



ed to ensure that a hole is enhanced by it. It can be completely out of play, and solely for the benefit of wildlife and the landscape, or it can be brought into play to create challenge and interest on the course. Position may be determined by factors such as drainage problems and the desire to alleviate those. However, if it is intended to enhance the course, it will need to be carefully positioned, designed, constructed and managed to ensure that it becomes an asset to the course, and of benefit to wildlife.

Ponds can be important elements of the drainage system on the course. They can provide localised catchments for flood water, acting as a sink to draw excess water from playing areas. Excavation of the pond will provide topsoil that can be used to build up and re grade in other wet spots, further alleviating the problems.

When ponds are created in areas that are already wet, they may not need to be lined to hold water.

However in well drained or seasonally wet areas a liner will be necessary. Butyl is the most common material used, and is usually suitable for most situations. Other possible liners are heavy duty black plastic, a clay based material known as bentonite and concrete. Plastic usually has only a short life span often to 15 years, whereas butyl is often guaranteed for up to 50 years. Bentonite is expensive but can be useful in situations prone to vandalism or other damage as it is self sealing when punctured, and repairs can usually be made successfully. Concrete is not generally recommended, as it is difficult to ensure that it does not leak. If leaks do occur repair is difficult and usually requires a complete reconstruction.

Creating a new pond provides the opportunity to incorporate the shallow margins, irregularly shaped edges, and variety of depths which are ideal for wildlife. Wildlife ponds do not need to be deep (one metre at most),

unless of course they are also required for irrigation or drainage.

Introducing appropriate plants into the pond will enhance it further, helping it to mature, soften and become integrated into the surrounding landscape. Native species such as branched bur-reed and bottle sedge, along with attractive flowering marginals such as Purple Loosestrife, Meadowsweet, Marsh Marigold, Yellow Flag, Ragged Robin and Water Lilies will all improve the pond for wildlife and create an attractive feature that will enhance the course.

Care should be taken not to plant inappropriate species. Many ponds have become accidentally infested with vigorous aliens such as Canadian pondweed, Floating Pennywort and New Zealand Swamp-stonecrop, that choke out native species. These usually arrive accidentally when plants are introduced from garden centres. It is always best to acquire plants from natural sources (with the landowners

permission) or reliable native plant suppliers specialising in aquatics.

Like all habitats it is important to manage ponds well. Over management, through clearing out too much of the pond too often, will reduce plant, invertebrate and amphibian populations. Long term lack of management can lead to silting and drying of a pond.

All wetlands need protection to ensure they are not polluted or damaged. There is much that golf courses can do to enhance and protect their wetlands for their value to wildlife and golfer alike. One of the highest risks to any wetland on a golf course is the possibility of accidental contamination from chemical applications on the course. This most commonly occurs through runoff from treated surfaces or leaching of chemicals through the soil from treated areas into wetlands.

There are two ways to reduce chemical pollution of water bodies.

The name's pond...



No-spray zones can be created around and alongside water bodies and water courses. Buffer strips of rough vegetation should also be allowed to develop alongside ponds and water courses. These measures help to protect the pond from direct contamination and runoff, and help to give bums and ditches more character and definition, contributing to the overall interest of the course. Certainly, some banks will need to be more intensively managed but those areas should be minimised, also saving on time and management effort.

Vegetation also helps stabilise eroding banks by increasing soil binding. There will be places where such strips are not possible e.g. where bums cross fairways, but careful adherence to the no-spray zones, and allowing rough vegetation to develop immediately the bum is out of play will all help to reduce potential problems.

Herbicides and pesticides can affect wildlife directly, through toxicity to the plant life and invertebrates that are the basis of the food chain. They can persist in water bodies, adversely affecting amphibian reproduction

and even causing deformities. They have a cumulative effect, leading to high mortality in animals at the top of the food chain.

Fertilisers can cause unsightly 'algal blooms', which are undesirable ecologically, as they can strip out the oxygen from the water causing drops in invertebrate populations and sometimes even fish kills, but these are extreme cases and careful management can avoid such problems.

Golf course ponds and wetlands can enhance the course for both golfer and wildlife, but they do need to be well designed and managed to be a long term asset to the course. Importantly, what is best for the clubs and golfer in terms of pond creation and management is usually best for wildlife, thereby resulting in a better playing environment for all.

Furthermore it may be possible to obtain funding for pond creation or enhancement through the Scottish Environment Protection Agency, or Scottish Natural Heritage, where these ponds will benefit wildlife as well as the golf club.

