

MORAL COMMITMENT, CONSERVATION WITH TURF URGED BY BOARD

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Michael J. Hurdzan, Ph.D., is a partner in the golf course architectural firm of Kidwell & Hurdzan, Inc., Columbus, Ohio. Hurdzan grew up around a golf course where he served as shag boy, caddie, and then greenskeeper. During college he owned and operated a landscape maintenance

company in Vermont. He joined Jack Kidwell in 1970 to form the architectural partnership.

Hurdzan received his Masters and Ph.D. degrees in plant science from the University of Vermont. He is currently enrolled in the landscape architecture program at Ohio State University, Columbus.

He is a member of the American Society of Golf Course Architects and the American Society of Landscape Architects. He is currently writing a book on the history of golf course architecture.

"The current state of golf course architecture is that more men are attempting to practice golf course design in a period of declining golf course starts. Consequently, the competition between designers is keen with the client receiving more personalized service than in the past. Since the initial cost of construction may be small compared to long term expenses resulting from improper application of technical principals, it behooves the client to select his architect carefully.

Any individual involved in the golf industry should have strong moral commitment to keep golf growing and expanding. To honor that commitment, one must decide what poses the greatest threat to that growth and what must be done to combat that threat while promoting the pleasure of golf as well. To simply promote golf will not suffice. Then, what are the threats to the expansion of golf and how may the golf industry in general, and the architect specifically, contribute to the popularity of golf?

Perhaps the two most easily identified threats are the time required to play golf and the cost of golf. Although, the time to play golf has received much attention, it may not be as serious as it seems. To take half a day to play golf is equivalent to going: skiing, hunting, fishing, card playing, hiking, camping, swimming, etc. Lots of leisure activities consume as much or more time than golf and many times without the benefit of sunshine and fresh air. But efforts should be made to reduce playing time, if possible, by designing shorter golf courses, scenic but less hazardous holes, fewer unmaintained

periphery areas that receive much golf activity (slick side areas in particular), or one of a hundred other suggestions printed in articles in the last couple of years. The golf pro and superintendent actually have more influence over playing time than does the architect.

However in matters of costs, the golf course designer has great influence. When a golfer talks of the high cost of golf, one of the items first mentioned are greens fees that may run from \$6.00 to \$15.00 for 18 holes. There is real danger that if the cost of new construction and maintenance does not level out soon, and greens fees inflate, then golf may again become a rich man's game. This would be a tragic loss to the spirit of the game and to the industry.

How then, can we help reduce construction and maintenance costs and ultimately the cost to the golfer? Golf courses should have as many of the built-in minimum maintenance and artistic features as possible. But, since these features are costly, there must exist a compromise between total construction cost and the number of features. For example, in many areas of the country, bluegrass can go 14-20 days without water before it shows declining vigor. This desiccated turf once watered satisfactorily, recovers and can go another 10-14 days before showing drought symptoms. Thus, it may be that with ordinary rain patterns of once a week, that bluegrass fairways would require supplemental water only five times a year depending on soil types and mowing height of the turf. Installing a manual fairway irrigation system instead of a fully automatic system may reduce the initial construction cost by \$40,000 to \$100,000 depending on the system. Also, many parts of the country have already experienced water shortages and golf courses are the first to be denied. In these areas, irrigation needs and water availability must be analyzed, for to specify a first rate system with limited or no water available may be wasteful. The American Society of Golf Course Architects Research Foundation, recently made a grant to the University of Florida to study golf course use of waste or recycled water. If a system using recycled water was developed, the clubs buying city water could use the water twice or essentially cut their water cost in half.

Another area for economy may be interior greens construction. Most research would indicate that the USGA and PURR-WICK methods are well founded in theory and work perfectly if the proper material and workmanship is used. Since these greens construction methods are so precise, much hand labor and very special materials are required with a resulting increase in construction cost. In the midwest, another type of green is being built that may not stand the rigors of scientific testing as well, but they grow excellent turf, rarely need to be aerified, and cost about \$60,000 less for 18

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greens. This savings may make the difference between a golf course being built or not.

