

Learning & Development

THE GREENKEEPING CYCLE

By Bruce Jamieson

As the weather turns colder and the economic downturn begins to bite, many in the golf industry must be looking at their accounts, wondering if they can afford to continue their machinery replacement programme and purchase the chemicals needed to ensure the course emerges from winter in excellent condition next spring.

It is important to remember that we (the older of us, anyway) have seen such slowdowns before. During 1970s there was the three-day working week, with electricity switched off during the day and street lights turned off for weeks on end.

But, interestingly, golf appears to expand after an economic downturn. For, if you consider the development of golf in Britain, expansion periods have followed recessions. So, though times will be difficult in the short-term, our industry should emerge stronger longer-term – or let's hope so, anyway.

It was during such a climate in the 1970s that Jim Arthur came to the forefront by advising a more austere approach to golf course management. His main focus was to reduce fertiliser input, reduce water application during the growing season and increase top-dressing and aeration. This might be a simplistic view of his approach to golf course management. But these were the cornerstones of his advice.

The greenkeeping fraternity was divided into two distinct groups: those for the finer grasses of bents and fescues; and those for the other, less-desirable grasses such as *Poa Annua*.

There was also a small minority who believed

that links golf was the only true type of golf and everything else was a poor second. I was one them.

In 1988 I left Royal Porthcawl Golf Club, a great links course, to join the PGA European Tour and, once promoted to Director of Agronomy, my beliefs were put to the test. Needless to say I quickly realised how wrong I was and adjusted my thinking accordingly.

Links golf is great, and is where the game, as it is played today, started. However golf is played on varying surfaces and it is important that these surfaces deliver what the player is looking for. Quite simply, if you don't deliver what the members want they will find someone else.

As knowledge of what influences the types of grasses on golf courses has increased, so too has the ability to manage and produce excellent surfaces from the various species. During the last 20-25 years the industry has grown together, with respect given to colleagues, no matter what type of courses they manage. Therefore you have to ask the question: Why has the old, divisive argument about the best grasses for golf been resurrected in recent years? The answer is simple – it is time for it to reappear.

For, if nothing else, this industry is cyclic.

For instance, during the 1930s it was common place to apply lime to golf courses with often disastrous results. The practice was abandoned, only to be reintroduced during the 60s – and abandoned again. Now guess what? Lime or liquid calcium is being recommended again today! One statement Jim Arthur was known for was: 'Ask a farmer what to do, then do the opposite'. When it comes to

lime, I agree with Jim. Practical Greenkeeping (Jim Arthur) illustrates this point (pages 67-68) if you are interested in reading further.

Lawns and Sports Greens (A J Macself), a book from the early 1930s, states: 'Lime is somewhat too loosely advocated for use on lawns. Many of the finest of grasses are indigenous to lime-free soils, and dressings of lime are calculated to injure those finer species, while encouraging the rougher kinds to grow coarse and rank.' It goes on to say: 'Few phases of horticulture have been subject to so many conflicting theories as the proper nourishment of lawn grasses.' This book was written at a time when lawns were cut either with a scythe or push-mower.

Similarly during the 50s there was also the compaction theory, where fine turf was rolled frequently, little aeration or top-dressing was implemented and nutrition was reduced. Verticutting, brushing and other disruptive practices were not recommended. Does this sound familiar?

Over the centuries golf and other sports have been threatened – for example, the games of football and golf were banned by three separate Acts of Parliament (1457 James II, 1470 James III and 1491 James IV). Only following the signing of the Treaty of Glasgow and with peace declared between England and Scotland did James IV of England begin to play golf.

Now golf and other sports are under threat again, but this time from the environmental standpoint. Many golfing bodies around the world have recognised that the environmental impact of golf course management has to be improved. However they can only recommend the correct



Picture 1

approach. It is up to each individual club to make a conscious effort and for their employees to be professionally accountable. For example, when implementing the safe storage, handling and use of pesticides. The drive for sustainable golf by the Royal and Ancient should be endorsed by every golf club throughout Europe.