If you have any questions about ponds and their management please contact Fiona McIntyre or Jonathan Smith at: The Scottish Golf Course Wildlife Group, The Stables, Dalkeith Country Park, Dalkeith, Midlothian, EH22 2NA
Tel: 0131 660 9480.

Fiona's email:
scotgolf@wildlife36.freeserve.co.uk

Jonathan's email:
scotgolf.wildlife@virgin.net



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TALKING

Six of the country's top men talk about the grasses on their courses and plans for the future...

Grasses

Compiled by Malcolm Huntington MBE



Name: Ian Menzies
Region: Scotland
Course: Drumoig Hotel and Golf Resort, Leuchers, near St Andrews.
Course Type: Parkland (18 holes plus Scottish National Golf Centre, approx 12 holes)



Name: Richard Hollingworth
Region: Northern
Course: Ridding Park, Follifoot, Harrogate
Course Type: Parkland
Staff: Head greenkeeper plus five, plus casuals



Picture not available at time of print

Name: Kenny Mackay
Region: Midland
Course: Merriott Forest of Arden, Meriden, nr Coventry
Course Type: Parkland (36 holes)
Staff: Course manager plus 23, plus mechanic



Name: Don Wilson
Region: South East
Course: Dyrham Park, Galley Lane, Barnet, Herts
Course Type: Parkland
Staff: Course manager plus six



Name: Steve Evans
Region: SouthWest & South Wales
Course: Yelverton Golf Club, Devon
Course Type: Moorland
Staff: Head greenkeeper plus 4



Name: Emmett Curran
Region: Northern Ireland
Course: Downpatrick Golf Club, Northern Ireland
Course Type: Parkland
Staff: Course manager plus two, plus mechanic

1

What grasses do you have on your course - greens, tees and fairways?

On greens, tees and fairways we have 40 per cent slender creeping red fescue, 40 per cent chewing fescue, 20 per cent tenuis bent (Highland browntop bent on fairways).

Fescue, and bent on greens, plus a lot of natural grasses still there including 50 per cent meadow grass. Tees are predominantly rye grass with some smooth stalked meadow grass. Fairways are a mixture of fescue, predominant rye grass, plus smooth stalked meadow grass.

Our greens are a mixture of poa annua and bent, the tees are dwarf rye grass and the fairways a mixture of bent, rye grass and poa annua.

A mixture of bent and poa annua on greens, though I try to eradicate poa as much as possible; dwarf rye on tees natural rye on fairways which was originally agricultural land.

Bent and annual meadow grass on the greens and we have oversown with fescue in recent years. Tees - dwarf rye grass, natural bent. Fairways are natural moorland with bent, fescue and annual meadow grass.

On greens we have meadow grass and a little bent. Tees meadow grass and rye grass and fairways meadow grass and bent.

HEADS

2

What would be the ideal grass types you would include in your course?

Our course is only five-years-old and as I was involved with the construction I am very happy with the existing grasses.

I would have a mixture of fescues and bent for the greens, dwarf rye grass and smooth stalked meadow grass for the tees, with dwarf rye grass and smooth stalked meadow grass for the fairways.

Bent on greens, rye on tees and the fairways a mixture of rye grass, fescue and bent.

Predominantly bent on greens with a touch of fescue, dwarf rye grass on tees as it is hard wearing with a quick recovery and bent fescue on fairways.

Ideally I would like bent and fescue only on greens. Tees as they are at the moment and fairways would be bent and fescue in an ideal situation.

On greens I would like creeping bent and the rest of the course dwarf rye grass with a little fescue in the rough.

3

What attempts are you making to change the grass type profile on your course?

None whatsoever as we have had excellent results with the mix we originally decided on, supplied by Barenbrug.

I believe in leaving well alone, because you would be fighting a losing battle as there are so many grasses in the air alone. Meadow grass is too strong, to eradicate. You put up with it otherwise you would have a bald golf course.

On the fairways I am trying to get a more evenward with rye grass, fescue and bent. I have a lot of poa anna on the back nine of the Arden course and so I am hopeful the introduction of the others will do the trick.

We have spent a lot of time on this. Greens are overseeded with bent twice a year and tees overseeded with dwarf rye once a year. Fairways are overseeded with dwarf rye and smooth stalked meadow grass once a year.

We overseed tees each year with sand and soil mix and dwarf rye grass. On fairways we overseed with bent and fescue each year and greens are overseeded twice a year with bent and fescue mix. We have 50 ponies on the course who eat the greens which we top dress 20 times a year because of this problem.

