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In this issue:

The War on Weeds
Mowing for Profit
Smart Bidding
Spring Fertilization

MAKING A STATEMENT

Andy Hines likes nothing better than to share his experiences with other owners, dive into the political process and make his Shrub & Turf customers satisfied.

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Lawn & Landscape MAINTENANCE

VOLUME 16, NUMBER 2

FEBRUARY 1995

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Dan McClure, McClure
Studio, Athens, Ga.

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Editor's Focus

MULTIPLE CHEMICAL sensitivity is not a legitimate illness according to the American Medical Association and other mainstream medical organizations, yet the "diagnosis" continues to receive widespread acceptance in non-medical communities.

Local and state governments have attempted to severely limit and/or restrict the use of pesticides by creating special registries. These registries are designed to hold the names of those people who feel they cannot tolerate exposure to pesticides being applied in and around their homes, schools, businesses and so on.

The trouble is no one — not even the medical community — has defined MCS. Yet this doesn't prevent misinformation or "victims' " stories from cropping up in connection to exposure to a certain pesticide whether it's used in food, in the landscape or as a structural pest control measure.

Just recently, the CBS news magazine "Eye to Eye" focused a segment on MCS. (I use the term news magazine loosely in this case.) The segment identified several people, and alluded to countless others, who claim to suffer from neurological problems brought on by exposure to the insecticide Dursban.

Titled "Lethal Weapon," the show highlighted several "victims" of exposure and how the product virtually stripped them of their right to function as members of society. These victims of undiagnosed illnesses claim that their allegedly ill-fated exposure to Dursban in turn has affected the ability of their bodies to tolerate exposure to any chemical substances and fragrances.

"Eye to Eye" predictably illustrated its segment with stories of victims removed from day to day family activities or unable to co-exist with society in general, including obligatory camera shots of one man watching his son sing in the church choir on video because he couldn't leave his air-filtered home to watch the event in person.

Although it was pointed out that Dursban has not been linked to cancer, a strong association to neurological problems was put forth by Lynn Goldman, the top official in charge of pesticides at the EPA.

It wasn't until the end of the news segment — about 15 minutes in length — that "Eye to Eye" mentioned in passing that many of the alleged poisonings may have come from instances of misapplications of Dursban. Additionally, one victim who attributed his illness to Dursban was apparently diagnosed with neurological and immune disorders five years prior to his first alleged contact with Dursban.

Immediately after the report, DowElanco, the manufacturer of Dursban, issued a two-page statement standing "firmly behind our



company's strong commitment to public health and product safety, exhaustive scientific research and responsible corporate citizenship. We are cooperating fully with the U.S. Environmental Protection Agency to resolve issues relative to Dursban. We are confident that the Agency's review will reaffirm the wide margin of safety for Dursban products."

DowElanco established a toll-free number to answer questions and concerns from its customers and the general public, although at the time of this writing the manufacturer received fewer than 50 phone calls from consumers and about 100 calls from customers. The calls from the latter were mainly to receive copies of DowElanco's materials relative to the CBS report.

Aside from the absurdity of some of the issues raised in the report and the natural desire to disregard the statements as hype, reports like this can't be taken lightly. Specialty pesticide manufacturers spend millions of dollars annually to conduct hundreds of tests on both registered and developmental products, materials that prevent disease and infestations.

Lawn and landscape professionals are an extremely visible group; the front line in the use of specialty pesticides. It's imperative that pesticides are handled properly from the time they arrive in the warehouse to the time they're mixed and applied to the turf, trees or ornamentals.

Tap into the expertise of manufacturers should you have a question about safe mixing or application of any one product. Train your technicians to follow all label instructions and to answer customer questions thoroughly and intelligently.

While it's easy to scoff at the questionable report on "Eye to Eye," it's another to walk the talk daily. — *Cindy Code*

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American Association of Nurserymen
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USE READER SERVICE #82

Business Watch

ECONOMIC INDICATORS TELL THE REAL STORY

Every investor should keep abreast of the cyclical changes in the economy, because they have an enormous impact on financial markets. They also serve as signals for periods of danger and opportunity. The following economic indicators may cause strong reaction in the markets and are released every month. Find them in most newspapers:

BROAD ECONOMIC INDICATORS THAT MEASURE INFLATION

1. **Producer Price Index (PPI)** — This gives prices received by domestic wholesalers for crude materials, intermediate goods and finished goods. Securities analysts watch the finished goods category.

2. **Consumer Price Index (CPI)** — It measures the average price of a fixed market basket of goods and services like food, fuel, clothing, housing, medical care and other day-to-day purchases.

3. **Gross Domestic Product Implicit Price Deflator (GDP Deflator)** — A broad measure of the economy, this index gives the market value of the nation's total goods and services in a period of time, such as personal spending, investment, exports and government purchases.

CONSUMER AND BUSINESS INDICATORS

4. **Employment Situation Report** — A measure of the nation's labor markets, this report is the basis for other indicators. Data cover employment rates, wages and hours worked. Sustained increases or declines signal changes in the economic direction.

5. **Retail Sales** — Durable and non-durable goods sales to consumers drive the nation's business activity. Food, general merchandise, clothing, gasoline and drugs are among the items studied.

6. **Industrial Production** — Manufacturing output points to future economic directions. Production of durable and non-durable goods, consumer goods and business equipment are measured.

7. **Housing Starts** — Consumer demand, wage levels and mortgage interest rates are reflected in the figures for new residential construction. This index also records new building permits, an indicator of future construction activity.

8. **Durable Goods** — Any goods with a life expectancy of three years plus, such as metals and transportation equipment, qualifies for this category, which shows corporate investment for production. When those figures are high, watch for growth. — John Houlihan.

MARKET INDICATORS



SLOW-BUT-STEADY INVESTMENT STRATEGIES

Two proven and effective saving strategies can pay off for investors — compounding and dollar-cost averaging:

Compounding — This makes your invested money grow faster, even if the amounts are modest. This simple strategy reinvests your capital gains and any interest or distributions from your investment, instead of taking them in cash. Your money works for you by adding to the principal over time.

Dollar-Cost Averaging — Long-term investors can benefit with this strategy, which invests a fixed-dollar amount in mutual fund on a regular schedule (monthly, yearly, etc.). The average cost per share will always be less than the average price per share, because you purchase more shares when the price is low and less shares when the price is high.

Here's how it works: Over 12 years, this investor's cost per share (\$12,000 divided by 813 shares) is \$14.76. But the average price per share

DOLLAR-COST AVERAGING

January 1	Regular Investment	Share Price	Shares Acquired
Year 1	\$1,000	\$10.00	100
Year 2	1,000	8.94	112
Year 3	1,000	10.75	93
Year 4	1,000	12.44	80
Year 5	1,000	12.86	78
Year 6	1,000	16.28	61
Year 7	1,000	18.73	53
Year 8	1,000	17.93	56
Year 9	1,000	19.08	52
Year 10	1,000	24.00	42
Year 11	1,000	21.05	48
Year 12	1,000	26.78	37
Total	\$12,000	\$198.84	813

(\$198.84 divided by 12 investments) is \$16.57.

This strategy doesn't guarantee a profit or protect against loss, but is a consistent method for your overall investment strategy. — John Houlihan, Dean Witter Reynolds Inc., Melville, N.Y.

The National Weather Service's 60-day outlook for February and March calls for higher than average precipitation for most of the South and Pacific coast. The line extends from southeastern Georgia midway across the South, into Colorado and over all of California. Lower than average precipitation is expected in the Midwest, in an area center over Iowa and Nebraska.

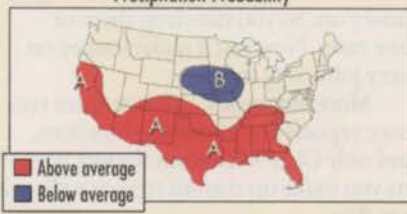
Higher temperatures than normal are forecast for most of the West, the northern Plains states, and most of the eastern half of the United States. Below average temperatures are predicted for the deep South and most of Texas south of the Panhandle area.

60-DAY OUTLOOK FOR FEBRUARY AND MARCH

Temperature Probability



Precipitation Probability





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USE READER SERVICE #62

Environmental Forum

FIGHTING RESTRICTIONS. Power equipment is coming under fire in the nation's capital. The Metropolitan Council of Governments, a group of public officials from Washington, D. C., and 18 surrounding counties in the states of Maryland and Virginia, are looking at measures that would restrict the usage of gas-powered equipment during "ozone alert days" in their area.

Under pressure to meet federal clean air standards set forth by the Environmental Protection Agency in the 1990 Clean Air Act, the MCOG included the restrictions as part of a laundry list of proposals, according to Ben Bolusky, government affairs expert with the American Association of Nurserymen.

The original proposal involved a complicated "lottery" system that would have forced commercial landscape companies to keep all power equipment idle for as much as one full day each week, depending on what days were declared ozone alert days.

Through the combined efforts of representatives of the AAN and the Associated Landscape Contractors of America over several months, the original proposal was scrapped.

AAN and ALCA representatives have continued to work out alternative proposals with MCOG focusing on technological advances that will continue to lower the pollutant emissions of gas-powered equipment.

"There are products on the market today, and more products to come that would reduce emissions immediately without disrupting the normal business activities of landscape professionals," said Bolusky.

The AAN and ALCA are pushing particularly hard on this issue, noted Bolusky, because the Washington, D. C., area is the first of several urban regions in the United States required to set plans in motion for the reduction of pollution.

"Clearly, the decision here will set a national precedent," he warned.

GREEN SHIPPING. John Deere has found a way to save money, and the environment, at the same time.

Last fall, John Deere began shipping its riding lawn equipment in the company's new Envirocrate system. The Envirocrate is a reusable, steel frame storage unit that replaces the old wood crates traditionally used for shipping.

The old system created more than 2,300 tons of wood waste per year after only one use, according to John Bishop, senior



engineer with John Deere's Horicon Works facility in Horicon, Wis., where the system is manufactured. The crates should survive 13 shipping cycles over 10 years.

Along with the cost savings and environmental benefits, dealers also appreciate the quicker setup time once the units are delivered. A unit that took 30 minutes to unload before now takes about three minutes, he said.

TREE SALES UP. Landscape tree sales are on the upswing, according to the 1994 U. S. Landscape Tree Planting Survey, sponsored by the American Association of Nurserymen and the USDA Forest Service.

Sales of trees in the 12 month period beginning Oct. 1, 1992 and ending Sept. 30, 1993 rose 6 percent over the same time frame a year earlier, the study revealed.

These recent gains made up for the drop in sales that occurred from the 1990-91 survey to the 1991-92 survey. Tree sales are at roughly the same level as in 1990-91, according to the survey.

