Communicating Sustainable Use of Pesticides

Pesticides are safe for all on the course when used as directed by the label.

By Todd Burkdoll,
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Superintendents are faced with all kinds of job-related questions, particularly about the agronomics of using pesticides and other chemicals on their courses. Many are having a hard time clearly explaining the benefits of chemical use to curious golfers and community members, and as a result, sometimes avoid the topic. However, communicating with the public is no longer optional; superintendents must address questions, ease concerns and take part in community education programs on a regular basis in order to continue building and sustaining community confidence.

Many people assume pesticides are toxic and harmful to their health. That belief, however, is rarely grounded in science. Antibacterial soap, dishwasher soap and laundry detergent are technically toxic pesticides because they kill germs; however, when used correctly, they do not harm humans. The same goes for chemicals that are used to protect plants. Just as soap controls harmful pathogens that humans encounter, fungicide controls pathogens that damage plants.

Be smart. Be Safe. Photo by Joel Jackson.

Simply put, plants – like people – get sick. For example, when their systems get overrun, plants can suffer from environmental stress that creates conditions for pest pressure and disease. When that happens, medication in the form of pesticides is required to nurse the plant back to health. Like human drugs, pesticides today are highly targeted to specific problems, including fungi, weeds and insects.

The need for plant medication, so to speak, is understood by most people. But they may need more explanation about the science behind responsible chemical use.

The Safety Stance. Scientifically proving with reasonable certainty that a pesticide will not harm people or the environment is a fundamental part of the product-approval process. The United States has one of the strictest registration processes in the world. Federal law requires that before selling or distributing a pesticide in the United States, a person or company must obtain registration, or license, from the Environmental Protection Agency (EPA).

Before registering a new pesticide – or a new use for a registered pesticide – the EPA must first assure the public that the pesticide is considered safe, when used according to label directions. To make such determinations, the EPA requires more than 100 different scientific studies and tests from applicants.

Even before they go through government review, these chemical compounds are tested for toxicity by non-biased, third-parties. If a pesticide receives a "strike" against it at any point during testing process, the manufacturer does not approve it for government testing.

Once the product is registered, it is selected and applied by highly trained professionals. Just as a pharmacist would recommend medicine for a specific ailment, superintendents work with industry experts – including chemical applicators with years of formal education – to prescribe a pesticide for a specific problem.

Not all pesticides are equal. Toxicity levels vary by product and instructions for use are clearly outlined on each pesticide's label. Labels are designed to explain the correct application procedure, so the chemical has little or no direct negative impact on organisms beyond the targeted pest. As a rule, chemical experts consistently stress the importance of reading and following the pesticide label.

As a precautionary measure, most pesticides cannot be bought over the counter. Some products also require applicators to post signs or flags that alert the public that a given area has been treated recently. The signs, which usually are left standing for 24 hours, are simply informative, since no danger to humans or animals exists after application. In many cases, the majority of pesticides break down naturally in the soil after controlling target pests.

What is your role? Some superintendents have taken a proactive communication approach to combating the general public's misperceptions and fear of pesticides. Superintendent Jed Spencer, CGCS, for Chenal Country Club in Little Rock, Ark., participates in monthly Greens Committee meetings and now hosts annual open houses to give all members a behind-the-scenes look at how he maintains his course. In addition to addressing topics such as chemical and fertilizer use, maintenance and even golf etiquette, his crew operates equipment for participants, allowing them to get a firsthand look at what his crew does and how they do it. Spencer's goal is to educate the community, and show members the purpose behind his crew's actions.

"The response to our communication efforts has been extremely positive," Spencer said. "Community members really appreciate the visual component. It reduces concerns about the possible effects our treatment plan could have on them and their surroundings."

Spencer has taken additional steps to show his concern for the environment, which the community has applauded. Three years ago, he formed a partnership with Ducks Unlimited to establish a wood duck colony on the course, which helps attract the birds and allows his crew to manage the population. He also maintains a chemical building on his property that houses a 1,000-gallon storage tank for recycling chemicals.

Fred Gehrisch, superintendent for Highlands Fall Country Club in Highlands, N.C., holds educational forums for residents living on or near his course to explain what his crew is spraying and why. He also writes a regular column for his local newspaper that addresses course issues such as the scientific benefits of safely controlling disease and

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The food chain thrives on golf courses. Photo by Joe Hubbard.

invasive plants on his course.

Gehrisch also is involved in a study under way by the University of Missouri on salamanders at 10 courses in the area – including his – to see how they are affected by chemical use. Along with the university, he regularly works with environmental groups, whether it is coordinating joint speaking engagements or donating his staff to support a local event.

Gehrisch says most people he speaks with are relieved once they learn the chemicals he uses are similar to everyday household products.

"I have found that using common medications as examples is the most effective way to demonstrate why they do not need to fear the products we use," Gehrisch said. "I read a list of side effects and lead them to believe it is a chemical I am using to treat turf disease when, in reality, it is aspirin."

Communicating with the public falls under the many day-to-day responsibilities of a superintendent, and more of them are taking it upon themselves to go above and beyond that duty. At a minimum, superintendents should be able to confidently explain the parallels between plant and human disease, and how science helps alleviate damage in both cases.

"We talk a lot within our inner circle about what needs to be done, but as an industry, we tend to be slower in responding to the public than we should," Gehrisch said. "For any change to happen, supers need to leave their desks and get out in front of their communities."

Despite the fact that pesticides are useful tools that can provide significant benefits to our communities, the debate over whether to use them will undoubtedly continue. By basing communications on science instead of emotion, superintendents can help community members appreciate the time, labor and money-saving benefits of environmentally sound chemicals.