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Will tell you to select

turf type

Tall Fescue seed from Oregon

the beauty

of the blades

the strength

and durability

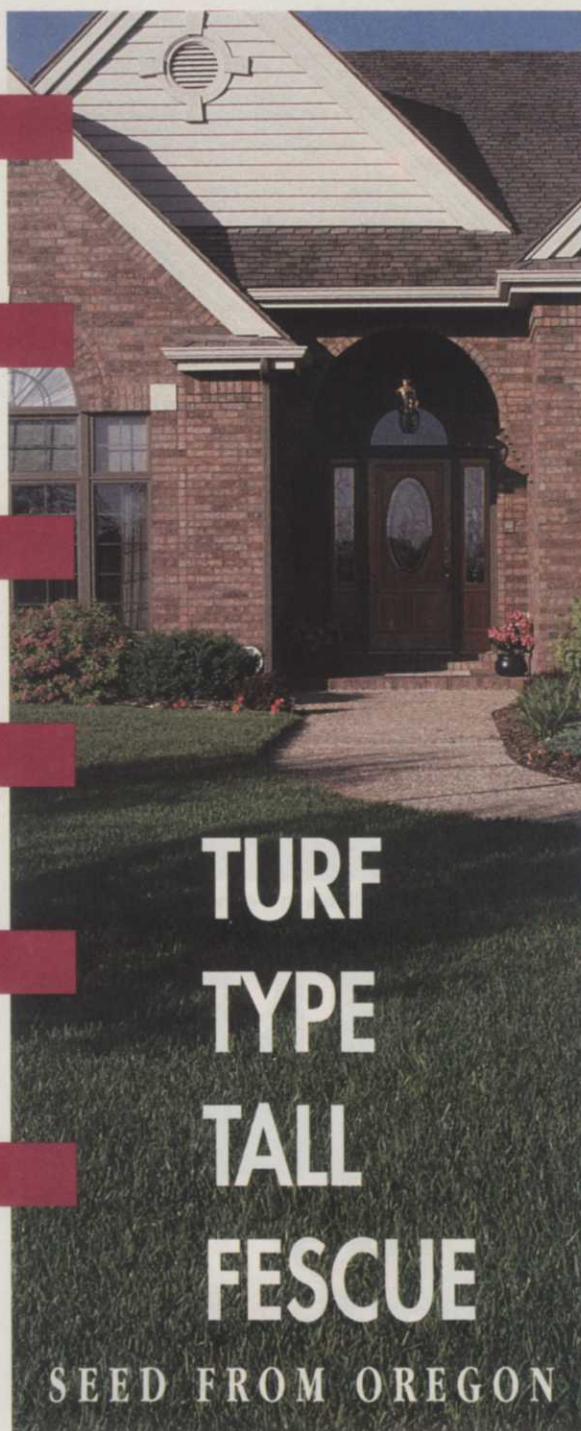
the tolerance

to drought & disease

the quality!

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SEED FROM OREGON

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John Deere offers five hydraulically powered 30-inch ESP reels on the JD 365 hydraulic gang mower. Cutting width, 134 inches.



Jacobsen Hydraulic Rangers available in 7-gang or 5-gang versions. The 7-gang model has a 15-foot cutting width.



The operator can stand or sit to operate the Hustler ShortCut zero turn rider. Hustler Bar Steering can be mastered in minutes.

MOWERS, THE BIG GUYS

By CURT HARLER

Mowing is a demanding job. First, it demands the right equipment. Next, it demands machines which will perform well for years, often be mistreated, and occasionally be run by operators who are not the gentlest of workers.

Today's landscapes demand mowers which will operate in places where mowers have not gone before — close to flower beds, on steep slopes, in tight by roads and cart paths. Despite the number of reduced-maintenance landscapes being installed today, there's still a lot of grass to mow. Also, demands to keep labor costs in line require supervisors to seek mowing efficiency.

