

Talking Heads

	How has climate change affected your course in recent times?	How have you overcome these problems?
 <p>Name: Gordon Moir Position: Links Superintendent Club: St Andrews Links, Central Scotland</p>	<p>I'm not sure if you can relate things to climate change or just the natural process and weather patterns but we have been combating coastal erosion over the past 12 to 15 years, but looking back over periods of history it is nothing new. We also commissioned a survey on rising sea levels early in 2008. Other than that, I would say that the seasons are appearing to merge but then, this winter has been the coldest for some 15 years, especially the period from October to Christmas.</p>	<p>We had done some protection work on the coast in 2001 - which we repeated last September/October.</p>
 <p>Name: Rob Holland Position: Course Manager Club: Birchwood Park Golf Centre, Kent</p>	<p>Climate change has had an effect on our course over recent years. More extreme weather patterns are emerging which we have had to respond to. Most importantly for us as a predominantly society orientated venue is maintaining high standards of presentation and playability, during the severest of conditions.</p>	<p>We have increased our aeration programme to ensure maximum filtration of excessive rainfall and promote deeper rooting during drought periods. Maintaining a focus on what you're trying to achieve is vital to see through the harshest of conditions.</p>
 <p>Name: Paul Worster Position: Course Manager Club: Minchinhampton Golf Club, Gloucestershire</p>	<p>Weather patterns have become far more erratic and difficult to predict. A sequence of dry summers gave way to two extremely wet and cool summers; winters have been largely non-events until this year. The courses have been overplayed under poor conditions which has affected presentation at times.</p>	<p>It has been necessary to step up certain operations such as light sanding, traffic control, and aeration when conditions allow. A word of warning - sometimes it is better to skip an aeration process rather than forging ahead at all costs under poor conditions.</p>
 <p>Name: Colin Webber Position: Course Manager Club: Portmore Golf Park, North Devon</p>	<p>In 1987, the hurricane that wasn't, totally demolished our family farm buildings - that was the first time that I had heard of global warming or climate change. This eventually along with the last recession and a new trunk road saw the demise of our farming activities and in 1993 we opened the doors for business as Portmore Golf Park. The last two wet summers have affected income significantly with a reduction in golf course income falling by 16 percent, both from membership and more significantly pay and play. Both club and county matches have being cancelled and on too many occasions the normal club competitions have been reduced to 9 holes, frequent trolley bans have been in place. I have had many upset customers.</p>	<p>Since mid December we have had significantly less rainfall, trying to get the surface water away has proved difficult we tried a ground breaker - it is early days yet but it has improved some areas and made some worse. Walkways and surrounds have been improved by top dressing with compatible pure sand, the introduction of hedgehog trolley wheels has made a massive difference, no more trolley bans.</p>
 <p>Name: Ceri Richards Position: Technical Sales Manager Company: Avoncrop Amenity Products Ltd</p>	<p>Yes. I have noticed milder winters mean that greenkeepers are cutting right up until Christmas, whereas, even 20 or so years ago - I remember long frosts that started in October. This has also led to an increase in leatherjackets that are no longer killed off in hard frosts.</p>	<p>The best way is to view it as a challenge! Longer cutting seasons have been made easier by advances in mower technology and pests and diseases can still be treated, for the moment.</p>
 <p>Name: Thomas Murray Position: Head Greenkeeper Club: Ratho Park Golf Club, Edinburgh</p>	<p>Wetter/milder months during the winter have brought problems, certainly to older constructed golf courses with poor drainage, causing more course closures and the risk of more fungal diseases.</p>	<p>We are working on improving our drainage throughout the course. Pruning and thinning trees to allow more light and air flow throughout our parkland course.</p>

