

Rostal joins GCN advisory board

Golf Course News has added superintendent Matt Rostal to its editorial advisory board.

Rostal, 36, is finishing his second year as superintendent at Interlachen Country Club in Edina, Minn. The Donald Ross-designed layout recently hosted the successful 2002 Solheim Cup.

Rostal has spent his entire career at Interlachen, starting in 1990 on the turf main-

tenance staff while attending the University of Minnesota.

He worked his way up to assistant superintendent, and then to superintendent.

Rostal has a degree in finance from St. Cloud State University and a degree in agronomy from the University of Minnesota. He lives on property at Interlachen with his wife Wendy and eight-month-old daughter, Lily.



Matt Rostal

Golf has negative environmental impact

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handling by workers, direct exposure to this pesticide will continue in and around golf courses.

Environmental impacts of the most commonly used turf pesticides include the fact that 14 have been found in groundwater and six are known to leach. Eleven are toxic to birds, 21 toxic to fish or aquatic organisms and 12 to bees. Some pesticides are known to contaminate community water systems or wells, others run off into streams and waterways. All drift off the target site, which means that they end up in neighbors' yards, schoolyards and community parks. Neither golfers nor the public at-large can take comfort in the fact that these pesticides are registered by the EPA because health and safety testing is incomplete, the law allows for many hazards, children are not protected, and some of the most hazardous ingredients are treated as trade secrets and are not disclosed on the product label.

Because of these concerns, Beyond Pesticides joined with other national environmental organizations and the golf industry to develop "Environmental Principles for Golf Courses in the United States." The principles recite areas of agreement regarding planning and siting, design, construction and maintenance. The document assumes regulatory compliance and encourages managers "to go beyond that which is required by law." In that spirit, it is hoped that golf course managers will stop the continued use of chlorpyrifos. The document stresses the prevention of pest problems through the encouragement of "maintenance practices that promote the long-range health of the turf and support environmental objectives... [including] introduction of natural pest enemies... soil aeration

techniques... reduced fertilization, limited play on sensitive turf areas, reduced watering, etc." The principles conclude that, "chemical control strategies should be utilized only when other strategies are inadequate."

The document implicitly acknowledges that there are areas of disagreement, which continue despite the important areas of agreement. For instance, one of the leading forces behind the principles, the GCSAA, emphatically states in a fact sheet that pesticides pose "no" risk to golfers and "little chance" for exposure after a liquid product has been applied "and the turfgrass is dry or the product has been watered in." In fact, numerous U.S. General Accounting Office (GAO) reports find that the majority of pesticides in use have not been fully tested and, if they undergo risk assessment reviews, allow for differing degrees of risk.

Mark Twain also said, "Fewer things are harder to put up with than a good example." There are many turf managers who are leading by example and moving the industry away from chemical dependency and toward organic and non-chemical practices. The president of the Long Island (N.Y.) Organic Horticulture Association, Stephen Restmeyer, who advocates ecological pest management, says that in almost every situation, adding compost or earthworm castings, colloidal minerals and soil inoculants will help build healthy soils. Proper soil pH, the release of beneficial insects, bird nesting sites and biodiversity are key elements. Restmeyer concludes, "Simply put, healthy soil grows healthy plants, and healthy plants are less likely to get sick."

Jay Feldman is executive director of Washington, D.C.-based Beyond Pesticides.

MAILBAG: AUDUBON VS. GCSAA CERTIFICATION



TO THE EDITOR:

Kevin Fletcher of Audubon International does a fine job in counting each of Kevin Ross' points in the Point/Counterpoint feature of your February edition. I'm very proud of my club's membership in the Audubon Cooperative Sanctuary Program (ACSP) for golf courses, but I understand that Audubon certification may not be right or even possible for all clubs.

My issue with Mr. Ross' point about the ACSP is the irony – or the hypocrisy – I see in the letters after his name. Does Mr. Ross see personal GCSAA certification of

superintendents as still having some appeal? Since only a small percentage of superintendents in the U.S. are "certified," does Mr. Ross think the GCSAA "must go back to the drawing board?"

I have no intention of being certified as a golf course superintendent. So by Mr. Ross' reasoning, my GCSAA annual dues should be \$41.67 because "in today's depressed economy" \$250 is a lot of money for some clubs. Any club that cannot afford the \$150 Audubon membership fee certainly can't afford their superintendent's GCSAA dues, let alone the cost for continuing education and attendance at the annual trade show.