Current economic indicators point to a probable increase in sales when the 1993-94 report is published later this summer, according to Joel Albizo, director of public relations with AAN.

"It would seem from all field reports that we are looking at continued growth," said Albizo.

The data also revealed that the industry has the capacity to expand as much as 41.4 percent from 1993 to 1995. The results were compiled from surveys completed by 820 private nurseries in the United States.

TURF TALK. The Turf Resource Center is offering five educational brochures about the best uses of turfgrass sod.

The "Turf Installation Guide" demonstrates a 4-step process for easy installation. "Dream Lawn Is Yours In Hours With Sod" illustrates the aesthetic and environmental benefits of turfgrass sod. "Why Are Most Lawns Sodded" answers common upkeep labor and use questions. "Self-Scoring Method: How To Establish A Lawn" compares turfgrass sod with seed and hydroseeding methods, and "Our Precious Planet, Being a True Environmentalist Begins Right Under Our Feet" outlines environmental benefits of turf.

To receive any of these brochures, indicate which you would like along with a self-addressed, stamped envelope to the Turf Resource Center, 1855-A Hicks Road, Rolling Meadows, Ill. 60008. More than three brochures requires two stamps.

TRIMMING BUREAUCRACY. The American Association of Nurserymen will join forces with Project Relief, the leading national coalition dedicated to helping businesses seek relief from excessive government regulation. AAN's participation comes at the request of new Republican House Majority Whip Tom Delay.

Through Project Relief, AAN will help pursue a more aggressive regulatory reform agenda with the new, Republican-led 104th Congress, according to Ben Bolusky, government affairs expert with AAN.

"We will be working with other businesses and Republican leaders to enact regulation and reform as part of the 'Contract With America' in the first 100 days, and beyond," said Bolusky.

Included in the Project Relief package are the following:

- Overhauling the risk assessment process and calling for the use of cost/benefit analyses on new regulations
- Strengthening the Paperwork Reduction Act by establishing better measurement standards to account for the burdens imposed by government on the private sector
- Establishing a citizen's Bill of Rights, strengthening property rights through government compensation
- Preventing the enforcement of unfunded federal mandates

Project Relief will be a clearinghouse of information for the AAN and others to share information and intelligence about their activities in the regulatory reform process. The group also facilitates media and grassroots outreach, organizes press conferences and provides experts to testify on key regulatory issues before Congress. ■

KUBOTA RELEASES ANOTHER BEST SELLER



Kubota Tractor Corporation's new compact, yet powerful GF1800E diesel front mower is a hit with professional mowing contractors. Ideal for commercial mowing jobs that demand maximum mowing performance and efficiency from a fuel-efficient, compact machine with outstanding maneuverability.

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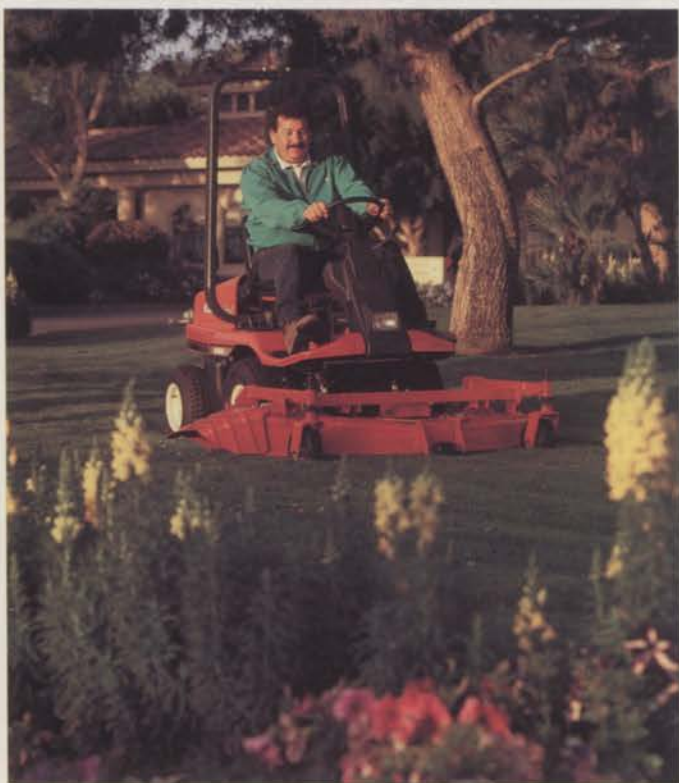
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News in Brief

NEWS DIGEST

Snapper Forms New Commercial Division

Restructuring at Snapper Co., McDonough, Ga., has resulted in the formation of the commercial products division. Its focus is to concentrate on the development, manufacturing and selling of a new line of high quality commercial turf maintenance equipment.

Lawn Doctor Franchises Surpass 300 Mark

Lawn Doctor Inc., Matawan, N.J., is the first lawn service firm to operate more than 300 franchises. It now has 303 franchises in 31 states extending as far West as Colorado, Idaho and New Mexico. President Russ Frith said the firm's unprecedentedly low turnover rate, under 2 percent in 1994, contributed to the longevity of the franchises.

Glenn Takes Over Wag Backhoe Line

Glenn Enterprises, Paragould, Ark., has taken over the production of truck and tractor-mounted backhoes and three-point trenchers for tractors that previously were manufactured by The Wag Co. Glenn also plans the construction of a new plant.

Shemin Nurseries Expands in Carolinas

Shemin Nurseries Inc., a horticultural products distributor based in Ridgefield, Conn., plans to open two new distribution centers in the Charlotte, N.C., area early in 1995. The centers will serve contractors in the north and south Charlotte area.

Deere Tractors Win ASAE Concept Award

The American Society of Agricultural Engineers selected the design team of the Series 400 lawn and garden tractor by John Deere Lawn & Grounds Care Engineering as the winner of its 1994 Concept of the Year award. The design combined ergonomic, maintenance and productivity improvements.

Michigan State Licenses Rubber Top Dressing

Michigan State University has licensed its patent-pending crumb rubber top dressing material to JaiTire Industries Inc., based in Denver, Colo.

The material, called Rebound™, is used on turf to reduce plant injury and soil compaction without competing for water and nutrients. It has been in development for four years and is made from recycled tires.

Leaf Blower Ban Ruled Unconstitutional In New York

IN A LANDMARK decision, a leaf blower ban in Scarsdale, N. Y., in Westchester County, was ruled unconstitutional by Village Justice Virginia Knaplund. The decision, dated Jan. 10, puts an end to the complete ban on leaf blower use that was imposed by the village board on June 14, 1994.

The decision also halts the raging legal battle over the ban in Scarsdale led by Michael Bellantoni, president of the New York Turf & Landscape Association.

"This was an important decision for our industry and a recognition of the view of the silent majority of our customers who appreciate the tools of our trade," said Ballantoni. "Of course, this does not relieve us from using prudence in the use of leaf blowers in a way that minimizes inconvenience or disturbance to the surrounding neighbors."

Months of squabbling between landscape industry officials and activist residents came to a head when the industry used the citing of Trollo Landscaping for violating the blower ban on Sept. 15 to challenge the ban's constitutionality. Before the hearing, lawyers for the defendant moved to dismiss the charge on constitutional grounds, and the battle was on. Both sides submitted a brief addressing the constitutional issues of the case before the decision was rendered.

The ordinance attempted to stop the use of blowers between June 1 and Sept. 30, except for public golf courses. As it turned out, both provisions proved to be fatal flaws. The court ruled the ban "an arbitrary and irrational exercise of police power which is unduly burdensome to the defendant by singling out one machine in one type of location, when less restrictive legislation exists to protect the public health, comfort, safety and welfare," according to the ruling. Scarsdale already has ordinances restricting the use of any power equipment during certain working hours.

The decision all but closed the doors on a total ban. "Appropriate and constitutional noise regulations already exist to deal with the noise problem without seriously jeopardizing landscapers' livelihoods and discriminating against residents whose property adjoins golf courses. Therefore, a total ban cannot be sustained," the ruling stated.

The victory is sweet for Bellantoni, but much work remains to be done. The noise-containment issue has many supporters across the country, and blower bans remain on the books in four other New York communities, as well as cities in Michigan and California.



Sensible use of power equipment is encouraged.

Ruppert Landscape Donates Expertise

Three noteworthy projects involving donated time and services have put Ruppert Landscape Co., Ashton, Md., in the spotlight.

Ruppert's Atlanta branch is working with a district task force to improve two badly neglected Atlanta neighborhoods. The company plans to "rejuvenate and maintain" the existing plant material in the Fairlie Poplar district, donate nearly 1,500 bulbs for spring color displays, coordinate shopfront and entrance landscapes in the area and consult on future development and renovation plans.

In the Buckhead neighborhood, Ruppert's Atlanta branch is installing donated trees

and shrubs, as well as maintaining areas near the Piedmont Highrise.

The company's annual summer "field day" in the Adams Morgan neighborhood of Washington, D.C., served the dual purposes of training employees and renovating the Community Park West site with donated design, plant materials and labor provided by the firm. Ruppert maintenance and installation teams compete during the event.

OPEI Begins Tracking Commercial Equipment

The Outdoor Power Equipment Institute has begun tracking shipments of commercial turf care equipment for the model year

Lawn & Landscape MAINTENANCE

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(Please check only one)

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- ☐ Landscape Contractor
☐ (maintenance & installation)
☐ Chemical Lawn Care Company
☐ (excluding mowing maintenance
 service)
☐ Lawn Maintenance Contractor
☐ Ornamental Shrub & Tree Service
☐ Irrigation Contractor
☐ Landscape Architect
☐ Other Contract Services
(please describe) _____

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☐ Agronomist, Horticulturist
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☐ Serviceman, Technician
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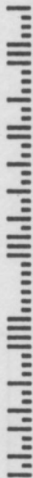
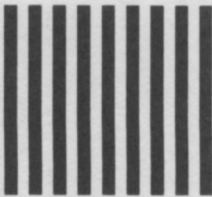
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1994. Previous estimates of shipments included products for the United States consumer market; the new category concentrates solely on commercial products.

OPEI stated that rapid growth of this market segment necessitated the change. It estimated U.S. shipments for the 1994 model year (September 1, 1993 through August 31, 1994) at: 104,800 walk-behind mowers and 44,700 riding rotary turf mowers. Future estimates will include comparisons with previous years.

Roadside Maintenance Wins Award for Davey

A busy, 100-acre intersection of Interstate 270 and Tuttle Blvd. in Columbus, Ohio, is an award-winning site, maintained by Davey Tree Expert Co., Kent, Ohio. The company won an Honor Award from the Professional Grounds Management Society in the Roadways, Intersections and Entrances category.