Reducing Your Carbon Footprint

What measures have you and your club put in place to reduce your carbon footprint?	Does your golf club recycle? If so, what?	What advice can you offer golf clubs that are struggling to cope with erratic weather conditions?
<p>No specific measures, although we try and act sensibly in our transport plans, orders, deliveries etc.</p>	<p>We recycle all our grass clippings and other materials from the course such as any gorse or bushes we cut back which we chip and compost. Also any sand/soil from repairing bunkers/any construction work is recycled and used again in either divot mix, topdressing material or in new construction work. Nothing like that leaves the site. Above that we recycle all paper from our offices etc and most of the glass, plastics and cardboard from our clubhouses and golf shops or that which is collected on the golf courses in the rubbish bins. Other items recycled include printers, cartridges, computer monitors, metal.</p>	<p>Have an audit carried out to see if your drainage system and irrigation system are as efficient as they can be.</p>
<p>As one of the Burhill Golf Centres, we have instigated a thorough environmental policy which encompasses all 10 of our courses. We are committed to preserving our local environments for our communities and enhancing habitats for all indigenous flora and fauna. We regularly monitor all waste management to ensure our individual sites maintain a high degree of professionalism towards a continual reduction in our carbon footprint.</p>	<p>At the moment we recycle cardboard and glass at the clubhouse. Our aim over the next couple of years is to install recycling bins at some of the tees for golfers to put relevant empty packaging into so they can see our commitment to maintaining the environment they play in.</p>	<p>Never be surprised with the British weather! Extremes of heat, cold and precipitation rates at both ends of the scale at a time of year when it really shouldn't be happening are going to become the norm. Have a plan, stick to it and always be prepared.</p>
<p>The Club has recently had an "Energy Audit" carried out. It revealed that 90% of our energy usage was in the clubhouse and an action plan was designed to reduce energy use. As a result, we have been able to target certain areas such as changing the existing lighting throughout the Clubhouse to low energy bulbs, which should reduce energy use by an estimated 20% annually. Money saved each year through such schemes is to be placed in a budget, which will finance the next stage of energy efficiency improvements in the following years.</p>	<p>This club recycles paper, cardboard, plastic bottles, glass bottles, aerosols, used engine oil and filters, cleaning fluids, and we compost everything from the golf course - including greens grass clippings.</p>	<p>The biggest piece of advice would be not to panic and over-react. Golf courses are outside and are subject to influences largely beyond our control. Good dialogues including facts and figures are essential to keep the lines of communication open with your membership. I try and concentrate on good standards of presentation under adverse conditions, rather than trying to fight the conditions themselves.</p>
<p>The greens are USGA and we have changed to pure fescue which has meant that chemical fertiliser usage is virtually nil and only a small amount of organic N is being used. We have not used a fungicide in 14 years. I recently commissioned a carbon footprint analysis and we currently produce 84.98 tonnes of CO2! 53.99 % of which is on electricity and 29.05% diesel! A lighting audit on the clubhouse alone showed that simply by changing light bulbs gave an annual saving of £1400! Recycling our waste has reduced our wheellie bin cost by half.</p>	<p>We recycle all cardboard, glass, tin and plastic with hopefully the food waste being composted in the near future. I recently had a visit from a wind turbine expert, there are currently grants available of 20 % of the total cost of any renewable energy projects. In the very near future any excess energy that you produce from a renewable source, will be paid at around 30p per unit, the payback period could be as little as five years on a turbine that has a life of 25 years, so free electric.</p>	<p>As greenkeepers you will have massive powers of observation, use them to look at your own business, you will find that your customers like what you are doing as well (as long as you tell them) not just from an environmental or cost saving angle, but aiming toward a totally self-sustaining future can only be good for all of us, we have all got to do something to reverse the effects of the last 80 years, get outside your box and give it a go, life is what you make it.</p>
<p>Because of the recent mild, wet summers I have seen golf clubs diesel bills rising due to the extra cutting required. So some clubs are considering the economics of using PGR's - I also think that the recent economic downturn will force golf clubs to bring in energy saving measures due to financial pressures, rather than a desire to cut CO² emissions.</p>	<p>I see that most golf clubs I visit now have separate skips for cardboard and plastic (but again, this was mostly brought in due to local authority rules rather than a decision by the club to become greener). Most chemical companies now package their fungicides, for instance, in much smaller packaging than in the past, as small as 500g per hectare for instance. Most greenkeepers I know recycle plastic containers.</p>	<p>As I said earlier, view it as a challenge. Look out for leatherjackets and also diseases like Anthracnose and Dollar Spot that have become more prevalent due to the changing climate. Show your club that you are 'doing your bit' to save energy by presenting a report on the subject ASAP.</p>
<p>The control of grow regulators on turf have seen a reduction of grass cutting throughout the golf course. More use of re-cycled products that are available today.</p>	<p>On the golf course side we recycle cores from greens and surrounds, tree prunings, leaves from trees, tree posts and glass bottles. Our future plans are to recycle water, grass cuttings, cardboard, paper.</p>	<p>My advice would be on putting together, with the backing of your club committee, and possibly seeking professional advice on a long term policy plan for improving golf course drainage and environment on the golf course.</p>