



Tips

Late-Year Fertilization

The year's last fertilizer application is also the most vital and lays the foundation for how turf performs the following year

BY LARRY AYLWARD, EDITOR

“We don't do anything spectacular,” says Terry Bonar, certified superintendent of Canterbury GC in Cleveland, when asked about his course's late-year fertilization strategy.

That said, Bonar realizes that late-year fertilization is vital to the overall health of the golf course. “You want to push it a little more in the fall because that's when the roots grow better,” he says.

The importance of late-year fertilization is not lost on Bob Brame, the USGA Green Section's director of the North-Central Region, and USGA agronomist Matt Nelson, who covers the Northwest Region. Brame and Nelson say late-year fertilization is probably the most important application of the year.

Brame says the application lays the foundation of how turf performs the following year. “Superintendents need to watch it closely and tweak it based on soil tests to make sure they're feeding the plants correctly.”

Nelson notes that plants still breathe slowly over the winter, and late-year fertilization provides early spring green up without excessive top growth. “Inexpensive formulations of nitrogen and potassium usually provide good results,” he adds.

USGA agronomist James Skorulski, who covers the Northeast Region, notes that late-year nitrogen fertilization may eliminate the need for early-spring fertilization, especially on fairways. “It's one less thing a [superintendent] has to do in an already busy spring,” he adds.

Bonar's strategy calls for applying a pound of ammonium sulfate on fairways and tees in late November.

“We wait until top growth stops, but the turf is still green and photosynthesis is still taking place,” Bonar says. “[The application] pays dividends.”

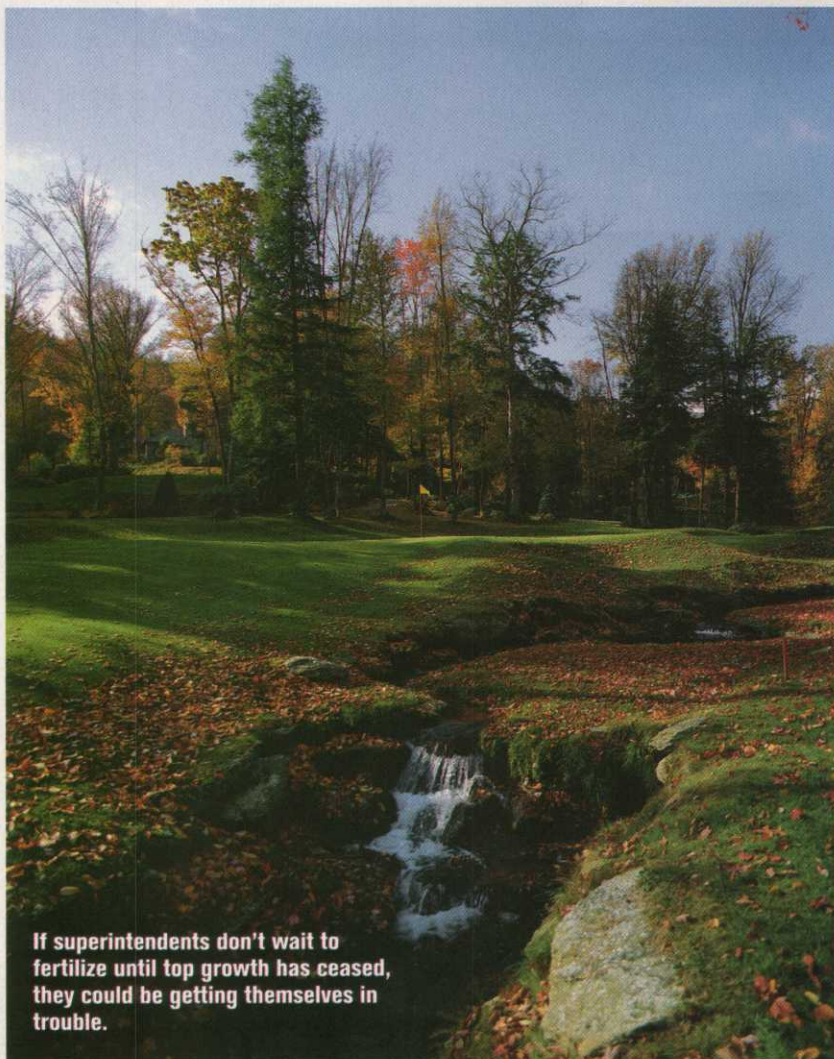
Brame suggests superintendents use up to one-half pound of 100-percent

readily available fertilizer on greens, tees and fairways for turf to achieve “a more pronounced kick.” Then they should use a slow-release product in the early winter to maintain growth.

