



Gary Rasor (left) and Dennis Bowsher are Ohio bred and graduates of The Ohio State University.

to leave Ohio State because he never thought there was a better job to be had.

Rasor says his biggest challenge at Ohio State was making the most out of not very much. When he was assistant superintendent, he remembers, the carpet on the clubhouse steps needed to be replaced, but there was no money in the budget to do so.

But Rasor had an idea. Aware that the artificial turf at Ohio State's football stadium had just been replaced, he and the crew cut some pieces from the discarded turf to use on the steps. They were proud of their accomplishment. "We figured out a way to fix the steps for nothing," Rasor says.

Rasor remembers when Jack Nicklaus built Muirfield Village Golf Club in 1973 in nearby Dublin. Muirfield, one of the top modern golf courses in the country, was big news for the area.

"People said Muirfield's fairways were better than our greens," Rasor says. "It made you mad, but it made you want to go out and work harder."

Back then Ohio State's athletic department didn't support the golf course financially like it did the football stadium, known as The

'Shoe. That frustrated Rasor because other area courses were spending money to make improvements. But things changed in the mid-1980s. The fees were raised to play the Scarlet and Gray, and that created money to make improvements.

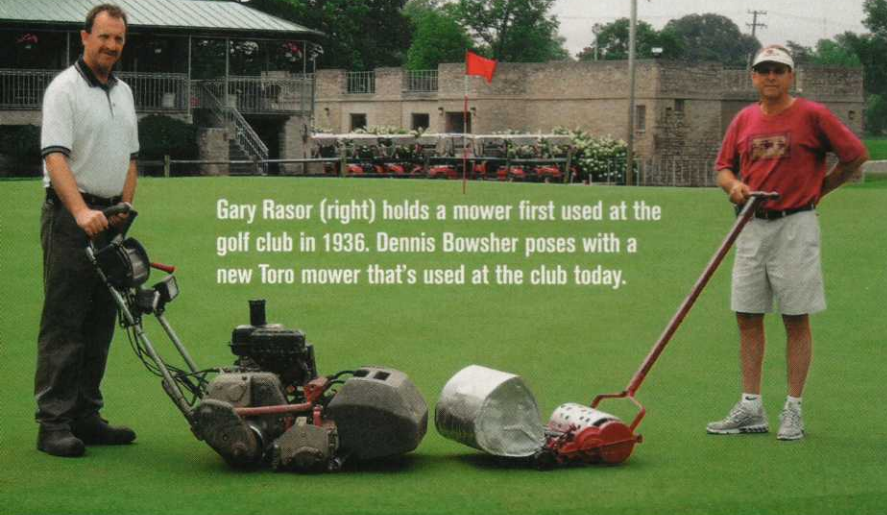
Rasor has some great stories to tell. When Jim Brown became the golf coach at Ohio State in 1972, Rasor remembers him telling legendary football coach Woody Hayes, "I'm going to make this town forget about football and think about golf." A somewhat stunned Hayes replied, "I don't think you can get 80,000 people to watch one of your tournaments."

Under Rasor's watch, Ohio State hosted 10 men's and women's NCAA Golf Championships on the Scarlet Course. Rasor says he'll miss the adrenaline rush that came with hosting the tournaments. Rasor also fondly recalls the big-name golfers who played the Scarlet as youngsters, including Corey Pavin and Tiger Woods, the latter who often struggled with his play on the course.

Of course, a major highlight of Rasor's career was the Scarlet's restoration, which was

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The Buckeye



Gary Rasor (right) holds a mower first used at the golf club in 1936. Dennis Bowsher poses with a new Toro mower that's used at the club today.

“Apparently,
God didn’t want
to bring me back
(to Ohio) until
this job was open.”

DENNIS BOWSHER

SUPERINTENDENT

THE OHIO STATE UNIVERSITY GOLF CLUB

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underwritten by a \$10-million endowment. The course, which opened in 1938, received a major makeover and was closed for a year.

“It was a shot in the arm in my 33rd year,” Rasor says of his excitement for the project. “It put us on the same level with some of the other clubs around here.”

Rasor says it’s easy to retire knowing the course is in good hands. “The easy part is knowing you have someone like Dennis who will step in and keep it going,” he adds.

Rasor’s advice to Bowsher is to keep things in perspective. “When it’s 95 degrees in mid-July, you have to step back and laugh once in a while,” he says.

In the fall, Bowsher was still smiling about landing the job. The most-common phrase coming from his mouth the past five months has been, “It’s good to be home.”