Davey mows, weeds, prunes and fertilizes 30 acres spread over the property, which has constant, fast-moving traffic close by. It includes a massive planting of 30,000 annuals that brighten the landscape.

Barefoot Acquires 11 Orkin Branches

Barefoot Grass Lawn Service of Worthington, Ohio, recently acquired 11 Orkin Lawn Care, Atlanta, Ga., locations for an undisclosed sum. Five sites were in Michigan, one in Indiana, two in Ohio, one in New York, one in Connecticut and one in Massachusetts.

The acquisition gives Barefoot a combined 95 business locations, including branches and company-owned offices, in more than 68 markets — mostly in the East.

The sale is said to complete the strategic restructuring of Orkin's lawn care division, allowing it to focus on the "profitable sunbelt region of the country." Lawn care operates 22 branches.

Barefoot expects to report a 30 percent increase in 1994 sales, bringing total company sales to \$74 million.

Orkin expects to report a 5 percent to 6 percent sales increase in 1994.

Benlate Issue Nets Record Settlement

DuPont Co. and Platte Chemical Co. have agreed to pay \$1 million as a civil fine to settle charges of distributing contaminated fungicides, the Environmental Protection Agency reported.

The agency alleged that those companies and LESCO Inc., Rocky River, Ohio, shipped Benlate 50 DF, Tersan 19901 DEF and LESCO Benomyl DG, products that

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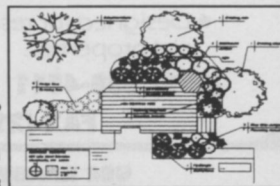
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were contaminated with the herbicide atrazine.

EPA contended that this action violated Section 12 of the Federal Insecticide, Fungicide and Rodenticide Act. EPA noted that this action is separate from claims initiated by growers in Florida.

AgrEvo USA Scholarship Program Grows Up

Turf management students at 23 universities around the United States have the opportunity to participate in the Turf Scholarship Program, sponsored by AgrEvo USA Co., Wilmington, Del. Each school will receive up to \$1,000 to award to top students in its turf management program. University professors will determine the number of scholarships to award this winter.

The program continues a 20-year tradition started by the former Nor-Am organization.

Longhorn's Auction Benefits Dallas Charities

Open house is more than a networking opportunity at Longhorn, a manufacturer based in Dallas, Texas. In addition to nearly

State Worker's Comp Rules Vary in Scope

The November, 1994, issue of *Lawn & Landscape Maintenance* carried a story on how different classifications of business can save money in worker's compensation rates (p. 95). Since then, several readers have reported that their insurance agents have had a hard time verifying information on how to reclassify their businesses under the designation "parks," (9102) rather than "landscape gardening" (0042).

The answer may lie in the fact that certain states have their own classification requirements, reported Jeannette Blanton of Independent Insurance Group, Dallas, Texas. She pointed out that Texas rules differ from the guidelines issued by the National Council on Compensation Insurance.

"In Texas," she noted, "the (9102) designation is only applied to organizations that actually are parks. In other words, employees covered under this classification must work for a park."

Similar differences may apply in other states. Contractors and their insurance agents who are uncertain about the status of the classification should contact their state's insurance offices.

800 participants who attend, the program features industry exhibitors, a barbeque, live music, prizes and the "Ring of Honor" auction, which is sponsored by vendors.

Items supplied by vendors are auctioned off, with the proceeds going to a different local charity each year. Last year's event netted approximately \$5,000.

According to Loyd Evans, president, Longhorn will be donating this year's funds to a local group, People That Care, which serves the needy by providing food, clothing and community outreach programs in the Dallas area. Longhorn has scheduled two open houses in Dallas and San Antonio for the first week of March.

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Association News

BREAKING RECORDS must be on the minds of the **Associated Landscape Contractors of America**, which reported that it added more new members in 1994 than it had in each of the last six years. Those figures only counted membership through the end of October. ALCA also reported a 9 percent boost in the renewal rate, a record number of entries for its 1994 Environmental Improvement Awards program and millions of exposures across the country through its radio and newspaper public relations messages.

An all-time high total of 42 colleges and universities have signed up to participate in ALCA's Student Career Days, to be held March 24-26 at North Metro Technical Institute in Acworth, Ga. Several more institutions are expected to sign up before the deadline.

In related news, ALCA has proposed a new slate of leadership with the following officers: Terry Anderson, Rentokil Environmental Services, president; David Minor, Minor's Landscape Services Inc., president elect; Judson Griggs, Lied's Landscape Design & Development, vice president; Cynthia Peterson, McCaren

For more information...

PLCAA

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Alexandria, VA 22314
703/739-2401



SNA

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Marietta, GA 30068
404/973-9026

Designs Inc., secretary; and Richard Akerman, Northwest Landscape Industries, immediate past president.

New directors at large will be: Tom Garber, Colorado Landscape Enterprises; Bruce Hunt, The Brickman Group Ltd.; Richard Ott, Orkin Plantscaping; Theresa Pesapane, Growing Green Inc.; and Ed Sinnott, Clearwater Landscaping Co.

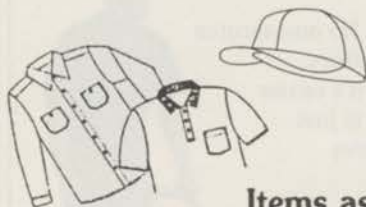
Michael Bellantoni, New York Turf and Landscape Association, and Dianna Milacek, Texas Association of Landscape

Contractors, are state association directors. Ronald Kujawa, Kujawa Enterprises Inc., will serve as associate member director.

The **Professional Lawn Care Association of America** presented its Allied Regional Association award to the Nassau Suffolk Landscape Gardeners Association in Brightwaters, N.Y. The award was presented during PLCAA's annual meeting in St. Louis, to honor the group's national and local legislative efforts and for its

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contribution to help increase PLCAA membership. Pat Voges of NSLGA accepted the award from PLCAA board member and ARA subcommittee chairperson Bob Ottley.

PLCAA and the 19 Allied Regional Associations enjoy a mutually beneficial relationship. PLCAA provides the resources and exposure on a national level and the ARAs support PLCAA's efforts through local initiatives and perspectives on national issues.

More than 235 compost industry participants, municipal officers, soil scientists and marketers attended the **Compost Council's** Fifth Annual Conference in Washington, D.C., which is a record for the group. New award categories for service were presented at the event. They included: Dr. Wayne Smith, University of Florida, Hi Kellogg Award for Outstanding Service to the Composting Community; Dr. Francis Gouin, University of Maryland, Rufus Chaney Award for Research Excellence; Sharon Barnes, Barnes Nursery, Outstanding Composter for 1994; and William Ruckelshaus, Browning-Ferris Industries, Certificate of Appreciation.

In related news, the Council elected a new executive committee consisting of the

following people: Bill Ginn, Browning-Ferris Industries, president; Carla Castagnero, Agrecycle, vice president; Charles Carter, Bedminster Bioconversion Corp., vice president; Bruce Jones, Procter & Gamble Co., vice president; and Jane Forste, Wheelabrator Clean Water Systems, secretary/treasurer.

The **Landscape Contractors Association DC-MD-VA** honored J. Landon Reeve IV with its 1994 Distinguished Service Award. He is president and CEO of Chapel Valley Landscape Co., Woodbine, Md. He was recognized for long-standing membership and ongoing contribution to the industry and the association.

The **Southern Nurserymen's Association** voted new officers into office. They are: Arthur Jones, Arthur A. Jones and Associates, president; William Barton, Barton's Nursery & Landscape, vice president/chapter 4 director; John Watkins, Watkins Nurseries Inc., director/chapter 1; William Reese, Greenbriar Nurseries Inc., director/chapter 2; and James Zanger, Greenleaf Nursery Co., director/chapter 3. Don Shadow, Shadow Nursery Inc., is immediate past president.

Award winners were announced by the **Professional Grounds Management Society** at its annual conference in St. Louis. Two panels of judges selected the winning entries for the grounds maintenance projects in commercial complexes, multifamily and community developments, institutions, residential landscapes and other projects.

In related news, PGMS reported that eight people have completed the Grounds Manager Certification program in 1994, which brings the total to 49 managers. The program involves approval by the certification committee, a closed-book examination and extensive study on professional topics.

A silver anniversary celebration of the Georgia Turfgrass Conference and Show, sponsored by the **Georgia Turfgrass Association**, attracted a record 1,500 participants. The group named its 1995-96 officers, who include: Mark Prinster, TruGreen/ChemLawn, president; Ken Morrow, Sod Atlanta, vice president; Jeff Dobbs, Zeneca Professional Products, secretary; Mark Esoda, Atlanta Country Club, treasurer; and Joe O'Donnell, Sunbelt Seeds Inc., past president. ■

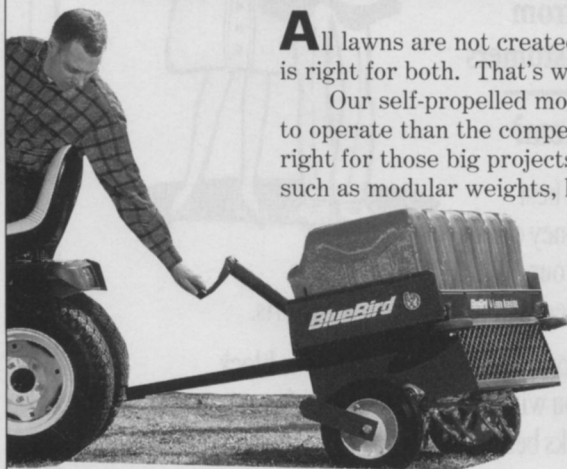
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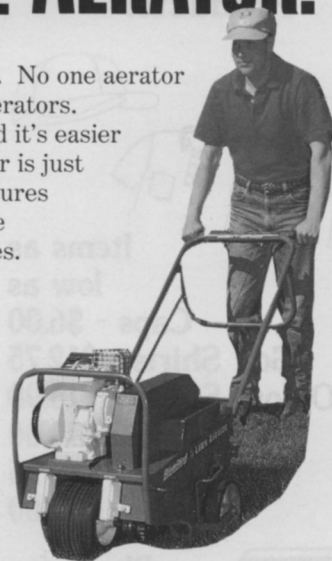
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Cool weather weed control is significantly enhanced by using Ester formulations. When it warms up, switch to Amine formulations. Riverdale offers you choices of chemical components in both Esters and Amines.