To meet all of these demands, several factors must be considered. In addition to buying a tough piece of equipment meant to give a long service life, ease of operation and operator safety must be checked. Look, too, at how environmentally friendly the machine you are buying may be. Check "hidden" labor costs — like the amount of time it takes to mount the mower to a tractor, or how difficult it is to remove, sharpen and replace mower blades. Look at fuel capacity on self-propelled models ... a larger fuel tank

should mean longer operation between stops, and more efficiency out on the "back forty."

Here are some machines to consider as you gear up for the 1998 mowing season.

ALAMO INDUSTRIAL
800-882-5762
Circle No. 250

Eliminate clumps of windrowed grass with the Grass Gator from Alamo, Seguin, TX. Machine produces a fine-cut mulch with its 74-inch wide reversible, self-cleaning flail knife setup. Unit requires a 30 hp tractor. Twin flail shafts with counter rotation reduce grass to a fine mulch. Rear knives are set one-inch lower than the front knives for a cleaner, smoother cut. Deck is made of 10 gauge steel and can be set in one-half inch increments up to a six-inch cut.

EDWARDS EQUIPMENT
509-248-1770
Circle No. 251

The Series HM7400 flail mowers from Edwards Equipment Co., Yakima, WA are side-mount mowers for right-of-way mowing and other tough jobs. The HM7460 is 61 inches wide with 64 blades and weighs in at 1,288 pounds. The HM7472 is 73 inches wide, has 72 blades, and weighs 1,347 pounds. Both mowers have a 90-inch transport width.

JOHN DEERE
919/877-0877
Circle No. 252

Five hydraulically powered 30-inch ESP reels give a durable and top-quality cut on the JD 365 hydraulic gang mower from John Deere. Available with 6, 8, and 10-blade reels, cutting heads on the 365 can be operated in the fixed or floating position. Cutting width of 134 inches. Powered by a 540-rpm pto-driven hydraulic system. Con-



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> LM REPORTS

version bundle allows conversion to a 7-gang mower.

EXCEL INDUSTRIES

800-395-4757

Circle No. 253

Shorter and more compact than a comparable walk-behind, the Hustler ShortCut has a body length of only 59 inches. Its HBar Steering system requires only a simple twist to move forward or backward, much a motorcycle. Made by Excel Industries, Hesston, KS, the ShortCut is available with 20, 17 and 14 hp engines and Ross wheel motors, with deck options of 54, 48, and 40 inches. Side-discharge full-floating decks are made of 11-gauge steel.

THE GRASSHOPPER COMPANY

316-345-8621

Circle No. 254

Zip right through that mowing job with the Model 928D from The Grasshopper Company, Moundridge, KS. With forward speeds up to 9 mph, this zero-radius outfront unit has the new Gemini2 dual hydrostatic drive with dual hydrostatic pumps, auxiliary cooling fans and high-torque large frame direct drive wheel motors. Mower has a complete set of collection systems and attachments, is powered by a 28 hp liquid-cooled diesel with 8-gallon tank.

JACOBSEN

414/637-6711

Circle No. 255

Available in 7-gang or 5-gang

version, the Hydraulic Rangers give a tournament-quality cut every time. Powerful hydraulic reel motors cut heavy, wet grass easily with extra power to run vertical mowing equipment. The 7-gang model from Jacobsen, Racine, WI, has a 15-foot cutting width with 3, 5, 6, or 7 units; the 5-gang cuts 11 feet with either 3 or 5 units. Six or 10-blade reels are available. Cutting height adjustable from three-eighths to three inches. Transport width 7.5 ft.

KUT-KWICK CORP.

800-248-5945

Circle No. 256

Both the Commercial/Landscape series and the RoadMaster models from Kut-Kwick, Brunswick, GA, give a 12-15 year useful life. The Commercial series mowers have hydrostatic propulsion, rear discharge decks, low center of gravity and mowing speeds up to 12 mph. The RoadMaster has a cutting width of 88 inches and can be operated safely on slopes up to 31 degrees. Its road transport speed is 24 mph.

