

Northern, Southern supers prepare winter seeding regimens

Dormant seeding: Saving Northern supers time, money and headaches

By MARK LESLIE

BEDFORD, Nova Scotia, Canada — Time is money. The further north a golf course sits, the shorter its playing season, and, the reasoning goes, the quicker you need to open the course to start paying the bills.

For many, the solution has been the procedure known as dormant seeding, seeding a grass into the turf stand late in the fall so that it gets a quick start in the spring.

And now, a new method of dormant seeding "saved us a month," said Mike DeYoung of Glen Arbour Golf Course, a public track which opened in July in this Halifax suburb. "We were able to mow the first week of May, and had 80- to 90-percent coverage. That's the best I've ever had."

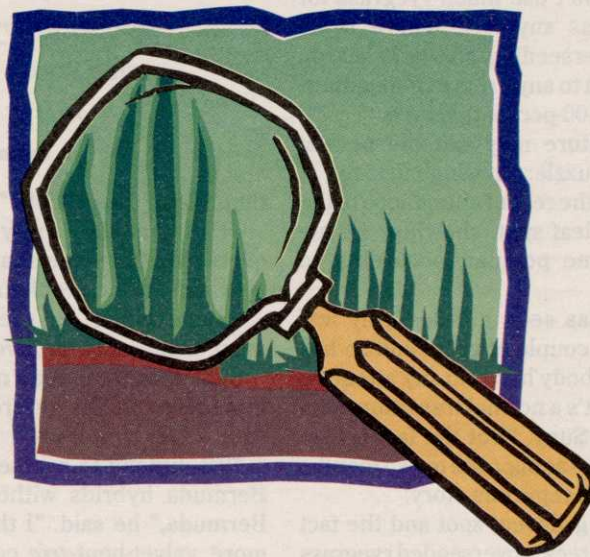
A former president of the Canadian Golf Superintendents Association and former superintendent at nearby Hartlen Point Forces Golf Course, DeYoung used a new method for dormant seeding last fall on his newly built greens.

His pre-planting routine was similar to summer seeding, with phosphate and micronutrient and starter packages. Once the bentgrass seed was planted, DeYoung's crews laid down a four-mil greenhouse membrane product over each green. They stapled the membrane around the edges of the green, then sodded the collars up over the top of the membrane.

The greenhouse material was bought in 24-foot sections that DeYoung had glued by a greenhouse salesman so there were no seams and no water could get beneath it.

"In the spring we simply lifted the sod off the polyethylene [membrane] and pulled the poly off."

DeYoung said he had never used polyethylene be-



fore. He had used Evergreen covers and the nonbreathable ice shield "with less success."

"In our climate, with a short golf season, covers have become a valuable tool for a lot of people," DeYoung said. "A project near here dormant-seeded with Evergreen covers and I think they picked up three to four weeks on the back end."

The Whys of Dormant Seeding

There are more reasons to dormant seed than overcoming short playing seasons, however.

"Dormant seeding is being done more and more because of time constraints," said agronomic consultant Terry Buchen of Williamsburg, Va. "Developers are willing to gamble if they are running late because of bad weather or for whatever reason. During the spring, sometimes it's so wet you can't get out and seed. And

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The ever-changing world of overseeding for warm-weather course superintendents

By MARK LESLIE

NAPLES, Fla. — To overseed or not to overseed, that is the question. And it is sometimes answered differently by golf course superintendents right down the road from each other.

In Las Vegas half the golf courses are warm-season Bermudagrass tracks and half are cool-season bentgrass. In Phoenix all are Bermudagrass, and in Scottsdale all bentgrass.

"Six hundred feet [of elevation change] in Phoenix is the difference between bent and Bermuda greens," said Arman Suny, general manager at Shadow Creek in Las Vegas and an expert in growing grass from the mountains to the desert.

And whether a course has bent or Bermuda is a major factor whether overseeding is needed at all. When Bermudagrass goes dormant in the winter season, golfers, especially vacationing Northerners, desire green putting surfaces. Thus the existence of "overseeding" — seeding a cool-season turf into a stand of the warm-season varieties normally grown in the South.

