

als that have not been evaluated or even discovered yet that may have a good fit as turf fertilizers.

**4. Recycling** of organic residues will provide new products in the future. There are currently thousands of tons of finished municipal compost piles with nowhere to go—but with the potential to become nutrient-rich, slow-release liquid fertilizers. As long as oil prices keep rising, so will the price of petroleum-based fertilizers, causing the use of organic residues and other materials in the waste stream to become more economically appealing as turf nutrient sources.

**5. Computer technology** will allow turf managers to more accurately predict levels of fertilizer to be applied, based on the measured rate of nutrient use in the soil during the growing season.

**6. Methods of application** will con-

stantly be improved to maximize availability and longevity of nutrient uptake. Foliar application technology will allow spoonfeeding, reducing the potential impact on the environment by minimizing exposure to leaching and/or volatilization conditions. As irrigation systems improve their accuracy, the opportunity to reduce fertilizer application costs through fertigation grows. Granular product application methods have also constantly been improving.

**7. Combination products** have a fit for the future as well: combinations such as fertilizer with plant growth regulators that could control uptake, storage and use of nutrients within the plants. Soil organism inoculants could be another, or perhaps the addition of a nitrogen fixing bacteria that would colonize the rootzone and be able to turn atmospheric nitrogen into a

form that the plant can use.

**8. Soil testing** will definitely become a more common practice in turf management. Information generated regarding the levels of nutrients needed at different stages of the growth cycle will help turf managers specify more accurate quantities and ratios of fertilizers.

**9. Better service.** Fertilizer companies will become even more responsive to the individual turf manager's needs, such as providing a greater ability to deliver custom blends, expedited delivery, etc. Sales representatives will also achieve a higher level of expertise, offering more product information and turfgrass management.

The future is difficult to predict, but there is one aspect that we can surely look forward to favorably: Information, products and service will make the job of managing turf an even more rewarding one.

## LM REPORTS

# Seed: Production exceeds demand

**A bumper crop of turfseed, combined with decreased demand, means good prices for those buying turfseed this year.**

■ Heavy rain and cool weather during much of May and June resulted in a late West Coast turfseed harvest. On a positive note, the harvest was a good one, with some companies reporting surpluses for select species.

The cool spring/early summer weather was called a first by some in the seed industry, and caused crops to come in about two weeks late, depending on the species.

Fine fescues were reported as experiencing a slight imbalance between supply and demand, light, with production giving way slightly to a higher demand for hard fescues.

It's also a good year for new varieties, with companies reporting numerous new offerings. (See story on page XX.)

Tall and fine fescue yields were considered to be below average, with yields varying, depending on the region. In the southern valley near Albany, Ore., tall fescues were reported as no more than average.

Bentgrass yields appeared to be about average.

Yields for common Kentucky bluegrass were down a bit. Prices for common were also down between 10 and 20 cents per pound.

Prices for creeping red fescue and common bluegrass are up. Creeping red fescue acreage in Canada is down, and common Kentucky bluegrass is feeling the effects of last year's sell-out and the fact that farmers last year plowed out much of their bluegrass acreage.

Conditions are reported to be "ideal" for fall planting.

## SEED AVAILABILITY ESTIMATES, 1991-92

The following information is based on surveys conducted in July-August, 1991. Supply and price estimates may have changed since publication.

(A=Surplus/B=Adequate/C=Limited)

### BENTGRASS

Variety	Marketer	Supply	Price
Carmen	Vander Have	B	Stable
Dominant blend	Seed Research	B	
Exeter (colonial)	Pickseed West	C	Stable
National	Pickseed West	B	Stable
Penncross	Lesco/Northrup King/ Tee-2-Green/Roberts Seed	B/A/B/B	Stable
Penneagle	Lesco/Northrup King/ Tee-2-Green	B/A/B	Stable
Pennlinks	Lesco/Northrup King/ Tee-2-Green	B/A/B	Stable
Pennway	Lesco/Tee-2-Green	B/B	Stable
Prominent	Seed Research	C	Stable
Providence	Seed Research	B	Stable
Putter	Jacklin Seed Co.	B	Lower
Reston (red top)	Pickseed West	B	Lower
SR 1020	Seed Research	B	Stable
Southshore**	Lofts Seed, Inc.	C	Stable
Tracenta	Van Der Have	B	Stable
V.I.P. blend	Turf Merchants	B	Stable to Lower

### KENTUCKY BLUEGRASS

Variety	Marketer	Supply	Price
Adelphi	J&L Adikes/Northrup King Jacklin Seed Co.	B/A/B	Stable
Alpine	Pickseed West	n/a	n/a
American	Pickseed West	C	Higher
Amazon	Jacklin Seed Co.	C	Stable
Argyle	Roberts Seed Co.	B	Stable
Aspen	Northrup King	A	Stable

More than 30,000 acres have been plowed in the Albany, Ore. area, as there are not many new tall fescue contracts being made with farmers. Consequently, more of that acreage could be used next year for wheat, rye or annual ryegrass.

Some comments solicited from seed professionals, on the state of this year's harvest:

**Turf-type tall fescues:** Production exceeds demand for the time being. "That is in part due to the reduced consumption in California due to lack of sod sales as well as general slump in economy nationwide...surplus is likely to exist for another growing season," says Art Wick of Lesco.

"...better than ever, as far as supply and quantity are concerned," says Mark Grundman of Northrup King/Medalist.

