



Meldrum House Country Hotel and Golf Club, in Scotland, completed a new greenkeeping centre in January which contains a number of eco-friendly technologies.

The £750,000 development stores all the maintenance machinery and contains a wood pellet or log burner to provide heat and hot water for the complex. Insulating materials in the walls help reduce heat loss.

Rainwater collected is used to wash machines, and then filtered to be used again.

Kenny Harper, Golf Course and Estate Grounds Manager, said the club was working towards self sufficiency.

“At the moment we’re using pellets for the burners, but we hope to use wood only from the estate by this time next year. We think it is extremely important to adopt a responsible approach to energy and water usage and as a result, eco-planning has become an important part of our business.”

Aside from the new centre, Kenny saw sustainability as the way of the future.

“It’s the way everything is going now. I’m interested in land and management. We are only here for a short time so I think we should try and leave it in the best state we can.

The guys use electric buggies instead of petrol and diesel, and

it’s just little things like that to help keep the carbon footprint down. Things are going to change. We are going to have less and less pesticides to cure problems so we need to start managing how we run our businesses. It’s long term and it is not going to happen overnight, I mean fungicides will be here for a while yet, but there are less and less available every year. We use a fair bit of organics instead of synthetics. As far as

from fertiliser and pesticides. This spring, carp were introduced to the ponds and instead of using chemicals, it was hoped would be a more natural way of clearing pond weed. Kenny was looking forward to seeing the results.

“It is early days at the moment and the fish are only four to six inches so it will be a little while before we see any results, but if you don’t try how are you going to know if it’s going to work?”

“We think it is extremely important to adopt a responsible approach to energy and water usage and as a result, eco-planning has become an important part of our business” Kenny Harper

fertiliser is concerned, we don’t spray pesticides as a preventative, only as a cure. We wait until there is a problem and if there is no other answer we’ll use them.”

The golf course at Meldrum House is a thriving eco system. Retired graphic designer and starter at the club, Morgan Fisher, has recorded over 60 different types of animals and birds that inhabit the course, from Roe Deer to buzzards.

The many lakes and ponds at the club have buffer zones around them to prevent run off





“Everything we do at the club is looking at reducing carbon” said Colin Webber, Managing Director of Portmore Golf Club, in North Devon.

They are currently undertaking the year-long process of testing wind speeds to check whether or not wind turbines will be viable at the club.

He admitted that although he used to hate the appearance of turbines, they have now grown on him, due partially to a trip to Scandinavia.

“I went on a trip to Denmark and I saw just how far behind the rest of Europe we were. It woke me up. At first you see them all over the place and then after a while you don’t even notice them.”

Colin mentioned that the block of concrete used to secure the turbine was the biggest problem for him.

“There is so much carbon tied up in making that block of concrete that you’re looking at almost 17 years worth of carbon. That’s if you use new concrete. The past few small projects I’ve done, I’ve used recycled concrete and so far so good it seems to work really well.”

Colin said the wind turbine would provide electricity for the clubhouse, charge the buggies and also put electricity back into the national grid. This could then

be sold back to the grid at a rate of 36 pence for every unit of energy produced.

Photovoltaic cells, which operate like solar panels but only need light, not sunlight, to work, for the clubhouse roof were also being looked at.

“In the interim, we’ve fitted sensors to every room, use low energy bulbs, put time switches on things like fridges, the big drinks dispenser, because people don’t need an ice cold drink at seven in the morning. It’s not until you actually stop and look at these things that you realise; no you don’t need that. It’s the same with hot water. It needs to get to 64 degrees once a day, not all day, so we heat it for three or so hours overnight at the cheap rate then we turn it off with a time switch. The shoe cleaning compressor is on from 10am to 6pm instead of being on all day and night.”

Solar panels have been fitted to buggies in some countries and this was an idea Colin had tested and was making preparations to adopt.

He was also looking into an all-electric Jacobsen mower, the Eclipse, and eventually it was hoped diesel usage could be eliminated completely for all maintenance machinery.

After working with the oil

“The wind turbine would provide electricity for the clubhouse, charge the buggies and also put electricity back into the national grid” Colin Webber

association Colin now uses organic nitrogen sources as fertiliser, such as fish oils and seaweed, as a trial, on Portmore’s par-three course.

“You’ve got to do it gently, as I learnt with bio-diesel; you can jump in too deep and get yourself in trouble, but so far so good. We will not do away with the modern products, but just reduce reliance on them.”

