



Inside the halls there were 675 trade exhibitors spread over 210,000 sq ft

to produce cleaner, quieter power units. Kubota says that the majority of its diesels built since August 1995 exceed the CARB (California Air Resources Board) regulations. Designated the 'E' Series and rated from 6hp to 57.5hp, they cover virtually the complete machinery power range found within the turf maintenance industry.

Specific features which help the engines run cleaner are combustion chamber design, the angle of fuel injection and improvements to the fuel injection pump, nozzle and cam profile to reduce combustion period while restricting rapid pre-mixed combustion.

Briggs and Stratton point out that about half its engineering team and budget is being directed towards emission control testing, research and design. Senior Engineer, Andy Traxel, said that work was underway on improving carburation, combustion chamber design and oil control, the latter to prevent migration into the combustion chamber.

He believes that some form of exhaust after-treatment is on the way for small petrol engines although this may not necessarily be in the form of a catalytic converter. "Post-engine combustion of gases is an alternative and pos-

sibly less expensive way of reducing toxic emissions," he commented.

"As far as actual engine design is concerned, I cannot see any major environmental benefit from developments such as overhead cams. We have overhead valve and pushrod units which work extremely efficiently. In my opinion, Briggs and Stratton will move to fuel injection and electronic engine management systems before introducing OHC engines."

Kohler, on the other hand, was making a big play over its new 16hp V-Twin OHC engine, launched at the show. By moving the camshaft out of the crankcase and away from the sump and crankshaft, Kohler claims that the engine offers longer oil change intervals, lower operating temperatures, quieter operation and reduced oil consumption.

Most of the improvements have been achieved, says Kohler, by eliminating much of the housing above the crankshaft used previously to contain the camshaft and pushrods, allowing improved airflow around the cylinders. Furthermore, the use of advanced "lost-foam" casting technology to engineer oil passages and single piece castings has removed the need for internal gears and a



Cutaway of Kohler's 16hp V-Twin petrol engine with belt-driven overhead camshafts

number of gaskets. Instead, a rugged cam drive belt is used, guaranteed for the life of the engine.

Spilt oil is of major concern to all involved with the care of fine turf and there were a number of solutions on show to visitors. Aabaco Industries produce Aab-Sorboil and Bio-Aab-Sorb designed to clean up and neutralise all types of oil, except synthetic.

The first mentioned product is a non-toxic, biodegradable emulsifier which, when sprayed onto spills, makes both petroleum and

oil water soluble so they can be removed quickly and easily from turf using plenty of water. The makers recommend using Bio-Aab-Sorb as a secondary treatment. This is a powder containing live enzymes able to digest hydrocarbons present on grass or soil, converting them principally into carbon dioxide and water. Aabaco guarantees that the product is non-toxic, non-hazardous and non-corrosive although eye and respiratory protection is recommended during application.

An alternative is Simple Green Golf Cleaner, another biodegradable product which can be sprayed directly onto oil spattered turf. Having "broken up" the oil, it is flushed with water into the soil where it is "safely neutralised by natural biological action without harming the turf". The product can also be used to clean carpets, walls and turf equipment.

Having taken the GCSAA exhibition by storm two years ago with its all-electric E-Plex mower, Ransomes maintained its environmental push with the announcement that all Fairway 250 mowers are now filled with Turf Protector hydraulic fluid as standard. A biodegradable plant seed oil, Turf Protector has been developed over three years to provide

## Eye-opener

Stuart Green, the very first winner of the Gleneagles Excellence in Golf Award, used part of his £1,650 bursary prize to visit the GCSAA Conference.

Sponsored by Ransomes and Scottish Grass Machinery, the scheme enabled six students to spend 12 months on The Gleneagles Hotel's three championship courses to study and carry out all aspects of golf course design, management and maintenance as part of their three year HND golf management course.

Students went through a rigorous selection process and faced written and practical projects at the end of the year.