"Your customers will see some good prices this fall," adds Dr. Jerry Pepin of Pickseed West, Inc.

**Perennial ryegrass:** "The crop was good. Inventories are high. The newer varieties of the dwarf, slower growing dark green varieties such as Legacy and Assure continue to be in moderate sup-

ply with many of the unique, high endophyte varieties being in similar condition," notes Wick.

Mike Robinson of Seed Research reports lower prices on perennial ryegrass and tall fescue.

And Grundman says, "The anticipated harvests look good, but some isolated cases of winter kill and chemical damage may limit some varieties this year."

**Fine fescue:** Lesco reported its crop as "moderate."

"Inventories seem to be reasonable, do not expect any tremendous change in the fine fescue availability with the 1991 crop," reports Wick.

**Hard fescue:** Ray Brubakken of Van Der Have Oregon expects a sell-out of hard fescue. "Demand is growing, and prices may increase as spring '92 approaches," says Brubakken.

**Kentucky bluegrass:** Turf Seed, Inc. reports that Midnight and Blacksburg Kentucky bluegrasses have again topped the National Trials, resulting in high demand for those varieties.

—Terry McIver

#### KENTUCKY BLUEGRASS (cont.)

Variety	Marketer	Supply	Price
Aquila	Northrup King	C	Stable
Banff	Pickseed West	B	Stable
Baron	Lofts Seed Inc.	B	Lower
Blacksburg	Turf Seed, Inc.	C	Higher
Bronco	Pickseed West	B	Stable
Challenger	Turf Seed, Inc.	B	Stable
Chateau	Fine Lawn Research, Inc.	B	Lower
Classic	Jacklin/Peterson	B	Lower
Crest	Pickseed West	B	Stable
Columbia	Turf Seed, Inc.	B	Stable
Dawn	Lesco	B	Stable
Eclipse	Jacklin	B	Stable
	Peterson	B	Lower
	Zajac	C	Lower
Estate	Roberts Seed Co.	B	Stable
Freedom	Northrup King	A	Stable
4 Aces**	Turf Seed, Inc.	C	Stable
Fylking	Jacklin Seed Co.	B	Stable
Georgetown	Lofts Seed, Inc.	B	Lower
Glade	Jacklin Seed Co.	B	Stable
Haga	Burlingham	C	Stable
Harmony	Seed Research	C	Lower
Huntsville	Jacklin Seed Co.	B	Stable
1757	Lofts Seed, Inc.	C	Stable
Indigo	Pickseed West	C	Higher
Julia	Lesco	B	Stable
Kelly	Northrup King	A	Stable
Kenblue	Jacklin Seed Co.	B	Stable
Liberty	Zajac	B	Lower
Marquis	Roberts Seed Co.	B	Stable
Merion	Jacklin Seed Co.	B	Stable
Midnight	Turf Seed, Inc.	C	Higher
Monopoly	Peterson	B	Lower
Mystic	Lofts Seed, Inc.	C	Stable
Nassau	Lofts/Jacklin	B	Lower
Newport	Jacklin Seed Co.	B	Stable
Nugget	Pickseed West	n/a	n/a
Nu Star**	Jacklin Seed Co.	C	n/a
Park	Jacklin Seed Co.	B	Stable
Ram 1	Lofts/Jacklin	C/B	Stable
Rebel	Lofts Seed, Inc.	C	Lower
Rebel Jr.	Lofts Seed, Inc.	B	Lower
Rebel 3D**	Lofts Seed, Inc.	C	n/a
Rugby	Northrup King	B	Stable
	Roberts Seed Co.	B	Stable
S-21	Jacklin Seed Co.	B	Stable
SR 2000**	Seed Research	C	Stable
SR 2100**	Seed Research	C	Stable
Shamrock**	Lesco	C	Stable
Suffolk	Lofts/Jacklin	B	Stable
Touchdown	Pickseed West	B	Stable
Trenton	Northrup King	A	Stable
Tribute	Lofts Seed, Inc.	B	Lower
Welcome	Seed Research	B	Lower

#### TURF-TYPE TALL FESCUE

Variety	Marketer	Supply	Price
Advent**	Jacklin Seed Co.	B	Stable
All-Star	Jacklin Seed Co.	B	Lower
Amigo	Northrup King	B	Lower
Arid	Jacklin/Northrup King	C/B	Lower
APM**	Jacklin Seed Co.	B	n/a
Apache	Turf Seed, Inc.	A	Lower

