DAVID STANSFIELD
compares traditional
with modern methods
of greenkeeping

It has often been said there is nothing new in greenkeeping, just variations on a theme and the same mistakes being repeated in cycles of popularity. This being the case, is there any such thing as 'modern' greenkeeping? After all, there is only a limited range of operations which can be applied to a golf course, which have been applied for years and years (mowing, aeration, topdressing, fertiliser, scarification, irrigation), and a restricted number of materials which can be used, even though there are many companies selling basically the same thing.

Nevertheless, there is a modernity in greenkeeping in terms of the standards which are now being achieved in all round course presentation, from putting surface to rough, which are far in advance of what was the norm 5-10 years ago. Also, the search for excellence in finish, and, equally as important, year-round usability, has extended way down from the high-flying clubs and made a big impact on the suburban parks.

These standards have been brought about in the face of ever-increasing player pressure, in part by improving the sophistication and ranges of available machinery and irrigation. But more important still has been enthusiastic and knowledgeable greenkeeping, which on average has moved away from the idea that the best treatment programme for golf course is the one carried out the previous year and the decade before that, the results from which were 'all right'. Success in greenkeeping only comes from dealing with specifics, rather than applying blanket treatments and hoping something will work, or using the odd special machine because the club down the road has hired it.

However, having got to this point, the big question for the future has to be 'how long these heights can be maintained — as opposed to being made even better?'

One downfall could be the increasingly common committee viewpoint; that having got the best there is no need to work at it any more, with key treatments such as summer aeration being banned (again!). Often as bad is the edict that top dressing is 'a good thing' and must be applied more and more frequently, regardless of any potential adverse consequences. Treatment programmes have to be balanced across the board and suited to turf make up, construction type, age and player pressure.

While the amateur manager is a perennial problem, potentially of greater impact is a lack of available chemicals to treat pests and diseases. The question of how best to control dense wormcasting is one which comes up week-in, week-out, as the effects of past applications of now banned chlordane wear off. The want is for a chemical agent equally as good as a clean, one-off treatment, which is affordable. The trouble is that it is highly unlikely there will ever be one, because it would imply a chemical which is persistent in the soil, and persistence is a factor that would prohibit approval.

Environmental management to discourage worm activity (e.g. soil acidification using sulphate of iron or a modern flowable form of sulphur, maximising drainage rates, and maybe boxing off clippings from limited areas) is unfortunately slow to take effect, but may be the only option. This could though be backed up with an irritant expellent in really badly affected but limited areas, to take out the worms and allow them to be moved elsewhere. A return to ancient methods in the modern world.

Looking beyond wormcasting, the escalation of problems which crop up when not just one or two chemical pesticides, but virtually the lot, disappear have been very much brought home to me while carrying out advisory work in (the rest of) Europe. In countries such as Holland, fungicides and selective herbicides are simply not available for use, and in the face of this it comes as a shock to realise how much greenkeeping in Britain depends upon pesticides, even though there is often a pride in keeping chemical application to the absolute minimum. The availability of even just a few pesticides in the UK is still a long stop which is propping up standards of excellence on the majority of courses.

Also, to someone used to hearing that even slight damage to the golf course caused by pests and diseases, or the presence of the odd weed or patch of moss, is regarded by the average club member as something approaching a hanging offence, it comes as a surprise that in countries where there are no chemicals, if there are a few brown patches on greens, or small sections of fairway being damaged by crows, this is not a crisis. Could this ever be the common view in Britain?

But how does one manage a golf course to work around these problems? Of course, the fundamentals have to be based on traditional links greenkeeping, which comes from a time when high-tech pesticides were not available, to develop turf which is resistant (but not immune) to serious disease. Ideally, this turf should be a mixture of species within the botanical composition, so that if one species suffers, there is still the basis of a ground cover to rebuild from. There is nothing so risky as a monoculture if there are no chemicals to maintain it, and this applies to pure bentgrass as much as it does to pure annual meadowgrass. It is doubtful there would be a place for courses requiring high-intensity management systems in such a world. Even more has to be thought about the general environment of the course too. The availability of sunlight to close mown areas, and the availability of a breeze to dry it, are such fundamentals in producing high quality turf, they can never be ignored. This may well mean a reversal in the tree-ing of courses despite all the political difficulties of effective tree management.

When it comes to pests other than worms, we are somewhat fortunate in Northern Europe in that infestations, on average, tend to be limited in extent and frequency. Prevention of leatherjackets, chafers or fever flies is not possible, but control using irritant expellents is practical and can be quite adequate for the vast majority of situations, albeit a messy job.

Good environmental management can be carried out so that high standards of course presentation are maintained on a wide variety of courses, as is proven, year-in, year-out. Even so, there are still a significant number beyond whose greens in particular have inherent disease problems due to the soft nature of the turf, due to constructional defects in terms of soil make-up and drainage qualities, or simply due to player pressure. Here, if the availability of chemicals to check disease disappears, even the fundamentals of links greenkeeping may not stave off a serious, long-term decline in playing quality and usability. What does one do in this situation?

Clubs in such straits have to get back to basics via the costly route, i.e. rebuilding greens to a better design standard. This means greens of a size which will take an adequate number of pin positions, without water-collecting hollows in the putting surface, and with a constructional profile which is free-draining without being droughty or totally infertile. Obviously, this is a much more dis-
Can high standards of greenkeeping be sustained for the future, or will disasters again become common?

ruptive and costly exercise than a tee rebuilding programme, but is still a nettle to be grasped. Good planning, and the use of experienced architects and contractors, can make this drastic step minimally painful (other than to the bank balance!).

A future without pesticides, or at least with fewer, less effective pesticides, has to be a possible scenario. To be able to keep up the current level of modernism in the results of greenkeeping in part means looking backward to the treatment applied before chemicals were generally available and adapting these to a world of changing demands. However, what is needed also is a better understanding of the basic biology of turf and rootzone systems so that information is available to use in environmental management programmes. This needs long-term fundamental research, which goes way beyond evaluations and the examination of individual problem features. Such research is costly, but is something which does need to be addressed.

The author, David Stansfield, is the senior agronomist with PSD Agronomy Limited, Preston, Lancashire.