Skorulski recommends controlled-release fertilizer. “I feel safer with controlled-released nitrogen sources, especially those that are not completely temperature dependent,” he says.

In the South, USGA agronomist Todd Lowe, who covers Florida, says many courses bulk-fertilize tees and fair-

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ways at rate of 1 pound to 1.5 pounds of nitrogen using mostly slow-release products. But Lowe suggests not to forget potassium. "It's important to apply a similar ratio of potassium to nitrogen because it improves winter hardiness and aids in fighting winter diseases."

As in other regions, the basic principle in Florida is not to apply too much nitrogen in the late fall, Lowe notes.

"Varying temperatures in the fall create a roller coaster-like effect with flush growth on putting surfaces," he says. "Excessive nitrogen creates succulent growth, which encourages diseases like brown patch. It also stimulates shoot growth at the expense of root growth."

Strong root growth is important during fall months so turf can store carbohydrates for spring shoot emergence, Lowe says. "Superintendents should focus more on iron and manganese for color instead of nitrogen at this time of year," he adds.

If superintendents don't wait to fertilize until top growth has ceased, they could be getting themselves in trouble, Nelson says.

"[If they don't wait,] disease pressure will increase and plants will not harden properly to tolerate environmental extremes," he adds. "Proper fertilization will promote strong hardening. Potassium has long been known to improve disease resistance and tolerance of environmental extremes."

Timing is everything, Bonar agrees. "We try to beat the snow, but we've been snowed out before," he says.

Bonar and his crew have also fertilized too early. Last year, remembering they were snowed out the year before, they applied fertilizer earlier than usual. The weather warmed up, and the grass began to grow. "It's usually more trouble if you fertilize too early than if you fertilize too late," Bonar stresses.

In the South, Lowe says many courses overseed bermudagrass during winter months, and it's important not to stimulate bermudagrass growth as

Expert Advice

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the overseeding establishes.

"In fact, some courses apply plant growth regulators during this time to decrease bermudagrass growth and improve overseeding establishment," he says. "Once the seedlings have established, fertility should be provided to the overseeding as needed to maintain good color."

Skorulski does not recommend late-year fertilization on greens where insulating covers are used for freeze injury protection. "A release of nitrogen under the covers is certainly not helpful," he adds.

In reference to timing, a question keeps resurfacing, especially in the cold-weather states: What time constitutes late-year?

"That's the part that's getting redefined," Brame says. "At one time, you

used to think Thanksgiving was late. But now it's not uncommon to see guys still mowing greens in early December."

Do you chalk it up to global warming? Brame isn't sure, but he knows one thing. "There's going to be a variance in the weather from year to year that makes it difficult to decide when that final fertilizer application should go on," he says.

But Brame stresses that superintendents can better gauge the final application by using readily-available fertilizer because of its quick response. From early to mid fall, turf experiences a distinct increase in growth from application to application, but that will stop as the soil temperature cools.

"Eventually, there's going to come a point in late fall where you'll make an application, and there won't be any growth response," Brame says. "It's to the point where soil temperatures have stopped growth. Then you should wait a few days and come back with a slow-release application. If it's November when that happens, that's fine. If it's mid-December, then that's the way it went that particular year. You never know how one year is going to go from the last."

Too many superintendents rely strictly on the calendar for their fertilization cycles, which is not a good strategy, Brame says.

No matter where you are tending turf, another vital component to successful late-year fertilization is consistency, says Brame, a former superintendent. Brame admits he never approached late-year fertilization with any consistency in his 17 years. He listened to what his peers said about certain philosophies and technologies and tried some of them.

"I see a lot of superintendents today are in the same boat I was," Brame says. "As a result, many of them don't have a consistent philosophy from year to year." ■

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