#### TURF-TYPE TALL FESCUE (cont.)

Variety	Marketer	Supply	Price
Arriba**	Northrup King	B	Lower
Bonanza	Proprietary Seeds	A	Lower
Bonzai (dwarf)	Turf Merchants	B	Lower
Brahma	Roberts Seed Co.	B	Lower
Chieftan	Roberts Seed Co.	B	Lower
Cimarron	Lesco	B	Stable
Confederate**	Turf Seed, Inc.	C	Stable
Crew-Cut (dwarf)	Proprietary Seeds	B	Lower
Crossfire	Pickseed West	B	Lower
Eldorado	Turf Seed, Inc.	B	Lower
Emperor	Zajac	B	Lower
Falcon	Burlingham	B	Lower
Finelawn SGL	Fine Lawn Research	B	Lower
Finelawn 1	Fine Lawn Research	B	Lower
Finelawn Petite**	Fine Lawn Research	C	Stable
Galway	Northrup King	B	Lower
Guardian	Roberts Seed Co.	B	Lower
Jaguar	Zajac	B	Lower
Jaguar II	Zajac	B	Lower
Lancer**	Lesco	B	Stable
Leprechaun**	Roberts Seed Co.	C	Lower
Maveric II	Pickseed West	B	Lower
Maxim blend	Roberts Seed Co.	B	Lower
Mesa	Jacklin Seed Co.	B	Stable
Micro**	Turf Merchants	B	Lower
Mini-Mustang	Pickseed West	B	Lower
Monarch	Turf Seed, Inc.	B	Lower
Mow-Less**	Turf Seed, Inc.	C	Stable
Murietta	Turf Seed, Inc.	B	Lower
Mustang	Pickseed West	B	Lower
MX-86	Jacklin Seed Co.	C	Higher
Olympic	Turf Seed, Inc.	B	Lower
Olympic II	Turf Seed, Inc.	B	Lower
Pixie**	Jacklin Seed Co.	C	n/a
Recycler**	Turf Merchants	C	Lower
Shortstop	Pickseed West	B	Lower
SR 5000	Seed Research	B	Stable
SR 5100**	Seed Research	C	Stable
SR 8200**	Seed Research	C	Lower
SR 8300**	Seed Research	C	Lower
Safari**	Turf Seed, Inc.	C	Lower
Sapphire**	Vander Have	A	n/a
Shenandoah**	Willamette	B	Lower
Silverado	Turf Seed, Inc.	B	Lower
Sundance	Turf Merchants	C	Lower
	(dwarf)		
Survivor blend	Seed Research	B	Lower
Taurus (dwarf)**	Turf Merchants	B	Lower
Thoroughbred	Pickseed West	C	Lower
Thunderbird**	Burlingham	C	Lower
Titan	Seed Research	B	Lower
Tomahawk	Turf Seed, Inc.	C	Lower
Trailblazer II**	Lesco	B	Stable
Trailblazer	Lesco	B	Stable
Trident	Seed Research	B	Lower
Triathlawn	Turf Seed, Inc.	B	Lower
Trophy blend	Seed Research	B	Lower
Turf Gem	Turf Merchants	B	Lower
Turf Gem Jr.**	Turf Merchants	B	Lower
(dwarf blend)			

### TURF-TYPE TALL FESCUE (cont.)

Variety	Marketer	Supply	Price
Twilight (dwarf)	Turf Merchants	B	Lower
Willamette	Willamette	A	Lower
Winchester**	Burlingham	B	Lower
Wrangler	Jacklin	B	Lower
	Lesco	B	Stable
	TMI	B	Lower

### FINE FESCUE

Variety	Marketer	Supply	Price
Dawson	Northrup King/ Vander Have	B/B	Stable
Estacada	Turf Merchants	C	Stable
Flyer	Fine Lawn Research	B	Lower
Hector**	Vander Have	B	Stable
Revere creeping**	Northrup King	B	Stable
Ruby creeping	Northrup King	A	Lower
Shademaster	Lesco	B	Stable
Silvester	Vander Have	C	Stable
Virtus	Turf Merchants	B	Stable
Vista creeping**	Zajac	B	Stable

### CHEWINGS FESCUE

Variety	Marketer	Supply	Price
Atlanta	Vander Have	A	Stable
Camaro**	Fine Lawn Research	C	Stable
Center	Turf Merchants	B	Stable
Dover**	Northrup King	B	Stable
Jamestown	Lofts Seed, Inc.	B	Lower
Jamestown II **	Lofts Seed Inc.	B	n/a
Koket	Burlingham	B	Stable
Mary	Vander Have	B	Stable
Molinda	Vander Have	A	Stable
Shadow	Lesco	B	Stable
Waldorf	Vander Have	A	Stable
Wilma	Burlingham	B	Stable

### HARD FESCUE

Variety	Marketer	Supply	Price
Atila	Turf Merchants	C	Stable
Aurora	Turf Seed, Inc.	B	Stable
Aurora**	Turf Seed, Inc.	C	Stable
Biljart	Vander Have	C	Stable
Eureka**	Fine Lawn Research	C	Stable
HF 9032**	Northrup King	C	Stable
Reliant**	Lofts Seed, Inc.	B	Stable
Scaldis	Vander Have	C	Stable
Silvana	Seed Research	A	Stable
SR 3000	Seed Research	B	Stable
SR 3100**	Seed Research	C	Stable
Scaldis	Northrup King	B	Stable
Spartan	Lesco	B	Stable
Waldina	Vander Have	C	Stable

### PERENNIAL RYEGRASS

Variety	Marketer	Supply	Price
Allaire**	Turf Merchants	B	Stable
Alliance blend	Turf Seed, Inc.	B	Lower
All-Star	J&L Adikes/ Northrup King	B	Lower
	Northrup King	C	Stable
Aquarius	Turf Merchants	B	Stable

