

# ON A



**F**ifteen years ago, golf course superintendents were much more apprehensive about rolling their course's greens than they are now.

"They were saying, 'No way those machines would be on my course,' because they were worried about compaction and bruising the turf," says Thom Nikolai, Ph.D., a turfgrass academic specialist at Michigan State University who has been conducting rolling research since 1994.

Research changed that apprehension. Now superintendents are rolling greens more than ever.

"Most superintendents I know roll at least three days a week," Nikolai says.

Fifteen years ago, Bob Bittner, certified superintendent at The Club at Pelican Bay in Naples, Fla., was rolling three

times a week and was worried about compaction and wear and tear. Now, he's rolling the TifEagle greens daily.

"Everyone is rolling more than they used to," Bittner says.

The increase of rolling frequency is primarily for two reasons: green speed, driven by golfer expectations; and healthier turf, through higher heights of cut and moisture reduction.

"Lowering the height of cut caused rolling to become more popular," says Shawn Emerson, director of golf at the six-course Desert Mountain Club in Scottsdale, Ariz. "We were at such low heights. I didn't like lowering mowing heights just to create speed."

MSU research and turfgrass scientist James Beard, Ph.D., solidified Emerson's views about rolling.

"He's the one that really OK'd rolling for me," Emerson says about Beard. "I also talked to the PGA Tour and folks like



# More superintendents are rolling their courses' greens to keep them fast and healthy

BY JOHN WALSH,  
CONTRIBUTING EDITOR

Marsh Benson (Augusta National) and Matt Shaffer (Merion Golf Club) — the people who did a lot of rolling.”

## The need for speed

Emerson began rolling regularly in 2000-2001 when the green speed was 10 feet. Throughout the past 10 years, he began rolling more — three days a week — and now he’s rolling more than ever. Expectations have risen along with the target green speed, which is 11 feet now.

“If we want to really speed up greens for a special event, we’ll roll every day,” he says.

At Pelican Bay, the course’s green speed is 10.5 daily. During tournaments, it’s about 1 foot faster. Because the greens are undulated, speeds of 12 to 12.5 are too fast, Bittner says.

Patrick Santerre, superintendent at the 18-hole Le Diamant Golf Club in Mirabel, Quebec, generates 10 to 12 inches on the Stimpmeter as a result of rolling. Because Santerre’s course has 12 push-up greens (*Poa annua*) and six USGA-spec greens (*bentgrass*), it’s difficult to achieve consistency between the two types, so he plans to roll the push-up greens five times a week compared to four times a week for the USGA greens,

which are faster because of their construction, he says.

However, rolling — which provides a better, smoother ball

roll and a more even putting surface — can lose its impact as the day progresses. Emerson’s greens will lose 25 percent of their roll during the day. So his staff rolls the greens at 8 a.m., and the green speed is 11.6. After the springboard effect goes away, the greens end up at 11.2.

“There are 108 putting greens at Desert Mountain, and every one is within 3 or 4 inches,” Emerson says.

## How high can you mow?

Many superintendent have raised mowing heights as a result of more frequent rolling.

“Some guys are still seeing how low they can go because

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## ROLLER SELECTION

As with any cultural practice, golf course superintendents like to tweak methods and use what works for them. Rolling is no different. Superintendents use various rollers to achieve a better putting surface, which includes smoother ball roll, faster greens speeds and drier turf.

There are basically five types of rollers: sidewinder, vibratory, triplex, speed and universal.



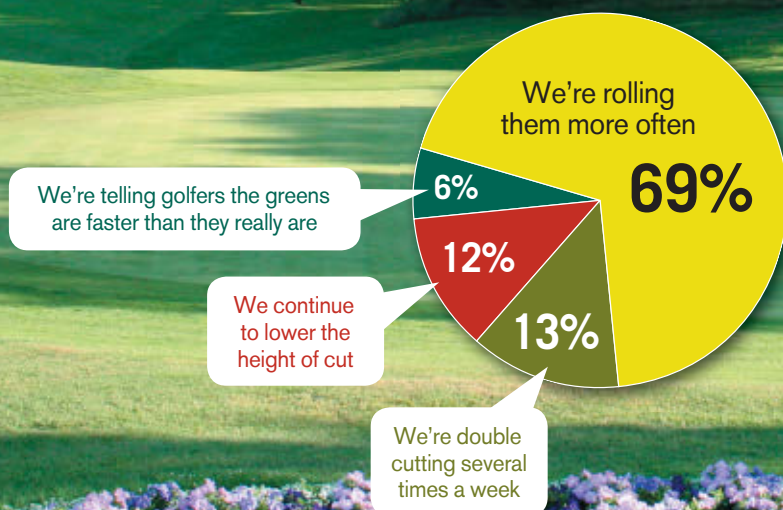
Shawn Emerson (left) says  
turfgrass scientist James Beard  
“OK’d rolling for me.”



### HOW TO MAKE 'EM FAST

How are you managing demand for faster putting greens?

Based on 2010 survey of 575 superintendents. Superintendents were asked to check all choices that applied.



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it's the macho thing to do," Nikolai says. "Now I think it should be how high can you mow."

Nikolai cites Mike Morris, the certified superintendent at Crystal Downs Country Club in Frankfort, Mich., who used to mow greens at 0.115 of an inch and now is at 0.145.

"He's rolling every day, and everyone is happy," Nikolai says. "There's less stress on the turf."

Emerson started playing with mowing heights based on speeds. From November through February, when there's less light, high traffic and slow growth, Emerson likes to raise the height of cut. He also doesn't want to lower fertility on the greens during the winter.

"Rolling is more about raising the height of cut than green speed," he says. "I'm never below one-eighth of an inch."