R.L. PARSONS & SON

800-456-6937

Circle No. 257

The MicroMower line from Parsons, West Jefferson, OH, consists of four models designed for 15 hp to 35 hp tractors. The 128XL has a vertical reach of 120 inches, the 138XL a reach of 138 inches and the 135T a reach of 138 inches. All machines mow both left and right and offer break-away cantilever in



Power Trac 45-degree slope mower has a low center of gravity and wide wheel base, keeping it grounded on steep terrain.

both forward and reverse. Heads rotate 360 degrees. All machines require a three-point hitch and 540 rpm pto.

POWER TRAC

800-843-9273

Circle No. 258

A 45-degree slope mower is available from Power Trac, Tazewell, VA. The PT-1850 has a low center of gravity and wide wheel base. Special fail-safe braking system

stops machine automatically should hydraulics fail. Tilt-seat feature allows the operators to remain upright regardless of the slope. Unit has 25 front-mounting attachments to do other jobs on slopes.

available in 3, 5 or 7-unit universal frames. Proven ground-driven Reelmaster 5, 7 or 11-blade cutting units provide superior quality cut. These units can maintain a ground speed of 5.5 mph that covers 6.7 acres per hour with the 5-unit frame, 9.4 acres with the 7-unit frame.

YEAGER-TWOSE

503-359-0110

Circle No. 261



Yeager Twose offers speciality mowers.

QUALITY AFTERMARKET

800-772-7166

Circle No. 259

Now that you've got that new mower operating in the field, where are you going to find replacement parts? Check the Parts Catalog from Quality Aftermarket, Rockville, IN.

TORO COMPANY

612-888-8801

Circle No. 260

Toro Company, Bloomington, MN, offers the Reelmaster Frames,

Two reach arm or boom flail mowers for turf and grounds work are available from Yeager-Twose, Hillsboro, OR. Larger unit has a horizontal reach of 10 feet, two inches. Mower has independent hydraulics and a safety breakaway. The 34-inch cutting head can mow 1.5 inch material to a mulch. Unit is suited for cutting light overhanging branches, around ponds, trimming hedges and in hard-to-reach places. Mower itself weighs 800 pounds. **LM**



The MicroMower line from R.L. Parsons & Sons consists of four models designed for tractors in the 15 hp to 35 hp range.

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"Promoting Better and Safer Sports Turf Areas"

Divide perennials for bright color

If some of your customers' perennial beds weren't as showy as usual in 1997, it may be time to dig, divide and replant.

By H. S. STEVENS

Once perennial plants are in the ground, they continue to spread and grow larger each year. As they spread, the plants located in the center of the bed begin to suffer from overcrowding, or from having exhausted the mineral content in the nearby soil. As a result, the flowers, especially those in the center of the plants, become fewer and smaller. The plants no longer have the vigor to produce large, showy blossoms.

Besides rejuvenating tired plants, there are two other good reasons to divide clumps of perennials. In some cases, they may have outgrown their space and are crowding other nearby plants.

Perennials are divided in spring or fall, depending on when they bloom. Fall blooming plants are divided in the spring; spring bloomers are divided in the fall. Daisies, daffodils, iris, daylilies, coreopsis, purple coneflowers and blanket flowers (*Gaillardia*) are among those that should be divided in the fall.

—H.S. Stevens writes for LM from Lancaster, Texas.



Daisies and daffodils are among those that should be divided in the fall.

Field guide: dividing perennials

1) Water the bed (or ask your customer to do so) a few days before you plan to dig so the soil will be moist; not too wet and not too dry.

2) If you will be planting some of the divisions in a separate bed, prepare the bed ahead of time. Add organic matter to the soil and remember that perennials need good drainage. Don't put them in a low area of the landscape and, if necessary to insure good drainage, plant in raised beds.

3) Before digging bulbs or rhizomatous plants, clip the foliage back to a height of six to nine inches with sharp pruning shears or scissors.