### PERENNIAL RYEGRASS (cont.)

Variety	Marketer	Supply	Price
Birdie II	Turf Seed, Inc.	C	Lower
Brenda	Vander Have	A	Lower
CBS blend	Turf Seed, Inc.	B	Lower
Caddie	Northrup King	C	Stable
Caliente	Willamette	A	Lower
Calypso	Roberts Seed Co.	B	Stable
Champion	Seed Research	B	Lower
Charger	Turf Seed, Inc.	B	Lower
Citation II	Turf Seed, Inc.	A	Lower
Competitor**	Burlingham	B	Lower
Cowboy	Lofts Seed Inc.	B	Lower
Dandy	Northrup King	B	Stable
Delray	Northrup King	B	Stable
Dimension	Vander Have	A	Lower
Envy**	Zajac	B	Stable
F.puccinellia	Northrup King	B	Stable
Goalie	Northrup King	B	Stable
Legacy**	Lesco	B	Stable
Manhattan II	Turf Seed, Inc.	B	Lower/
	TMI	C	Stable
Manhattan II* **	Turf Seed, Inc./TMI	C/B	Stable
	Mondial		
	Vander Have		
NK 89001**	Northrup King	C	Stable
Nomad**	Turf Merchants	C	Lower
Nova	Seed Research/ Vander Have	B/A	Lower
Omega II	Zajac	B	Stable
Palmer	Lofts Seed, Inc.	B	Lower
Palmer II* **	Lofts Seed, Inc.	C	n/a
Patriot II**	Turf Merchants	C	Lower
Pebble Beach*	Fine Lawn Research	B	Lower
Pennant	Burlingham	B	Lower
Playmate blend	Roberts Seed Co.	B	Stable
Prelude	Lofts Seed, Inc.	B	Lower
Prelude II* **	Lofts Seed, Inc.	C	n/a
Quickstart**	Turf Seed, Inc.	B	Lower
Ranger	Vander Have	A	Lower
Repell	Lofts Seed, Inc.	B	Lower
Repell II* **	Lofts Seed, Inc.	C	Stable
Riviera	Roberts Seed Co.	B	Stable
Rodeo**	Turf Merchants	B	Lower
Rodeo II**	Turf Merchants	C	Lower
SR 4000	Seed Research	B	Lower
SR 4100	Seed Research	B	Lower
SR 4200	Seed Research	B	Lower
SR 4300	Seed Research	C	Lower
Saturn	Zajac	B	Stable
Seville	Willamette	B	Lower
Stallion *	Fine Lawn Research/ TMI	B	Lower/
	TMI		Stable
Sunrye 246	Turf Seed, Inc.	B	Lower
Target	Northrup King	B	Stable
Vantage	Proprietary Seeds	B	Lower
V.I.P. blend	Turf Merchants	B	Lower
Yorktown III * **	Lofts Seed, Inc.	C	Stable

\*Contains endophytes

\*\*New variety

† Final year of production. To be replaced by Shademaster.

## Leadership by listening

■ To be a successful leader, you need the traits and characteristics of a leader and you have to emphasize skills that make leadership possible, says O.M. Scott's Gerry Sweda.

Managing through leadership requires five character traits:

1) the ability to visualize—a clear idea of what you want to do;

2) the ability to communicate “the vision;”

3) the ability to make decisions and give directions;

4) the ability to do the right thing in the right way in the right amount of time;

5) and the ability to reward and recognize subordinates.

“Are they not all in the realm of possi-

bility for all of us?,” Sweda asks.

In order to attain these traits, the leader must first master four skills:

1) the skill of communicating;

2) the skill of interviewing (questioning your following);

3) the skill of listening; (“The most important and hardest to perform day in and day out,” Sweda notes. “You must manage by wandering around and listening with your eyes.”)







4) and the skill of negotiating (attaining a win-win situation for two parties).








## REBUILD OR REPLACE? — JUST THE FACTS —

- Who:** Landscape managers, lawn care operators, golf course superintendents, groundskeepers, motor pool supervisors.
- What:** Small engines (single cylinder, about 4-16 hp) for walk-behind mowers, aerators, dethatchers, overseeders, sod cutters and other smaller, powered landscape equipment.
- When:** Consistent engine trouble, lowered power output ("tired"), hard starting, excessive fuel consumption, smoky, spark plug "fouling," dead engine.
- Why:** Improved equipment performance, employee productivity, safety, client satisfaction.
- How:** Independent small engine repair/sales service; manufacturer sales and service, in-house staff.

### REBUILD:

-  Rule of thumb cost analysis: If cost of rebuilding less than roughly 50 to 60 percent of the cost of a new engine.
-  If customers can be patient for delays or grounds can go unmaintained during time spent rebuilding.
-  If you can "limp along" until the end of the season with less-than-efficient equipment until off-season repairs can be made in-house or at a price break outside.
-  If exterior parts to be replaced are relatively simple operations: carburetors, throttle shafts, fuel pumps, electric starters are some examples.
-  If interior parts to be replaced are easily handled with low labor hours: camshafts, valves, cam and crank shafts, ball and shaft bearings can be examples.
-  If low depreciation calculations dictate the unit merits rebuilding.

### REPLACE:

-  Rule of thumb cost analysis: If cost of rebuilding is greater than 50 to 60 percent of the cost of a new engine.
-  If estimated purchase and labor installing costs are within your operating, equipment and maintenance budget.
-  If in-house staff has skills to install a new power plant. You may consider keeping a comparable extra engine in stock.
-  If condition and depreciation of other parts of the gear (the mowing deck, for example) warrants a new engine.
-  If you simply don't feel confident that rebuilding will resolve your problem for a profitable period of time.

# Old engines: rebuild or replace?

**Be sure to look at the whole situation before deciding whether to rebuild tired engines or buy replacements.**

■ An immediate decision must be made when your favorite walk-behind mower "suddenly" blows an engine.