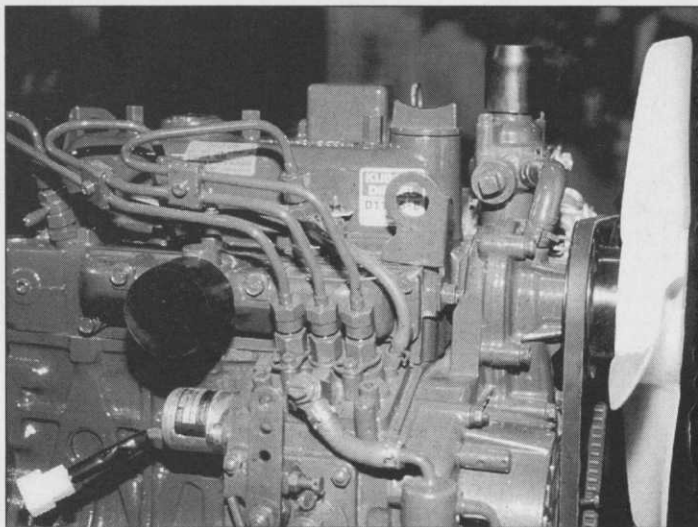
The 1995/96 Gleneagles Excellence in Golf Award scheme now in progress has been extended to include HND students from nine UK colleges as well as one from Australia. Jimmy Kidd, Director of Turf Grass Management with Gleneagles Golf Developments, announced that Gleneagles will be looking for students to apply also from North America for the next award year, commencing in August.

# 'Many new products and techniques tend to appear first on the other side of the Atlantic'

greatly superior lubricating properties over other vegetable oils, including rapeseed.

Any spills will cause only minimal turf damage and do not harm the roots. As a bonus, it can be mixed with mineral oil without problem in specified machines. Ransomes expects to include Turf Protector as standard on more grass-cutting equipment over the coming months. The principal machine requirements are additional oil cooling and an oil reservoir shaped to prevent possible foaming.

Any method of improving the accuracy of fertiliser, fungicide and pesticide applications must help in reducing potential environmental damage. The Land Pride Material Injection System (MIS) uses water to incorporate dry or liquid materials into the soil, getting down to "the root of the problem" without any surface disruption. As a bonus, the high pressure jets can help alleviate localised dry spots and soil compaction.



Kubota 'E' Series diesel engines are designed to run cleaner and quieter

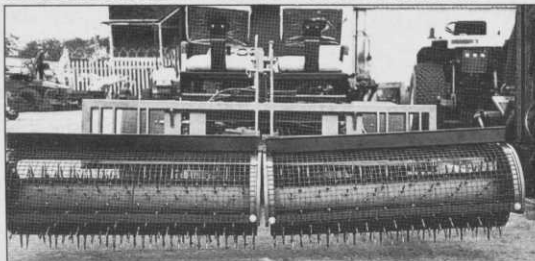
The unit has seven nozzles set 3in apart and can be programmed to inject at spacings from 1.5in up to 6in, adjustable in 1.5in increments.

Maximum injection depth is 8in. To eliminate jet wear, all injected materials are pulled into

the ground by the vacuum created by the rapid movement of the water and do not pass through the nozzle.

At the show, Landpride announced the appointment of Staffs-based Turfmech Machinery as its UK distributor.

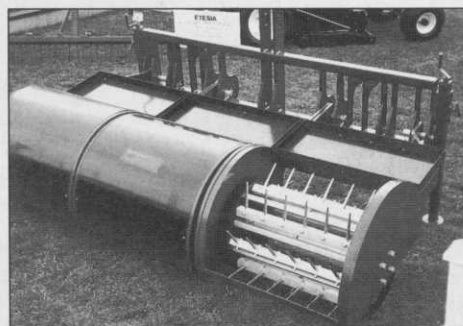
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# A man



**BIGGA's new National Chairman is the youngest yet but he has all the credentials. He met Scott MacCallum at Gay Hill GC where he is Course Manager.**

BIGGA's new Chairman is, at 38, the youngest to rise to the position in the nine years the Association has been in existence. But what Dean Cleaver lacks in years he more than makes up for in his experience of the industry and the Association and the commitment and enthusiasm he will bring to the job makes him ideally suited to the role.