None, we are quite happy to live with what we've got. It would cost a lot of money to change things and finance wouldn't allow it.

4

What are your views on poa annua - learn to live with it or try to eradicate it?

I would learn to live with it. Poa annua is kept at an absolute minimum on our course by verti-cutting as often as we can.

We must learn to live with poa annua, especially in this country where there are ideal growing conditions for meadow grass in autumn and spring.

We can't eradicate it. If I tried to do this on the greens the overall quality would drop. I believe in trying to manage what you have and make the best of what you have got.

I would say on our soil type learn to live with it. I produce the course as good as I can and if I eradicated poa annua I wouldn't have much left!

It is impossible to eradicate poa annua in my opinion, but we overseed with bent and fescue coupled with aeration and verti-cutting. There is no irrigation on the course and I think our greens are better for that.

Definitely learn to live with it. If your management programme is dedicated to meadow grass your course will be fine.

5

What qualities would you like to see from new grasses which are currently in development?

I believe that the grasses currently on the market are excellent when it comes to the battle against disease. Perhaps for sand based greens like ours there will be a development with resistance against drought and close mowing - we are cutting at 4mm.

Finer grasses to have better winter tolerance and also grass to have better recovery.

Research has been very good over the years and I have tried a number of new grasses. I am not looking for anything special in the future.

Greens - quick recovery and less susceptible to disease and drought. Tees - hard wearing and quick recovery. Fairways - hard wearing, quick to recover and cope with wet conditions.

Some which resist disease, particularly fusarium. Someone will make a fortune if they can do that!. Also one which is drought resistant.

Disease resistant and compact growth. I can't remember any drought - we have more water than most!. I would also like to see a grass developed which is more tolerant to close mowing. We cut at 4mm on our greens.



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Scott MacCallum travelled to Islay to talk with the Machrie Head Greenkeeper, Simon Freeman, about living and working on an island

Island life



Photography: Simon Freeman

Machrie was voted 56th in the most recent Golf World rankings. One visit proves why.

Below: Simon, seated centre, has been blessed with a talented hard working team



Think about life on an island and you might conjure up images of Robinson Crusoe; Sue Lawley; Father Ted or indeed the stars of *Castaway* or *Survivor*. But how would you fancy managing a golf course on a remote Scottish island?

Simon Freeman did just that. Two years ago he moved from his home town of Crieff to take over as Head Greenkeeper at the Machrie Golf Links, on the island of Islay off the West coast of Scotland, and he hasn't regretted his decision one bit.

Access to the island, which is on the same latitude as Glasgow is not always easy. The half hour twice daily flight from Glasgow can often be

delayed or even cancelled by fog or low cloud or the ferry which sails from Tarbert, itself a three hour drive from Glasgow. But once there you can appreciate why people make the effort. The beauty of Islay is stunningly natural with wonderful beaches and friendly islanders.

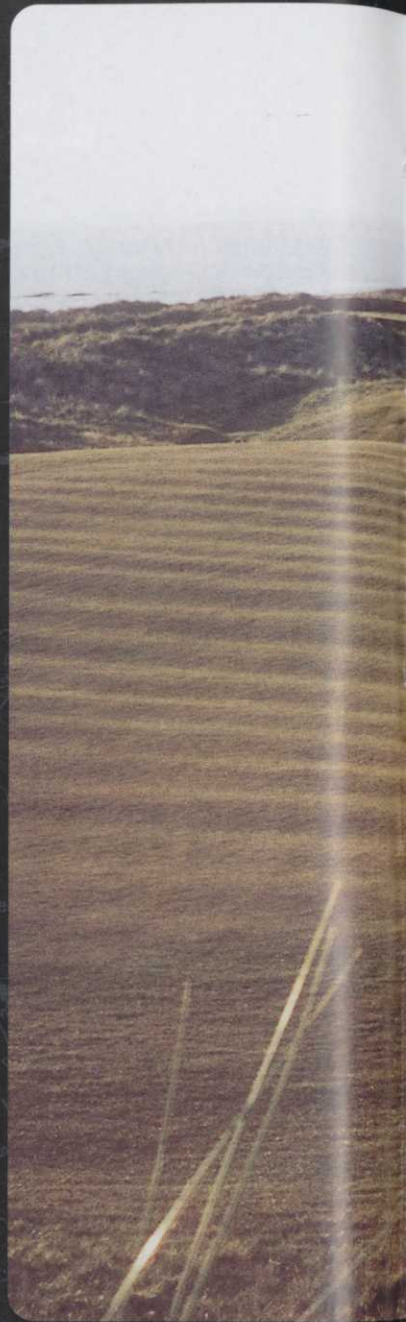
"This is as good as it gets as far as I'm concerned," said Simon, as we sat discussing his life and work shortly after returning from a strictly alcohol-free lunch in the restaurant of one of the island's six distilleries.

