

Visions of Sustainability

By Dr. Frank Rossi

I believe that our ability to succeed and achieve real happiness in this life is directly related to our vision of what our world should look like. As I begin to layout direction for my program, I have begun to envision what our needs might be in the next thirty to fifty years. To aid me in my vision, I have attempted to look back into our history as a science and a profession, searching for perspective—defined so eloquently by our editor in the 1984 Grass Roots Heritage Issue; the high point or crest in time from which we can look back to measure our progress and look forward with optimism. Without perspective it seems to me that our past becomes a broken record of steps forward and back, endlessly repeating the same mistakes and telling the same tale time after time.

In reviewing the course content for the 1931 Wisconsin Greenskeeper Short Course, it is interesting to see how little the challenges in golf course management have changed. As we begin the 10th anniversary year of *The Grass Roots* it would be appropriate to reflect on where we have come from and where we could go.

Looking back, I see how superintendents like Mr. Bone at Blackhawk CC utilized his own composted material as a source of nutrients and topdressing. I began to wonder about the sustainability of our current management systems. Consequently, I want to use my "gazing space" this issue on a discussion of sustainability (a concept which will shortly become as overused as the term Integrated Pest Management).

However, before this happens, I want to submit to you some of my thoughts regarding sustainable golf course management. Management of the golf course is truly sustainable when management inputs are not energy intensive and management practices do not substantially disrupt the ecological balance of our resident plant community.

Specifically, sustainable management recycles and utilizes products generated on the golf course (clippings, landscape waste, runoff water, etc.) as well as other by-products of society (composted animal waste, brewery waste, effluent water, etc.) to nourish and exploit the cleansing benefit of the golf course ecosystem.

I suspect many of you may have already began to wonder what this is all about. Think about this: I just returned from the North Central Turfgrass Exposition and was deeply disturbed by a report of a golf course in the Chicago area where the superintendent can no longer utilize standard control procedures (fungicides) for managing dollar spot. Anyone who has managed a course knows dollar spot is fairly common and generally not too difficult to control. Yet, as a result of chronic use of a particular class of fungicides a strain of this disease has become resistant and no longer manageable using standard control practices.

Additionally, I participated in a Pesticide Use Forum with Dr. John Harkin as well as an official from the Illinois Dept. of Public Health and two persons from environmental activist groups concerned with eliminating pesticide use in the landscape. It is evident to me that both sides of this argument have valid concerns, whether based in scientific fact or not...

Clearly, it is not an issue which will be easily decided, and no matter how much or how quickly golf course superintendents reduce pesticide usage, it won't be fast enough for everyone.

If one stops and listens closely, you can hear the winds of change blowing our way. It is my opinion that we cannot sustain our golf courses with energy intensive management inputs which alter the ecological balance (e.g. pest resistance, earthworm and ant control).

Additionally, many of the practices we employ to satisfy the golfer deeply concern a large proportion of our society. I admit this may sound like radical thinking, but, I believe that reducing management inputs while maintaining a level of quality which the golfer demands is a viable goal.

How do we get there?

University Education

We get there by training good biologists from elementary education through their college years. To become sustainable, we must rely more heavily upon our biological and ecological knowledge and understanding of the golf course environment.

For example, how organisms interact and seek a balanced relationship plant to plant, plant to soil microbes, plant to fungi, plant to insect, etc. Our turfgrass education program at the University is under discussion with the curriculum committee and I believe we can build a curriculum which stresses environmental management and decision making skills for the next generation of golf course superintendents.

Talk to your turf students about the future of the profession. Let your employees know that you have a vision for what our future should look like.

Extension Education

Many of our observers are convinced that we will only change if we are regulated to do so. I vehemently disagree with this point of view, because I have watched our behavior change from continuing education. I see this from the increased attendance at turfgrass conferences, technical seminars, and in conversation with peers who conduct extension education programs throughout the country.

You will see an emphasis on reducing inputs as a dominant theme running through our turfgrass extension program from the University. Your University of Wisconsin Turfgrass Team (Specialists, Professors, and Agents) is committed to the Land Grant philosophy which is to provide environmentally and socially responsible information for management decisions today and challenges for tomorrow.

Research

One of my primary motivations for choosing an academic career was the (Continued on page 15)

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pursuit of the future through scholarly endeavor—Research. It is only one of the three facet approach I will utilize to work towards sustainability of our management systems, still, it more likely will serve as the guiding light towards which our educational efforts are directed. I will be bringing on some graduate students shortly and will be embarking on some research initiatives which address various aspects of reducing management inputs.

Specifically, one area of basic research we will be investigating is the mechanisms by which the cool-season grasses acclimate and deacclimate to low-temperature. Dr. Beard began some research into this area in the early 1970's, and since then there has been little mechanistic type research which could lead to enhanced selection and breeding of low-temperature tolerant species. We have already put out several research plots to investigate the benefit of a late fall topdressing of brewery waste to suppress snow mold and enhance winter survival.

Finally, part of my vision would be to develop a long term project which involved construction and utilization of functional wetland systems on golf courses. I wonder about the feasibility of composting organic waste generated on the golf course, introducing it into a wetland ecosystem and creating a sustainable source of organic matter. These types of systems could serve as biological recyclers capable of producing usable products, such as water and green manure, which could be applied as fertilizers, topdressing, and possibly contain microbial antagonists which could suppress diseases.

A natural wetland system serves a similar function in nature as a transitional area between the upland soils and bodies of water. Functional wetlands are being investigated as a

means of recycling water used for greenhouse crop production, however, to my knowledge no one has proposed this idea for a golf course system.

It is an exciting time to be involved in golf course management as we make the transition into the next century. It will be a time I'm sure that will hold many challenges that I could not envision, even in my wildest dreams! As a member of this industry I feel compelled to aid in working on the challenges of today and looking out to

what might challenge us tomorrow.

I am committed to making contributions to this field which improve our management schemes and attract quality individuals who desire to serve others and the environment. With the addition of Julie Meyers and the continued efforts of Chuck Koval and Wayne Kussow, I see our program as being the most progressive and innovative turf program in the world.

Here we go! W

Wisconsin Golf Course Survey



1992 SYMPOSIUM GETS HIGH MARKS

By Rod Johnson

While filling out one of the numerous surveys and questionnaires that we are subjected to, have you ever wondered about the results? Does anyone really tabulate the information and does my response really have influence in future decisions?

A questionnaire was distributed at registration to every 1992 Symposium attendee. The intent of the questionnaire was to see if the established format and the new location met with attendees approval.

It is the continuing goal of the Symposium Committee to provide a stimlating educational opportunity to the most discriminating of golf turf managers. Judging from the responses of the 84 attendees who took the time to return the questionnaire, we're on the right track.

Attendees were asked to rate on a scale of 1 to 5, with 5 being excellent, the following:

1. Did the content of the education-

- al program meet your expectations? 46-5's 30-4's 7-3's 1-2
- Were the speakers knowledgeable on the subject matter? 56-5's 25-4's 2-3's 1-2
- Was enough time allotted for speakers to develop their topics? 43-5's 25-4-s 16-3's
- 4. In general how would you rate the location and facilities of the 1992 Symposium? 55-5's 19-4's 7-3's 2-2's 1-1
- 5. Have you attended the Wisconsin Golf Turf Symposium in the past? 66-YES 16-NO

The answers to these questions, along with the additional comments, indicate a high level of satisfaction with the 1992 Symposium. Of extreme interest to the committee is the high marks that the Hyatt received. More than 88% of respondents rated the facilities as a 4 of better. See you at the Hyatt in '93!



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