

Tips on whether to reseed or renovate a client's lawn

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■ The lawn care operator/landscaper must decide whether a home lawn can be restored solely by applying seed and fertilizer, or whether complete renovation will give better results.

Reseeding—Drought damage alone seldom results in complete turfgrass loss, but it can cause a significant loss in turf density.

Seeding into established turfgrass can restore turfgrass density when it's been lost to adverse conditions. If at least 50 percent of the established turf survives, late summer/early fall reseeding is a viable option.

Kentucky bluegrass produces rhizomes and fills in voids. Generally, if the voids are the size of a softball or smaller, reseeding into Kentucky bluegrass turf isn't necessary. Reseeding will, however, help fill the voids faster if that's important.

If the primary turf species is perennial ryegrass or tall fescue, reseeding is usually necessary to improve density. The individual plants of these two species can increase in size through tilling, but neither possess the rhizoming capabilities like Kentucky bluegrass.

Overseeding: Overseeding with a drop or broadcast spreader is the most popular—and least expensive—way to introduce seed into an established lawn. Results improve after aerating or dethatching. This exposes the underlying soil for better seed/soil contact.

Still, the biggest drawback to overseeding is the low percentage of seeds which germinate and become established. Unless a significant amount of soil is exposed before seeding, the percentage of seed which ultimately establishes is less than with slice seeding, spot seeding or total renovation.

Slice seeding: Slice seeding is also per-

formed with only minor disturbance of the established turf.

Slit or slice seeders use vertical blades that cut small grooves in the soil. A disk is then used to direct the seed into the grooves. Some units also have press wheel attachments which firm the soil around the seed, thereby promoting seed/soil contact and enhancing seed germination.

Most turfgrass professionals offer slice seeding because homeowners cannot do it themselves. They lack the proper equipment.

Spot seeding: Spot seeding is usually performed on small, selected areas of the lawn where at least 50 percent of the turfgrass has been lost. Rake or otherwise physically remove dead grass and any thatch to expose the underlying soil.

The soil should be slightly raked/tilled before seeding. Then the seed and soil should be gently mixed. Using straw mulch helps preserve soil moisture, especially if irrigation is limited.

If large areas of the lawn have been lost, however, total renovation is probably the best option.

Total renovation—Renovation is also the best answer to too much thatch, infestations of perennial grass weeds or if the homeowner wants to upgrade the cultivar selections in the lawn.

Here are the steps in total renovation:

- 1) Conduct a soil test.
- 2) Make any necessary corrective nutrient applications or pH amendments.
- 3) Apply a non-selective, systemic herbicide to control all existing vegetation. (When the areas targeted for renovation contain perennial grass weeds, enough time should be allocated to make, if necessary, a second herbicide application to assure good control.)
- 4) Prepare the area for seeding/sodding after waiting seven days following the last application of herbicide. If excessive thatch layers (greater than one-half inch) exist, remove them. If not, mow the dead grass



Total lawn renovation is one of the best ways to defeat excessive thatch buildup.

to a height of one inch and then either till the area or access a slit-seeder.

If tilling, till to a depth of at least four inches, remove all rocks and debris, then finely grade the site.

5) Seed the desired species using either a drop or broadcast spreader, going in two directions.

6) Lightly mix, incorporating the seed into the soil.

7) Lightly roll the site.

8) Apply mulches such as straw, especially if irrigation is limited or the potential for erosion exists.

9) Starter fertilizer with an analysis ratio of 1-1-1 up to a 1-2-1 should be applied either at seeding or within two weeks after.

10) Irrigate as needed.

11) Begin mowing when grass grows to 2 or 2 1/2 inches.

12) Delay herbicide use until the following spring.

—The author is a turfgrass extension specialist in agronomy with The Ohio State University, Columbus, Ohio.

Poly fertilizers last longer, give more control

Manufacturers claim ability to 'dial in' turfgrass fertility prescriptions with polymer-coating science.

