Sowing the seeds for the future

sceptical. He argues that despite the potential of gene technology the range of options available to plant breeders are still bound by the fundamental precepts of plant ecology.

"If grasses are modified by inserting appropriate genes, and traits such as drought tolerance, inserting appropriate genes, and traits such as drought tolerance, are fully expressed how will such moisture/nutrients but is constantly subjected to the wear and tear and ultra close mowing expected by today's golfers?"

"Grasses which are more efficient at extracting and utilising nutrients than their contemporaries - especially nitrogen - are already undergoing trials. But such advances, despite their benefits are dwarfed by the climatic changes which are likely to be much greater than the capacity of GIs to produce the higher levels of performance demanded."

So, where does that leave the greenkeeper needing to make commercial purchasing decisions but with an eye to the long-term health and performance of the course's playing surfaces?

As far as Des Thorogood and Newell are concerned, the crux of the matter is that, in the words of Dr. Thorogood, "Farsighted companies with direct involvement with the greenkeeper on the one hand and the research scientists and breeders on the other, are in the ideal position to bring together the geneticists and greenkeepers to discuss what is possible and what is needed in the grass seed mixtures for the millennium."

Dr Newell's main concern is that greenkeepers beware of cheap grasses because they can become very expensive.

"Greenkeepers may save money on seed but pay out for extra maintenance, extra water ing and extra fertiliser. If grass has to be replaced due to poor performance, this could be extremely expensive."

From Des Taylor's perspective, the crucial thing is that the products of plant breeders need to be integrated effectively with the technological development of mowers and other machines, along with chemicals.

"A holistic approach is the only one likely to succeed where superior management skills can maximise the full range of resources available."