Often, such mishaps are preceded by telltale signs like engine sluggishness, hard starts, high fuel consumption, spark-plug "fouling" or smoky running. But damage is now done and you are compelled to decide: should the engine be rebuilt or replaced?

Either choice has advantages, but both assuredly entail unplanned expenses.

Confusing, too, is whether or when to rebuild or replace an engine that still runs reasonably well, but simply doesn't bore

strongly; a noticeable "tiredness" which affects work output.

Consider sage advice from Kohler Engine Co.'s service and technical publications manager Paul Scholten: the rebuild-or-replace decision centers around variables which can and should be combined to arrive at the best answer. The sticker price for a replacement engine need not be the only or foremost factor.

"You've got to look at the whole situation," says Scholten. Labor costs for



**Paul Scholten:** "Look at the whole situation."



**Bob Molinatti:** "Eliminate downtime."



**Norman Beck:** "Consider depreciation."

rebuilding or replacing should be taken in context with factors such as overall equipment condition and expected duration of downtime. Other external factors might even include customer or club member attitudes toward delays and possibility of modest repairs to "get through" the season until permanent repairs or replacement can be made.

Bob Molinatti, owner of Small Engine Repair in Colchester, Vt., offers a general rule of thumb when advising his clients.

"If we can rebuild an engine for 50 to 60 percent of the cost of a new one, we've done the guy a favor," says Molinatti. The second part of his equation: 80 to 100 percent of the engine's original performance should be revitalized after a rebuild.

That formula, also dependent on factors such as equipment depreciation and condition, seems correct to Norman Beck, executive director of the National Equipment Servicing Dealers Association, an industry group headquartered in Peoria, Ariz.

Beck says to weigh and balance your options carefully, if you have the luxury of time.

"It just makes good business management sense to not only consider the cost of repairs or replacement, but also the depreciation of the equipment itself," Beck adds that the decision for smaller operations may be a simple one: a new light-use mower can be purchased for as little as \$150, easily beating rebuilding or replacement costs in many cases. With bigger operations, though, rebuilding or replacing engines on good, serviceable equipment takes on a different dimension.

From a labor point of view, it is often easier and less expensive to install a whole new engine. Still, many engines can be saved within an hour's time and with inexpensive parts, Beck adds.

This autumn, Molinatti did a bulk mailing to convey a simple message: schedule rebuilds with him in the winter months, when his workload is smaller and engines and equipment can receive non-emergency attention.

Winter is also the time Molinatti can take rebuild jobs on a scheduled basis: a time convenient for him and clients.

"The biggest thing people don't consider is to schedule work for us by appoint-

ment during the winter months," says Molinatti. He can usually offer a modest price break in the off-season from the normal \$30 hourly labor rate.

Perhaps the biggest cost consideration does not show up on any parts and labor invoice: downtime.

Consider other costs incurred in an emergency situation, Molinatti and others suggest, and see how quickly expenses compound: lost man-hours in transporting to and from his shop, the price of gas for such trips, makeup time for work uncompleted during downtime, and wages being paid while little or no landscape work is being accomplished.

"We try to eliminate downtime and emergency repairs," says Molinatti.

He says costs vary, too, by model and manufacturer as more companies enter the small engine market. Example: installing a new set of rings varies in price from \$300 to \$500.

The smallest of the small engines, however—such as string trimmers and backpack blowers—rarely, if ever, live a second life.

"We log in all our equipment repairs," explains Peter Levinsky, of Levinsky Landscaping, Colchester, Vt. "I can pull a sheet out and tell you how many times a weed whacker has been down. And if it gets to the point where it looks like it's going to be a problem, open the dumpster, here it comes."

Buying brand new equipment has several advantages.

"I've got a happier employee with a new piece of machinery," says Levinsky. "I may be keeping a closer eye on it because it's new, but he knows it's brand new and better take care of it."

"And it seems like I might get more

## Scheduling diagnostic checks

■ Diagnostic tests on small engines will give you a better understanding of exactly how well or poorly a unit is performing and where some difficulties present and future may lie.

Kohler Engines Co. publishes guides for engine rebuilding and repowering. Troubleshooting techniques include inspection for excessive sludge, cylinder wall scoring, piston damage and oil leaks.

Ball and sleeve bearing workings, proper lubrication (including proper levels and viscosity) and condition of the engine's valves are also keys to smooth operation. All can be checked for flaws during overhauling, which can be performed in-house with some advance knowledge and proper measuring tools. Technical information—such as bolt torquing levels,

tightening sequences and other precise measurements—are usually available from the manufacturer or dealer/distributor.

Inspections and overhauls also include examining timing, fuel pump and carburetor operations; look-sees that can contribute to improved engine efficiency and power. A faulty fuel pump, generally, should be replaced with a new one.

Carburetor problems can stem from improper setting or, more frequently, varnish and gum buildup. Cleaning solvents can restore carburetor performance when used properly. Carburetor reconditioning kits are readily available from Kohler, Briggs & Stratton, Onan and most major small engine manufacturers. They include the most common items such as gaskets, which need replacement because of routine wear and tear.

bang for my buck by doing it that way rather than getting it repaired at \$40 an hour."

Scholten says there is no substitute for scheduled upkeep on smaller motors and gives generally passing grades to equipment owners in the workaday world. "The real professional recognizes the value of a good maintenance program," he says.