"But you can't boilerplate it [overseeding] for anybody. It's different at every situation," said Tim Hiers, superintendent at Collier's Reserve Country Club here. "If my greens were poorly constructed, if they were old, if we played 400 rounds a day, if I had small greens, or too much shade or poor water quality, I might overseed. There are so many variables."

In his deep South location, Hiers does not overseed — instead preparing for the few days a year his Bermudagrass may be in danger.

For those who do overseeding, 1) timing is every-

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Cleaning an aerator.

Preparing the aeration system for winter

By HEATHER SCHWABE-CHASE

Water is incorporated into almost every landscape design in the form of ponds, lakes and waterfalls. Some courses even use their aesthetic water feature as an irrigation solution.

Water is beautiful, but it must be maintained in order to preserve that pristine feeling. This may be accomplished in various ways, but the most popular and effective way is aeration. Aeration, the mechanical addition of oxygen to water, is accomplished with a surface or sub-surface aeration unit. Surface units include any aeration device with a fountain-like pattern that sprays water into the air. Sub-surface units are placed below the water's surface and are not visible to the eye.

As winter approaches, thoughts turn to the removal, maintenance and storage of aeration systems for the season. Any aeration system motor that is water-cooled must be removed from the water and stored in an area where the temperature will remain above freezing. Freezing temperatures will cause the water inside the motor to expand and crush vital components. This will not only render the unit inoperable; it

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Winterization and freeze protection of variable speed pumping systems

By BOB CLARK

Variable speed pumping systems have become the standard for course irrigation.

Winterization of any irrigation pump station is a necessity in virtually any part of the temperate world. Even locations in Florida, Arizona, and California can experience freezing temperatures for long enough to damage system components.

Besides the normal winterization procedures that are carried out on many irrigation systems, three components of most variable frequency drive (VFD) pump stations require specific attention:

1. The heat exchanger has a water-filled coil that must be blown out with compressed air. Close the heat exchanger feed line isolation ball valve. Remove the inlet and outlet fittings allowing the inlet hose to drain. Using relatively low air pressure (less than 50 psi) blow into the inlet expelling all water from the coil outlet. Replace the fittings and hoses. This is a good time to disassemble and clean the regulator and solenoid valve.

2. Isolate the pressure transducer sensing line using the ball valve typically provided on the system manifold. Remove the sensing line from the pressure transducer fitting. Leave the line disconnected until the freezing condition has passed.

3. The relief valve is best protected by removing the piloting entirely and placing it in a freeze-protected area. Otherwise, the entire valve can be removed and likewise protected. This is a good time to

service the valve by disassembling and cleaning its components. It is a good idea to have a repair kit on hand before disassembling the valve. If the valve is left in place, the water that is trapped under the cover must be purged by loosening the cover nuts and allowing the water to escape.

Points to Remember

It can and does freeze almost anywhere. Plan for freezes before they happen and damage expensive, essential components.

- A kerosene heater is often your best protection (as long as you remember to fill it and light it). It is not dependent on electricity like gas and electric space heaters. The turbo type of heater can be used in temperate areas even if the station is not in a pump house.

- Should a heat exchanger coil be damaged by freezing, it can be easily removed and taken to a radiator shop for evaluation and repair. This is generally much quicker and less expensive than replacing the coil with a new one.

- If your local temperature falls to 25 degrees Fahrenheit (-4 degrees Celsius) or below for more than two hours, you must take action to assure that freeze damage does not occur.

- Strategically placed heat lamps can work well in protecting the system components from freeze damage. However, caution must be exercised to assure that plastic hoses, conduit and wire insulation are not in contact with such lamps. If

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Overseeding continues to evolve for supers

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thing, and 2) the type of grass to use is a sometimes trendy, ever-fluctuating element.

"Timing, timing, timing," said golf course agronomic consultant Terry Buchen of Williamsburg, Va. "Many times it's done too early. My advice: Overseed as late as possible so [the overseeded grass] does not compete with the Bermuda."

Seed Selection Changing



The type of turfgrass used in overseeding has evolved from *poa annua* dominating the scene, to perennial ryegrass, then *poa trivialis*, and now — with stress being put on speed and fine texture — mixes of *poa trivialis* and/or bentgrass. Although this, again, may be regional.