Golf is a soft target when it comes to pesticide use and the environment. If pesticides were withdrawn from agriculture, food production costs would rise and yields drop – not good for any section of society. But if pesticides were removed from amenity turf, food production would be unaffected and governments could state that they had reduced the amount of pesticides being used in the environment. So it is important for our industry that everyone in it ensures that pesticide regulations are complied with.

We should not be using any chemicals that are not registered for turf. If a chemical produced for agriculture is not labelled for turf, but would be beneficial, end-users can apply for an Off Label Application Licence through the Pesticide Safety Directorate (PSD). Provided correct information is supplied, and no comparable chemical exists in the amenity turf industry, a licence is usually granted. Once an Off Label Licence has been successful, the chemical can be applied legally by the whole industry, provided each user has a copy and complies with the licence. For more information go to: www.pesticides.gov.uk.

The definition of a pesticide (Pesticide Safety Directorate) states: "A pesticide is any substance, preparation or organism prepared or used, among other uses, to protect plants or wood or other plant products from harmful organisms; to regulate the growth of plants; to give protection against harmful creatures; or to render such creatures harmless. The term pesticide therefore has a very broad definition which embraces herbicides, fungicides, insecticides, rodenticides, soil-sterilants, wood preservatives and surface biocides among others. A more complete definition and details of pesticides which fall outside the scope of the legislation is given in Regulation 3 of COPR."

Fertiliser falls under the scope of this legislation, as it is used to regulate growth, and detailed application records should be maintained.

Many problems experienced on golf courses today – such as compaction, poor aeration, over-watering and over-fertilising – have been seen in the past. Now we need to return to a more austere management regime, where the cornerstones of Jim Arthur's advice will prove significant once again, However great care must be taken to understand the individual circumstances of each course, as one solution does not fit all.

To illustrate this, despite complying with USGA Recommended Guidelines for the Construction

of Putting Greens, the picture here (see Picture 1), of a sample taken from a four-year-old green, reveals that the results of too much fertiliser and limited aeration are excessive thatch, limited root growth and poor plant health.

Conversely (see Picture 2), balanced fertility, regular aeration and irrigation to maintain plant health, results in good root growth and limited thatch build-up.

I have been fortunate to work with golf courses all over the world. This has taught me that what works here in Britain will probably not do so abroad. For example, as a matter of interest, in Iceland the climate is very harsh, the growing season much shorter and few chemicals are available for turf. Fescue appears best-suited for greens in this environment, cutting heights are maintained at approximately 5mm throughout the growing season, fertiliser inputs are minimal and compaction is not an issue as winter frost heave can raise the soils several centimetres.

Aeration work is implemented during the autumn and top-dressings applied in spring and autumn. It is fair to say that Icelandic greenkeepers work extremely hard, as they can have daylight 24 hours a day in summer and have to make the most of this limited resource. Greens can be cut several times a day just to keep on top of growth. Icelandic golf courses are managed along sustainable lines.

Meanwhile, if your golf course utilises operating leases for its machinery, ultimately you will replace your equipment every three to five years – regardless of any economic downturn. But if you own your machinery, you may now choose to extend the length of time you keep it and accept the increased maintenance costs prior to replacement. However, be mindful that this could be a false economy that leads to huge expense at a later date, let alone decreased efficiency and a deterioration in the quality of your course. So think carefully.

As a profession we have to be more environmentally aware, and ensure that we manage to enhance rather than damage the environment. As resources may become limited, perhaps now is an ideal opportunity to assess and, if necessary, adjust your management practices.

In the long-term, as long as golf courses are managed properly, provide value for money and benefit the environment, golf as a sport will be around for another 600 years or more.



Picture 2



Kelrar Golf Club, Iceland



Another view of Kelrar Golf Club, Iceland

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Count on it.