For despite his "tender years" you could say he's been groomed for job for many years – 21 to be exact.

"I was a committee member of the BGGGA at 17 and Chairman of the Section at 21," he explains. "I've also been Treasurer and Secretary of the Section and have been Chairman of Education for the Midland Region."

"Becoming National Chairman is one of the greatest honours I've had in my career," said Dean, as he sat in the clubhouse of the Gay Hill Golf Club for which he is Course Manager. "Hopefully other young people will look to me as the youngest Chairman and will see that they too can work towards the success of the Association. You don't have to be old to contribute."

## ANNOUNCING OUR NEW REELMASTER 2300-D.



# groomed for the role

"Even in the first few weeks people have said how nice it is to see someone young as Chairman.

"It's quite stimulating and if it helps get more young people coming through it would be a big achievement.

Ironically, the man who launched Dean into a career in greenkeeping was Paddy McCarron, BIGGA National Chairman in 1989.

"I was quite lucky because Paddy pushed me into doing a lot of things in terms of taking responsibility for a job on the golf course and bearing in mind I was only in my teens it was superb experience."

Dean has looked up to Paddy ever since and their paths have taken a remarkably similar path. "When he gave up the job of Section Treasurer it was me who took his place, when I came onto the Regional Board 12 years later it was Paddy's position I took again and when he stepped down as BIGGA representative on the GTC it was me who took his shoes again. Now I have followed him as National Chairman."

The two men still keep in touch and Paddy, who is still at the Leicestershire Golf Club when Dean began his career, is delighted for his protege.

It might have been another career that Dean

was making his name in if things had only been slightly different.

"I had a trial for Leicester City in the early '70s as a left winger but wasn't quite good enough. That was just after Peter Shilton had left the club but when they had players of the quality of Frank Worthington and Keith Weller at Filbert Street."

He continued to play Senior League football in the Leicestershire area but much preferred the atmosphere of the pub team he played for and gave up the serious stuff after a season. He was only in his early 20s.

"I was also a decent athlete and finished second and third in the County Championships at the 100 and 200 metres while I also a decent tennis player. I've never taken my golf seriously although I've been told I could get down to single figures and I have to say that's still an ambition.

"It's just time and I already spend a lot of time at the course in any case and on top of what I do for BIGGA with a young family it's not fair if all my time goes in one direction."

Wife Linda and sons James, 10, and Daniel, 8, have been used to dad devoting so much time to the Association.

"I got married to Linda at 21 just before I became Head Greenkeeper at Rugby GC so

she's always been involved. It's just that it's got more and more.

"I had to do a lot of travelling because Rugby was borderline between Midland and East Midland Sections so in most cases it was at least an hour's travelling and sometimes nearly two hours. But I did it because it was what I wanted to do and I felt I got great benefit from it."

