

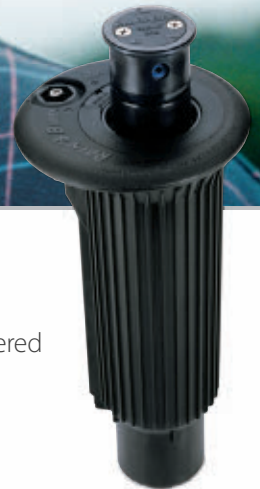
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## Why Cut Back?

*Continued from page 30*

Hoffman says there was a public outcry to make pesticides safer. "And in the last 30 years, we've done that," he adds.

Some of the proof is in some of the newer pesticides' active ingredients. Several companies have released pesticides with the "reduced risk" classification by the Environmental Protection Agency, which means they have a low-impact on human health, low toxicity to non-target organisms (birds, fish and plants), low potential for groundwater contamination and lower use rates, among other attributes. Other proof is the fact that superintendents use the products according to EPA label restrictions — in other words, responsibly.

Still, plenty of people in and outside the golf industry say courses would be better off with minimal or no pesticide use because pesticides are harmful to people and wildlife.

Such thinking frustrates people like Chuck Silcox, the global turf and ornamental product development manager for DuPont Professional Products, who had a hand in creating Acelapryn, the company's virtually non-toxic insecticide released last year.

"It was a significant advancement to bring this product to market," Silcox says. "But in some people's minds, it's the same as (banned synthetic pesticide) DDT. And that's a shame."

While chemical companies are creating products with substantially lower use rates, many people aren't taking notice, Silcox says.

### Do they realize ... ?

Surprisingly, some of the people who want courses to use fewer pesticides are people who work in the golf industry. But do they realize what they're saying when they say "the golf industry needs to



**David Frye** of Valent U.S.A. says active ingredients have more favorable environmental profiles.

use less pesticide?" Do they realize many of today's pesticides — thanks to millions of dollars spent on research and development and a watchful EPA — are less toxic than they've ever been?

Do they realize what a golf course green might look like if a superintendent doesn't spray it to combat pythium blight on a hot and humid July day?

And if golf courses use fewer pesticides, what will become of the companies — many that offer financial support for the education efforts of the Golf Course

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Superintendents Association of America, its chapters and other organizations — that manufacture and market pesticides?

Knowing that they're making safer and environmentally friendly pesticides, several chemical company leaders admit they cringe when they hear people inside the golf industry say that pesticide use must be reduced.

"It bothers me that a lot of people who supposedly know golf have bought into that," says Owen Towne, president of Phoenix Environmental Care in Valdosta, Ga. "There seems to be this belief that pesticides are inherently bad. There's an extremely high margin of safety on most products sold today."

George Furrer, national marketing manager for the specialty products business unit at Raleigh, N.C.-based SipcamAdvan, says most people who say they want to ban pesticides have no concept what that could mean.

"There was a time when there were few pesticides available and the implications ranged from weed- and disease-infested golf courses to poor agricultural crop yields to athletic fields that were unsafe for children to play on," he says.

Chemical company representatives are also frustrated with the stereotype they're making money off the sale of poisons.

"There has long been the misconception that pesticide manufacturers and other members of the industry are only thinking of the bottom line and are too eager to 'poison the environment' in order to make a quick buck," says Pedro Perdona, director of research and regulatory affairs for Dayton, N.J.-based Cleary Chemical. "Nothing could be further from the truth. We're constantly looking for new minimal-risk products."

David Frye, marketing and alliance manager for Walnut Creek, Calif.-based Valent Professional Products, says chemical companies have developed and continue to develop products with low-use rates and active ingredients that last longer. "The active ingredients have more favorable environmental profiles



**Golf course maintenance employees dress appropriately to mix pesticides. Is the day coming when workers don't have to wear any protective gear to mix and apply non-toxic pesticides?**

than products of decades ago," Frye says, noting Valent's parent company, Japan's Sumitomo Chemical, is researching development of biological products.

Indianapolis-based Dow AgroSciences offers four pesticides registered under EPA's reduced-risk category, including LockUp and Sapphire specialty herbicides. Mark Urbanowski, the company's senior marketing specialist for turf, ornamental and technical products, says the four pesticides have lower use rates and offer superintendents opportunities to use products with lower active ingredient loads in the environment.

"Achieving a reduced-risk status is important when we bring new products to the market," Urbanowski adds.

Scott Welge, director of marketing of green professional products for Bayer Environmental Science in Research Triangle Park, N.C., says critics of pesticides should recognize the strides industry has made in the past five to 10 years. Welge says the people who say all pesticides pose danger haven't done their research.