Likewise, Molinatti gives passing marks to those maintaining smaller engines: "They do moderately well (but) maintenance never seems to be stressed." He also notes that in one sense, smaller engines

require more critical and timely maintenance than larger motors.

Consider, Molinatti asks, what is demanded of a typical commercial walk-behind: constant, daily use (four to five hours at 3600 rpm) under strenuous conditions. This makes routine maintenance mandatory and rebuilding or replacing perhaps inevitable.

Or consider the title of a monograph Scholten once authored: "Small Engines Can Last Forever—Almost."

—Jack Simonds

# Save in spring: compost now

**Now is the time for all good landscape managers to come to the aid of their country. Composting is a start.**

■ October is the perfect month to gather leaves and other landscape debris for starting compost piles and wind-rows.

Yard waste composting is a practical idea for lawn care operators, landscapers and golf course superintendents. But the undertaking should be approached with planning both on paper and on site, according to an Ohio expert.

What can composting do?

1) It eases the strain on overburdened landfills while creating organic materials which can be used on the job.

2) It favorably affects the pocketbook by lowering tipping (disposal) fees and streamlining disposal methods.

3) It delivers rich, valuable humus in one to two years.

Rick Thomas, an Akron, Ohio, LCO who also works with the area's cooperative extension service, offers several suggestions toward setting up compost wind-rows this month. Keep in mind composting's basic formula: equal parts of organic material, air and moisture.

Thomas recommends:

• Mixing grass trimmings with other materials. A 30 percent grass to 70 percent other "bulking" items mix is ideal. Leaves, shredded prunings and other organic mat-

ter best combine with grass for healthy aerobic (air-based) decomposition.

Grass trimmings do not decompose well alone; the plant is 80 to 85 percent water. Grass mats onto itself and when slow anaerobic (little or no air) decomposition occurs, a putrid smell results. A tip: create a stockpile of bulk materials to mix with grass trimmings when needed.

• Checking with local and state envi-

ronmental authorities beforehand for composting setup rules. Ohio, for instance, has one set of prescribed regulations for commercial yard waste composting sites up to three acres and another for larger tracts. Controls are designed to prevent leaching into the water table and nearby water supplies. Some licensing may be needed in advance.

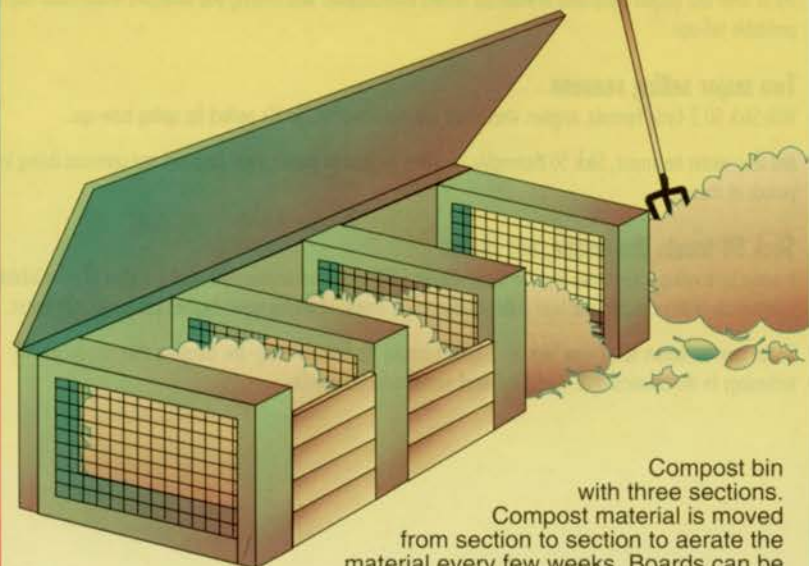
• Wind-rowing materials in long rows rather than composting in piles. Thomas says when piles exceed six feet, the weight of the materials tends to fall onto itself, depriving the core of needed air for proper decomposition.

A "manageable size," in his view, is a wind-rowed line no taller than six feet or wider than 14 feet. Thomas notes some operators may find it worth investing in compost-turning tractor attachment systems; although the expense is not necessary. Also possible is pooling with other landscapers to share both expenses (such as shredding) and end product.

• Considering switching to grass mulching at all times; a "don't-bag-it" philosophy which is being stressed in areas where he meets local governments. Thomas admits customers don't always understand or like mulching, but the idea can be put across if it is patiently explained.

—Jack Simonds

## How to build a compost pile: NEXT PAGE



Compost bin with three sections. Compost material is moved from section to section to aerate the material every few weeks. Boards can be removed to gain easy access to each section.

## Building a compost pile

■ According to the Ohio Cooperative Extension Service, here is a good formula for building a compost pile. A properly made pile will reach temperatures of 140 degrees in four to five days. At this time, you'll notice the pile "settling," a good sign that it is working.

**1st layer:** 3 to 4 inches of chopped brush or other coarse material on top of the soil surface allows air circulation around the base of the pile.

**2nd layer:** 6 to 8 inches of mixed scraps, leaves, grass clippings, sawdust, etc. Materials should be "sponge damp."

**3rd layer:** 1 inch of soil serves as an inoculant by adding micro-organisms to the pile.

**4th layer:** (optional): 2 to 3 inches of manure provides the nitrogen needed by micro-organisms. Sprinkle lime, wood ash and/or rock phosphate over the layer of manure to reduce the pile's acidity. Add water if the manure is dry.

