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There's a piece of equipment you've had your eye on for a while. It's not essential to your job, but it would make a difference when your greens are thinning or the rough needs to be reborn.

It won't necessarily be an easy sell to your boss, however. Unlike a mower, a seeder is not a piece of equipment you'll use every day, and its purchase won't necessarily be inexpensive. So it's important to purchase the right machine.

Golfdom talked to seeder experts and asked them to list the top questions superintendents should ask when considering a seeder purchase.

What are my seeding options?
There are three different types of seeders that superintendents can choose from: broadcast seeders, slit seeders and spike seeders.

Broadcast seeders are the least expensive seeders to buy, but they are also the least accurate, says Ian Camp, general manager for Sisis' North American operations.

"There's more waste when you use a broadcast spreader, and seed is expensive," Camp says. "You have to maximize the soil/seed contact to improve the germination rate."

Camp suggests if superintendents use a broadcast seeder, they either shallow-core aerate first with microcore tines or create a tilth with a dethatcher, broadcasting the seed into the prepared seed bed.

Broadcast seeders work best for overseeding bermudagrass during transition or when time is of the essence, says Scott Kinkead, vice president of Turfco. Other seeding options can be more accurate, but they're time-consuming. Ultimately, the goal is to get soil to seed contact.

"[Broadcast spreaders] also work effectively when you're overseeding enormous areas like fairways in a short period of time, and accuracy isn't as important," Kinkead says.

Another option is the slit seeder, where blades on the machine cut slits into the ground, says David Taylor, North American sales manager for Blec. Then a chute drops the seed into the slit. The goal is to maximize the soil-to-seed contact.

The problem with slit-seeders is that on bigger areas, like fairways, the turf tends to come up in straight lines like a row crop, says Philip Threadgold, vice president for Redexim Charterhouse's North American operations. To minimize the problem, superintendents should slit seed in a figure-eight or cross-hatch pattern. In addition, tight spacing between the blades also limits the problem. Most experts agree that spacing between 1 inch and 2 inches, combined with a more random application pattern will minimize the row look.

The final type of seeder is the spike
seeder, which punches holes into the soil rather than cutting slits, Taylor says. It creates individual seed spaces and can be the most accurate type of seeder available — assuming all the parts are aligned properly.

Taylor says superintendents should also look for spike seeders that will maximize the number of holes punched while putting seed down. “The more holes you have, the better chance you will have of good germination patterns.”

What area are you trying to seed?
Sounds simple, doesn’t it? Figure out what area you’re going to seed before you decide on a piece of equipment. It’s the first question superintendents need to assess before they make a seeding decision, Threadgold says.

“It’s essential that you decide what area you’re going to target for your reseeding,” he says. “Roughs may require a different seeder from fairways, and fairways may require a different seeder than greens. It’s not an easy decision.”

Kinkead says superintendents need to decide whether their seeder will be used primarily for overseeding, to fill in bare spots on fairways, for a full renovation or for some combination. Perhaps the best use of a golf course’s money is to buy a seeder that can fulfill several needs.

Another factor in deciding on which seeder best fits superintendents’ needs is the size of the area that’s being seeded. It wouldn’t make much sense to seed a fairway with the same size seeder that you would use to seed greens, Threadgold says.

For greens and tees, Threadgold suggests using a seeder between 36 inches and 48 inches in length. For fairways, a 60-inch seeder makes more sense.

Continued on page 84
Tips

Superintendents should look for a seeder that offers accurate metering for all seed sizes and close drill spacing so the seed doesn't end up growing in distinct rows.

Continued from page 83

How much seed do you need to put down?

Camp suggests that a superintendent's local seed representative is the best person to advise on a variety of seed and application rates.

Many superintendents, who have been in the business a long time, should be able to do this by using their own knowledge and instincts, but it's better to be safe than sorry, he adds.

"I would always recommend they check with their seed company representatives," Camp says. "You want to make sure that you're putting down the optimum amount of seed."

Kinkead says superintendents should look for machines whose seed regulators — usually in the form of a dial or gauge near the distribution point — are easily adjusted. He also says superintendents should calibrate their seeders each time they use them.

What size seed are you going to apply?

Seed size depends on the variety, and it's important to factor that into any seeder purchase, Threadgold says. Ideally, you'll purchase a seeder capable of handling several different sizes.

There are some varieties where the seed will be put down like a dust, and others will come out more like a grain," Threadgold says. "You'd hate to purchase a spreader only to discover it couldn't handle the size seed you're planning on putting down."