They have built their own environmental wash pad as well as their own high volume, low pressure sprayer so compost can be drenched onto the course.

Last year Portmore recycled close to eight tonnes of cardboard and glass.

Colin mentioned that electricity usage constituted 50% of their carbon production, so introducing bio fuels to do this job was at the top of the to do list.

“As well as having an aesthetic effect a wood burner would heat the clubhouse, and also provide hot water.”





Images show The 'Tree O'clock' world record attempt in action

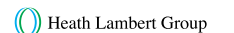
In 2007, Maesteg Golf Club, in Wales, formed a course development group to enhance all areas of the club cost effectively, but with particular attention toward sustainable, environmentally friendly solutions, since the course proved to be home to a wide range of ecological habitats.

The course is positioned in 150 acres of land, and tracts of deeper ecology rough grassland have been allowed to develop, which offer a habitat for ground nesting birds as well as a safe passage for small mammals and insects. Heathland and wetland areas provide a home for many various types of animals, birds and creatures including the carnivorous plant sundew and the rare marsh fritillary butterfly.

A showpiece project was a tree planting project funded by Better Woodlands for Wales.

Rhydian Lewis, Chairman of Greens at the club, explained.

“We put together an environmental plan and part of that was to come up with a tree planting programme across the course with the idea of planting about 9,000-10,000 trees. We worked together with Carbon Earth and secured funding from



“Maesteg Golf Club may well be pioneers in helping to solve a problem that has been a headache for greenkeepers all around the world” Rhydian Lewis

the Welsh Assembly Government then invited seven local primary schools to a tree-planting ceremony last year. So we have had the first phase of the tree planting and we have a second phase coming up this autumn and that should take us up to about 9,000 trees.”

Maesteg also participated in the world record attempt ‘Tree O'clock’, whereby it was attempted to plant the most trees in a one hour time limit. An additional 600 trees were planted on the course for this.

Rhydian explained how recycled materials were now being used for standard drainage.

“We trialled the Aquadyne drain, made from recycled materials, on one of our greens and it had a big impact on a pretty bad area. Since then we have put some fairway drainage in with it as well. So we are trying to promote the use of recycled materials throughout our course.”

The trials proved so successful

that the club has now invested in a specialist trenching machine, the AFT 45, which is being used to cut trenches to fit the Aquadyne precisely.

A drainage programme for the coming years will see these drains fitted around the entire course.

With regards recycling and sustainability, energy efficient bulbs are used throughout the club with as Rhydian said, “A significant reduction in costs.”

He also mentioned the club’s use of recycled artificial grass on the course.

“We have used the material on pathways and slip areas such as wooden bridges. Further plans are in place to use this material extensively for new and unique purpose.

“Maesteg Golf Club, in partnership with Envirosports Ltd, may well be the pioneers in helping to solve a problem that has been a headache for greenkeepers all around the world.”

This article comes to you courtesy of the BIGGA Learning and Development Fund.
Thankyou to all our key sponsors



Thanks for the education, Cecil!

Scott MacCallum enjoys a few hours in the company of the latest recipient of the BIGGA Lifetime Achievement Award

I'd only been with BIGGA about a month when I travelled to Dornoch for the Scottish National Championship, ably run by Elliott and Edna Small, and found myself sharing a hotel with Cecil George and Jimmy Neilson.

They regaled me with stories long into the night – I had been warned what to expect – and breakfast was taken with a delicate head the following morning.

But it had been an experience and spending those few hours in the company of Cecil and Jimmy was instrumental in bringing me up to speed on BIGGA and the greenkeeping profession as a whole. In short, it was an education.

Indeed, I was only the latest member of a huge band of people who owe Cecil for providing us with an education.

While mine was face-to-face as we sat at a bar, thousands of others have every reason to thank Cecil for their own education, even although they may never have had the pleasure of meeting him in person.

Cecil is the latest recipient of BIGGA's Lifetime Achievement Award and while he spent 37 years as Head Greenkeeper at Lenzie Golf Club, just outside Glasgow, he was nominated for the Award for the pioneering work that lead to the development of formal greenkeeping education – a programme which was subsequently followed throughout the rest of the UK and then worldwide.

"I'm so proud to have been given the Award, it's a great honour and thank the Association and Board of Directors for nominating me."

Cecil, who turned 83 in January, fell into greenkeeping as a 15 year old.

