak turf ripe for invasion. Others sow creeping bents with scant regard for whether the resources to manage such a grass (including the ability to limit winter play) are in existence or not. Whatever has been tried, it seems there has been very little success in producing *Poa annua* free greens. Those that have owe it more to a cut-it-out-and-patch-it policy that any my granny could have come up with. Mind you, for those who have the resources, as yet it is a better solution than anything agronomic.

Whilst all other sectors of the turf industry have formed associations to agree basic standards there seems to be no consensus among agronomists. It seems that anyone can become an agronomist and that a new theory is a necessary entrance qualification. If there were four agronomists in a crowded room you would have no trouble finding them. Each would be in his corner expounding his latest ideas, none would agree.

Where does all this inconsistent advice leave the poor greenkeeper? Five years down the road on a new construction he either feels guilt-ridden for applying extra fertiliser to achieve any kind of grass cover, or ashamed of the thin, bumpy greens because he sticks rigidly to agro-

nomical policies which are plainly not appropriate and have already failed to cope with the wear.

Some consensus needs to be reached among agronomists about what is and what is not possible under today's conditions. The first rule of management is that all objectives must be attainable. If they are not then morale suffers and job satisfaction goes out of the window. Luckily, greenkeepers work with their feet on the ground: there are no handy ledges from which to jump.

At a time when the reliability of physical laboratory tests has been seriously questioned, with no apparent response from the Sports Turf Research Institute, what confidence can the greenkeeper have to get on with the job of applying agronomic principles and yet be sure of the outcome. In such difficult times we need the combined strength of all our respected agronomists working together to help greenkeepers. Standards and guide-lines need to be formulated and explained to the client in no uncertain terms, even to the extent of saying that if they want creeping bent greens then they should have separate winter greens, or in certain inland situations, if they want fescue/ bent greens they may need to restrict play or implement a policy of re-turfing every six to ten years. Whatever is required, it needs spelling out clearly so that greenkeepers do not take the blame for disappointed customers with impossible dreams.

If you are about to embark on a new project in hostile meadow grass country, my advice would be to seek out the agronomist who drew up the seed mix and rootzone specification and ask him for a detailed management programme for establishment and future maintenance.

If it is not forthcoming, then inform your employer that he is about to buy the equivalent of an expensive car with no service manual and no guarantee. If there is a programme, agree it in detail, follow it, monitor it and as soon as something goes wrong – call in your employer and the agronomist to agree a plan of action. Last of all, have a large turf nursery and half a dozen two inch pluggers ready and waiting.

■ Having got that off my chest, I must comment on Jim Arthur's wormkilling article in the same issue. Mr Arthur is properly revered in greenkeeping circles for the enormous support he has given greenkeepers and for the humorous and forthright way he has imparted his vast knowledge to anyone who cared to listen – and indeed some who did not! Given this background I am understandably reluctant to criticise, but the tone of his article suggested he expected criticism and I would hate to disappoint him. The gist of his complaint seemed to be that interfering busybodies had deprived us of lead arsenate. Well, three cheers for interfering busybodies. As someone who can remember walking up and down in white, billowing clouds with a hanky tied round my mouth, I am appalled by the idea of using such chemicals and frankly can hardly believe I was told to use them – even then.

Mr Arthur states that lead arsenate has not killed any greenkeepers, something that no-one can be sure of, nor can we be sure whether it has caused serious medical problems or not. It is debatable whether, in the hands of a conscientious course manager, it constitutes a danger, but he knows very well that some are more conscientious than

others and accidents can happen.

There is also the manufacture and disposal of waste products from such nasties to consider. Though our own chemical companies are no doubt well regulated, our second-class citizens in third world countries are often exploited – with scant regard for their health and safety. The sooner such materials are resigned to the dustbin of history the better. At a time when golf courses need to advertise their environmental awareness to survive, we need mention of 'good ole' lead arsenate like we need artificial greens!

There was a time when the 'Greens' were thought of as a cranky few, but Mr Arthur better take note that they now are important enough to have sustained viable organic farming, a mass industry of environmentally friendly products, saved and protected countless species of flora and fauna and to have representation in every serious political party in the Western world. What were the 'Greens' are now a large section of our society who understand that if the Earth's resources are left in the hands of a few free marketeers, with commercial exploitation by the unscrupulous, then there would be no reduction in CFC's so that we might have freedom to enjoy the sun like our forefathers without the now serious risk of skin cancer, no introduction of lead free petrol to protect our children's health and no whales to marvel at.

I whole-heartedly agree that we must banish the worm for fine turf to thrive. Worm activity lasts around six months and this necessitates three spray applications of Thiphanate methyl at a cost of £1200 per annum to keep our twenty-seven holes worm free. If this amount of expenditure is barely enough to warrant registration of chemicals, then what chance lead arsenate being applied every eight years? If it had not been banned it would surely have disappeared long ago due to lack of market.

I have nothing but admiration for Jim Arthur and publicly thank him for all the times he has sparked lights in my brain and brought a smile to my lips. However, my loyalties lie with my staff, my members and my little piece of England, the stewardship of which I am all the more grateful for – as any Scot down here should be.

■ The author, Kerran Daly, MGC, is course manager at the Salisbury and South Wilts Golf Club.



Master Greenkeeper **KERRAN DALY** joins the *Poa* debate and questions Jim Arthur on ways to kill worms