"I only see perennial ryegrass for fairway overseeding and *poa triv* for putting greens," said Patrick O'Brien, director of the Southeast Region of the U.S. Golf

Association Green Section. "Superintendents here don't use much ryegrass for putting greens anymore. There is no bentgrass overseeding on warm-season turf in my area to any great extent, either. It's virtually 100-percent *poa triv*."

Yet, the future may see the newest piece of the puzzle: chewings fescue.

Because of the recent abundance of the disease gray leaf spot, chewings fescue should become popular, according to Suny.

"Phoenix has seen a little [gray leaf spot] the last couple of years and so has Vegas, but nobody has paid any attention to it because it's a normal transition component," said Suny. "But the fact it happens in two days as opposed to two months is a different, dangerous story."

Because of gray leaf spot and the fact that Shadow Creek's overseeded ryegrass died during the monsoon season two years ago, Suny said he is "looking at putting chewings fescues in with ryegrass in our overseed mix. Chewings is resistant to gray leaf spot, and we'd like a little insurance. The ball will stand up nicely on it, and chewings can be cut down to fairway height and persist. Also, we have shade here and chewings will do better

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than rye in those spots."

Poa trivialis, Suny said, will be overseeded in some shady areas and on tees with traffic problems.

"Come winter, we use *poa trivialis* almost exclusively for divots," he added.

Suny also predicted a number of superintendents in the future will overseed with velvet bentgrass.

"It's difficult to overseed into the new Bermuda hybrids without spoiling the Bermuda," he said. "I think we will see more velvet-bent-*triv* combinations, or even straight velvet because its seed size will let it get down into those tighter canopies."

Velvet bentgrass' one deterrent, Suny

said, is that it is tough to top dress. But while supplies have been limited in the past, they are plentiful now.

New Technology Breakthrough

O'Brien pointed to the latest in overseeding technology as one improvement in the process.

The Orbit Air Seeder, he said, "blows the seed down into the upper portion of the mat layer, which provides much better soil-to-seed contact than a traditional drop spreader."

Quail Hollow Country Club in Charlotte, N.C., Palmetto Dunes on Hilton Head Island, S.C., and Seabrook Island in South Carolina have all used this method, O'Brien said.

Aeration

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is pricey to repair, if the unit can be repaired at all.

Removal of a surface aeration system is fairly simple. Most systems will either be anchored to the pond bottom or moored to the shoreline. If it is anchored, disconnect the anchoring lines from the unit and flip the unit upside down. The unit will then be covered by only four inches of water. At this point it can either be hoisted it a boat or towed to the shoreline.

If a system is moored, remove the mooring on one side of the pond, then the other. Carefully tow the unit to shore.

In either case, if the power cable has a quick disconnect, remove it from the unit and

place a protector cap on the end. You will want to anchor the cable and mooring lines to a buoy for easy retrieval and re-installation. A plastic milk jug works well for this task.

Once the system is removed, minor maintenance should be completed. Clean the intake valve screen with a brush and rinse out any silt build-up on the bottom of the unit.

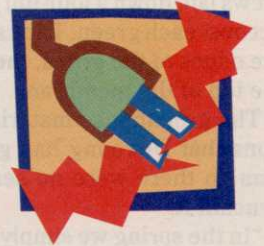
A damage inspection of the unit and power cable should also be performed at this time.

If the power cable will remain in the water during cold months, it is advisable to cap the quick disconnect.

If it is a unit that incorporates oil into its motor components, this is an ideal time for an oil change. Consult the owner's manual for this and any other recommended scheduled maintenance procedures.

Certain aeration systems can remain in the water during the winter. These include oil-cooled units, sub-surface units (when equipped as an aspirator) and Air-Flo systems (so long as there

are no moving parts in the water). Sub-surface units may remain in the water as long as they are placed deep enough to not get frozen in.



It may be necessary to leave an oil-cooled system in the water during freezing temperatures to keep an area free of ice. In this case, it is highly recommended that the unit be converted into a circulator for that time.

This is a high-maintenance situation. If the power shuts down and the unit freezes in, you must not run it until the ice clears or severe motor damage may occur.

It is advisable to run these units 24 hours a day, every day, to prevent ice accumulation and damage.

When spring is finally sprung, your aeration system will be in prime condition and ready for re-installation.