Scott Griffith, superintendent at the University of Georgia Golf Course, hasn't raised the height of cut on the course's Dominant bentgrass greens yet but plans to. He'll keep the height of cut low until the end of April after he hosts the PGA Tour's Nationwide tournament. Presently, the height of cut is 0.115, but 0.140 is the goal, yet 0.135 is more realistic, he says.

#### Cultural benefits

Another result of frequent rolling is less disease (dollar spot, anthracnose and brown patch) because of a higher height of cut and less moisture. For example, rolling has helped

reduce the amount of dollar spot on the greens at Desert Mountain, Emerson says. "It's a moisture-management issue," he adds. "Moisture is a big issue."

Emerson watches the tire pressure on the triplexes carefully when rolling because he doesn't want to leave marks on the greens. He also says a key point is not to roll if there's frost because you don't want to crush the plant's crown.

Years ago compaction was a big worry among superin-

### ROLLING AND MOWING, AND

The key to any rolling program is how often you roll and mow and how you alternate the two practices. Do you roll greens every day but mow every other? Do you mow two days in a row and roll the third? Do you mow every day and roll every other?

"When you alternate mowing and rolling for the entire season, you see healthier turf stands compared to mowing every day," says Thom Nikolai, Ph.D., a turfgrass academic specialist at Michigan State

University who has been conducting rolling research since 1994. "Any program in which you alternate can work well if you want to save money, too."

At The Club at Pelican Bay in Naples, Fla., certified superintendent Bob Bittner's goal is to mow less often and keep the greens consistent by rolling daily. Normally, the crew mows every day and rolls five times a week. They mow every other day in the winter (November through April).

tendents who were apprehensive about rolling. Now, however, Santerre isn't worried about that because he says rolling only affects the top inch or inch and a half of the profile. Griffith says many superintendents aren't concerned about compaction because they have USGA-spec greens, but those who have push-up greens might be more concerned.

Santerre warns superintendents of damage that could be caused by rollers around greens because of turning a machine while it's in motion. He suggests rolling right off the green to avoid any damage. Griffith says rolling puts less stress on greens than mowing.

### Economic impact

Superintendents can save money by rolling more and mowing less. Less mowing means you don't have to backlap or sharpen reels and change blades as often. The cost savings would pay for a roller in one year, Nikolai says.

Griffith says the main reason he rolls is economic, saving on labor because he doesn't mow as often. He also rolls after topdressing, so there's less wear and tear on the mowers. By eliminating a mowing once a week, Bittner saves 24 hours of labor (eight mowers used for three hours).

Rolling costs Santerre \$5,000 a year, but he says it's worth it.

### What's right for you?

When it comes to a particular rolling program, superintendents are figuring out what works best for them based on weather, type of turfgrass and green construction, golfer expectations and budgets. Nikolai says there's no one right way to roll, noting that time of year and region of country affects rolling.



## "Most superintendents I know roll at least three days a week."

THOM NIKOLAI, MICHIGAN STATE UNIVERSITY

He suggests they look at not mowing every day.

"I never thought I'd be rolling as much as I do, and we're not seeing a detrimental effect," he says.

For Emerson, it's all about managing risk.

"Anytime I can take risk out of the equation, I will," he says. "Rolling is a partnership with the greens program. How does it fit in for you?" ■

*Walsh is a contributing editor from Cleveland.*

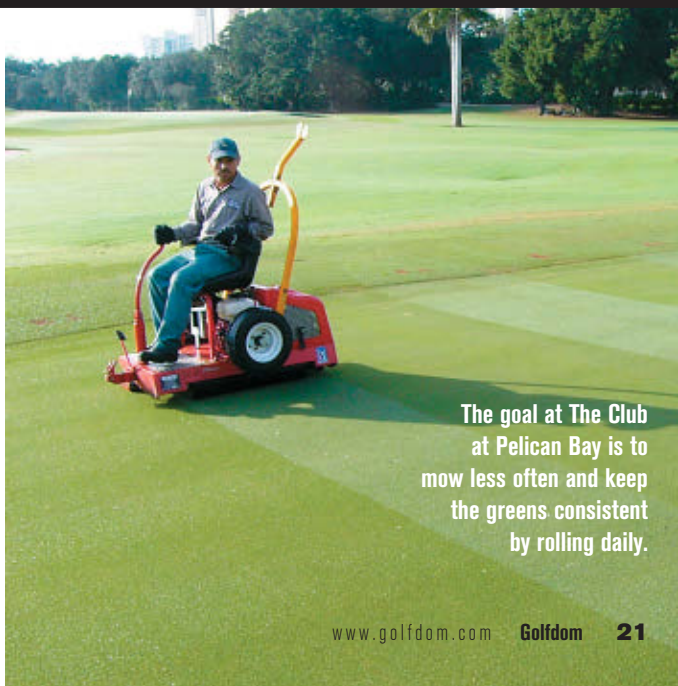
## MOWING AND ROLLING

"Thom's classes eased our worries, and we've experimented more," he says. "We increased rolling from four to five times a week. And we haven't been mowing as much. We skip a day or two during the winter, depending on the weather."

Bittner's assistant, Dan Cruse, is conducting rolling research on the bermudagrass. He has nine plots on the club's nursery green. He's performing tests that entail alternating different mowing and rolling fre-

quencies. (For newly published research about rolling on warm-season turf, e-mail Thom Nikolai at [nikolait@msu.edu](mailto:nikolait@msu.edu) or visit [www.michiganturfgrass.org](http://www.michiganturfgrass.org).)

"By rolling daily, you could easily skip one mowing a week," Cruse says. "Rolling every day is advantageous, even if you skip a mowing. We've determined you can roll every day and mow every other day and keep green speed, but we haven't implemented this on the course."



The goal at The Club at Pelican Bay is to mow less often and keep the greens consistent by rolling daily.