"I started out as a gardener, working for my uncle, but at the end of my first summer he told me that I'd be finishing at the end of the week as there wasn't enough work for me.

To lessen the blow he gave me tu'pence and told me to go to the big white house and ask for a lemonade.

I knew that the building was Whitecraigs Golf Club and as I drank the lemonade – they wanted

Had he not done so he would have been fighting in Germany with the infantry.

"It took nine months to train a para and I was about to be sent out east when the atomic bomb was dropped in Japan, so instead I was sent to Palestine and saw action when we had to hunt down some guys in Iraq," said Cecil, who undertook 109 jumps, many of them from as low as 500 feet.

On his return to civilian life he didn't think he'd go back to greenkeeping but instead follow a career in engineering.

"I started out as a gardener, working for my uncle, but at the end of my first summer he told me that I'd be finishing at the end of the week as there wasn't enough work for me" Cecil George

the bottle back – I chatted to the man who asked me what I was doing.

When I told him that my uncle had just sacked me he told me that there was a job going at the club for a greenkeeper," recalled Cecil, as we chatted in his magnificently manicured garden on a sunny day last month.

For the next two years Cecil worked as a greenkeeper before the Second World War intervened and saw him join the Army in 1944.

He spent four months with the Cameron Highlanders before volunteering for the Parachute Regiment.

After an interview with a Pollockshaws-based engineering company Cecil was told that if he returned the next morning there would be a job waiting for him.

"But I didn't go back. I was in the pub that night and met the Head Greenkeeper of Whitecraigs who said I should go back to the golf course as I'd enjoy it. I went up, had a go on one of the machines and was hooked. If I hadn't met him that night I'd have become an engineer and wouldn't have been here talking to you."

It was during the next phase of his career that Cecil began to become frustrated.



ABOVE: Cecil with his wife, Margaret

"I thought to myself that it was stupid. I had a job but I didn't know half of what I was supposed to be doing! So I decided to go to agricultural college at night school.

"It was in Blythswood Square, in Glasgow, and I went there for two years. I learned an awful lot – not necessarily about the grasses that I wanted to grow - I learned about the feed grasses rather than bents and fescues - but the basics were the same.

"I did learn about soil analysis, fertilisers, what they did and what they were. We didn't have weed

killers or selectives then but we did have preventatives and the greatest of them all was Lead Arsenic which was absolutely marvellous for worms and leatherjackets."

Cecil was Secretary of the West of Scotland branch of SIGGA by this time and, having experienced what studying had done for him, felt that the College could offer something for young greenkeepers who wanted to be educated.

The first person to go through the system at Glasgow Horticultural College one day release was Davie Gall, who went on to become Head

Greenkeeper at Cardross Golf Club - taking over from Jack McMillan - who became the world's first apprentice greenkeeper.

"Davie got papers for what he did and you could say was the world's first Apprentice Greenkeeper."

Cecil went on to become Chairman of SIGGA, while Bob Moffat took over as Secretary and together they approached Charles Crossan, Principal of Woodburn House, the Glasgow Horticultural College, to see if it would be possible to develop a City and Guilds qualification for greenkeepers.

“Charlie asked what greenkeepers were required to do and we outlined that we cut greens, fertilised knew about soil, drainage, overseeding etc. This information was sent to the City and Guilds Headquarters in London to be assessed but we were told that there wasn’t enough in it for a City and Guilds. Charlie then suggested that we add something about tree management and pruning roses. We sent it back and this time we were successful and we were awarded the first City and Guilds for greenkeepers.”

Cecil and Bob both taught at the College and put together some of the syllabus.

“Bob did the machinery while I did the practical greenkeeping side. I’d do weed and chemical identification while I’d get them to dig a six by six bed, lift the off the turf, delve it, rake it, fertilise it and put the turf back down again. All in an hour and a half. You want to see some of the messes we got,” he chuckled, thinking back over his time at the College.

With other colleges in Scotland taking up the mantle too, offering education for greenkeeping Cecil wrote to the five main colleges in an attempt to have the education programmes co-ordinated.

“We had greenkeepers moving from Glasgow to Dundee and discover that the college was in the middle of the curriculum that they’d just finished and they were going over old ground.

“Initially the colleges said they couldn’t possibly change, as their main client was the local council, but I asked them to write out what they did and then we reordered it for them to about 90% uniformity. It worked out very well.”