"I'd been over here once before I applied for the job. The son of the previous owner of the Machrie was an assistant pro at Crieff Golf Club

Far right: A rolling fairway

Right: Some standing stones laid out by the team near the nine hole par-3 course and with which the Machrie Captain engineered a very successful April Fool

Below: The Machrie greens are generally set in hollows rather than humps



Above: They attempted to alleviate the dry patch by hand forking the greens

Below: A core taken from turf close to the shore shows good root depth



and I came over with a group to play the course. That one visit was enough to convince me that if the job came up I should go for it," said Simon, who began his career as an apprentice under Jimmy Kidd at Gleneagles.

While the quality of the golf course quickly won over the four handicapper - it was ranked 56th in the UK in the most recent Golf World rankings - the complications of island life, and their impact on his course maintenance procedures gave him something into which he could really get his teeth.

"We have to source our top dressing from between the peat bogs and the sand dunes at the top end of the island, but while the chemical analysis of the material shows it is perfectly suitable the particle size is really too fine to be used as a top dressing.

"We've run into problems with it. When we get a period of dry weather after we've top dressed we find that the surface starts to seal," admitted Simon.

"If the course was on the mainland

we'd simply get the rootzone which was best suited to growing healthy bents and fescues. On the island however the cost is prohibitive to get lorry loads of top dressing coming over by boat, so we have to use what is available."

One option is sand from nearer the shore which is sharper, but they have found that the pH and the calcium content is too high. However it has created something of a puzzle.

"Strangely although the pH is technically too high to grow healthy grass it appears to be the tees and greens which have the sand off the shore blown over them which seem to be our healthiest," mused Simon.

The other main area of complication resulting from island living is machinery maintenance.

"I've got a basic grounding in mechanics and some of my guys are also quite good but once something technical goes wrong it becomes very difficult to get someone to fix it. When it comes to grass cutting machinery, the mechanics on the

island are no better than us so we have to get someone over for it, but you can't just phone up and expect someone to be there within two hours."

Such a scenario perhaps only happens two to three times a year but always at an important time.

"We can be looking at the machine being down for a week instead of a day as it would be on the mainland."

However, Simon does find that dealers are very good at talking them through problems over the telephone. "AM Russell's and Scottish Grass Machinery are good at this and it is a great saving. They are now also excellent at getting parts to us."

Simon also tries to ensure that he has machinery which can do more than one job so he has cover if machines go down.

"I have tried to work out which machinery would cover my back - for example being able to use cutting heads on more than one machine so if one breaks down the heads can be transferred over and the job still completed."



The main disease problem the team has to contend with is dry patch.

"We have a build up of thatch on the greens and a build up of waxy material which caused a hydrophobic layer on the greens," he explained.

"It is a problem which isn't at the front of greenkeepers' thinking as much as it was in years gone by, but in our situation, where we haven't got the necessary aeration equipment or an irrigation system, it's the scariest thing that happens to us.

"When it strikes, as it did recently, we have to go out with hand and aeration forks and fork up all the patches and then water them. We borrow a bowser from a neighbouring farmer, strap a pump to it and spray with a fire hose which is very time consuming and when it's hot we can never really keep in top of it."

Simon is already looking at longer term solutions.

Getting access to aeration equipment is the key and the lure of the island has proved useful in ensuring one of Simon's contacts is a regular visitor.

"We have a very good relationship with Kevin Brunton, of Greentech Sports Turf, who has taken to the island to the extent that he is keen to come over with his aeration machinery and offer me any technical advice I might require," said Simon.

"But we are going to have to think about purchasing aeration equipment soon because the situation is going to have to be tackled otherwise it is just going to get worse."

They will also be installing a rudimentary irrigation system with a pump at each end so they can have a box at each green from which to hand hose.

Although only measuring 6,200 yards, the course, originally designed by Willie Campbell who also designed Brookline which hosted the 1999 Ryder Cup, doesn't play short. (Donald Steel also designed five holes in the 70s when land was lost to farmland). This is because it is laid out across the dunes rather than down valleys and long hitters often have to

lay up between blind hills to give themselves the best chance of hitting approach shots close.

It has a reputation of being one of the very finest links courses and as a result does attract some of the more intrepid golfing pilgrims.