Bowsher grew up in a rural area near Lima, Ohio, about 90 minutes from Columbus. His parents still live there, and his son and daughter-in-law live about two hours away in Akron.

Bowsher worked at a golf course when he was a teenager. He liked the work so much that he explored the opportunity of making it a career. He is a 1983 Ohio State graduate with a bachelor’s degree in agriculture/agronomy.

Bowsher’s first job out of school was as the assistant superintendent at Shawnee Country Club in Lima. He landed his first superintendent job at Thunder Hill Golf Club in Madison, Ohio. For the past 18 years Bowsher has worked as a superintendent at several upscale courses in South Carolina, North Carolina and Virginia. “But in the back of my

mind, I wanted to get back to Ohio,” he says.

Bowsher learned about the Ohio State job in January and interviewed for it in March. A few weeks later he learned he had been selected for the post from 140 candidates. Bowsher believes the decision makers liked that he had a corporate background in golf and knew how to spend money wisely. The fact that he was a graduate certainly helped his cause.

“A Nittany Lion certainly wasn’t going to get the job,” Bowsher says with a laugh, referring to Ohio State rival Penn State.

Bowsher had been looking for work in Ohio for several years. He and his wife Jenny longed to return to be closer to their family.

“Apparently, God didn’t want to bring me back until this job was open,” Bowsher says. “To get back and get this position ... that’s the icing on the cake.”

The first day on the job, Bowsher, a big Ohio State football fan, went into the club’s restaurant for lunch. Sitting nearby was former Buckeye football star Archie Griffin, now the president and CEO of the OSU Alumni Association.

“I didn’t run over to him, but I thought, wow, this is neat,” says Bowsher, who receives two season football tickets as part of his job benefits.

Bowsher is also wowed by the Scarlet Course’s restoration, especially the new bunkers. But Bowsher knows those bunkers will also require more handwork because of their maintenance-intensive design. He received permission to hire more workers as part of his \$1.5-million budget for the two courses, which together garner about 65,000 rounds a year.

Both of Rasor’s assistants, Dave Beattie and Dan Trubisky, applied for the superintendent’s job. Beattie, who has worked at the course for 24 years and calls Rasor his mentor, says Ohio State made the right choice in Bowsher.

“He brings a wealth of knowledge,” Beattie says. “It’s a new era now.”

Bowsher glances at Rasor when asked what his long-term goal is as Ohio State’s golf course superintendent.

“I want to be sitting here like Gary is right now and telling you, ‘I’ve given my heart and soul to this golf course and The Ohio State University. And my reward is to retire from here.’”

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Devil in the Details

Are your sprayer nozzles and water volumes selected for each application?

BY DAVID FRABOTTA
SENIOR EDITOR

One size doesn't fit all when it comes to spray nozzles. So in an era of time-saving tank mixes that blanket fairways with several products at once, many superintendents probably aren't getting the most out of many of their chemicals due to poor uniformity, especially with foliar uptake products.

In a recent survey of about 300 golf courses, 68 percent of superintendents said they use the same nozzle for everything they spray on fairways, and 59 percent use the same water volumes with every product, says Mike Fidanza, Ph.D., associate professor of horticulture at Penn State University at Reading and one of the researchers of the study, which was funded by Syngenta Professional Products.

"If you are happy with your spraying make-up right now, then don't make any changes," Fidanza told attendees at the Ohio Turfgrass

Conference and Show in December. "But if you're not, then I would start with some different nozzle types."

With the minutia that overwhelms a superintendent's day, it's easy to understand why raindrop-type and other large-droplet nozzles became the simplified standard for two out of every three golf courses. The larger droplets work well for pre-emergent herbicides and many insecticides that work best when they make contact with the soil or pest. And they reduce drift and put down enough volume that spray technicians work at a decent pace.

But without proper coverage for contact products, like many fungicides and post-emergent herbicides, you're probably not getting the best results out of some of the most expensive chemicals that cover your courses.

"We found that with these larger droplets, we're only getting about 50 percent coverage. With a disease like dollar spot, you really need

to paint the turf,” says Dennis Shepard, Ph.D., technical manager for Syngenta and lead researcher in the Syngenta study. “Nozzles are the least expensive part of the spray equipment, but they’re the last piece of equipment that the spray goes through before it hits the ground and has the biggest impact on the coverage that you get of the product to your target.”

Fine droplets forced by flat-fan nozzles have their limitations, too. The smaller droplets heighten the chance that systemic products will evaporate or displace before they reach the soil.