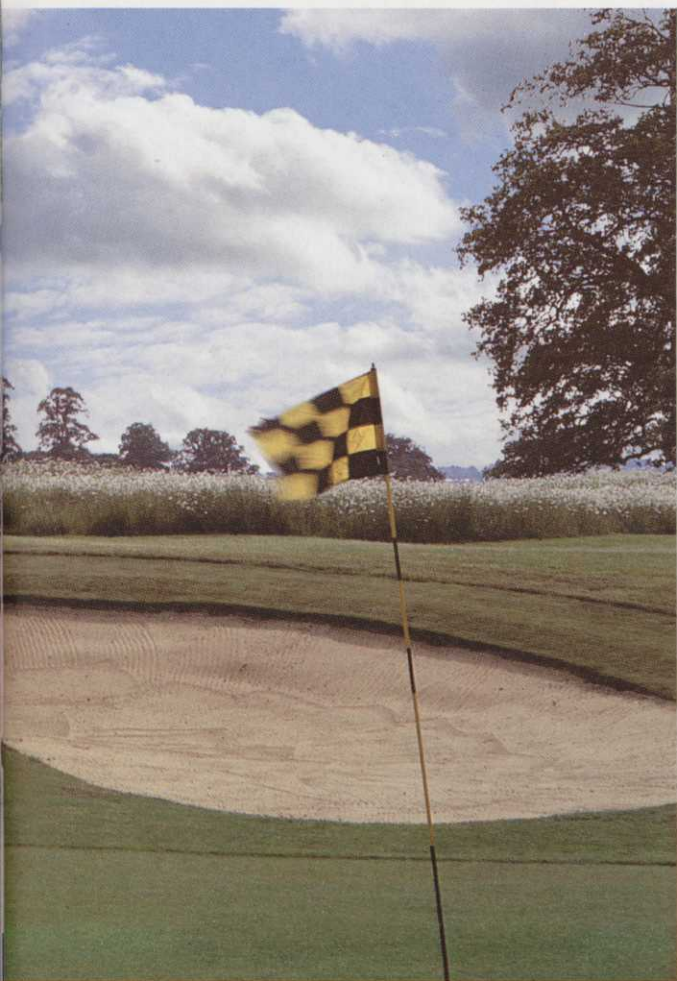
He first joined the Board of Management three years ago and was designated his pet subject of Education as a responsibility and he was Education Sub Committee Chairman for two years. He spent last year as Vice Chairman to Barry Heaney.

"Barry has been a great ambassador and really enjoyed his year. He met so many wonderful people and feels that in a small way feels he's contributed to making the Association better. That's what I want to do."

Dean also enjoys the full support of Gay Hill Golf Club in what will undoubtedly be – and has already been – a demanding year.

"I met with the Captain, the Chairman and Chairman of Green and told them I'd been offered the Chairmanship, that I wanted to do it and what it would involve for the club. I stressed that I wanted them to be a part of it. Their attitude was tremendous. They

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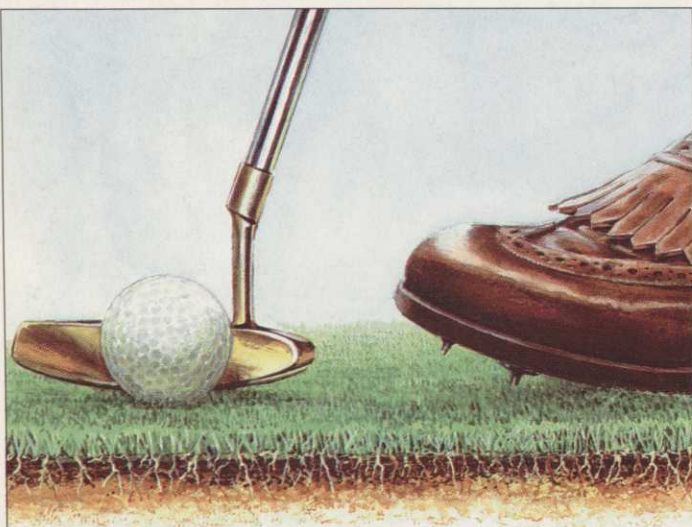
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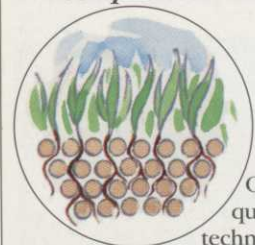
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**TOP-DRESS SUPPLIES**



Over to you: Dean is congratulated on becoming BIGGA Chairman by his predecessor, Barry Heaney

## 'The formation of the European Greenkeepers Association is another important issue'

congratulated me and we sorted out the time it would involve and they've been agreeable to it. I've also been asked a lot of questions by the members about what I will, and have, been doing."

Dean's career took him from his early years under the wing of Paddy McCarron at the Leicestershire Golf Club to Rugby where he spent 10 years, eight and a half of them as Head Greenkeeper - "I went there in the knowledge I would take over when the Head Greenkeeper retired 18 months later."

From there and despite what he describes as "among the best times I've had" he decided on a move and was appointed Head Greenkeeper at Stratford-on-Avon GC.