**5th layer:** repeat steps 1-4 until the pile is almost the recommended height, then top off with 4 to 6 inches of straw and scoop out a "basin" at the top to catch rainwater.

## Planning your business around Mother Nature

■ Not even Mother Nature can slow down a good landscape company like Acres Enterprises in Wauconda, Ill.

"The secret is to start early and keep as organized as possible," says Pat McEntee, vice president of sales. "We'll sit down in June or July when it's 85 degrees outside and actually start talking about our snow-planting business."

And when spring breaks, "we're poised and ready to go out the door," says McEntee. "Planning for spring is done at least by the prior September."

Certainly, by New Year's Day upper management knows how many foremen

they'll need, what kinds of equipment will be purchased, and deadlines for various contracts.

Who's involved with the planning process? All seven managers: owner Jim Schwantz, McEntee, operations vice president Jerry McMaster, accountant Rob Reblin, landscape maintenance supervisor Dave Lett, garage manager Bob Nedli and office manager Candice Simeon.

Some landscapers would say Acres is top-heavy in management, but it's paid off. Since the company's 1983 inception, it's grown into a \$4.2 million business.

Some of the innovative ideas Schwantz

and his staff implement:

- A computer hook-up with a national weather service that helps minimize the effect Mother Nature has on business. With some accounts 1-1/4 driving hours away, crews can be more efficiently diverted to dry areas. "When the call comes in from the field," notes McMaster, "sometimes we can tell them to sit tight and the storm will blow over." Adds Schwantz: "And it's an awesome tool for knowing when, where and how much it's going to snow."

- A minimum of three parties or picnics per year are scheduled: two for workers and their spouses, and one more that includes children. In eight years, no staffers have been divorced. "We try to keep our families happy, and in the spring that's a challenge," McEntee notes.

- Business cards for all foremen. Besides lending an air of professionalism to the company, the cards give the foremen a sense of pride, knowing they are depended upon to help keep customers happy.

- The annual budget includes what is called a "Caring Fund," out of which comes compensation for any equipment lost, stolen or broken during the year (\$18,000 budgeted for 1991). When the fiscal year ends, anything left in the fund is divided among the employees as a bonus; in the past, between \$80 and \$600 per employee.

"We've got a good handle on things," says Schwantz. "We're not so much a seat-of-the-pants company like a lot of others. All of us as a team have always known where we were going. We manage well; it's gotten us where we are and will keep us there."

—Jerry Roche



Members of the Acres team: (standing, left to right) Candice Simeon, Jim Schwantz, Rob Reblin, Dave Lett, Pat McEntee; (kneeling) Bob Nedli, George Kaiser, Jerry McMaster.

### HOW MUCH PLANNING?

The amount of lead time Acres Enterprises of Wauconda, Ill. uses for annual planning purposes:

Job	Lead Time
Capital improvements	18 months
Selling strategy	8-12 months
Budgeting	9 months
Supply purchases	5 months
Seasonal decision-making	4 months

Source: Acres Ent.

# Healthy trees limit damage by gypsy moth

**As these pesky varmints move across the country, steps to limiting damage are becoming more intensive.**

■ An overall tree health program that includes pruning, species selection, fertilization and watering can help overcome the damaging defoliation dished out by the ever-expanding gypsy moth migration.

Last year, 7.3 million acres of trees suffered moderate to heavy defoliation because of the *Lymantria dispar* Linnaeus moth.

Besides large infestations in the Northeast (see map), the moth has also hit California, Utah, Washington, Oregon and other states, according to Dr. Jerry Hertel of the U.S. Forest Service.

A landscape manager can avoid potential problems on a property with diversified planting that includes species which the moths generally avoid.

If trees under your care are indeed hit by this pest, an aggressive program of good general tree health can help recovery efforts, says Hertel.

"One of the misconceptions is that the gypsy moth kills everything it touches," Hertel points out. "Secondary organisms actually do the killing." Armillaria fungus can attack roots, and the two-lined chestnut borer can make mincemeat out of the trunk and branches of a moth-infected tree.

"If the tree is healthy, it will maybe survive two to three years of defoliation," Hertel observes. "If the tree's sick, maybe one year of defoliation will kill it."

Here are some tips to keep the tree healthy and moth-free:

- Avoid compacting the ground or changing the surrounding grade level.
- Try not to subject the tree to lawn mower wounds.
- Make sure the tree has enough fertilizer and water.
- Remove moth shelters, such as bark flaps, dead trees and branches, boxes, cans

and old tires.

Pheromone traps can be used to detect the pest's presence, though they will not drive them away, Hertel emphasizes. "(The traps) would clue you to look for

the egg masses. Just because you have male moths doesn't mean you'll find the egg masses in an area."

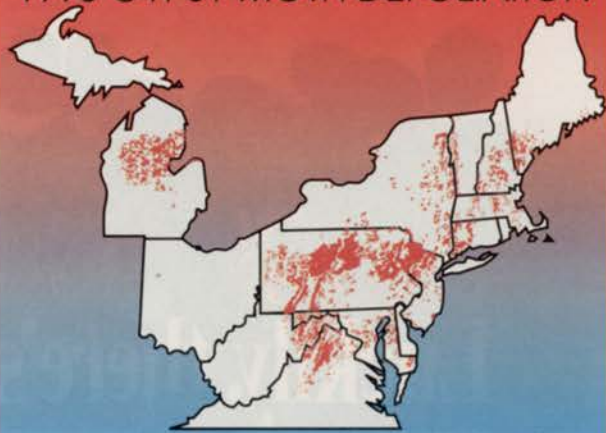
Simple scraping will not kill an egg mass. Eggs, larvae and pupae can be destroyed with soapy water or a kerosene dip.