The next stage was to develop an HNC, and both Woodburn House and especially Elmwood College, worked hard on this with Cecil on this although it took six years of toing and froing, particularly on the language required to frame questions, it was achieved. With it eventually in place the HND was much easier and was in place around 18 months later.

“Everyone latched on to this and I was quite surprised at that. It went around the world apparently and it all started with our work at Woodburn House and two guys saying I think I could get a guy to go to agricultural college and learn how to be a greenkeeper.”

Cecil’s own career had taken him from Whitecraigs, to Ferenze and Cathcart Castle before he saw the job at Lenzie advertised in 1954.

Within a few years the Lenzie pro



ABOVE: One of the Lenzie Golf Club signs which decorates Cecil’s garden

RIGHT: Cecil receives his award at The Open, from Walter Woods, flanked by Paul Worster and Andy Mellon



“It went around the world apparently and it all started with our work at Woodburn House and two guys saying, ‘I think I could get a guy to go to agricultural college and learn how to be a greenkeeper’”
Cecil George

had moved on and Cecil offered to take on the pro duties as well – running the shop, repairing clubs and giving golf lessons.

“I was never much of a pro but as a greenkeeper I did an honest day’s work on the golf course. I had two guys with me and it was all hand machines, motorised but we walked behind them. We didn’t have ride on machines,” said Cecil, who has been married to Margaret for 56 years.

“In those days golf didn’t generally start until around 4pm and weekend medals didn’t start until noon. Everyone worked.”

Cecil worked hard to improve the golf course both on the quality of the playing surfaces and the general layout.

“The greens were around 80% moss when I arrived so I borrowed Cathcart Castle’s scarifier and tore the greens to pieces and reseeded and they came away beautifully. When I left in 1991 the greens were 90% Bents.

“I also changed the layout and planted 10,000 trees of which 5,000 are still growing,” said Cecil, who said that in those days he was getting £8.10 a week and the annual subscription to be a Lenzie member was £5.

“I was very happy at Lenzie. They very much left me to get on with things and although I was down to the last three when Walter (Woods) got the job at St Andrews I have never regretted staying.”

As Cecil enjoys his retirement and a garden that provides much of the family veg, as well as a wonderfully tranquil retreat, he can look back at a life that has done so much to improve the lot of the greenkeeper.

“What I always strived for was better wages. If we got better wages we’d get better men and better students. With better greenkeepers we’d get better golf courses.”

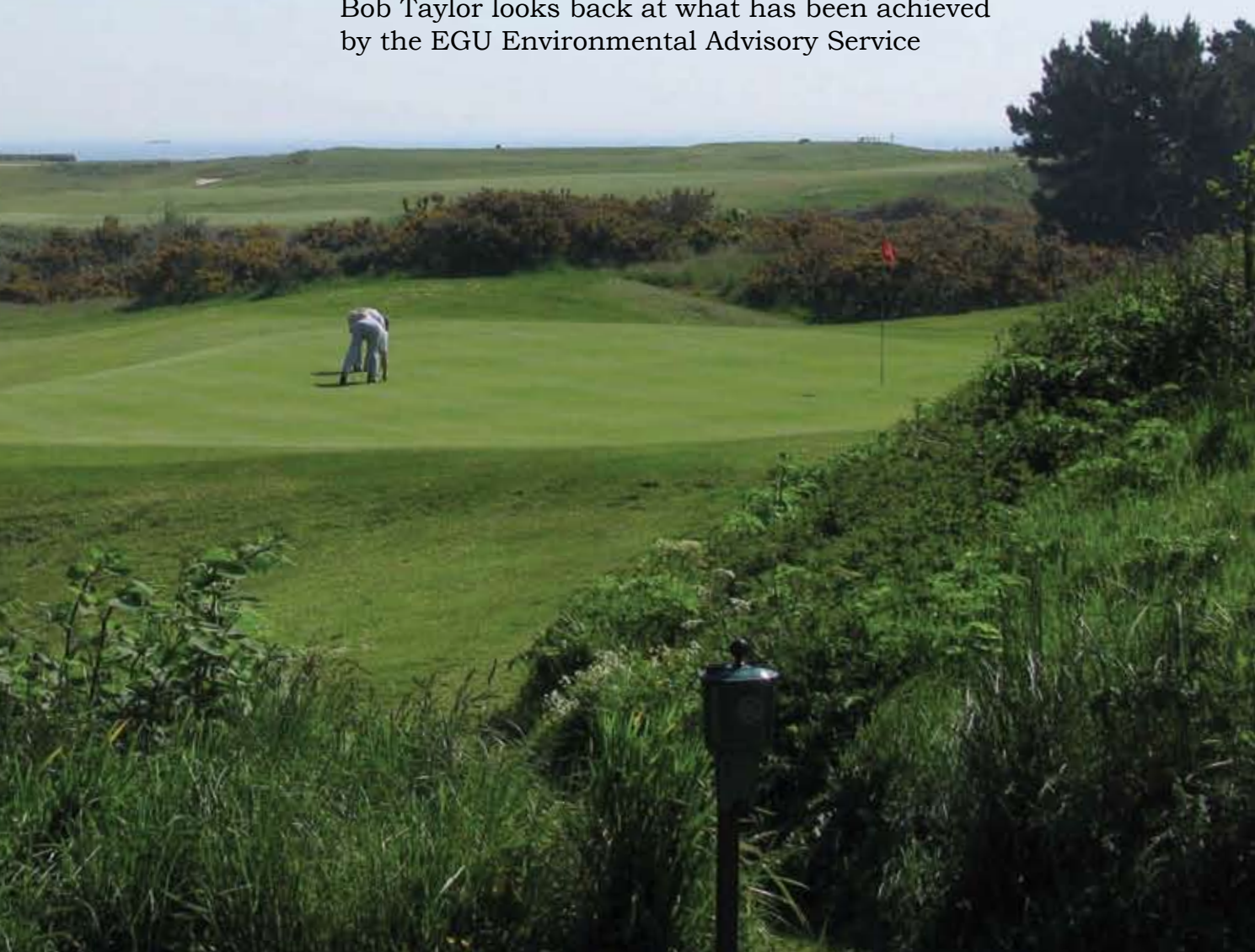
Thanks for the education, Cecil!