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- Dicamba-free
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- Amine formulation
- One product for all use sites
- Flexible rate ranges
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- Cool and warm season turf

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Irrigation News

IA Honors Healy Brothers, von Bernuth and Bos

ACHIEVEMENT was the word of the day as the Irrigation Association honored four people for their contributions to the industry at its November annual meeting in Atlanta.

IA honored Andy and Mark Healy of Senninger Inc. by presenting them the 1994 Industry Achievement award, which is given to members of the irrigation industry who have made outstanding contributions to its development.

A surprised Robert von Bernuth, head of the Agricultural Engineering Department of Michigan State University, accepted IA's Person of the Year award for contributions that promote good irrigation practices. The award honors individuals outside the irrigation industry.

Marinus Bos, head of research and publications with the International Institute for Land Reclamation in The Netherlands received the 1994 Crawford Reid Memorial award, presented to individuals outside the industry whose work has resulted in major achievements in irrigation outside the United States.

Consumers Respond to Water Saving Programs

The Georgia Water Wise Council reported that a recent water saving retrofit program in Houston, Texas, shows that people will use less water.

The research project, which sent conservation plumbing kits to some homeowners in the Houston area, showed that the group used approximately 18 percent less water than those without kits. In fact, the control group's water use rose slightly during the test period.

The do-it-yourself kits included low-flow 2.5 gpm showerheads, 2 gpm kitchen sink aerators and 2 gpm bathroom faucets. Homeowners installed the components themselves.

A follow-up survey indicated that more than 90 percent of the conservation group were satisfied with the new devices' performance.

Stetson Reclaims Landscape Water

A four-stage landscape water reclamation project designed to reclaim more than 2 million gallons per day for irrigation is in progress at Stetson University, DeLand, Fla. Stage 1 involved reclaiming 675,000 gallons of water per week to irrigate playing fields, college golf courses and some dormitory landscaping areas. Remaining stages will be phased in gradually.

Stage 2 will add an additional 702,000 gallons per week for some academic and residential building landscapes; Stage 3 will provide another 540,000 gallons per week; and Stage 4 will incorporate remaining areas of the 150-acre campus with 470,000 more gallons per week.

Stetson recently renovated its landscaping, adding more than 130 16-foot live oak trees and other shrubs. The University uses 14 wells for landscape watering and expects to save pump maintenance costs with the installation of new reclamation lines. The project is designed on a 1992 study done by Quentin L. Hampton Associates.

Video Illustrates Design, Maintenance Steps

Netafim Irrigation Inc., Fresno, Calif., has produced a free educational video that details the design, installation and maintenance of its Techline subsurface drip irrigation systems. "Advancing the Science of Irrigation" contains material for novices and professionals and is available by calling 209/498-6880.

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Speaking Out

For the "Little Guys"

Andy Hines' belief in the potential of small lawn service operations is a driving force in his life. He likes nothing better than to share his experiences with other owners, dive into the political process and make his own customers satisfied.

By Susan Gibson



Hines shares his views on small business.

TEDDY ROOSEVELT'S quote about the test of a man pretty much sums up Andy Hines' view of being in business for himself.

Roosevelt said: "It is not the critic who counts, not the one who points out how the strong man stumbled or how the doer of deeds might have done them better. The credit belongs to the man who is actually in the arena, whose face is marred with sweat and dust and blood; who strives valiantly; who errs and comes short again and again; who knows the great enthusiasms, the great devotions, and spends himself in a worthy cause; who, if he fails, at least fails daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat!"

Hines' arena is the lawn service business and his worthy cause, to which he devotes much enthusiasm and effort, is to the "little guys," the owners of small firms.

In fact, that's where Hines believes the future of the industry lies.

"I love the industry, and I believe the future is in the small guy, not in the big guys out there," he commented.

His experience working in large, medium and small lawn servicing firms has given him an interesting perspective on the subject. And his success at the helm

of his own lawn service business has made him realize the value of sharing knowledge, political clout and new technological breakthroughs with his peers.

FROM THE GROUND UP. The educational profile of a typical lawn service business owner usually doesn't involve five different majors at eight universities, but in Hines' case, it has produced real benefits. His education has been a pattern of pursuing interests at the same time that he was learning the industry from the ground level up.

This process, which has continued for more than 20 years, has given Hines the opportunity to put his education into action as owner of his own business.

Professors at Purdue University encouraged his interest in turf management, which he then pursued as a profession. Subsequent work in accounting and computing allowed him to write his own business accounting program, which his company uses today.

A long-time interest in political issues, recently fanned by a local pesticide controversy, currently drives him to study political science at the University of Georgia.

Hines entered the lawn service industry while a student, learning the everyday operations of lawn servicing and business. His move to Servicemaster's franchise development program in western and southeastern states gave him practical experience in business and a broader understanding of lawn service startup and technical needs.

He became acquainted with the Athens, Ga., market as an employee of Ed Nash in nearby Watkinsville,

then bought the company and took it in new directions that he had come to believe were critical to good business growth.

His first step in 1991 was to relocate the business in Athens and develop a new logo. He installed his customized computer accounting system. But the most decisive move was to restructure the company's existing accounts toward a prepayment system.

The key, he said, was to use a newly developed preemergent broadleaf herbicide that would enable him to avoid costly callbacks when broadleaf weeds emerged in the spring, while boosting his cash flow at the same time.

The last point is especially critical, because Hines based his business' survival on a healthy financial structure. "When we bought this business and analyzed the finances, we found some accounting errors—figures that were wrong," he explained. The puzzle took eight





months to straighten out and give Hines a clear picture of his costs.

At that point, he related, "We switched our analysis of the business to one that looked at the total of all our costs, from one that only measured cash flow."

Hines then instituted the prepayment program, one that uses a preemergent broadleaf herbicide from DowElanco as a mainstay of his business strategy. The product is a critical element in the way Hines runs his business, and his enthusiasm for it has grown to the point that he now conducts seminars with DowElanco representatives on the finer points of profiting from a prepayment program based on its use.

The herbicide, Hines said, "helped us solve our cash flow problems by reducing our customer acquisition costs, our advertising costs and our overall costs. We started out with a full-time promotion of the product. I bought the first load of it I could get."

The prepayment program offers customers a free fall application of the herbicide in exchange for discounted, early payment of services. For Hines, it's a win-win situation: he gets a healthy cash flow and a reduction of callbacks and his customers get effective weed control and less problems.

Shrub & Turf's customers have been persuaded by the logic of the program, for his company boasts 43 percent of its customers on the prepayment program. That's nearly double the prepayment average in similar firms, he noted.

The influx in ready cash has made a dramatic difference in the company's financial picture. "The cash generated by our prepayment program gave our banker confidence that we were headed in the right direction and that we were not a hand-to-mouth kind of operation," Hines explained. "It freed up more credit for us at the bank," which was an additional benefit.

Andy Hines installed a computer setup in his truck for fast, personalized service quotes. Photo credit: Dan McClure, McClure Studio, Athens, Ga.

SHRUB & TURF

HEADQUARTERS: Athens, Ga.

FOUNDED: 1978 by Nash in
Watkinsville, Ga.

OWNERS: Andy and Julia Hines

PRIMARY SERVICES: Fertilizer and weed management, tree and shrub care, disease control, flea and tick control, natural area weed control, mechanical services (aeration, seeding, small installations, pruning). Approximately 90 percent is residential; 10 percent is commercial.

EMPLOYEES: 3 1/2 year round, additional workers when needed

1994 SALES: \$380,000; about 60 percent is lawn care, 30 percent is tree and shrub care, 5 percent is natural area weed control and 5 percent is a mixture of other services.

PROJECTIONS: \$420,000 in 1995

EXECUTIVE SUMMARY

THE CONCEPT: Quality doesn't cost ... it pays.

FUTURE CHALLENGES: Setting up an ongoing business that sustains itself, keep service and business operations on the cutting edge, help lawn service industry grow to benefit all participants.

THE PRESIDENT

ANDY HINES

AGE: 43

FAMILY: Married to Julia, his partner and secretary-treasurer of the firm.

EDUCATION: Attended eight universities, majoring in biology, history, turf management and accounting; currently attending the University of Georgia with a major in political science. Also attended technical and training schools.

JOB HISTORY: Entered lawn care industry as an employee of Leisure Lawn in Dayton, Ohio; moved to Tulsa, Okla., worked for Oral Roberts University, then represented Servicemaster's franchise services in the areas west of Oklahoma; transferred from Tulsa to Servicemaster's southeastern U.S. territory; joined Ed Nash in 1990; purchased business in 1991 and moved it to Athens, Ga.

EQUITY HELD: 100%

TWO-WAY PARTNERSHIP. Financial health of the business is paramount for Hines, who makes financial projections and handles many elements of the business side. From March through September, he also actively markets his business, customizes lawn treatments, performs applications and experiments with new lawn care products.

His partner in business and life, Julia Hines, handles the administrative, personnel and accounting.

Julia's experience in the lawn service industry goes back to the days when they first met at Leisure Lawn in Dayton, Ohio, where she was involved in sales and lawn care applications. At one time, "I hired her to run the production trucks," Hines recalled. "She learned the business from the ground up too, by spraying and spreading."

Her unofficial title of "Boss of All Bosses" indicates the pecking order at Shrub & Tree. Officially, it's a small firm employing 3 1/2 full-time employees and several temporary workers for dethatching, aeration and other seasonal work. Like owners of other smaller com-

panies, the Hines try to provide ample benefits and good working conditions for their employees.

"I'm not a taskmaster," said Andy Hines. "We give our employees a flexible work schedule where we allocate the work to be done and

those bonuses directly for continuing education costs at the University of Georgia (based in Athens)."

The close-knit group at Shrub & Turf has "better stability than most other" companies, yet it can be thrown off balance when just one

person leaves for another job.

"If one employee leaves, it can cause problems for all of us" in terms of extra work and upset schedules, Hines noted.

Athens' 3.3 percent unemployment rate

makes it a challenge to find employees, and the small group makes compatibility of personalities an important priority in hiring. Once a person is hired, Hines sets a time frame that gives each person time to learn what he or she needs to do for the particular job.

QUALITY PAYS. One of the advantages of managing a small lawn

service firm is that the owner becomes closely involved in the customer base. Such is the case at Shrub & Tree. The customers know Hines and know what to expect of his company's service.

Its location in a smaller-sized southern city of approximately 100,000 people, the special requirements of "transition zone" lawn service and its size make the human factor a large element of Shrub & Tree's success.

"There are 15 combinations of turfgrass that grow in the Athens area," said Hines. "Everything that grows in the United States grows here." This can create some complexities when planning a treatment strategy, a dilemma Hines has solved by creating individual treatment plans for each customer.