Boosting pressure in small-droplet nozzles to get better coverage probably shouldn’t take the place of a nozzle swap, either. Pressure must increase fourfold to double output, Fidanza says. That means pressure adjustments should be made for only minor tweaks, which are usually recommended by the product label.

Pile on the fact that all nozzles clog — not completely like pesky screens, but “the average nozzle after 50 hours has lost more than 5 percent of its efficiency,” says Rick Fletcher, director of product development for Cleary Chemical.

Changing nozzles for different products, routine cleaning and volume adjustments — and of course the obligatory recalibration required when changing specifications — might sound like just a few more tasks to add to the list of things you would do in a perfect world but probably will never get to. But it doesn’t need to be a painstaking process, either.

“You don’t need more than a couple different nozzles and setups, so it doesn’t need to be too complicated,” says David Spak, Ph.D., technical development manager for fungicides for Bayer Environmental Science. “But one nozzle isn’t going to do the job. It’s kind of like trying to paint your house inside and out with the same brush. It’s just not going to work well.”

Where to start

Course managers need effective systems and programs when spring and summer roll around, so winter is the perfect time to evaluate spraying programs and strategize for the busy season.

First, Shepard says, determine what diseases you’re trying to control, what products you sprayed last year, water volumes, time constraints and environmental influences, such as heavy dews in the spring or prevailing winds.

Next: What worked? Did dollar spot flourish on the same fairways as the year before, or did it pop up sporadically? Are you cheating on rates or intervals?

“The first clue (that you should adjust your program) is that you’re not getting the rate of control that a chemical label says it should,” Shepard says. “It’s not always the nozzle. In some conditions, you need to be putting down the maximum rate of the chemical down at the shortest interval allowed or the chemical probably isn’t going to hold up.”

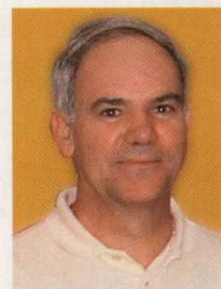
If spray volume is too low, adequate coverage probably won’t be achieved, but too much volume might dilute the product or wash it from the surface of a plant in the case of contact pesticides.

“Most pesticides have been developed through small plot testing with hand-held spray equipment,” Spak says. “Many of these sprayers are equipped with flat-fan nozzles calibrated to deliver a spray volume in the range of 2 to 4 gallons per 1,000 square feet.”

But different spraying equipment, nozzles, groundspeeds and pressure can influence performance. That means nozzles and volume are closely intertwined, and “you can’t talk about one without talking about the other,” Spak says.

Again, if products sprayed last year worked well on the problems for which you were spraying them, then there is no need to

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“We found that with these larger droplets, we’re only getting about 50 percent coverage.”

DENNIS SHEPARD

TECHNICAL MANAGER, SYNGENTA

BEHIND DA NOZZLE CODES

The model number on most nozzles refers to its specifications. The first numbers are the spray angle, and the last two numbers represent the discharge rate at rated pressure.

For example, an 8005 has an 80-degree spray angle and will apply .5 gallons per minute at a rated pressure (typically 40 psi for a flat-fan nozzle). An 11002 nozzle has a 110-degree spray angle that applies .2 gallons per minute at rated pressure.

The letters that precede the numbers can indicate nozzle type, including flood nozzle, hollow-cone, full-cone, air-induction or flat-fan nozzles, which have many additional designations, such as extended range, off-center and twin-orifice models.

Additional designations can include details about a nozzle’s composition, such as “BR” for brass or “SS” for stainless steel.