A reduction in the use of exotic or expensive materials may result in substantial savings that can be passed on to the golfer. More experimentation needs to be done with organic soil amendments such as rotted sawdust, leaf mulch, ground corn cobs, etc., to replace the sometimes costly and unavailable organic peat. Organic peat delivered to a job might cost \$15.00 per yard while well-rotted sawdust might cost \$3.00 per yard. This \$12.00 savings times the 1,000 yards required for an 18 hole course is another \$12,000 not spent.

Construction of golf courses on suitable but inexpensive land can provide golf at a reasonable cost. These areas are usually flood plains, areas under airport flight paths, industrial right-of-ways, preserved or unused park land, or long-term lease land. By reducing the high cost of land acquisition, low-cost golf can be enjoyed and still be profitable for investors. The architectural features must reflect the problems of the site, even if it means a loss in aesthetics.

The golf course architect of tomorrow must not only be an artist and applier of developed technology but he must also become an innovator in reducing the rising costs of construction and maintenance. The accomplished designer is not one who takes a superb site and an unlimited budget to produce a great golf course capable of hosting the U.S. Open. Rather, the truly talented designer is one who can take a poor or marginal site and a low budget and produces a golf course that provides hours of pleasure to hundreds of people at a low cost. The man who can do this has indeed proved his professionalism, expertise, and talent; and honored his commitment to keep golf a popular game for all people. **WTT**

Robert C. Shearman, Ph. D.



Dr. Shearman was appointed extension turfgrass specialist and assistant professor of horticulture for the University of Nebraska, Lincoln, in 1975.

Shearman's research includes turfgrass breeding and stress physiology. He has written numerous articles for trade

publications and has spoken at major industry shows across the U.S.

Shearman received his Ph.D. and M.S. in turfgrass physiology and management at Michigan State, where he was a research assistant. His B.S. was earned at Oregon State University.

Shearman is an advisor for the American Sod Producers' Association. He is a member of the American Society of Agronomy, the Crop Science Society, Nebraska Golf Course Superintendent's Association, and the Nebraska Turfgrass Foundation.

He and his wife Linda, who also has a degree in agronomy, have two children.

Since the onset of the energy crisis there has been a growing awareness for the need to conserve energy, water, and other natural resources. Along with his awareness, increased emphasis has been placed on the production of food and fiber. These developments have cast an unfavorable image on the turfgrass industry, relating turf as an ornamental or aesthetic crop rather than the functional plant material that it is. Many of us have become submissive and have accepted this negative approach as reality, when in fact we should be on the offense.

Aesthetics are an important aspect of turfgrasses and allied plant materials, but the functional aspects of these areas are equally or more important. Numerous articles have been written that support turfgrass contributions to the environment and individual's physical and mental well-being. In addition, turfgrass research has advanced rapidly in the last 25 years. We are growing more sophisticated as a science in our knowledge of turfgrass plants, culture, pest management, and breeding. As an industry we are keeping pace or exceeding other agricultural industries in our efforts to reduce energy and water consumption.

Turfgrass science and culture is not without problems. This is what makes it interesting. There is a growing emphasis for low maintenance grasses and cultural systems for low maintenance areas. In many areas water quantity and quality are becoming more critical. Improved drought and salt tolerant grasses as well as better understanding of water management are needed for these areas. Government regulations are more restrictive and have limited the scope of available pesticides for pest control. A greater emphasis must be placed in the future on pest management, efficient use of pesticides, and development of resistant turfgrass cultivars.

Present trends in this country will continue to place an emphasis on the need for conservation of energy, water, and other natural resources. Smaller homelawns and multiple dwellings are likely to be the case in the future. More turfgrass areas will fall in the low maintenance category. Population and leisure time will increase, while the availability of land for expansion of turfgrass facilities will decrease, necessitating intense management requirements on some parks, golf courses, and athletic fields. Research efforts for the future will have to address both of these problems, as well as strive for a more basic understanding of turfgrasses. The turfgrass manager will be forced to become more technical and sophisticated in his efforts to develop cultural systems. **WTT**