"I told them I wasn't prepared to start immediately and for a three month period I travelled from Rugby to Stratford one day a week. Rugby were appreciative of that and when I left they presented me with a painting."

He was at Stratford for five years before becoming Course Manager at Gay Hill, a lovely parkland course just south of Birmingham.

Since taking over the Chairmanship at BTME in January he has attended the GCSAA Conference in Orlando and had the opportunity to visit Augusta National for a few hours.

"It was always an ambition of mine to visit Augusta. I know it's caused problems for greenkeepers

with members seeing the immaculate conditions on television but I've collected information on the course and to visit it was just wonderful."

There are a few things in the BIGGA melting pot which Dean feels require addressing in his year in office.

"I think we have to look seriously at the Headquarters accommodation problem. It's not something we'd like to do, it's something we need to do. It's not fair on the people we employ and it does not help the professional image of the Association that we have to work in the conditions we do.

"The formation of the new European Greenkeepers Association is another important issue as it will give us one voice in Europe. If we get this off the ground it will be tremendous because like it or not it's not just about us, it's about Europe. We're an extended family."

An hour in the company of Dean Cleaver and you are left with the feeling that BIGGA is in safe hands and he will hand over the reins in a year's time with the Association in rude health.

"A lot of people have worked hellishly hard to get where we've got in establishing BIGGA including Walter Woods, Jack McMillan and Paddy.

"I know these people are pleased with the direction the Association is going and we mustn't let them down."

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# FILM STAR



**As a photographer Brian Morgan can be spoken of in the same breath as Bailey and Lichfield. When it comes to golf course photography he's the top man.**

It's not often you get the opportunity to sit down for an hour with someone who is regarded, almost without fear of contradiction, as the best in his field. When that person is involved in your own industry and is prepared to talk openly and enthusiastically about it it makes the experience all the more valuable.

Brian Morgan is the best golf course photographer in the world. Don't just take my word for it. He has been the official photographer for all four Major Championships taking the pictures for the souvenir programmes; is the man Jack Nicklaus – another whose claims for world best wouldn't meet too many detractors – employs to photograph all his golf courses; had courses closed for a week because he is coming to photograph them and had signs up saying "Brian Morgan coming. No Carts on the fairways" while his services are in demand every-

where that golf is played.

He has shot over 800 different courses in 43 countries over the last 20 years and has concentrated on golf courses alone for the past 10 years.