The typical yearly schedule for Shrub & Turf includes seven lawn applications (including one lime application), six applications for trees and ornamentals, five applications for natural area weed control and six treatments for lawn fleas and tick infestations.

(continued on page 28)

'The cash generated by our prepayment program gave our banker confidence that we were headed in the right direction.'

give each person the responsibility to get it done on their own time."

Besides health insurance and training in general application techniques to help applicators receive the Georgia pesticide license, Shrub & Turf offers an educational benefit program based on the employees' productivity.

"We pay bonuses based on productivity and employees can use

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Cover Story

(continued from page 26)

"For example, I had one lawn with five different grasses — two kinds of zoysiagrass, bermudagrass, a fescue and centipedegrass — on different areas of the property," he explained. "I have to consider the size of the lawn and then design everything to hit the particular conditions just right."

This individualized service, which takes extra time and effort, pays off for Shrub & Turf. "I think our competitive edge in this market is the quality of our program and the turf we produce. That speaks for itself," he added.

On visits to properties, Hines takes a laptop computer, which he hooks up to an inkjet printer installed in the cab of his truck. Spreadsheet templates allow him to print out fast, professional quotes right on the spot.

The personal touch helps when mistakes are made, too. "We don't run away from problems," Hines explained. "We ask 'how can we fix it for you?' When I do business

Hines has built good relationships with his customers by providing personal service and designing custom lawn treatments.

with a customer and he has a problem, I am most efficient if I can view the problem from his eyes. I have to ask myself: 'How would I want it handled if I was him?'

"I believe that 95 percent of the time, the problem is my communication with the customers. They don't know what the problem is with their lawn — I do. I have to anticipate problems when I communicate with them," he said.

Big problems are easier to handle when the financial picture is steady,



Hines explained. "We had a problem that cost us about \$12,000. We went to the bank, then talked to the customers and asked how we could fix it. We'll go the extra mile to fix a customer's problem."

"In one case, we seeded and aerated a lawn for one of our turf and

shrub care customers. It helps that we have a steady record with the bank." This gave the company leeway to set things right.

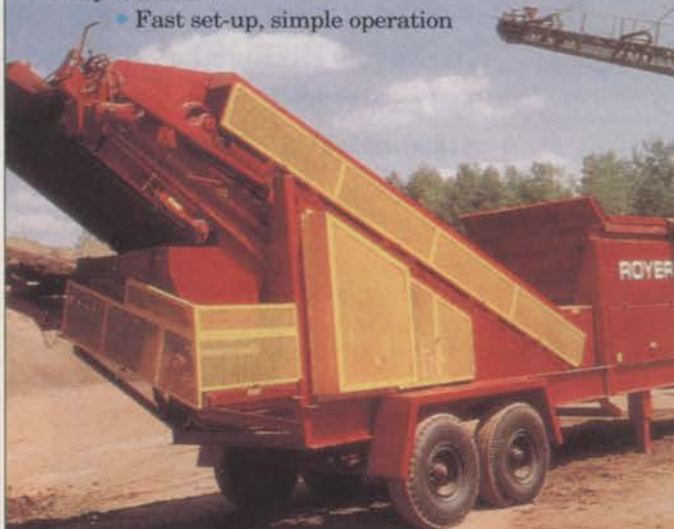
Hines realizes that problem-fixing must be balanced with the customer's perception of value.

(continued on page 30)

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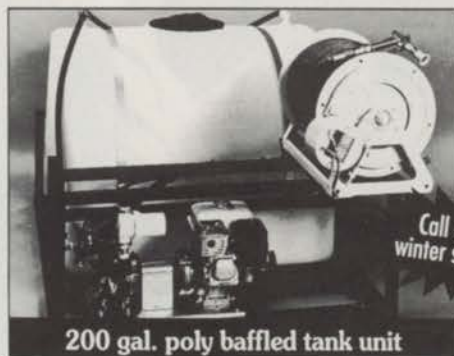
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USE READER SERVICE #88

Cover Story

(continued from page 28)

Service isn't free, he said, and he has to set a value to it. "If a customer doesn't pay for something, they won't value it."

One way of sustaining value in the customers' minds is regular communication. "We use our own computer-generated mailing lists and rely on direct mail targeted at neighborhoods for sales," Hines said.

"Most of our business is generated internally, by word of mouth. We support our customer base by giving each one a newsletter, which they get with every application. We also encourage referrals by offering certificates for 'turf bucks.'"

POLITICAL CONNECTION. Hines has been involved in the Professional Lawn Care Association of America since 1978 and has participated in its Day on the Hill and other programs for several years. A recent controversy about 2,4-D use in Athens brought the political issues home to him.

'I look at the big manufacturing companies as an extension of my own — they're my research and development department. Those companies have some of the best researchers and field people available to help. That's how you learn.'

"I realized that you can no longer be in this business without realizing the effects of the political side," he commented. "The 'little guys' need to be aware of these issues. It's no longer an agronomic issue, but a political issue. We have to address the public's perceptions of the value of pesticides."

Hines addresses those issues in a variety of ways. His company literature stresses safe and judicious pesticide use, while his foldout business card lists several facts about pesticide development, testing and

regulation. He also believes that using a preemergent broadleaf herbicide addresses his customers' concerns and demonstrates responsible use.

"It attacks that part of the pesticide problem. It prevents broadleaf weeds from becoming a problem and also eliminates the environmental criticism, because it reduces our pesticide use. It shows that we're concerned, too. Environmentalists can't say that we're not concerned."

He also actively urges his peers to become involved in programs

like PLCAA's Day on the Hill. "I want to make sure our industry is well represented before the regulatory issues get over our heads. We have to keep on top of these issues."

COMPETITIVE EDGE. Hines maintains that the small lawn service owner can compete with anyone, even the large firms, by taking advantages of available resources and trying new approaches. He talked about it in a recent interview.

Q. How can a prepayment program like yours help small lawn service businesses compete with the "big boys?"

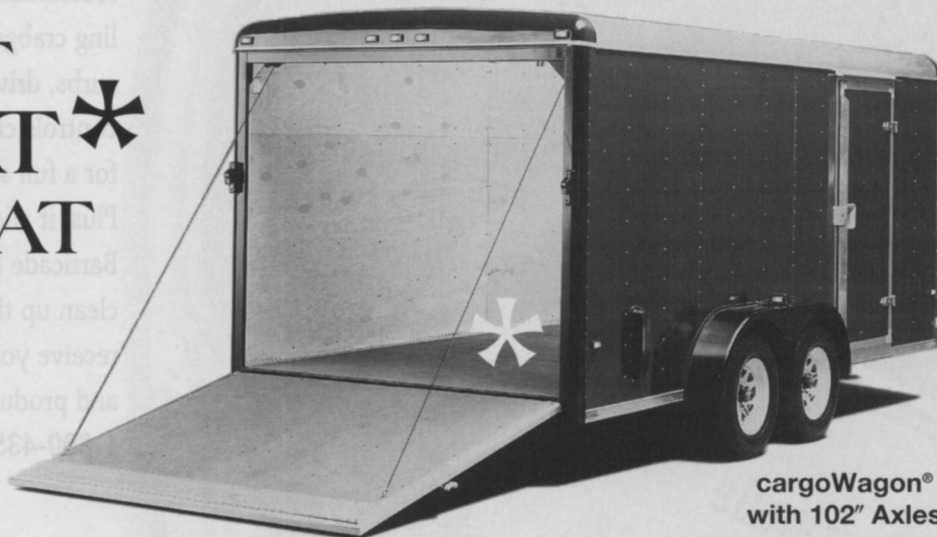
A. I understand the risks of getting into my own business — I've done it. The owners of small companies out there have to change the way they're thinking to be competitive.

I've found that this herbicide reduces total applications and has a more responsible method of application. It does cost more to treat, but owners have to look at all the costs — their service calls, replacing cus-

(continued on page 32)

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USE READER SERVICE #89

Cover Story

(continued from page 30)

tomers, opportunities lost and expenses like fertilizer. If a product can prevent weeds from becoming a problem and reduce the costs at the back end, the small guy can compete with the big guys and still produce results.

Q. Are products as effective today as they were in the past?

A. We had a weed control product we loved back in the 1970s. At the time it went off the market, we thought it was the best product we ever had. But the new products we have are even better.

There is an insecticide that I would like to start on a prepayment program, which I could apply in spring without having to apply further insecticides in summer, for instance. I like it because it would reduce pesticide use. I've been experimenting with fungicide applications and techniques to get extended care. And there are new and different kinds of fertilizers to use.

Q. How do you experiment with new lawn products?

A. I'll call and order a new product, then make some experimental applications. We have a local school, Athens Christian School, where we take care of their grounds. I charge them full commercial pricing, in exchange for scholarship credits to be used for a L.I.F.E. scholarship (Learning Is For Everyone).

We experiment with new products on the school grounds and at the same time, have been able to sponsor three children with full scholarships through the school. Soon, we will have five scholarship students through the program.

The whole process is an example of how positive our industry can be. Because of new technology and the willingness of the school to take a chance, several kids get to go all the way through the school.

When I have a customer with a problem that I think a new product can help, I'll ask if he's willing to pay for the new product in exchange for an experimental application. Together, we'll see how it works.

Q. How do you keep current with new product developments?

A. When I see a new product that interests me, I'll call the manufacturer to learn more about it. Lawn service owners think they can't compete with the big companies that have their own research departments. We can use the manufacturers and their research techniques to solve our problems. All we have to do is ask them and they'll help us get involved.

I look at the big manufacturing companies as an extension of my own — they're my research and development department. If I've got a question about a product, I'll call the researcher and he'll either give me an answer or direct me to

getting more help. Those companies have some of the best researchers and field people available to help. That's how you learn.

Q. Describe your relationship with your suppliers.

A. We all need good relationships with our suppliers. I don't want any customers to cut me because of a \$1 difference in the price of an application, and I treat my suppliers the same way. I've paid as much as five percent more to stay with a vendor. They need to be treated well — it works both ways. I try to build relationships with vendors as strong as my relationships with clients.

Q. What do you see in the future for Shrub & Turf?

A. I'll continue doing what I'm doing, but try to set up the business to sustain itself. I want to keep on the cutting edge and be a credit to the industry. I'd like to be a help, especially to the small guys. They need the courage to be different.

There are a number of fine competitors in Athens, and also some unethical ones who won't last too long. I'd like to help the good ones grow in Athens, because if they grow, I'll grow too. I want them to do well, because we'll all benefit. ■

The author is managing editor of Lawn & Landscape Maintenance magazine.