Eight Years On...

Bob Taylor looks back at what has been achieved
by the EGU Environmental Advisory Service





Golf courses can, with appropriate management, be valuable landscapes for wildlife with a number supporting some of our most rare and vulnerable wildlife species.

The English Golf Environmental Advisory Scheme (EGEAS) was set up by the EGU in 2002 to raise awareness of the benefits of good environmental and ecological practices to their affiliate clubs and to golfers playing at these golf clubs. A second ambition was to demonstrate and communicate to central and local government, and the local communities around each golf course, that golf is a responsible land user, providing wildlife opportunities and real conservation benefit.

Eight years on, 220 golf clubs have benefited from heavily subsidised ecological and environmental advice and received certification for achieving the targets set. Through media promotion of these achievements Natural England, the Government Department for Food and Rural Affairs, wildlife and conservation groups are all now more aware of the valuable ecological corridor that a golf course provides across England.

So how did the scheme operate and just what has been achieved?

The process

The scheme was initially designed to run for three years, but was later extended due to high demand, to raise awareness of environmental and ecological issues, by providing free consultancy to those who applied. Within the scheme, it was decided that clubs would receive an independent consultancy visit, during which ecological highlights of the site were identified, together with recommendations on how they could be improved and managed more effectively. Following the visit, clubs received a report detailing the discussions held on site and outlining a series of targets set for the club, the progress of which would be reviewed 18 months later during the second follow-up visit. The targets were prescribed giving consideration to what was deemed realistically achievable by the club (based on its available resources) within an 18 month time period. If, upon the second visit to the club, a significant amount of the target

work had been completed, the club would receive a certification under the scheme in recognition of their achievement and dedication to ecological management.

Facts and Figures

Following the second visit to the club, during which target progress was assessed, a total of 143 clubs ($\pm 70\%$) had done a sufficient level of work to be certificated under the EGEAS. Given that the targets were set to be achievable yet challenging, this is an impressive rate of success.

Consider trees under the scheme.

A total of 19500 native trees were planted either as replacements to inappropriate trees or to create new woodland ecosystems.

Over 1000 linear meters of hedgerow was planted, helping to reduce some of the losses that have been rife throughout the countryside over the past 30 years. Hedgerows are important for plants, nesting birds, invertebrates and for bats which use hedgerows to navigate between areas.

A significant amount of deadwood in the form of log piles has been created for the life that they can sup-

ABOVE: Dead wood and boundary rough provides important corridor habitat