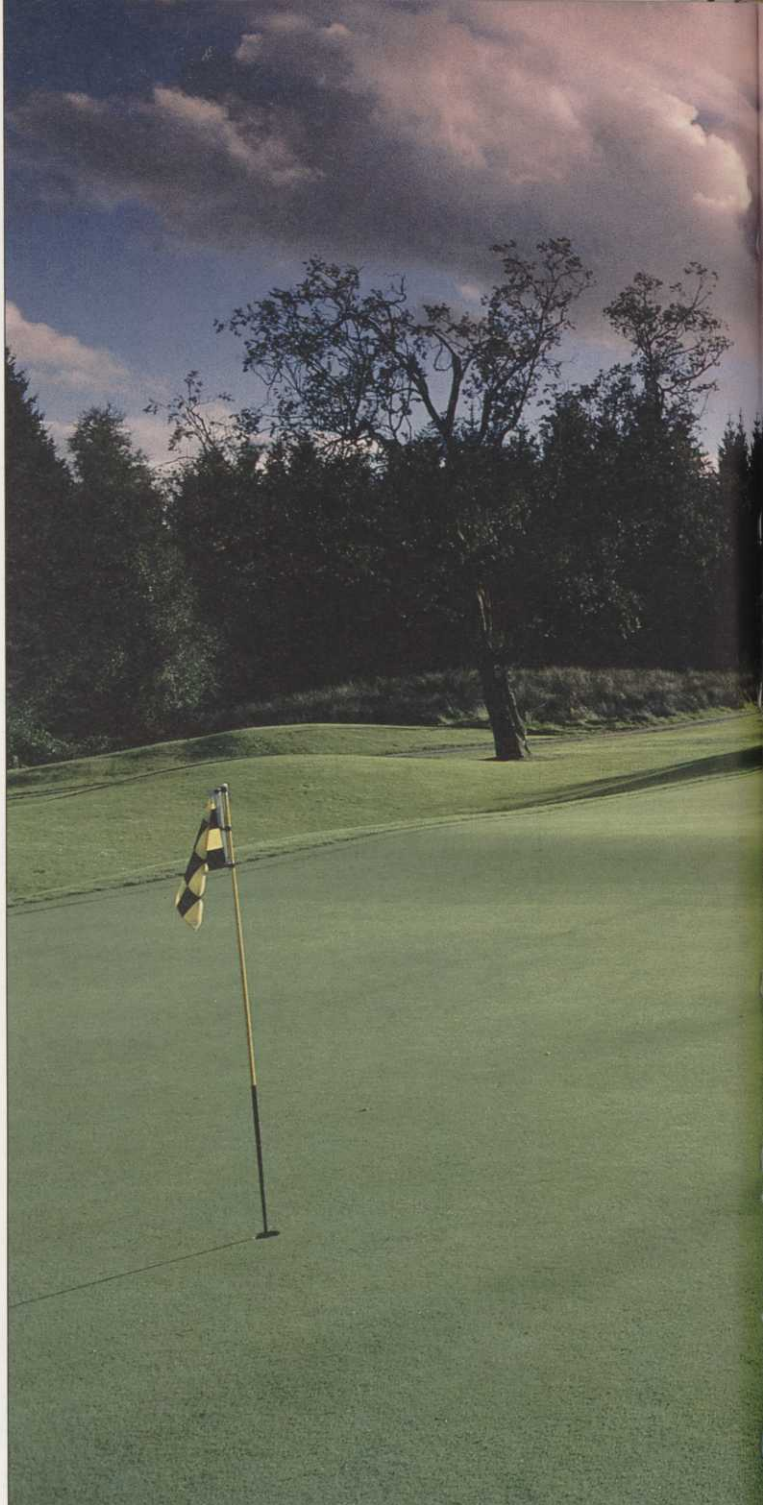
He has therefore seen his share of greenkeeping set ups and prides himself of having a good relationship with the greenkeeping staff he meets up with – they're often the only other people on the course when he's working.

"I can now go on to a golf course anywhere in the world and within five or ten minutes guess at the standard the course is generally kept at. If I go into the sheds I can tell right away at what standard the course is maintained," explained Brian from his library in the heart of his native Glasgow overlooking the Clyde.

"The sheds which are the tidiest, the best kept, and where the machinery is kept clean usually turn out to be the same on the golf course."

He is extremely forthright when highlighting the problems at many golf courses in the United Kingdom.

"To be perfectly honest I haven't seen much improvement



Loch Lomond: A site golf architects would kill for

in the condition of golf courses in Britain over the last 20 years. That's because the budgets greenkeepers been given to work with haven't gone up sufficiently in that time.

"We should really be looking at more realistic fees. The subscriptions at a typical British golf club haven't moved over than 2 or 3% a year over the last 10 years but the cost of labour and specialised equipment have gone up a lot more. There is some superb new equipment on the market but it is expensive and clubs can't afford it because their fees are so low," explained Brian.

"The problem is that they still have the yearly subscription system so someone is hit by a bill for

£400 in February instead of having a monthly standing order. People don't notice their electricity bill going up by 14% because they pay monthly but they notice if their golf fees go up by £20."

Brian also identifies another area of waste he sees at many British clubs.

