

# Fuel's gold

How are greenkeepers dealing with rising fuel costs? GI spoke to the team at Minchinhampton Golf Club in Gloucestershire to find out how they're coping

**Anyone who regularly fills a car with fuel will be only too aware of the rising cost of petrol and diesel.**

**As a result fuel is now becoming a major expenditure item for many golf clubs and careful planning and budgeting is required to contain this cost.**

**Will Harris, Minchinhampton Golf Club (MGC) Machinery Manager, has some strong views on the subject.**

**Together with Course Manager Paul Worster and his greenkeeper son Matt Worster, they shared these with GI.**

**Will and Matt do have a number of tactics to ensure the machinery is as economical as possible, so it's interesting to hear their views.**

**How has the price of red diesel fluctuated over the last few years?**

Will: "As the Red Diesel Price Record chart shows, red diesel has had some very interesting price fluctuations in the last ten years.

"It started this period at around 20p per litre, rose to 70p per litre in 2008 (prompting fuel protests and refinery blockades) fell back to 40p in 2010 and has now risen back to 70p per litre again.

"More worryingly at MGC, our consumption has risen dramatically from less than 10,000 litres per year in 2003 to a whopping 22,500 litres last year.

"Our petrol consumption has dropped however which balances this out to an extent."

## Key Points

- Keep machinery well maintained
- Do not carry excess weight
- Keep tyres inflated properly
- Avoid unnecessary journeys
- Walk the course where feasible
- Shop around for fuel
- Perform regular jug-tests on fuel consumption and phase out the less economic machines

**How do you ensure your machinery is as economical as possible?**

Will: "Well maintained machinery uses less fuel. Do not run machinery with blunt blades, soft tyres or dry bearings. Any drag or resistance to forward motion costs fuel. At the end of the season this adds up to a significant cost. Pre-start checks will save you time and money out on the course. If in any doubt – try pushing a loaded wheelbarrow with a soft tyre across the yard!"

Matt: "If the transport box on the run-around is still half full of divot mix from the day before, tip it out before using the vehicle for changing holes.

"Otherwise, it's like filling the boot of your car with sand and then driving it."







**What about electric or hybrid machinery? Surely that's cheaper to run?**

Will: "There are cost implications beyond not having to fill a machine with fuel every morning. The fundamental is that it still takes X amount of energy to move Y load over any given distance regardless of which fuel is used."

"That energy is expensive. Take lead-acid batteries. Apart from being heavy they require careful use in not allowing them to discharge completely which negatively affects their lifespan."

"After around 1200 - 1500 hours of use over two or three years their capacity will erode away despite careful maintenance."

"A set of eight T125 batteries for example costs around £1000 to replace and around 55p (of electricity) per night to charge, giving an approximate total cost over three years of £1,660. Given a petrol run-around will use maybe 1.5 litres an hour the costs are very similar."

Matt: "Hybrid machines have less friction loss in the drive train – particularly to the reels. The engine is not turning chains or belts or pumping fluid around a system, so there is the potential for much lower fuel use when compared to a conventional machine."

Will: "Unfortunately hybrid machines are generally heavier than their traditional equivalents because they have bigger alternators and more batteries."

"But this will be an interesting area to watch develop in the future and it is encouraging to see this sort of technology coming in to this industry."

**How about the new lithium batteries – they must be lighter and more compact?**

Matt: "There is no doubt that

these batteries are lighter, capable of taking a charge quickly, and particularly well suited to pedestrian machines for example.

"Machine use is virtually silent minimising operator exposure to noise and particularly useful in built up areas."

Will: "In my opinion this technology needs to develop further. These batteries are more fragile – a drop onto the garage floor may well ruin them, and the control systems required to make the best from them are so sophisticated that fault finding is extremely difficult."

"Also, the high cost of these control systems cancels out any energy savings."

"The batteries themselves may have long warranties but will still need replacing after three to five years, and at over a thousand pounds each for even a small one are cost prohibitive and not yet suitable for a run-around vehicle."

"However there is no doubt they are ideal for small tools such as chainsaws and blowers."

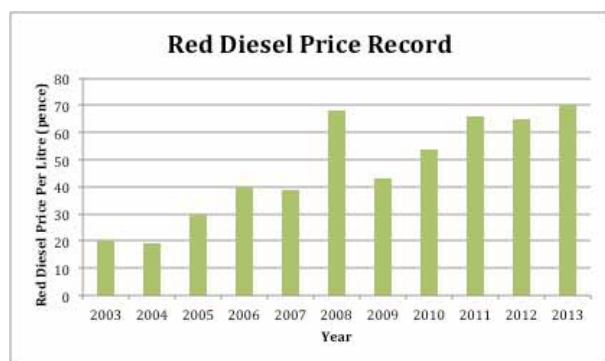
**So what are our conclusions?**

Clearly there is much to consider apart from practical day to day solutions.

Fuel saving has to be balanced against the overall running costs of the machinery, and noise of machinery is maybe another factor to be taken into account. Local pollution is a further factor.

Electric machines are perceived (by customers and bystanders) to be more environmentally friendly, and in some situations this is important for image and possibly marketing.

Finally – shop around for fuel. Don't simply ring your preferred supplier and ask to be filled up. A penny a litre means a £25 saving on a 2500 litre fill.



**THE MECHANIC'S VIEW**

GI also spoke to Stuart Hall, Ground Care Service Manager at P Tuckwell, for his viewpoint...

"It's amazing to see the increase in litres consumed, when I was working at John O'Gaunt Golf Club we installed a meter on the heater to see how the fuel was used, between workshop heat and mowing."

"In dry weather clubs never say "great we have saved money in fuel", but when a wet year comes around and there is a lot of mowing, instead they ask if fuel is being stolen, so the increased use of fuel is always noted."

"Most large mowers now have turbos fitted so this will increase consumption, so to counteract that you need to regularly regrind your cutting units and make sure machines are well maintained to reduce fuel consumption."