Some seeders come with attachments — such as brushes or rollers than can increase a seeders' efficiency, Taylor says. Investigate what attachments can be purchased for the seeder to maximize its performance.

Kinkead says superintendents will have to experiment with different seeding options before deciding what works best for them.

"There's no one way out there that will work for everybody," Kinkead says. "Each course will have its own nuances that will help superintendents determine what works best for them."
Challenge
To make sure the course is in great condition for one of the PGA Tour's most popular tournaments. In this case, the superintendent must deal with a timely transition of bermudagrass and a battle with Poa annua.

Solution
The superintendent is skilled in the art of overseeding and other cultural practices. Using a popular pre-emergent herbicide helped him control Poa annua.

When John Anderson quit farming in Iowa 15 years ago and moved to Florida when he was 40, he wasn't sure what he would do for the rest of his life. He found his answer after starting to work on the crew at his neighborhood golf course.

But Anderson's neighborhood course wasn't your typical golf course — it was Arnold Palmer's Bay Hill Club in Orlando, host of the nationally televised Bay Hill Invitational each March. Anderson took to golf course life easily.

"I love getting up early and being out on the course in time to see the sunrise," he says. "There are a lot of similarities between farming and golf course maintenance — in both cases you are acting as a steward of the land."

At Bay Hill, Anderson worked his way up to assistant superintendent, taking classes in turf management on the side. Two years ago, he succeeded Dwight Kummer as head superintendent of the 27-hole facility. With 39 employees, including the grounds crew, landscaping crew, greenhouse manager, mechanics, two assistants and an administrative assistant, Anderson strives to keep the high-profile course in immaculate shape.

"Making sure the course is in great condition for the tournament each year is our biggest challenge," Anderson says. "We're open for year-round play, only closing the course for one day — the Sunday before the tournament starts each year. We want our members to have use of the course right up until tournament time because they can't play on it that week. But it's difficult to keep up with the ball marks and wear-and-tear before the tournament."

A few weeks before the tournament, Anderson weans his greens off fertilizer and verticuts them again.

Continued on page 86
Continued from page 85

gressively. He also cuts them lower and rolls them to get green speeds up to 11 or 12 on the Stimpmeter. In addition, he grows roughs taller — up to 4 inches — and restricts traffic to cart paths.

The timing of the tournament means transition is a major challenge each year for Anderson and his crew. Anderson overseeds the course's 419 bermudagrass roughs, fairways and tees with Palmer III Perennial 3 ryegrass, and overseeds the Tifeagle greens with Poa trivialis. "Our overseeding is a little heavier than most Florida golf courses because we're on national television," Anderson says.

He overseeds the first week of November each year, reseeding wear areas and ball marks several times shows up so close to the tournament that it's too late to go out with herbicides," Anderson explains. "We've used Ronstar for many years, and it provides 90-percent control or better."

Howard Fertilizer, Anderson's blender, makes fertilizer recommendations based on soil tests and impregnates Ronstar in the blend. Generally, Anderson puts down 15-3-15 in three separate applications each year. "We use Ronstar in the spring and summer applications for effective pre-emergent control of goosegrass," Anderson says.

To ease transition from winter grass back to bermudagrass each spring, Anderson scalps the perennial ryegrass to allow bermudagrass a better chance to grow. "Most Florida courses are halfway transitioned back to bermudagrass by the time of the Bay Hill Invitational the third week of March," he says. "We have a difficult time keeping the winter grass going through the tournament and then trying to speed up the transition afterward."

Though the course goes through tremendous stress during the week of the tournament, Anderson credits his crew with bringing the course back to normal in record time each year.

"A televised tournament is a fun thing to focus on, and it gets the entire crew excited," he notes. "They really pull together and work hard before and after the tournament. It's gratifying for them to see the results of their work on TV."

Last March, Bay Hill experienced extremely warm, windy weather for the first day of the tournament, and the greens dried out and hardened. "We had to adjust our water to soften up greens," Anderson says. "Then the last day of the tournament, it rained the entire day. The tour officials kept play going and our greens took the water fairly well. There were spots of standing water on some of the fairways, but these players are so good, they played amazingly well despite the weather."

With an average of 50,000 rounds per year, Bay Hill stays just as busy through the warm summer months as it does when the snow birds arrive in the fall. The course's three nine holes, the Championship, the Charger and the Challenger, have all been reshaped and redesigned since Anderson started working there in 1988. "The course has come a long way since Arnold Palmer purchased it in 1970," says Anderson. "And I've come a long way since arriving in Florida as a retired farmer. I like to think we've progressed together."

