

**Simon O'Hara was the Over 25 winner of the BIGGA 1999 Essay Competition. Here is his winning entry.**



# **BIGGA ESSAY COMPETITION**

## **GREENKEEPING AND GOLF COURSE MANAGEMENT TECHNIQUES FOR THE 21<sup>ST</sup> CENTURY**

**Simon O'Hara**

**Winner of the Over 25's Section of the BIGGA Essay Competition**

The Millennium is fast approaching, bringing with it a baffling array of predictions from a wide range of pundits. Will the Year 2000 bug really cause our computer controlled irrigation systems to unleash a flood of biblical proportions, or will a plague of locusts infest the world's golf courses after developing a taste for fine turf grasses. Such cataclysmic outlooks, for the start of the 21st century are obviously somewhat fatalistic. Perhaps a more prudent view would be to regard the new millennium as an opportunity to implement a series of resolutions

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which could take turf grass management to new levels of excellence. We must adapt to the challenges of the 21st century by adopting management practises that will satisfy increasingly restrictive regulations. To this end we must continue to invest time and money in education and research. The potential developments that are listed below will form the foundations for devising strategies and techniques that may be applied in the forthcoming century.

The likelihood of any monumental changes that will irreversibly change the way we manage turf grasses is perhaps insignificant. It is more likely that we may employ the concept of evolution in the context of future developments in the greenkeeping profession. The 21st century should witness an extension of current turf management trends which thereby should place a great emphasis on education, for just as 'Location' is the catchword in the real estate world, so then will 'education, education and re-education' become the defining motto of turf grass managers. A commitment to share and accumulate knowledge will pay dividends in our desires for a better understanding of turf management techniques. Along with education it is likely that we will see an extension of all the current trends in turf grass management, such as a continued emphasis in conservationism, increasing scientific breakthroughs, tighter restrictions on chemical usage, the re-introduction of previously successful but labour intensive cultural practises along with a constant improvement in golf course machinery.

The importance of education will be, as it always has been, recognised as one of the defining goals of greenkeeping in the 21st century. The successful establishment of a large number of existing colleges that offer

turf grass management courses is to be welcomed. The future of such centres is assured as we strive to better understand our turf grass environment. Research and Development has become accepted as one of the most important investment opportunities in all current business ventures. It is likely that this trend will be continued and extended in terms of turf grass management. It must be hoped that these colleges will further develop as centres of excellence and develop in conjunction with scientific research centres, both of which would benefit from each others presence, facilitating the mutually beneficial exchange of ideas and information. To this end the various world-wide greenkeeper associations, such as BIGGA, will continue to provide a vital communication service between the research institutions and the turf grass manager, as well as providing the opportunity for increased networking within the industry.

The development of centres of academic and scientific excellence will undoubtedly bring with them numerous benefits. Such centres will devise computer training programmes that will simulate an endless variety of golf course environments that will facilitate both tried and tested turf grass management techniques as well as offering the potential to employ new experimental ideas without the dan-

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ger of damaging a single living grass plant. Such systems would enable students to practice different techniques within differing parameters of budgets, staff numbers, climate and soil structures.

The need for continued investment in education must run parallel with the advances of scientific exploration in matters relating to the study of the turf grass plant. If there is to be any dramatic advances in turf grass management it is probable that it will come from this field. Investment in this area will undoubtedly bring great

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rewards. We are already witnessing the successful results of new strains of resilient turf grasses which are providing greenkeepers with greater assurance than ever before. Advances in genetic engineering will probably be of greatest consequence for the future. The various institutes that currently exist for research such as the Sports Turf Research Institute, the Institute of Grassland and Environmental Research and the

Institute of Professional Soil Scientists will undoubtedly provide key developments in our industry.

The scientific advances of these institutions include IGER's research into a mutant gene in *festuca pratensis* that may well lead to the development of 'evergreen grass' which stays green even in dormancy. Similarly, at Nova Scotia Agricultural College and other institutes, there are attempts to develop greens quality cultivars of *poa annua*. Another very worthwhile area for investigation is that of biological control of turf grass

pests and diseases. Research that contributes to the development of cultural practices and biological controls which can alter the turf grass environment such that it favours the antagonistic microflora. These are just some of the many areas currently being investigated. Such developments though are unlikely to produce permanent solutions to our problems, that is why it is vital that we maintain and extend our invest-



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ment strategies in these institutions and encourage interaction between the scientists and ourselves.

That education is perhaps the single most important arena for development in the future is not in question. The existence of centres of excellence for the study of turf grasses will become increasingly important especially if current trends on the restrictions of chemical usage continue. In such circumstances it will be to the past that we will turn in order to lay foundations for the future. It is vital that we uncover, record and research the many and varied cultural practices that were employed in the early 20th century greenkeeping profession before such information is lost forever. Many of these practices may

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have previously been so labour intensive that chemical solutions which achieved the same result were considered far more practicable. However, with the advent of so many advances in the manufacture of labour saving machinery it is conceivable that we can now re-employ these previously disregarded practices.

The golf course machinery manufacturing industry is another area that will continue to develop. This industry will probably follow common manufacturing trends whereby under increasing pressure from market forces we will hopefully witness greater competition which will result in more robust labour saving devices which will perform an ever increas-

ing number of tasks. It is likely that the 21st century will see the successful transfer from inflation tyres to minimal compaction tracks. Advances in equipment such as the Hydroject and Verti-draining will bring enormous benefits. While machinery will be able to do many more complex and varied tasks it will also do so more safely and in an increasingly worker friendly environment. The use of alternative energy sources to power golf course machinery will obviously be pertinent in future years.

The advances in matters relating to turf grass management as outlined above are becoming increasingly evident in the last year of the present millennium. For the turf grass man-



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ager the stresses brought about by increasing regulations from the European Union and other bodies, especially in matters relating to conservationism, vis a vis Pesticide, Health and Safety and Labour regulations, will become more prevalent in the next century. Increasing bureaucracy will necessitate additional skills for the turf grass manager, therefore computer literacy and a good working knowledge of related legal matters will become increasingly important along with good diplomacy skills. Increasing regulations will also advocate the continued trend towards conservationism. It is probable that golf courses will someday have to become virtually self sustaining, especially in matters of water recycling and effluent disposal.

It is arguable that the next century will bring with it increasing pressures for the Golf Course Manager. What may be dismissed as gimmicks by some may someday become commonplace. Recent developments have seen the construction of indoor golf courses as well as the

possibility of providing twenty four hour golf by means of extensive floodlighting systems. In a similar context market forces will pressurise golf clubs to place greater emphasis on achieving extended targets for the number of rounds possible per annum. If such developments do

ever increasing popularity of the sport will continue to tax the industry. Such pressure is inevitably going to take its toll, but the successful adoption of continued evolutionary developments in all facets of the supporting industries should overcome these problems. It should be

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occur across the spectrum of golf courses it will inevitably lead to greater difficulties for the Golf Course Manager as course presentation will inevitably suffer.

Golf course management is undoubtedly going to face numerous challenges in the next century. The

noted that golf course management techniques will essentially not change, what we do now is what we have done in the past and what we will continue to do in the future, and that is to apply the knowledge and machinery in the best possible manner.

For information and an entry form for the BIGGA Essay Competition 2000, please call Ken Richardson, Education and Training Manager on 01347 833800 or email: [ken@bigga.co.uk](mailto:ken@bigga.co.uk)



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