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INSECT CONTROL IN TURF & ORNAMENTALS — Dr. David Shetlar, the "Bug Doc" at The Ohio State University, will review the latest trends in chemical and biological controls.

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USE READER SERVICE #17

Landscape Architects & Designers: Who is Right For the Job?

IT'S A MATTER of degree. Both landscape architects and designers work with landscape contractors to prepare for installations. Both can develop planting plans and both can select plant material. While there are many similarities, there are some differences in qualifications and specialties.

In many cases, the difference is in the degree or amount of education. Sometimes, the difference applies to the course of college preparation. Other times, state or local requirements determine which professional a landscape contractor chooses.

Finally, the scope or size of the project, from modification of an existing landscape to the development of a master plan for a community, will determine if an architect or designer is the right person for the job.

LANDSCAPE ARCHITECTS. Generally, a landscape architect will earn an undergraduate or graduate degree in landscape architecture. Depending upon the school, said Ron Leighton, accreditation manager for the American Society of Landscape Architects, the program may be in the college of architecture or the college of fine arts.

An undergraduate degree results

Landscape designers and architects both create a project's overall concept.

in a bachelor of landscape architecture. Sally Schauman, a chair of ASLA's Council on Education, said such degrees typically require four or five years of study "in design, construction techniques, art, history, natural and social sciences."

Graduate programs are designed to confer a master's degree in three different situations. An individual who holds an undergraduate degree in a field other than landscape architecture can earn a Master of Landscape Architecture degree in about three years of full-time study.

A person with an undergraduate degree in landscape architecture would be able to complete the MLA in two years. Anyone who wishes to conduct research in landscape architecture, but does not seek to become a registered professional, might also complete the MLA degree in that time.

According to Leighton, there are 71 accredited programs in the United States representing 54 different institutions. At any time, he estimated, there are about 6,000 students in these programs with about 1,200 graduates a year. Some other schools do offer non-accredited programs in landscape architecture as well, he noted.

Registration of landscape architects is required in 45 states. Some state registration programs are designed to determine continuing proficiency, while others are merely "title acts" that require completion of requirements to call oneself a landscape architect.

While the individual requirements are determined by each state, a degree in landscape architecture,

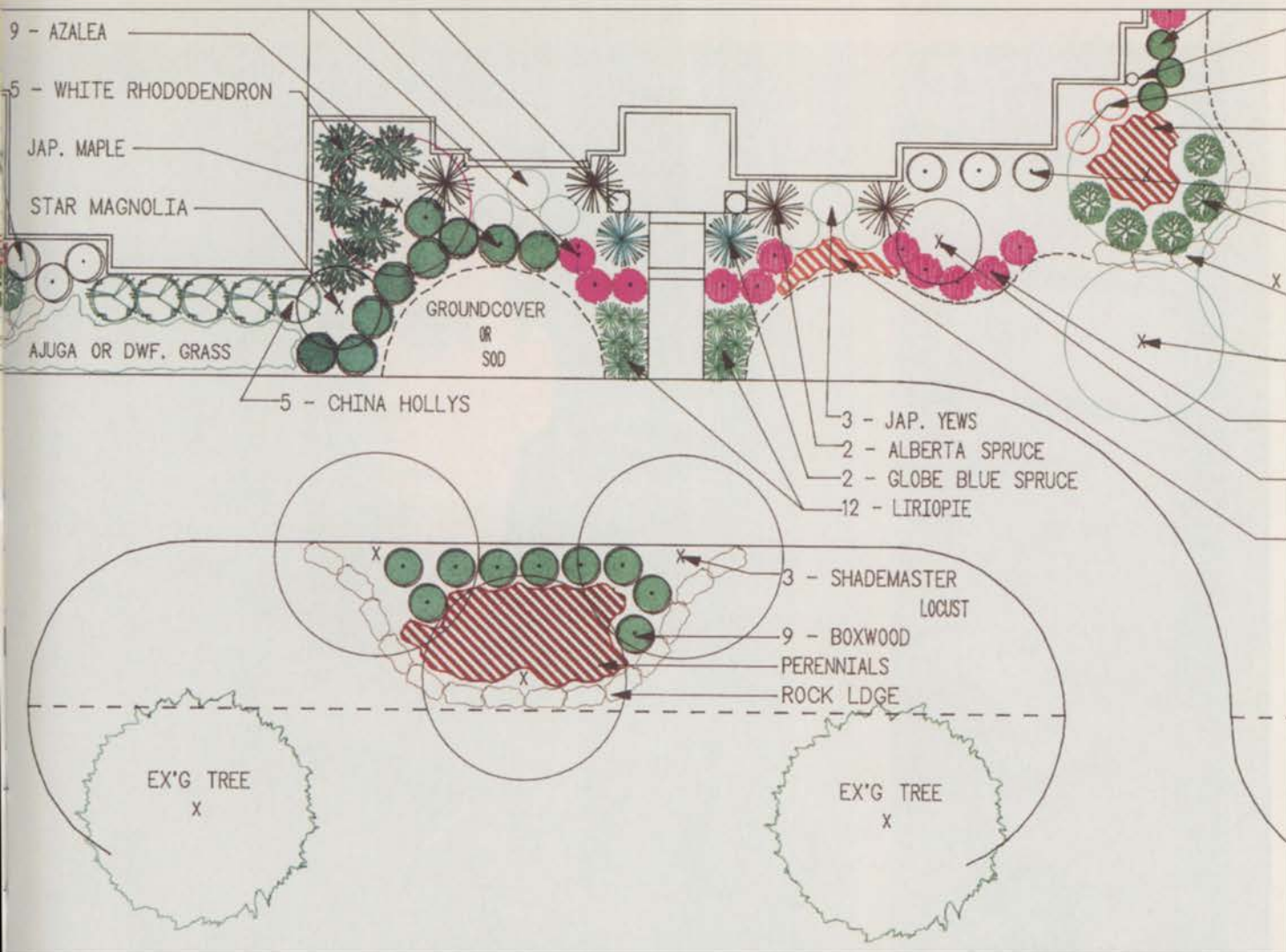
The roles and qualifications of landscape architects and designers have become blurred for many landscape contractors and their clients. However, there are differences in training, certification and expertise that should be considered.

By Barbara G. Howell



CHERRYS





This residential project combines elements of hard- and softscape for a total look.
Credit: Audrie Seeley & Co.

a number of years experience and the passing of an exam is generally required for registration.

The examination is produced and graded by the Council of Landscape Architects boards of registration, although some states also include a small section on regulations or local plant material. In some states, persons without a degree but with considerable experience may take the exam, and upon passing, become registered landscape architects.

ASLA is the professional organization that seeks "the advancement of knowledge, education and skill in the arts and science of landscape architecture as an instrument of service in the public welfare." The group has been in existence since 1916.

The friction which sometimes exists between landscape architects and landscape designers often stems from laws that create registration for landscape architects in some states.

Kibbe Turner, executive director of the Association of Profes-

sional Landscape Designers, said the definitions in state statutes requiring registration of landscape architects often preclude the existence of landscape designers.

By defining what a landscape architect does and requiring registration and completion of certain mandates before using the name "landscape architect," the state negates the existence of the landscape designer and ability of him or her to practice.

Turner agreed it is rather like a state licensing a doctor, noting in the description of his work that a doctor can dispense medication and take temperatures. Such a definition might prevent or inhibit a nurse from doing those same things.

DESIGNERS' FOCUS. The course of study chosen by a landscape architect and landscape designer is often different, Turner noted. "Designers are horticulturally oriented. Landscape architects tend to be oriented more toward hardscape projects (such as entranceways, streets and bridges)."

For an example, Turner used a community wetlands project. The landscape architect designed the walkway for the public to view the wetlands. The landscape designer did the plant layout and worked with the architect to set the water level. A landscape contractor might have actually installed the plant material or a landscape designer might have overseen the installation by a team of volunteers and city workers.

A landscape designer may have a two- or four-year degree or may have considerable experience in lieu of the degree. Turner said there are 170 schools that offer a variety of landscape design programs in either the colleges of architecture or horticulture.

The APLD is only about six years old. It was established to provide a certification program (not mandated by states), to define the role of designers particularly in relation to landscape architects and to provide continuing education.

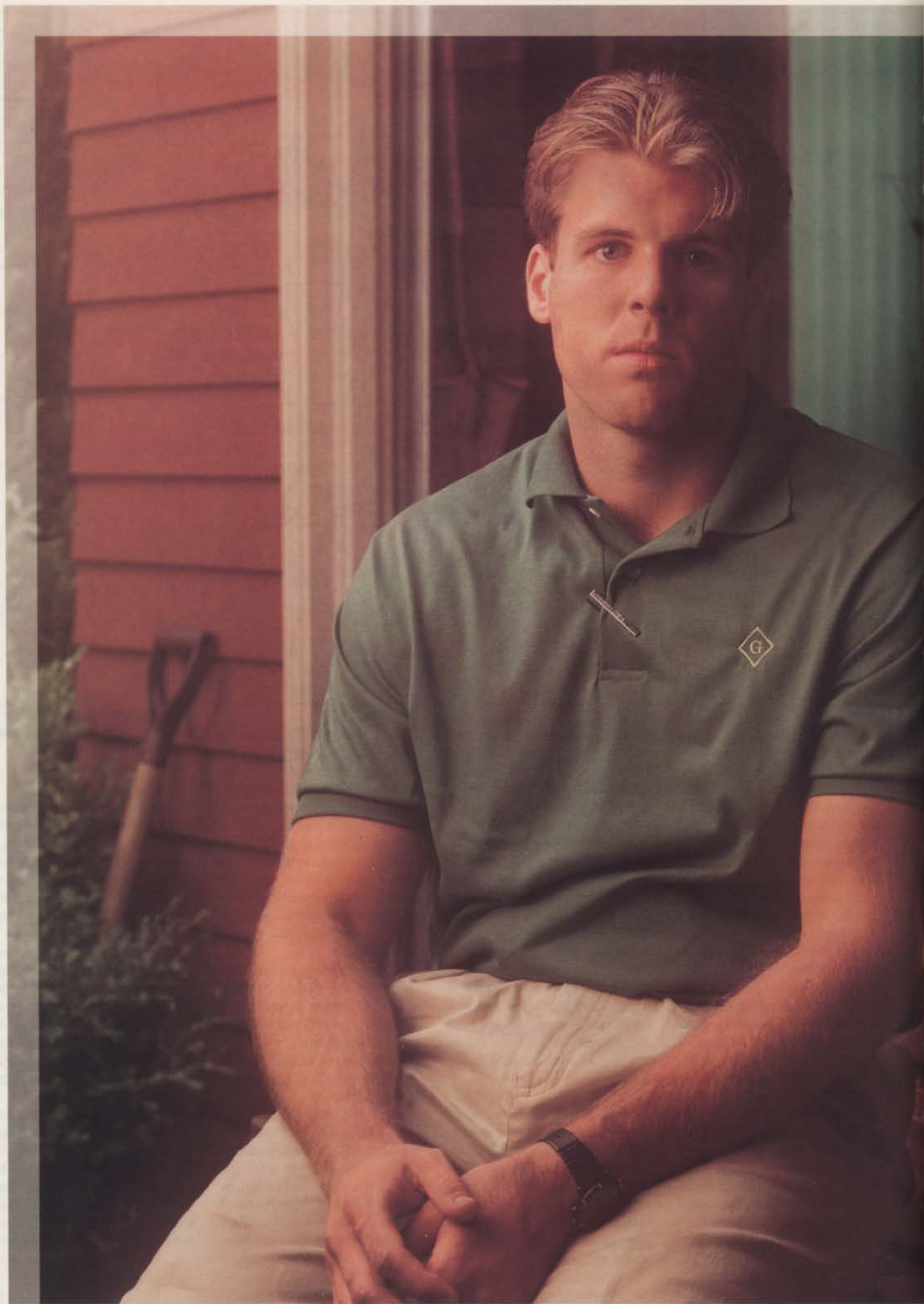
To achieve certification from the APLD, a designer must have

completed a minimum number of hours in horticulture or have sufficient experience to acquire such knowledge. The designer must then submit drawings for review, as well as design intention statements, before and after photographs and letters of recommendation.