Clayton is a writer from Tierney Communications, which represents Bayer Environmental Science.
The BASF Professional Turf Group offers a number of both patent and post-patent products that provide effective control and excellent value. BASF products range from pre- and post-emergents to insecticides, fungicides and soil fumigants. Some highlights include:

**Emerald® Fungicide** has consistently demonstrated unmatched performance against dollar spot in university-based and golf course trials throughout the United States. It belongs to an entirely new class of chemistry for dollar spot, and provides long-term dollar spot control when applied at 14- to 28-day intervals, while offering enhanced turf quality and safety.

**Curalan® EG Fungicide** is effective against turf diseases found in warm- and cool-season turfgrasses. While this contact fungicide is best known for its efficacy in controlling dollar spot, Curalan also inhibits diseases such as leaf spots, melting-out, red thread, pink patch, brown patch, gray snow mold, pink snow mold and fusarium patch.

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The BASF Pendulum line now includes **Pendulum AquaCap™**, an encapsulated, water-based formulation of the industry’s leading pre-emergent herbicide that eliminates odor, reduces staining and increases ease of handling. Pendulum® pre-emergent herbicide has long been a proven performer for preventing more than 40 troublesome grassy and broadleaf weeds. It combines unbeatable performance with unmatched value.

**Basamid® Granular Soil Fumigant** is the only granular soil fumigant available. Basamid penetrates deep into the soil to quickly eliminate virtually all weeds, nematodes, grasses and soil diseases so that you can reseed in as little as 10 to 12 days.

BASF is the world’s leading chemical company, offering a range of high-performance products, including chemicals, plastics, performance products, agricultural products, fine chemicals as well as crude oil and natural gas. Its distinctive approach to integration is its strength. It enables BASF to achieve cost leadership and gives the company a competitive advantage. BASF conducts business in accordance with the principles of sustainable development. In 2002, BASF had sales of $34 billion and more than 89,000 employees worldwide. BASF Corp. is the North American affiliate of BASF AG, Ludwigshafen, Germany. In North America, 2002 sales were approximately $8.2 billion and the company employs approximately 12,000. For more information, visit www.basf.com/usa.

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Containing the new sulfonylurea active ingredient, foramsulfuron, Revolver is a post-emergent herbicide that selectively removes cool-season grasses from warm-season grasses. It may be used to remove cool-season grasses from bermudagrass greens, teeboxes, collars and approaches surrounding bermudagrass greens. Results are quick — generally apparent within one to two weeks. Revolver is packaged in a convenient 1-quart container, four containers per case.

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Chipco Signature is a patented systemic fungicide that's recognized as the foundation product of every Summer Decline program. Applying multiple Chipco Signature tankmixes prior to the onset of turf stress effectively protects turf from stresses associated with Summer Decline, such as high heat and humidity, increased traffic and low mowing heights, and diseases. As a result, turf quality, which is measured in terms of color, vigor, uniformity, playability and disease control, is also improved.
Crompton Corp. is a global producer and marketer of specialty chemicals. The company has about 5,700 employees in research, manufacturing, sales and administrative facilities in every major market around the world. Available in 120 countries, Crompton products and services solve customer problems and add value to customers' products.

Crompton Crop Protection Division improves the value of high-value crops, ornamental plants and golf course turf. It markets Uniroyal Chemical brand specialty products for golf turf, including Terrazole and Turfcide fungicides.

**Terrazole® 35WP**
Terrazole 35WP works as both a preventative and curative to control *Pythium* diseases. *Pythium* blight, grease spot, spot blight, root rot, cottony blight and seedling damping-off are common names of diseases caused by *Pythium* spp, one of the most destructive turf diseases known. Severe outbreaks can be devastating within days.

Terrazole 35WP is a wettable powder that mixes easily with water and can be applied with standard spray equipment at any time, even on bright, sunny days. Depending on the weather, its fungicidal action lasts from five to seven days on turf. Even after years of on-course experience, no resistance has ever been reported with Terrazole.

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Turfcide is the industry standard for snow mold control. Snow molds occur from late fall to early spring during cold, wet periods. Infections are most severe when snow covers the turf for long periods of time.

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Available as a 4 lb/gal. flowable or a 10 percent granular formulation, Turfcide offers time-tested snow mold control with unbeatable cost control, for healthier tees, greens, and fairways come spring.

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