Skirt traps can be used to detect and trap larvae. They are made by tying an 18- to 24-inch wide piece of burlap around a tree with a string, and then draping it

downward like a skirt. The caterpillars will hide there during the day, and you can then count and remove them.

Or, use barrier bands consisting of double-sided sticky materials such as Tanglefoot, petroleum jelly or grease to prevent larvae from crawling up the trunk. These materials should be applied on duct tape or tar paper to avoid contact with the bark. (Petroleum-based products can cause swelling and cankering on thin-barked trees.)

## 1990 GYPSY MOTH DEFOLIATION



Source: USDA Forest Service

## PESTICIDES FOR GYPSY MOTH CONTROL

Active ingredient	Representative trade names	Remarks
<i>Bacillus thuringiensis</i>	Dipel Thuricide	Registered for aerial and ground application. Available under a variety of trade names. Toxic to other moth and butterfly larvae. Can be used safely near water.
acephate	Orthene	Registered for aerial and ground application. Available under a variety of trade names. Toxic to bees and some gypsy moth parasites. Commonly used from the ground to treat individual trees.
carbaryl	Sevin	Registered for aerial and ground application. Available under a variety of trade names. Toxic to bees and gypsy moth parasites. At one time, the most widely used chemical in gypsy moth control programs.
diflubenzuron	Dimilin	A restricted-use pesticide that can be applied only by certified applicators.

Source: U.S. Forest Service



## LANDSCAPE ORNAMENTALS REACTION TO GYPSY MOTH INFESTATION

### More preferred

alder  
apple  
aspens  
basswood  
river birch  
boxelder  
hawthorn  
larch  
mountain ash  
oak  
sweetgum  
willow

### Less preferred

arborvitae  
ash  
catalpa  
E. red cedar  
fir  
grape  
holly  
honeylocust  
horsechestnut  
black locust  
mulberry  
spruce  
sycamore  
tuliptree

### Intermediate

A. hornbeam  
A. beech  
black gum  
buckeye  
sweet birch  
cherry  
chestnut  
cottonwood  
cucumbertree  
dogwood  
elm  
E. hophornbeam  
hickory  
magnolia  
maple  
persimmon  
pine  
redbud  
sassafras  
serviceberry  
sourwood  
walnut

Source: Ohio State University



Gypsy moth skirt trap (left) and milk carton trap will help monitor gypsy moth presence.

Natural enemies of the gypsy moth are parasitic and predatory insects such as wasps, flies, ground beetles and ants. Some spiders and certain birds such as chickadees, bluejays, nuthatches, towhees and robins will eat the moths, as will about 15 species of mammals like white-footed mice, shrews, chipmunks, squirrels and raccoons.

Some pesticides commonly used to control gypsy moths are *Bacillus thuringiensis*, acephate, carbaryl and diflubenzuron. Before using these products, however, check with your county extension agent, state entomologist, state forester or the U.S. Forest Service, Hertel advises.

—Jim Guyette

# Positioning with customer service

by Rudd McGary, Ph.D.

Al Ries and Jack Trout were the people most responsible for using the concept of "positioning" in their book, "Positioning: The Battle for Your Mind."

The word means to take a place in the consumer's mind by differentiating your company from the rest.

Some examples of famous positions are "The Pepsi Generation" and "At Ford, Quality is Job One."

In the green industry, we must work just as hard to differentiate as do the large national corporations. We must first work to find ways to explain how we are different, and then be able to deliver what we have promised.

Some of the most popular positions in the green industry:

- The technically competent company: "We know how to make your grass grow" or "We have a licensed agronomist (or horticulturist or arborist) on staff."
- Low price: "No one does this for less," or "We'll meet or match any price you get."
- Local ownership: "We are your neighborhood store for green grass" or "Locally owned and operated."

## What is 'positioning' and how do you use it to get more customers?

I would not recommend low price positioning; it tends to cut into profits and it's very hard to get rid of. But in some cases, local position works, most often in smaller towns and cities.

There is, however, one position that is a recurrent desire of consumers: customer service. The use of this as a position makes sense—but it isn't simply putting this on your trucks and going out to make your millions.

Certain common factors that consumers say they want that stress customer service:

**1) Politeness**—Both in person and on the phone, the customer wants to be treated like a human being. If your people who interact with the public are rude to them, you won't have a company very long. Almost no company has ever been accused of treating its customers too politely.

**2) Problem resolution**—If a customer has a problem and can get it resolved quickly, he or she will perceive the compa-

ny as one which gives good customer service. This takes:

- a staff that can handle unhappy customers on the phone;
- people who are technically capable of responding to problems;
- people who can explain what the problem was to the consumer and what is being done about it; and
- follow-up to make sure the customer is satisfied.

**3) Professionalism**—Not only in technical matters, but also in the ways you administer the account: how your bills go out, how you collect, how you problem-solve, how you treat customers and how you look (from uniforms to stationery).

You might want to consider using another position in conjunction with customer service. The key is to understand the customer's needs and make sure your organization works on customer service every day.

Do that, and include it in your positioning, and you should prosper.

—The author is senior consultant for Strategic Consulting Group of Worthington, Ohio.