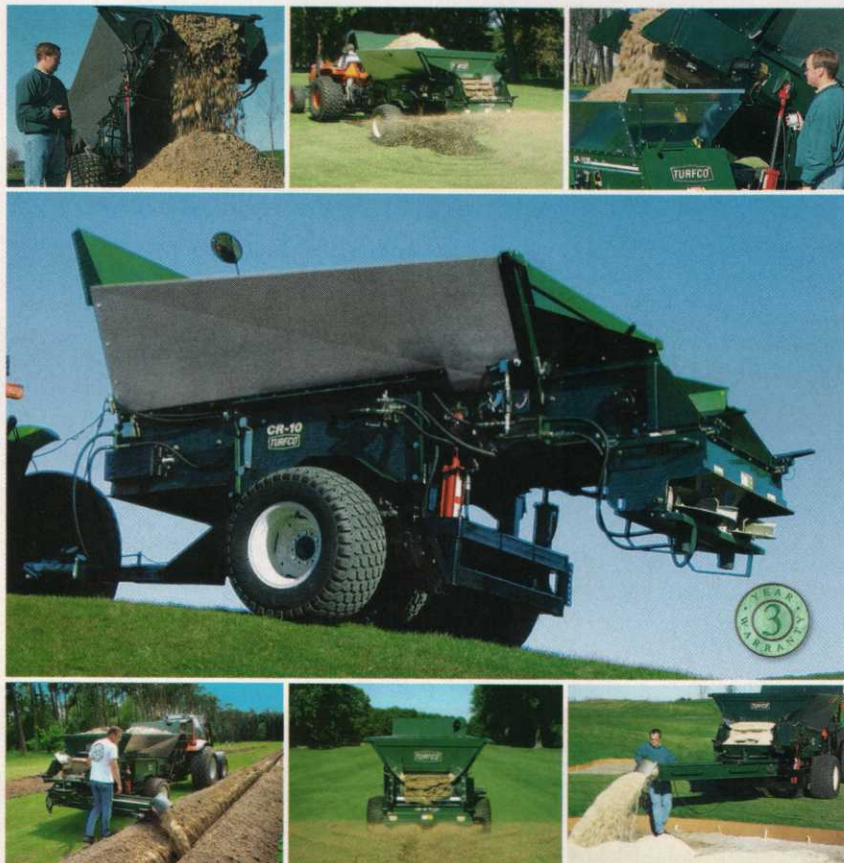
Consult your manufacturer for exact specifications on your nozzles. ■



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change your system. But if some products failed consistently, then examine the mode of action of those chemicals in conjunction with nozzles and water volume.

Systemics are more forgiving with coarse droplet sizes. Contacts typically require smaller droplets and subsequent better coverage.

When tank-mixing systemic and contact materials, Spak says it's important to make sure you select the appropriate volume and nozzle size for the most restrictive material.

Next, compare volume output to the label.

"Some of the labels that we have do recommend a specific nozzle type. But all of our labels recommend a certain spray volume," Spak says, adding that rigorous measures are taken to offer a safe and effective volume recommendation.

Luckily, technology has made superintendents' jobs a little easier with the introduction of cluster nozzles that attach to the end of each boom.

"If you're changing products or the conditions warrant it, you can spin and choose the right nozzle for the particular product and environmental condition," says Kyle Miller, market development specialist with BASF Professional Turf and Ornamentals. "Nozzles are cheap, but mistakes are expensive."

That's why it's important to conduct routine maintenance on every nozzle on every boom, sources say. It's a protocol that can be set up in the off-season, but crews will need to check spraying systems often during the year.

"A lot of golf courses will have a professional person come in and calibrate equipment twice a day every day," Miller says. "That's something people should consider if they are not comfortable with (doing it yourself)."

"Or make up your mind and say, 'I'm going to get this right.' We work so hard to make sure we're applying the proper amount of product to make sure we have an adequate amount of control," he says. "But if your nozzle is off by 25 percent, you can be putting 25 percent less product on an area, and you wonder why there is disease in one spot and not another." ■



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We've Got Mail

■ LETTERS FROM THE FIELD

Growing the Game Together

Thanks for the nice article and recognition in "Let the Kids Play" (November, p. 24). As you know, we signed an agreement with National Parks and Recreation Association (NRPA) with our Golf Course Builders Association of America Sticks for Kids Program. We have more than 245 municipalities that signed up for the program but will only take 100 in 2007. Our goal is a minimum of 100 per year for the next three years. We expect to train more than 10,000 kids in three years.

We have also set up a program with U.S. Kids Golf for our golf clubs. This program will enable kids to learn safety, etiquette, integrity and the game of golf. The program starts in the classroom, moves to the range and finally to the course. Our clubs are left at the range and course for the kids to use. We have hit a grand slam with NRPA to get our program national exposure.

Paul Foley, Executive Director
Golf Course Builders Association of America
Lincoln, Neb.

How to Stuff the Ballot Box

Thanks for the great article, "Take Responsibility for Your Profession" (October, p. 20). Many of my colleagues support your views.

One step we took was to produce a video that explains the environmental positives of golf courses for our golfers. We believe it is our obligation to let golfers know what is at stake when they vote in state and local elections.

Too many golfers believe their beloved game is unnecessarily propped up by polluting maintenance practices, and wholesale bans would only mean a few more dandelions. Too many think this is solely a golf course superintendent issue, and too many superintendents think the same way.

I couldn't agree less.

The industry in its entirety — not just superintendents — needs to feel the threat. It also must include the owners of the game: the golfer, who also happens to be a voter. The problem is too many of them would vote for a chemical abolition because we have left them out of the loop.