Syngenta's Ravel stresses that the regulatory environment and process "to bring a product to market is more stringent than it has ever been."

### Getting out the message

Chemical company personnel realize they must step up efforts to communicate that pesticides are not poisons. Toni Bucci, business manager for BASF Turf & Ornamentals in Research Triangle, N.C., says she fears the industry has not done a good enough job of educating the general public on the benefits of using pesticides.

"There is a general misperception that because something is a chemical, it is inherently bad," Bucci says. "We as an industry need to change that misperception."

Towne says anti-pesticide groups have turned the issue into an emotional one, instead of a science-based one.

"Unfortunately, the anti-pesticide groups have been effective in creating false perceptions about our products and how they are used," Towne says.

*Continued on page 34*

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## Why Cut Back?

*Continued from page 33*

Towne says people in the golf course industry need to spend more time “educating our own” about pesticides. “Something should be done to improve our overall knowledge,” he says. “It’s all of our responsibilities.”

What should be done?

Welge says chemical companies need to promote the positive aspects of pesticides in well-managed turf, such as carbon sequestration and cooling. “People need to realize the positive environmental attributes that well-managed turf provides versus unmanaged turf or poorly managed turf,” Welge says. “Pesticides play a role in that, and we have a great story to tell.

“If it’s regional or national, we have to make sure to tell our side of the story,” Welge continues. “We need to make the facts known and be ambassadors for the industry.”

Furrer couldn’t agree more.

“Let’s tell people about the vast improvements in pesticide active ingredients, formulations and carriers,” he says. “The computer I use today is much improved over the computer I had 20 years ago. It’s still a computer, but the comparison ends there. DDT was once a dangerous pesticide. Guess what? It’s gone. Why? Because it doesn’t meet the intense safety profile that is now required for any pesticide registration.”



**George Furrer of SipcamAdvan says it’s time to tell people about pesticides’ vast improvements.**

The facts could start with promoting science-based research, such as a recent study by the University of Massachusetts, Amherst, that reveals residues of two widely used insecticides picked up by golfers during a typical golf game do not pose a health risk.

Bucci says it’s vital for everyone in the industry to educate others about the rules that govern pesticides to ensure safety, such as the types of studies required for a pesticide to be registered by the EPA.

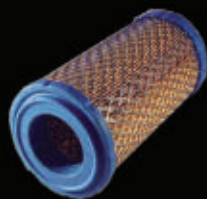
“We should also be telling our message in a way that resonates with the average person,” Bucci says. “We need to help develop an understanding of relative toxicity or safety with commonly used products, such as household products, pharmaceuticals and flea/tick treatments on the family pet. Within the industry, we need to talk about how pesticides support sustainability of a golf course.”

Russ Mitchell, product and marketing director for Raleigh, N.C.-based Quali-Pro, suggests superintendents,

*Continued on page 36*

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## Why Cut Back?

*Continued from page 34*  
chemical company personnel and others take a distinct approach when explaining the role pesticides play in golf course management. Mitchell says people can better understand pesticides if their function is compared to aspirin. Humans take aspirin to overcome illness, and turfgrass is sprayed with fungi-

cide to overcome disease. In both cases, too much can be dangerous. But both are safe when used according to labels, Mitchell says.

The industry needs to be proactive in telling how it is environmentally responsible, versus having activist groups define it for the golf industry, Urbanowski says.



**Mike Maravich** of Arysta LifeScience says golf courses will always have insects and turf disease to deal with.

“Let’s take a balanced approach to being ‘green,’ not a politically correct one which is to reduce all inputs — no fertilizer, no pesticides and no irrigation,” Urbanowski says.

Speaking of activists, Furrer says the radicals need to be separated from the rationals. “We tend to focus on addressing the radical or activist community when, in fact, all the information and science in the world will not change their opinions,” Furrer says. “Instead, we need to focus our efforts on educating rational people who just don’t know the real facts about pesticide safety, use and handling.”

As long as American golfers demand superb playing conditions (and there’s no evidence that is changing anytime soon), pesticide use will be deemed useful on courses. Mike Maravich, marketing and product manager for turf and ornamentals at Arysta LifeSciences in Cary, N.C., says golf courses will always have insects and turf diseases to deal with.

“It may be one’s intention to limit or reduce pesticide usage by rates or applications,” Maravich says. “But one may pay a price for doing that. As an example, if you reduce your applications of a fungicide from six times to three, you may pay a price for that. A golf course is a financial investment that needs to be protected.”