4) If the plant is healthy and you just want to have more of it, you can remove the outer sections with a sharp spade or knife. Before cutting, loosen the soil around the sections to be removed. Be sure you get roots and growth buds on each section.

To dig up the entire clump, loosen the soil around and under it with a garden fork and then gently lift it out.

Next, remove or trim

damaged or dead areas, including roots. If the center of the clump has stopped blooming, cut it away and discard it.

5) Rhizomatous plants should be cut in sections with a sharp knife. If clumps of other type plants are small, the sections can usually be pulled apart by hand. Separate large clumps with a sharp spade or garden fork. If you have a large clump with matted roots, use two garden forks. Hold them back to back with the tines touching and push them down into the clump. Now push the two handles together. The extra leverage you obtain will make separation easier. Regardless of the method used, be sure that you get roots as well as tops.

6) Don't over-divide. If you make the clumps too small, they will not provide much color during the next season. Some species of plants are programmed to reach a certain size before they bloom.

7) Replant the divisions as quickly as possible so they do not dry out. If you have more than you can replant in the available space on site, pot the spares to use later in another location.

8) Before any divisions are returned to the hole, improve the soil by adding organic matter and a little balanced granular fertilizer.

9) Immediately after planting, water thoroughly to settle the soil in around the roots. Water again only when the top inch or two of soil has dried.

H.S.S.



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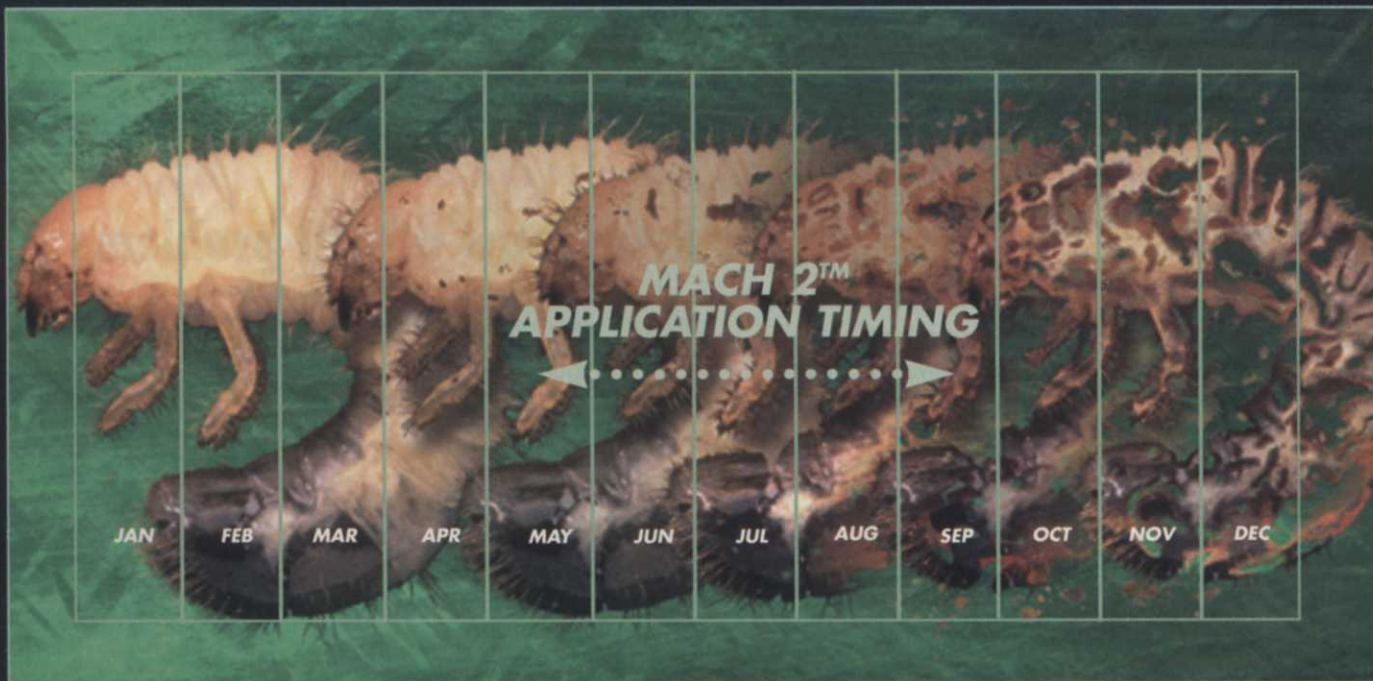