I look at it this way: If I were a business owner (the golfer), and the people that I hired to run my business (GMs, pros and supers) failed to tell me that I could have positively influenced my business by writing a letter to a legislator or casting a vote, then I would fire the lot.

We are really missing the boat if we don't take advantage of the fact that our business is already formed into clubs and associations with well-developed mailing lists, methods of communication and a passion by the owners. Why don't we give golfers a chance to learn the truth, thereby giving them a chance to act?

Walt Gooder, Superintendent
Country Hills Golf Club
Calgary, Canada

Crew Harmony

Your "Ante Up" article (September, p. 28) is well said. I've been encouraging supers for years to pay employees more to help solve their labor issues. After they say, "I can't get good workers," I ask how much they pay.

The super at one course I've consulted with over the years has found other ways to encourage workers to stay despite the low pay that is dictated by his boss. He does incentive things, such as get work done in two hours and I'll pay you for four.

Douglas Linde, Ph.D.
Associate Professor of Agronomy, Head Golf Coach
Delaware Valley College, Doylestown, Pa.

Things I Hate About Your Track

Lucky me! A retired golf course superintendent who gets to play more than 120 rounds of golf a year on a variety of fine golf courses. The majority are an absolute pleasure to play. But regretfully, every now and then, I see the exception: a course where an ineffective maintenance practice interferes with the golfer's enjoyment.

We all want happy golfers. They come back, bring friends and speak highly of the course to others. Increased play leads to better budgets and more tools to work with. So we need to be sure that the one or two seemingly small errors don't cause players to leave the golf course feeling aggravated. After all, golf is frustrating enough.

The three most common problems I see are:

- bad cups;
- long rough; and
- poorly aligned tee markers.

Cup cutters must know that it isn't their job to challenge the golfer. Remember, the average golfer shoots between 95 and 100. He's already got enough challenges. Nongolfers should never be assigned this job. They just can't understand the extreme frustrations of barely missing a putt and

then having it gain speed as it rolls 10 feet away. The old USGA rule of thumb of six easy, six medium and six hard cups is for tournaments; 12 easy and six medium is a sensible everyday guideline. And go easy on the front cups. Very few amateur golfers are capable of spinning the ball back to the hole, so two or three front cups are plenty.

Also, cups should be placed in flat areas of the green. Even when the PGA Tour sets a tough cup, it's in a flat spot that is tucked behind a trap or in a corner of the green. If a given green only has three flat spots, then rotate your cups through them instead of trying to create a cup position that doesn't exist.

The second most common mistake is growing the rough too long. Rough more than 2 inches is satisfyingly green, but totally impractical for everyday play. It slows play because a golfer can't find his ball until he's right on top of it. And, of course, most golfers don't use a club that is lofted enough to play out successfully.

Rough kept at 1 3/4-inch or less is sufficiently challenging. Augusta National's famous second cut isn't even that long. During flush growth periods, this will require constant mowing, but it is definitely worth it. If there is a special occasion and the green committee decides that longer rough is required, then revert to an everyday height immediately after the event is over.

Improperly aligned tee markers drive golfers to distraction. They dance around while trying to figure out how to line up for their drives, and they seldom get it right. In our current era of multishaped tees — round, oval, kidney, amoeba and others without straight lines and square edges — it is a bit of a challenge to set those markers correctly. Make sure your groundskeepers place them perpendicular to the centerline of the fairway. It's certainly worth it to take a few extra minutes to get it right.

Modern golf course conditions are so much better than in the past, and they contribute greatly to golfers' enjoyment. Don't let one or two avoidable oversights spoil the experience.

Richard T. Perry, Certified Superintendent (retired)
Marcellus, N.Y.

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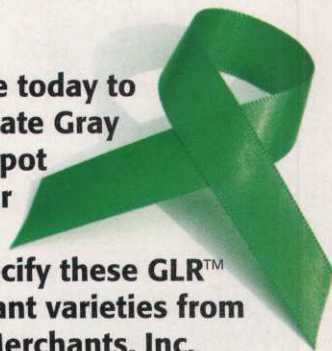


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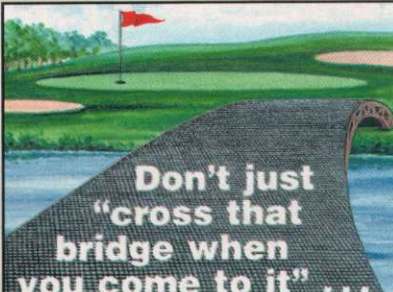
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