Adds Towne, “When the rubber meets the road and it’s 95 degrees with 80 percent humidity, bentgrass greens will get pythium. And superintendents will either have to treat the greens or they will have to spend an exponential factor of dollars to replace them.” ■



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# I Wish I Had a Mower That Could ...

Superintendent offers **top-five list** of what he hopes future mowers can do (not that he isn't impressed with what they can *already* do)

BY RON FURLONG,  
CONTRIBUTING EDITOR

**W**atching the film "Wall-E" recently with my two daughters got me thinking about future inventions in the area of robotic golf course maintenance equipment (I really need to work on separating work and home life).

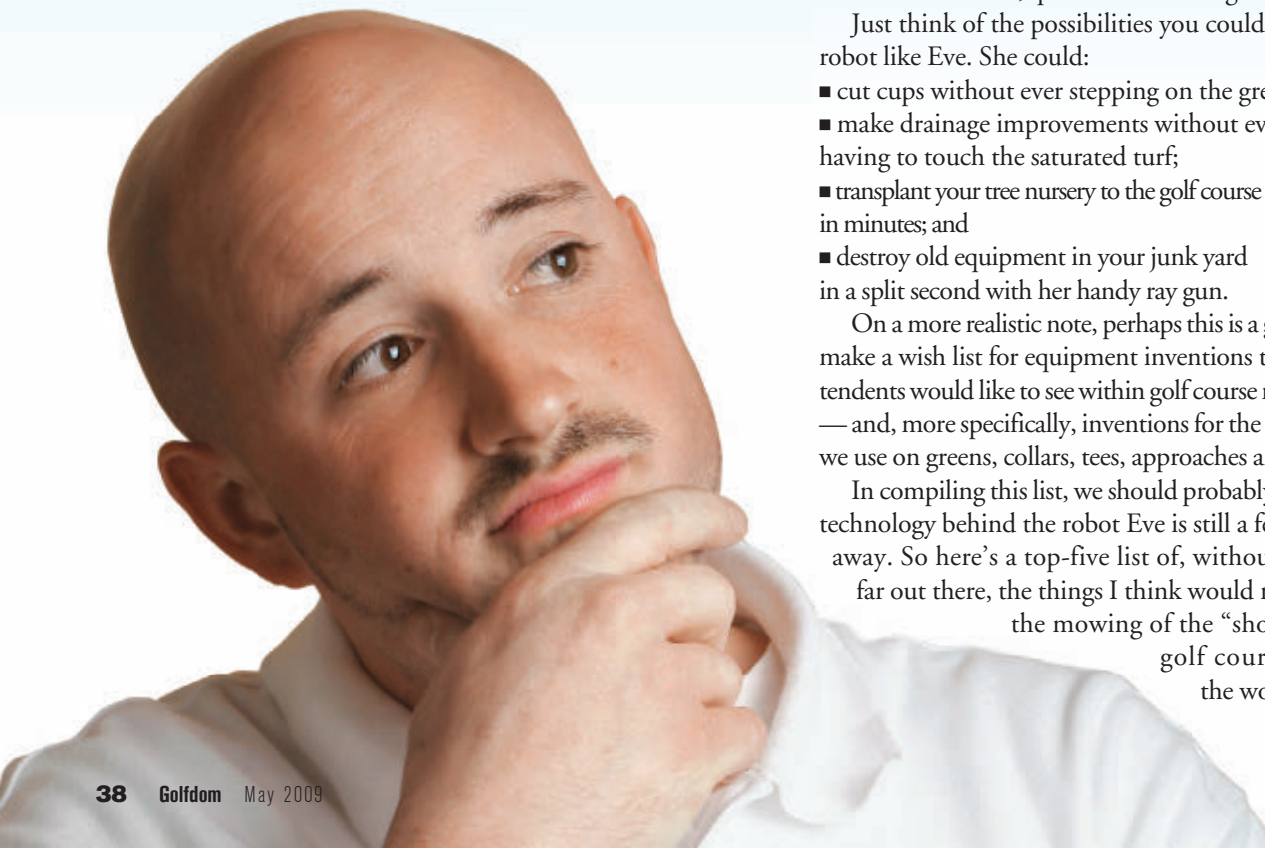
Wall-E himself (he's a little trash compactor, for those of you who don't have kids) might be a little rough on turf-grass, unless he comes equipped with more turf-friendly tracks. But Eve, the slick, multi-purpose hovering white robot from the movie, could be, with a little tweaking and a few modifications, quite useful on the golf course.