Mr. Ross seems to think someone made a promise – that he considers "dubious" – that the ACSP will save

courses money, presumably by employing IPM techniques. Well Mr. Ross, no professor in turf school or anyone I've ever worked for in this business the last 20 plus years ever told me I had to join the GCSAA to make any decisions for me, either.

But if I ever had to decide between my membership in the ACSP and the GCSAA, I'll have an easy choice. At least I would know that my dues are going toward encouraging sound environmental practices by golf courses and not to feeding a ravenous, self-perpetuating, self-embracing bureaucracy.

Sincerely,

Tom Carlson, superintendent
The Venice Golf and Country Club, Venice, Fla.

Proper maintenance requires pesticides

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What about all of those "organic" products you see advertised and at trade shows – products such as microbial inoculants, compost tea, enzymes and humic acids? Some of them work, some of them don't and scientifically valid real-world field trial data are lacking for most. We typically recommend between five and 10 of these products in addition to synthetic chemicals, depending on the site and the anticipated pests.

But these types of products are never likely to completely replace synthetic chemical pesticides. This will especially be the case as long as the pesticide companies continue to develop such "intelligent" molecules as azoxystrobin (Heritage), halofenozide (Mach 2) and spinosad (Conserve).

The U.S. EPA typically requires pesticide companies to conduct from two dozen to more than 100 studies prior to granting a product registration. These studies are in human toxicology, environmental fate, crop residues, non-target insects (honeybees), aquatic toxicology and avian toxicity. The number of required studies depends on the pesticide's use patterns and its expected toxicity. Although the controlling law for these study requirements (FIFRA, the Federal Insecticide, Fungicide, & Rodenticide Act) was passed in 1972 – and heavily amended twice since then – pesticides that were registered before 1984 and not reregistered since then may have a suspect environmental database. Fortunately, most pesticides used by

today's superintendents have been registered or reregistered. The EPA makes the final decisions about which uses to allow on the label, based on the potential risks and benefits.

EPA data reviewers are thorough, and they are especially conservative in the areas of groundwater and surface-water contamination potential. Thus most pesticides used by superintendents have been tested and evaluated thoroughly. (Pesticides used in New York, Florida and California have been subjected to an additional level of regulatory scrutiny by state scientists familiar with local conditions.)

Overall, the environmental track record of golf course pesticides has been good, with just a few exceptions. It is true that some bird kills resulting from use of organophosphate and carbamate insecticides was documented in the 1980s, but turf use of these products has been canceled or restricted, depending on the product.

More recently, a very favorable picture emerges. We did a metastudy (a study of studies) of surface-water and ground-water quality results from 36 golf courses in North America. We analyzed more than 16,000 data points (one data point equals one analysis for one pesticide, solvent, or nitrate in one water sample). We found water-quality impacts by turf chemicals to be minimal. The rate of individual pesticide data points that exceeded an HAL/MCL guidance level for ground water and sur-

face water was only 0.07 percent and 0.29 percent, respectively.

Thus, citizen activists who imply that golf courses should be treated as if they are hazardous waste sites are misguided.

Several times, when testifying at public hearings, I have had to explain why it may be possible to grow a fairly decent home lawn with no pesticides in a particular location, but that experience cannot be extrapolated to a high-end golf course. Heavy traffic, short cutting heights and the need to have a good lie of the ball contribute to the need for insecticides, fungicides and herbicides on golf courses. This is supported by the following analysis.

There are very few pesticide-free golf courses in the U.S. There are more than 17,800 golf courses in the U.S. (National Golf Foundation, 2003). We estimate that less than 0.1 percent of these are truly pesticide-free golf courses. (Often, rumors that particular golf courses are pesticide free are not true.) We recently investigated every golf course that we suspected may be totally pesticide free and/or totally natural-organic based. We found three in this category, and another four that came very close to being pesticide free. With one possible exception, none of the courses were high quality and had greater than 30,000 rounds per year.

Basically, pesticide-free golf courses are not feasible now nor in the foreseeable future if one is planning for high traffic and high quality.

Thus, use of synthetic pesticides is necessary at most courses. It can be done wisely, and it can be done with minimal or no environmental impact.

Stuart Z. Cohen is president of Environmental & Turf Services Inc., located in Wheaton, Md.

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— Stuart Z. Cohen