Turner estimated there are about five to 10 times as many landscape designers as landscape architects, but people often are unaware of their existence or the best ways to use their services. Many landscape designers, he said, work for landscape contractors or at retail garden centers.

Sometimes the relationship and flow is clear. According to Turner, an engineer might determine the number of houses that could be built in a development according to city codes and percolation tests. He or she might determine where a road should be located. An archi-

(continued on page 38)





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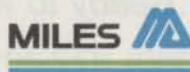
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Landscape Architects

(continued from page 35)

tect would design the houses and community buildings.

A landscape architect, then, would develop a master plan which would lay out the aesthetic placement of roads, the location of play areas for children, types of road plantings and the specifications for cobblestones to be used around bus stops. A landscape designer would create planting plans for the entranceways and other areas and select plant material. A landscape contractor then installs and possibly maintains the plant materials.

There is considerable overlap in what landscape architects and designers do, sources agree, depending on the size, type and complexity of the project.

STAMPS AND CODES. Another factor that might determine the use of a landscape architect or landscape designer might be the existence of local regulations.

In some communities, for example, a development must have a

master plan, most often completed by the landscape architect, which specifies land use and also addresses draining and grading. A master plan may also have to meet specific requirements for green spaces and parking spaces.

Often, local ordinances require the stamping or certification of land-use plans or designs by a registered landscape architect.

In many cases, Leighton noted, landscape architects also must do work on projects that affect the public's "health, safety and welfare," such as walkways, retaining walls and structures.

The additional training and rec-

'Experience and talent can make either person successful on the job. A good, talented designer can do most everything. If someone has the stamps and can pass a test, he still may not be able to design his way out of a paper bag. It's not determined by what he is or what he does, but how good he is at the work.'

ognition of public needs might also allow a landscape architect to have employment with agencies that oversee land planning and devel-

opment. Landscape architects work for the U.S. Forest Service, National Park Service, Department of Transportation and U.S. Army Corps of Engineers. It was a landscape architect who designed Central Park in New York City and did the preliminary parking and traffic pattern studies for the new Jacobs Field ballpark in Cleveland, Ohio, Leighton noted.

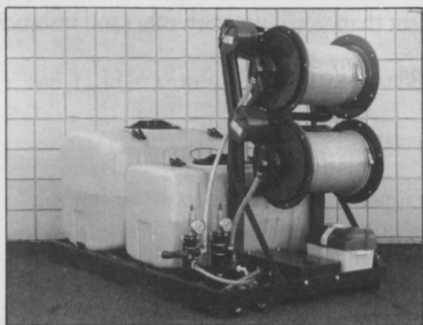
ONE-STOP SHOPS. Many design and build companies provide the services of a landscape architect, landscape designer and landscape contractor. These one-stop shops offer customers — residential or commercial — planning, design, building and planting services.

One such one-stop shop is Leid's Nursery Co. near Milwaukee, Wis. Tom Leid said his company employs both landscape architects and designers. The differences, he noted, are in the degree of intensity and diversity in the project.

"The landscape designer is not less skilled," explained Leid. "He is just trained to handle projects at a faster pace — the less complex

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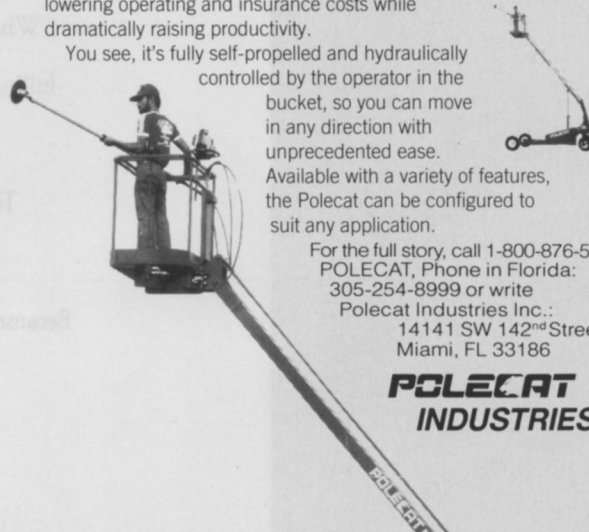
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problems. The landscape architect handles anything outside the walls of a house or commercial building and interface between the two. He works with the engineering, site analysis, grading and drainage, utilities as well as the softscape elements. He is trained to do a broader, more complex type of function."

A landscape designer, on the other hand, might deal with the revision of an existing landscape or landscapes that require no hardscape. Audrie Seeley, president of Audrie Seeley & Co., Kansas City, Mo., said her company does not use an architect, but has three landscape designers on the payroll largely because the firm's work involves existing buildings.

She stressed the need for common sense, creativity and good communication skills along with design training. Seeley added that few of the communities she works in require stamped plans.

Leid noted that in Wisconsin, there is only the beginning of a naming law that requires landscape architects to register before they

call themselves by that title.

Projects in his firm often go from landscape architect to landscape designers, because the designer will be the "point person" who has a continuing relationship with the customer. He may oversee the project from start to finish.

That is an important element for customer satisfaction, which is of prime importance to Lied. "We look for quality in the eyes of the client. We deal 100 percent with meeting the requirements of the client and making certain that it is a pleasurable experience from beginning to end. No one in our company is permitted to say to the client, 'If I lived here, this is what I would do.'"

The advantage of being a one-stop shop is clear to Lied. "Our specialty is understanding the full range of exterior environment and being a one-stop center for clients who want something done, with sensitivity to their needs and wants, and who want to have it followed through from beginning to end. Listening, performing and getting results right for our clients in an

enjoyable fashion is the kind of work we do best."

RESULTS COUNT. Rick Doesburg, vice president of Thornton Gardens near Cincinnati, Ohio, is himself a registered landscape architect, one of three in his firm. The company also has three landscape designers on staff. Doesburg maintains the line between landscape architect and landscape designer is more than just blurred.

"Experience and talent can make either person successful at the work," Doesburg said. "A good, talented designer can do most everything. If someone has the stamps and can pass a test, he still may not be able to design his way out of a paper bag. It's not determined by what he is or what he does, but how good he is on the job."

Doesburg's company does not differentiate between the people who work on particular types of jobs. He said the company pays more attention to what individuals do well and assigns the tasks according to talent and experience.

"The key," he said, "is that you


do what you're good at doing. I just wouldn't be good at designing the inner harbor in Baltimore or an entire city block. Other people may be good with that type of large-scale work and not know a juniper from a taxus. If you're not good at something, know enough to bring in people who are.

"A good, true designer, regardless of what he calls himself, is one who has the ability to work with all the elements in his design," Doesburg explained. "If it's an entranceway, he thinks about using the space, getting the maximum impact, blending both the hardscape and the softscape, designing it so that it can be built, getting utilities to it, adding lighting and signs, working with a theme and designing the community areas like pools and playgrounds.

"Good designs that have worked in the past are the marks to look for," Doesburg concluded.

The author is an industry consultant with Key Solutions, a division of Iris Sales & Solutions Inc., Rocky River, Ohio.

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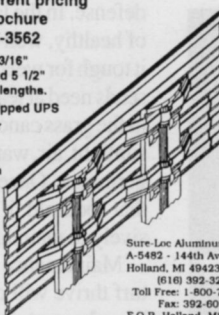


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
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Turf and Ornamentals: Winning the War on Weeds

WEEDS ARE sneaky opportunists, the nasty nemesis of lawn and landscape professionals. They are quick to take advantage of any conditions that put the desired plants under stress, as well as any lapse in normal lawn and landscape management practices.

PREPARING FOR BATTLE. The first step in weed control is to identify the type of desired plants best suited to the site and encourage their development and continued growth. Then, unwanted invaders can be identified and a plan formulated to eliminate them—or at least to reduce their numbers.

Turfgrasses generally fall into two categories. The cool-season grasses thrive in the spring and fall, when temperatures range between 60 and 75 degrees F, grow slowly or go dormant in the summer and hold some color into the winter. Warm-season grasses grow most actively during the heat of summer, especially with temperatures in the 80 to 95 degrees range, and turn brown when temperatures cool.

Cool-season grasses thrive primarily in the north. Bluegrass is the dominant turf above a “line” that runs approximately along the northern borders of North Carolina, Tennessee, Arkansas, Oklahoma and Texas, through New Mexico and Arizona and across lower California to the Pacific Ocean.

South of this dividing line, bermudagrass is the dominant turf choice. Wavering between these two regions is the transition zone, where weather conditions put either category of grasses to the test.

Tiny micro-climates may appear in “pockets” within these regions which are better adapted to the

Preparation for spring's onslaught of weeds starts with a battle plan based on good timing, the right products and proper maintenance practices. It doesn't hurt to be flexible to accommodate nature's usual weather surprises.

by Steve and Suz Trusty



Timing is critical for preemergent controls to be effective.



Postemergent controls target weeds threatening to invade flower beds.

grasses of the opposite region, or which are challenging to all grasses and therefore must be treated as a transition zone.