Just think of the possibilities you could have with a robot like Eve. She could:

- cut cups without ever stepping on the greens;
- make drainage improvements without ever having to touch the saturated turf;
- transplant your tree nursery to the golf course in minutes; and
- destroy old equipment in your junk yard in a split second with her handy ray gun.

On a more realistic note, perhaps this is a good time to make a wish list for equipment inventions that superintendents would like to see within golf course maintenance — and, more specifically, inventions for the mowers that we use on greens, collars, tees, approaches and fairways.

In compiling this list, we should probably assume the technology behind the robot Eve is still a few centuries away. So here's a top-five list of, without going too far out there, the things I think would most benefit the mowing of the "short stuff" on golf courses around the world:





**5 Clipping reduction on fairway mowers** — I know some clubs are able to basket their fairway clippings, but for many others (my own club included) this is not an option. What we non-basket-catchers are left with is using plant growth regulators, mowing as often as we can, and mowing when possible in dry conditions (i.e., in the afternoon as opposed to the morning).

I have yet to see a fairway mower that can produce a clean cut with no clippings in wet conditions.

**4 A more widespread ability to use alternative fuels in our mowers and golf cars** — Hydrogen fuel may be the fuel of tomorrow. And tomorrow may be here sooner than we think. The landscape is literally changing before our eyes — and we must adapt to it.

**3 Addressing noise and emissions concerns** — This is a huge issue already for many golf courses, and it's only going to get worse with new regulations and a changing environment. Mowers, blowers, golf cars and just about everything golf courses use are going to have to be more environmentally friendly as we push forward. I know, great strides have been made in the last 10 years, but they are not going to be enough in the future.

**2 More multi-purpose mowers (i.e., the ability to change height of cut on the go)** — On a normal summer day, we usually have seven different heights of cut going on simultaneously — greens, collars, approaches and tees (usually the same height), step-cut, surrounds, primary rough and secondary rough. The ability to have a mower that could, with the push of a button, change from

one height to another would be quite useful. Obviously, the same mower could not cut the secondary rough at 2.5 inches and turn around and cut the greens at .115, but some kind of overlap from, say, greens to collars or collars to approaches would be welcome. I know this technology does exist at a certain level, but making it more user-friendly for the operator would be a nice advancement.

**1 Thinking mowers** — I know this is coming, but wouldn't it be great to have a fairway mower know, for instance, that its own center reel is not cutting as good as the other four reels? Or know that it is about to hit a sprinkler head that didn't go down all the way the night before? Or know when a golfer is standing on the tee behind it, even when the operator is unaware?

*Continued on page 40*

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## I Wish I Had a Mower That Could ...

*Continued from page 39*

One thing I realized, as I began thinking about this wish list, is the great advancements have already been made in this area over the past several years. I think this deserves not only our attention, but a top-five list itself. So here is a quick top-five list of the best advancements in recent years that have made

cutting the short stuff a heck of a lot easier for golf maintenance personnel:

**5 Super-lightweight fairway mowers** — Living in western Washington state, I know firsthand the benefit of these amazing mowers. Being able to mow fairways during the steady winter rain in this climate, even

in saturated conditions, is an ability we simply didn't have 10 years ago.

### **4 Electromagnetic attachment of bedknives to reel mowers**

— It doesn't sound like much, but this simple innovation has been a huge time-saver. Sometimes the simplest inventions turn out to be the best.

**3 Electric mowers** — Although we still have a long way to go with this technology, the path has been cleared. We need to get this technology off the greens and onto the fairways as well.

**2 Flex mowers on greens** — The invention of the flex walk-behind greens mower (like the Toro Greensmaster Flex 21) has, arguably, been the single-greatest mechanical advancement on golf courses in recent years. The ability to mow severely contoured greens without fear of scalping — and avoiding all the negatives this brings with it like moss invasion, disease invasion and playability issues — has allowed us to cut lower than ever before (and still sleep at night).

**1 GPS technology utilized on the golf course** — This is still evolving, and will be for many years. But being able to determine turfgrass health by using sensors and showing you different turf conditions is, well, amazing to me. It's astounding that sensors can show you weather conditions and ET rates throughout the golf course. And the ability to use GPS to help you fertilize areas that need it and adjust your spreader for higher or lower application rates is incredible. Many of the possible GPS functions could ultimately lead to our ability to manage the short grass on the golf course with more precision than ever imagined. The list for potential GPS use is literally mind-boggling. ■

*Furlong, superintendent of Avalon Golf Club in Burlington, Wash., is a contributing editor to Golfdom. And even though he loves technology, he hopes no one invents a robotic superintendent.*

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