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Soil test reveals need for amendments

By MARTIN PETROVIC, Ph. D., Cornell University

Soil management includes the modification of soil's chemical and physical properties. Turf problems related to soils are often misdiagnosed, ignored or forgotten because they're below ground.

Cultural management

The soil physical management tool box contains methods such as:

- ▶ Cultivation: coring; slicing; spiking; grooving; water and air injection; drilling; solid tine cultivation.
- ▶ Amendments, either physical, chemical or biological.

Cultivation increases infiltration and percolation of water and other materials—such as nutrients and control products—through soil.

Cultivation removes unwanted layers, helps overseeding, helps with thatch management and improves the health and vigor of the site.

All types of cultivation only have a positive influence on a small zone of soil surrounding the cultivation hole.

A dye movement study by Dr. Panayiotis Nektarios while a graduate student at Cornell University revealed that most forms of cultivation studied positively influenced the 0.5 to one inch of soil around the cultivation hole.

Water injection had a larger zone of influence up to two-inches of soil at the bottom of the hole. For best impact, cultivation tine spacing should be no greater than two inches on center, which can be accomplished by narrow tine spacing units or multiple passes.

Soil amendments

There are physical, chemical or biological types of soil amendments. Some, such as organic matter, can influence all three areas. Others, like sand, may influence the physical properties (water movement; moisture holding; compaction resistance; aeration).

A major concern is how sta-

Symptoms of soil problems

If your turfgrass behaves in the following ways, it's a sign that there's trouble down below, and time to investigate for compaction or nutrient deficiencies:

- ▶ shallow but extensive root system
- ▶ little or not roots below four-inches.
- ▶ little or no top growth
- ▶ off-color, very chlorotic tissue
- ▶ easily wilted
- ▶ low density with weeds
- ▶ poor response to fertilization and soil applied pesticides
- ▶ prolonged wet soil that limits recreational uses
- ▶ water easily runs off the turf surface.

Some sites may have all of the above symptoms, while others may have just a few. Some symptoms may take a long time to show (root growth), while others are quickly visible (top growth).

Many other factors can cause the symptoms described above, making a definitive diagnosis nearly impossible. Thus, soil management is often considered an art more than a science.



The soil sample reveals soil layering characteristics, possible compaction, and soil nutritional needs.

ble the amendment is, especially if used to amend sand. If the amendments to sand break down into very fine particles, the site may not drain as well.

Amendments can partially amend soils (topdressing or shallow incorporation into the root zone) or complete incorporation into the root zone. Factors involved: 1) The time one can wait for positive results. Topdressing is long term, while complete root zone modification is a quick fix.

2) The amendment used.

Dr. Petrovic is associate professor at Cornell University's Dept. of Ornamental Horticulture. This article originally appeared in Cornell University Turfgrass Times.

SOURCES OF SOIL AMENDMENTS AND THEIR INFLUENCES

Source	Amends	Properties improved			Degradation forces*
		Physical	Chemical	Biological	
sand	soil	yes	no	no	C/T
calcine clay	sand/soil	yes	yes	no	W/T
calcine diatomite	sand/soil	yes	no	no	W/T
natural zeolites	sand/soil	yes	yes	no	W/T/C
organic matter	sand/soil	yes	yes	yes	B
soil	sand	yes	yes	yes	

*Forces involved in degrading amendments include: C-chemical; T-Traffic; W-Weathering; B-Biological.