"Clubs haven't looked at the changes there have been in the last 20 years. Twenty years ago most people came to the course by bus or four in a car and had their golf clubs at the club. Now most golfers have their clubs in the back of the car because they don't just play one golf course or they take their clubs home to clean them because they are now so valuable. They don't need a

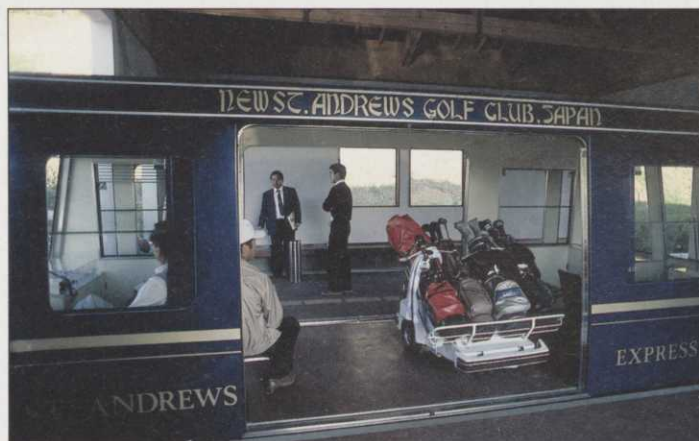




locker. What they need is a club storage area – a secure room where clubs can be locked in cages. Changing rooms could be built for half the price without lockers and the rest of the money spent on the golf course.”

Another area which Brian has identified as causing problems is in the over playing of the course.

“Clubs haven’t looked at the problems of extra traffic yet – a lot of courses don’t even operate a tee time system yet so you get the course crowded with a whole bunch of people in a short space of time pushing each other round then space behind them. Spacing helps the greenkeeper so he can work out what he is going to do and when. It is so simple.”



Brian’s philosophy is to combine the best of the new advances in the industry but at the same time retain or rediscover the original feelings of the golf course.

“Golf courses, in my opinion,

should be looking at a 10 to 20 year plan. They should be looking at the new technology grasses, replacing all their greens with USGA spec at £10,000 at time and changing all their bunker

**All aboard: The new St Andrews, Japan**

sand so that it is more consistent.

“Also, they should look at the original design of the course and try to get back to the same feeling it had then. Too many courses have been interfered with by amateurs over the years and as a result the shape of bunkers has changed and others filled in. Clubs need to get hold of old photographs of how the course used to look like and try to get the new things to match it,” said Brian, whose 50th birthday this month has signalled an end to his tournament work and the sad retirement from public life of the famous Morgan tartan kilt he always wore on the final day of Majors.

He is a huge fan of British greenkeepers and those in Scotland, in



Above: Augusta National. Below: Casa de Campo

particular, because they have to cope with the weather but, across the board, feels the standards in America are a lot higher.

"Greens superintendent is a big job in America and you can earn up to \$100,000 a year. I know of a public course in Arizona where it is \$150 a round and it makes \$2 million a year profit. With that sort of situation you get a lot of very well kept courses."

To many of us who are relatively competent with our point and shoot automatic cameras a job where you travel the world photographing golf courses seems idyllic and not particularly taxing but when you're the best the best results are required and expect and Brian's dedication has is what has helped him to the peak of the profession.

"I've been stuck in Japan for eight days just waiting for the conditions to be right to take pictures and between 4am and 6am is often the best time for a picture – just when the sun is coming up.

"I always know if I've got a good picture and when I do I'll often take two rolls of film just changing the angles, the lenses and the style of picture – upright or across. I'm always thinking about how the picture might be used and if a picture is the wrong shape it can't be used."

■ Look forward to seeing more Brian Morgan photography in *Greenkeeper International* in the coming months.

## Brian's best...

### Favourite Course

Augusta National. I photograph the course the week before the Masters every year and I've been fortunate enough to play it with a member for the last six years. It's a golfer's dream.

### Most Impressive New Development

Loch Lomond. It's a site golf architects would kill for.

### Most Photogenic Course

Casa de Campo in the Dominican Republic. It's virtually in the ocean with a lot of holes right on the surface of the water.

### Most Unusual Feature

Elevators to take you from green to tee on Japanese courses which have to be tiered on the sides of hills because of lack of space.

### Attitudes to Golf

In Japan they practice a lot and perhaps play only every two months. It can take up to two-three hours to get to the course by train and they have a club delivery service where you leave your clubs a local shop and collect them at the golf club.

