

Environmental leadership is an opportunity

by Dr. Eric B. Nelson

I have always been impressed with everything about turfgrass management—the complexity of the turfgrass ecosystem, the intensive management systems, the sophistication of the equipment used, the general education level of turfgrass managers, and their ability to grasp research results and complicated technical concepts. All in all, turfgrass managers and the turfgrass industry in general are a highly sophisticated and competent group of people.



From my perspective as a researcher, this means that I can present complicated concepts and expect they will be understood. It also means that, because of the sophistication of the industry, and the intensity with which turfgrass is managed, turfgrass managers have a considerable array of problems in need of answers. Some require more immediate solutions than others.

I compare the turfgrass industry with other agricultural enterprises. I have been involved in my career with floriculture, nursery growers, vegetable growers, and cotton and soybean growers. I have to say that, of all of these, turfgrass managers, more than any other group, recognize the complexities of their management systems and the important needs of the industry as a whole. Furthermore, they recognize the value of continued and sustained research efforts to the long-term viability of the industry. This is evident from the many turfgrass associations, lawn and landscape associations, and golf course superintendents associations.

Turfgrass industry must lead

From my academic point of view, and from my perspective as an outsider looking in, I see a number of important issues in which the turfgrass industry must either remain a strong leader or rise up and meet new challenges. Turfgrass managers must remain leaders in the environmental movement. Nearly every turfgrass manager that I speak with considers themselves an environmentalist; no, not the extremists that we typically hear about, but people genuinely concerned about the environment in which we live. The value of turfgrasses in conserving safe green spaces in an otherwise congested and polluted environment must be strongly promoted. Aesthetic values of turfgrasses aside, the beneficial properties of turfgrasses to the environment must not be allowed to be lost in the coming changes.

With its deep understanding of the complexities of

nature, the turfgrass industry is uniquely positioned to take on the challenges of the growing pesticide issue. It can set an example for all horticultural and agricultural enterprises, by demanding and adopting new, more sophisticated non-chemical and biologically-based pest control methods.

As we've mentioned previously in *Turfgrass Trends*, it is important that turfgrass managers remain technologically and scientifically literate. Again, you must set the example for the green industry as a whole and demand and adopt the latest technologies and help support the technological developments important to the long-term viability of your industry. This will require a commitment on your part to help fund the studies that must be done to provide solutions to our problems. It will also require that each manager become more politically active; you must make legislators aware of the needs and benefits of the industry. Turfgrass managers must come up with novel ways of making the public aware of the value of the industry. Most importantly, you must get involved with young people to instill in them an appreciation for turfgrass and the exciting careers in the turf management fields.

Young people: ignorant of the turfgrass industry

I frequently talk to students about turfgrass management and turfgrass science. I often find that many either know nothing about it, other than they have a front and back lawn filled with it and it's a pain in the !@#%* to mow. More commonly they are amazed that anyone would even dream of working with turf. To these students turf management serves no useful societal purpose and it takes limited resources away from food crop production.

It is evident from my conversations with students that there are some bad misconceptions about turfgrass. We need to make lasting impressions on these young people that turfgrass is something to be valued.

Some academics are equally ignorant

I also frequently talk with scientists about turfgrass research. Surprisingly, many have the same opinion of the "commodity" as younger students do. I find that many of these so-called educated academicians are even more resistant to the idea that anything useful could ever come out of turfgrass research. Many of my colleagues and I, in turfgrass science, are constantly justifying our existence and I do my best to educate as many as possible on the importance of turfgrass to society and the utility of doing research on turfgrasses to not only address basic problems in biology but applied problems of society.

-continued on page 15

- capable of causing cancer in laboratory studies even at very high doses,
- consistently linked with cancer risk in case control studies.

Finally, measured actual human exposures indicate that, if 2,4-D were a carcinogen, it would be the most potent known. Furthermore, the studies that show an increased risk of non-Hodgkins lymphoma were not designed to eliminate viral and genetic confounding factors, factors suspected of contributing to lymphoma occurrences.

The EPA has the final word

In response to the National Cancer Institute studies, the Swedish studies and lingering suspicions regarding Agent Orange, the Environmental Protection Agency (EPA) announced in 1992 its intention to establish a panel to review all of the available scientific data on the safety of 2,4-D. That panel was convened in the fall of 1992. The outcome of that panel's work was the establishment of new labeling standards for the use of 2,4-D products that were introduced in the spring of 1993 for farm, nursery and forestry workers. The new standards go into effect in April of 1994 and will require that workers exposed to the phenoxy herbicides use good protection practices with appropriate protective devices and that reentry periods be established for sprayed areas.

What does this mean for turfgrass workers?

The current worker protection regulations explicitly exempt most turfgrass management uses of 2,4-D from complying with the new standards.

Given the history of the controversy over the safety of 2,4-D and the nature of the environmental politics that surround this issue, turfgrass managers should err on the side of caution and make an effort to comply with the new standards. The EPA is clearly hoping that turfgrass managers will continue with their excellent record of compliance and adopt the new worker protection standards, before the EPA removes the exemption. ■

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Need for a pro-active stance

In summary, I hope that turfgrass managers will take a pro-active stance on promoting the profession by continuing to practice state-of-the-art management strategies, always striving to learn more about the industry and the academic support that goes into the industry. I hope all of you will become even more scientifically and technologically literate so the turfgrass industry will set the example of how plant management can function in harmony with sound environmental stewardship. ■

ASK THE EXPERT

Have a question on any aspect of turf management?

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