Indeed before I returned to the mainland I listened to three Americans starting their day with a breakfast table reading of text from a golf book extolling the virtues of the Machrie.

They displayed the same passion that the club's own Head Greenkeeper has for the game.

"I was taught to play golf as soon as I could walk as it was an excuse for my father, who was a county player. In the winter he used to take me off to the seaside to get away from the drudgery of playing winter greens. That gave me a love of links golf and I always wanted to work and play on a links course," said Simon.

Indeed John Freeman did more than just introduce his son to the delights of playing the game, he bred

into him a love of golf course design.

"My father is an architect but his hobby is designing golf courses. He helped design the new holes at Crieff Golf Club about 20 years ago and he and I both had input into designing the new nine hole extension at Crieff Hydro, where I worked before coming here. I did the original plans and he touched them up for the final design. Golf course design is a great interest for him and it has turned into a great interest of mine."

Those skills have been put to good use at the Machrie.

The team plan to build two new greens for the 12th and 14th holes as the existing greens are the least popular with the members and Malcolm King, the owner.

"The current greens, built when five new holes were required when the club lost land to farmland in the 70s, are on the tops of mounds while the original greens were in hollows. No-one thought about irrigation in those days and put the greens in the wettest areas so they wouldn't dry out in the summer."

Machinery Inventory

Toro 2300D Triple Fairway Mower
 Ransomes 160D with Greens units and verti-cut units
 Ransomes 160 Petrol (used for spare due to island petrol prices 98p per litre!)
 Set of Ransomes 160 tees units
 Kubota 3800 compact tractor
 International 484 tractor
 Ransomes 20" Super Certes
 Ransomes 20" G850
 Saxon Baroness 22" with groomer
 Set of five Ransomes Sportscutter gangs
 2 Allent 218Si Flymos
 Komatsu Strimmer
 SISIS Auto-Rotorake
 SISIS Supaturfman
 Cushman Turf Truckster (Diesel)
 Cushman Top-dresser
 Richard Long Finishing Mower
 Alfa Laval Slurry Spreader complete with Honda WP20X Pump and Fire Hoses for Irrigation
 Honda 300 Quad Bike
 Allman Boom Sprayer
 CP20 Knapsack Sprayer
 Two and a half tonne trailer



"We want to see if we can restore the original philosophy of the course. We're not going to be bullish and say that we're going to make them better holes but it's worth a try and if it works it works and if it doesn't it doesn't," said Simon, who is delighted that Malcolm King, a golfing enthusiast who reads up on whatever subject he takes an interest, gives him 100% support.

The other major development is the new nine hole par-3 course which Simon and the team have built.

"We wanted to build a mini replica of the main course complete with blind shots and run and bumps so we found a bit of unused links land and Ewan Logan and Bobby Brown, of the greenkeeping team, and I designed the course into it.

"We are currently at the stage where we are ready to put the final cut on six of the holes with the other three still to be built. The holes will be between 120 and 180 yards with two or three holes together so we would have wide fairways, to enable the children to play, and narrow necks into the greens so good golfers could face a challenge hitting into the greens," explained Simon, who revealed that children get free membership of the golf club.

Before Simon, wife Catherine and young son Brandon - who has been joined by a brother, Bailey, since being on the island - arrived, Simon was told he might find it difficult to get people to work for him but he has found it to be the complete opposite.

"Ewan Logan, my assistant head was here under the previous regime, and has been very hard working and helpful; Bobby Brown was a farm worker most of his life and has been a God send; Chris Sather, the gardener, has produced miraculous

results around the front of the hotel while Stuart Pate has been working with us over the summer and has vast experience of the construction industry. I've been blessed with a good hard working team."

That team also turns its hand to whatever work is required and had decorated the bar in which we were sitting as well as doing similar work on the Hotel's chalets.

That demonstrates the close relationship Simon has with Hotel Manager, Ian Brown, with whom he conceived and organised the Machrie Team Challenge which filled all the Hotel's chalets and half the hotel itself last year and was won by Gleneagles greenkeeper, Simon Crawford and his team.

If Simon misses out on anything it is contact with other greenkeepers and he is keen to encourage greenkeeping colleagues to visit.

"It is prohibitively expensive for me to leave the island and keep up-to-date with current greenkeeping issues by visiting other golf courses so I do feel a little isolated but if any Section Secretary wants to organise a visit to the Machrie we'd certainly be able to sort out some sort of preferential rate for them."

I can guarantee anyone who takes up the offer would feel it a rewarding experience.