On the mechanical side of the installation process you need to be certain to tie mooring lines loose enough so the unit may turn a quarter turn. In addition, you should place a small amount of dielectric silicone grease in any quick-disconnect connections to avoid moisture intrusion.

The electrical precautions are just as simple; be certain to verify voltage and amperage readings before operating the unit.

Simply moor or anchor your unit as was done originally and you are ready for another season.

Heather Schwabe-Chase is regional marketing manager with Otterbine-Barebo, Inc. of Emmaus, Pa.

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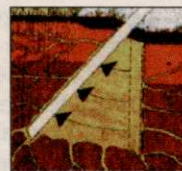
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Dormant seeding

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contractors love it because sometimes they don't have to come back in the spring."

Arman Suny, general manager at Shadow Creek in Las Vegas, recalled on dormant seeding three or four holes during construction of Country Club at Castle Pines in Colorado.

"We got it done before Thanksgiving and opened July 4," he said. "If we had seeded it in the spring, we could not have opened in July."

Suny added that a number of Northern superintendents dormant seed in "perennial weak spots, places that get shade and ice. With dormant seeding, they have a shot at coming back quicker."

At Springbrook Golf Club in Leeds, Maine, superintendent Rick Newbauer said most of his colleagues in the Northeast are experimenting with dormant seeding.

"A lot of us will pick one or two greens a year and try slicing and seeding in the bentgrass, and follow up with applying a snow mold control fungicide. The timing varies — often at the end of October, or perhaps the first of November."

Newbauer's most successful effort came when his crew built mounds around the 12th green and put down a ryegrass-bluegrass-fescue mix and rolled it in. "The next spring it was like we had sodded it. We started mowing it right away," he said.

The reason? Though Newbauer could not say with scientific certainty, he said he used aeration plugs from greens and tees as a base for the mounds. "That was good soil, and we added two to three inches of topsoil over that. It took off great."

But, timing and the weather are determining factors in the success of dormant seeding.

"It's a gamble," said Buchen. "You might have to reseed it. The best-case scenario is a 50-50 chance."

Nevertheless, "It's prudent dollarwise," said Suny. "If everything goes right, you've gained a couple of months. If it doesn't go right, you've lost some seed."

You also lose preparation and labor costs, which affect some courses more than others. For Newbauer at the daily-fee Springbrook, "You have to think of economics," he said. "It costs \$175 a bag for seed and I have a skeleton crew in the fall."

Whether the Weather

The cruelty of winter weather can also negate the best of dormant-seeding programs.

As Blake Palmer related from Rockwood Park Golf Course in St. John, New Brunswick: "Dormant seeding up here in open areas hasn't been that successful, basically because of all the ice we get. It is so hit-or-miss."

Palmer has dormant seeded late in the fall, especially with bentgrass on *poa annua* greens.

"Success depends on the type of winter we have. If we get a mild winter like last year, the success rate is a lot higher and the mortality rate a lot less..."

"We simply can't bring ryegrass through the winters up here. If we get snow and mild temperatures, it will survive. But generally our winters start open and cold, then get to freezing and thawing with ice and snow."

Because of recent winters where ice damage has been significant, Palmer's solution is using a combination of covers and dormant seeding.

GOLF COURSE NEWS

Pump station winterization

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electrical power is interrupted this will obviously allow freeze damage to occur.

- If your discharge manifold is supplied with a drain valve, open it to remove all water from the piping. This can protect pump check valves from damage.

- A variety of pumps are used for pressure maintenance. Any end suction or vertical multistage pumps should be drained using plugs usually located on the bottom of the pump housing. If the system is to remain off line for an extended period, leave the plugs removed and place them in a safe location, such as inside the control panel.

Conclusion

Although not necessarily a complete list for all makes and types of pump stations, the previous suggestions apply in most situations. If in question, drain a component until freezing conditions no longer exist. Following the proper freeze-protection and winterization procedures will best assure that when spring or warm weather returns, you will not be delayed in restarting your irrigation equipment. Hopefully the only leaks you find on your pump station are from the plugs you forget to replace on your pump housings. Remember, they are in the control panel.

Bob Clark is a field service specialist with SyncroFlo, Inc. in Norcross, Ga.



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