■ Let's assume there is an ideal turfgrass fertilizer. Most of us would like it to:

✓Release nutrients at a rate matching the demand of the turfgrass—the precise amounts of nutrients needed by the turfgrass, when they're needed.

✓Provide a rapid green-up but continue to keep turfgrass plants healthy and green without surges in growth. This would reduce mowing frequency, and also reduce the amount of grass clippings.

✓Eliminate (or at least lessen) the possibility of nutrients leaching into groundwater.

✓Provide season-long nutrient release with a single application. This would reduce application costs.

✓Be easy to apply.

It's not likely a single product can ever accomplish this, considering the different species of turfgrass, climatic/geographic variations, and the different demands we place on turfgrass.

Three fertilizer manufacturers, however, claim they're taking a step in this direction by manufacturing and marketing polymer-coated turfgrass fertilizer products. These products have been introduced to the professional turf market within the last 18 months. The three suppliers are:

- Grace-Sierra, Milpitas, Calif.: Once Season Long Turf & Landscape Fertilizers,
- Pursell Industries, Sylacauga, Ala.:

Polygon Polymer Coated Fertilizers, and

• The O.M. Scott & Sons Company, Marysville, Ohio: ProTurf Fertilizers with Poly-S.

It's the coating—Each of these suppliers designed unique features into its coating technology. It's these coating systems that allow them to program in products with an almost unlimited range of nutrient-release capabilities, say these suppliers.

This is mostly done in the manufactur-

erates the relatively impermeable polymer coating, and the nutrients, now in solution, diffuse back through the coating (about half the thickness of a human hair) and into the soil. As the temperature rises (and turfgrass plants are growing), more nutrients are released. Suppliers say these products are not dependent on microbes to release nutrients.

Polymer-coated fertilizer granules can be manufactured in several sizes, typically



Polymer-covered granules and prills—the future of coated fertilizers?

Photo courtesy of Grace-Sierra

ing process by varying the thickness of the coating. Grace-Sierra touts its Osmocote resin coating system, Pursell its RLC (reactive layers coating) system, and Scotts its two-tier (sulfur and polymer) Poly-S system. That's the big advantage of these coated products, say the three companies. The release of nutrients can be more precisely controlled. The release of nutrients can be lengthened.

There must be moisture, at least initially, to get the process started. Moisture pen-

micro, mini and regular-sized. Also, some now in the marketplace have been blended with prescribed amounts of uncoated fertilizer materials. The uncoated granules release nutrients soon after application for the initial turfgrass response, while the coated granules release nutrients over time.

Polymer-coated turfgrass fertilizers will also be sold to homeowners through mass merchandisers like K-Mart, Wal-Mart and Ace Hardware, as well as independent lawn and garden outlets.

—Ron Hall

Companies invest big bucks in polymer lines

■ Seen one fertilizer plant, seen 'em all? Not by a long shot.

Late this spring LANDSCAPE MANAGEMENT visited The O.M. Scott & Sons at Marysville, Ohio. Then in early summer we visited Pursell Industries in Sylacauga, Ala.

We weren't allowed to take photographs of any of the production equipment in either plant. Some of this technology is proprietary.

The lines are, from appearances anyway, similarly designed, containing hundreds of feet of duct work and chutes, and large

drums where the coatings are sprayed onto nutrients. There are other similarities. Operations at both plants are computer controlled. These are enclosed systems where product never touches the ground.

The Poly-S production line represents part of the \$15 million Scotts is spending to upgrade its fertilizer manufacturing capabilities. Pursell's Polygon manufacturing plant is brand new. It's to get a second production line later this year. John H. Detrick, who heads Pursell's technical department, half jokingly describes it as a plastic manu-

facturing plant. "The plastic just happens to be going onto fertilizer," he says.

Before investing in these 1/4-mile production lines, both companies built much smaller facilities for test purposes—this after extended agronomic testing of the polymer-coated fertilizer products. Officials at both facilities say their product is regularly sampled for quality and uniformity, even though the most noticeable aspect of both of their operations is the surprisingly few technicians they require for operation.

—R.H.