Temperature isn't the only environmental qualifier. Temperature fluctuations, humidity levels, annual moisture and moisture patterns, elevation and soil type all affect turfgrass choice. Throw in the human element—urban, rural or suburban conditions, specialized use and aesthetic requirements—and the choices become even more complex for the contractor.

Improved varieties of turfgrasses also broaden the range of environmental adaptability and practical uses for each grass type. To further deter weed invasion, strengthen the resistance of turf areas to insect or disease attacks and detrimental weather conditions through a diversity of characteristics. Mix multiple varieties of a single grass type or use several cultivars of two or more grasses in the lawn.

BUILDING A DEFENSE. As with any battle—and fighting weeds is a battle—the best offense is a good defense. In the lawn, a dense stand of healthy, well-rooted turf makes it tough for weeds to invade. Weed seeds need at least a small opening in the grass canopy to gain enough sunlight, air, water and nutrients to germinate. Once a weed plant gains that foothold, it will fight aggressively to maintain its advantage.

Maintenance practices that help turf thrive will discourage weeds. Mow lawns regularly, using a well-sharpened mower blade, removing no more than one-third of the leaf blade in any one mowing. Supply adequate and deep irrigation to en-

(continued on page 42)

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courage deep rooting. Aerate to relieve soil compaction and open up the soil for air, water and nutrients. Remove heavy layers of thatch. Use integrated pest management techniques to monitor and control insect and disease problems.

Open soil in flower beds or around landscape plantings seems to invite weeds. A thick covering of healthy desired plants leaves few openings for weed seeds and provides tough competition for the few tender seedlings that may appear. Shielding bare spots with landscape fabric, mulch or both helps ward off weed seed establishment and germination.

If weeds do appear, determine why this has occurred and what can be done through maintenance practices to lessen their current impact and limit their opportunities for continued invasion.

KNOW YOUR ENEMY. By definition, a weed is a plant out of place. Some plants deemed weeds seem to have no other purpose than to appear, unwanted, in the most inconvenient spots. Other plants are deemed desirable, except in certain situations.

Bermudagrass invading a bluegrass lawn, perennial ryegrass fighting for space in bermudagrass turf and any lawn grass invading the flowerbeds earn the title of "weed."

Weed seeds are found in most soils. These pesky seeds can lie dormant for years waiting for just the right combination of circumstances to spur germination. Weed seeds also are added to the site regularly — blown in by the wind, carried in by birds or small seed-eating mammals, dropped from the bottoms of shoes and even spread by the lawn and landscape equipment used in regular maintenance procedures.

Some of these seeds sprout and grow; some germinate, but then wither and die; others work their way into the soil to wait for more appropriate conditions.

Weeds fall into two main categories. The grassy type, or monocotyledonous weeds, have only one seed cotyledon (young leaf) present when they emerge from the soil. These plants have rounded hollow stems with joints (nodes) and parallel veins running through their true leaves. With broadleaf weeds, or

Troublesome Weeds in Turf and Ornamentals

ANNUAL WEEDS

Grassy Weeds	Witchgrass	Pigweed
Annual bluegrass		Prostrate knotweed
Barnyard grass	Broadleaf Weeds	Prostrate spurge
Crabgrass	Black medic	Puncturevine
Downy brome	Carpetweed	Shepherdspurse
Foxtail	Common chickweed	Speedwell
Goosegrass	Common purslane	Spotted spurge
Sandbur	Henbit	Violets
Stink grass	Mallow	Yellow woodsorrel

PERENNIAL WEEDS

Grassy Weeds	Timothy	Canada thistle
Bentgrass	Wild garlic	Creeping bellflower
Bermudagrass	Wild onion	Dandelion
Dallisgrass	Yellow nutsedge	Ground ivy
Nimblewill	Zoysia	Mouse-ear chickweed
Quackgrass	Broadleaf Weeds	Speedwell
Smooth brome	Bindweed	Violets
Tall fescue	Broadleaf plantain	White clover

COOL-SEASON LAWN GRASSES

Kentucky bluegrass	bentgrasses
fine fescues	improved turf-type tall fescues
improved perennial ryegrasses	

WARM-SEASON LAWN GRASSES

bermudagrass	zoysia
carpetgrass	centipedegrass
St. Augustine	bahiagrass
buffalograss	

dicotyledonous plants, two young leaves break through the soil. The true leaves of these plants have a net-like system of veins.

The plants that complete their life cycles in only one growing season are classified as annuals; in two growing seasons, as biennials; in three or more growing seasons, as perennials.

Annual weeds that start their life cycle in the spring and complete it in the fall generally are classified as summer annuals.

Those weeds that begin their life cycle in the fall and complete it the following spring are classified as winter annuals.

Find a good reference source to confirm weed identification and

"key out" unusual plants. Check with your herbicide supplier, professional associations, state department of agriculture or state univer-

sity extension program weed specialists for publications on weed identification.

The best reference sources show photos of the mature weeds, the seedling and the seed. They have vegetative drawings of key features to aid in identification and will include text describing each weed's cycle of growth

and its preferred environment.

Don't be concerned if the poster, or book has an older publication date; although control recommendations will have changed, the weeds themselves remain the same.

ON THE ATTACK. Once you've identified the weed and determined its growth cycle, you're ready to develop a control strategy.

Determine the extent of the weed problem in relation to the site. A small patch of crabgrass in the far corner of a home lawn may be acceptable. Three dandelions in the entryway flower bed of a major corporation's headquarters are not.

Decide how quickly visible results should be achieved. Pull or spot-treat those dandelions right away. Schedule the affected portion of the home lawn for preemergence control measures next season, as part of a complete yearly maintenance program.

When immediate results aren't necessary, keep some weeds under control or eliminate them by cultural practices. Some of the fleshy, broadleaf weeds in a relatively dense lawn will decline gradually when mowed off again and again, allowing the thickening grass to regain control of the area.

Creeping broadleaf plants that thrive in hot, dry, compacted conditions sometimes can be phased out with aeration, adequate irrigation and the added mulching effect of grass cycling. Weeds that prefer low nitrogen levels can be discouraged by a regular fertilization program.

Removing weeds by digging is successful only as a long-term control if all the underground portions of the plant, such as rhizomes, thickened tap roots or tubers (which are capable of generating new growth), are removed. Rhizomes of perennial weeds may reach down a foot beyond the base of the plant.

Weigh the costs and anticipated results of immediate control measures. For example, postemergence controls for grassy annual weeds, such as crabgrass, may yellow the desirable turfgrasses temporarily.

While young weeds may be controlled with a single application, mature crabgrass may require more than one application of the control product at specified intervals. If the crabgrass has already dropped viable seeds, preemergence controls probably will be necessary for the next season's control. The contractor has to consider: Does the short-term improvement in turf quality equal the cost and time involved?

Use herbicide controls wisely. Understand the proper handling procedures for safety reasons — and to remain in compliance with all laws and ordinances pertaining to prod-

The risk of grass injury increases with rising air temperatures in summer weed control applications.

uct mixing, use, disposal, notification and posting.

Learn the product's effectiveness on each targeted weed at various growth stages, as well as its effect on the turf and landscape plants under different environmental conditions and at specific application rates.

Just as weeds are more susceptible to controls at certain stages of development, desirable plants have varying tolerance to the control materials at different stages of their growth cycles. The risk of grass injury increases with rising air temperatures in summer weed control applications. Many postemergence control product labels warn against application when temperatures exceed the 80- to 90-degree range.

PREEMERGENT OPTIONS. These products eliminate weeds as they germinate and are considered preventive treatments. They are applied evenly over the area to be treated prior to the anticipated germination of the targeted weeds. Timing is critical, because products have differing lengths of effec-

tiveness and enough of the active material must be in place when the weeds begin to germinate to be effective. As a rule, rainfall or a light watering are needed within 7-

When several weeds are targeted with different germination periods, or when multiple areas must be treated within a tight time span, split applications may extend the

weeds and the growth cycles of the desired plants.

POSTEMERGENT TECHNIQUES. Postemergence controls are applied to actively growing weeds. They are classified as selective (reacting primarily on certain types of plants) or non-selective (reacting with a broad range of plants in several different categories).

To be effective, postemergence controls must be absorbed by the plant, either entering through the leaf cuticle or through the root system. During extremely hot and dry weather, the plant leaf loses hydration, often protecting itself by partially blocking pore openings to limit further moisture escape.

This makes the uptake of any material through the leaf more difficult. When soil moisture content is low, the plant's root system may not take up the chemical, or only absorb minute amounts.

Selective postemergence controls often use a combination of active ingredients to provide more effective control than a single herbicide. Read product labels to de-

Some of the fleshy, broadleaf weeds in a relatively dense lawn will decline gradually when mowed off again and again, allowing the thickening grass to regain control of the area.

to 10-days of application to activate the material properly.

Weed germination is determined primarily by weather patterns that bring about optimum conditions. For example, crabgrass requires spring soil temperatures of 50 degrees at a 2-inch depth for germination, while summer annual goosegrass needs germination temperatures of 60- to 65-degrees.

effective weed control period.

The first application of preemergence control for summer annuals is made in the early spring, just prior to the anticipated germination of the earliest targeted weed. The first application of preemergence weed control for winter annuals is made in the early fall.

The exact timing and product selected depend on the targeted

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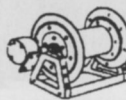
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termine exactly what ingredients are used and determine the best choice in the situation.

Most postemergence controls require repeat applications for effective control of more mature or more persistent weeds. Repeat applications allow the herbicide to attack the weeds while they are still in a weakened state from the previous application and thus, more susceptible to control.

With all herbicides, follow the label directions precisely. The label reflects the results of product testing and research to determine the most effective rates, application methods and timing intervals for the material.

Apply postemergence control products when weeds are actively growing to get the best results. Choose a day with little or no wind, a few days after a good rain or irrigation of the area.

Postemergence controls require a period without water after application—usually 12 to 24 hours—to allow the material to be absorbed adequately by the weeds. Obviously, young, tender weeds are

easier to control than tougher, more mature ones. If possible, plan postemergence weed control for a few days after the lawn has been mowed to give good access to the weeds' leaf surfaces and to give the material time to be absorbed before the next mowing.

Postemergence applications made when young weeds first appear act quickly and can prevent major infestations from developing. Fall applications of postemergence controls on persistent perennial broadleaf weeds in cool-season turf also produce good results.

Non-selective postemergence controls are used for spot treating a few persistent weeds scattered in highly visible sites; for treating fast-growing weeds whose top growth quickly rises above the level of the desirable turf or landscape plants; and for eliminating all vegetative growth from an area prior to putting in the desired plantings.

Because non-selective controls can enter even mature woody plants through the leaves or exposed green tissue in the trunk, branches or stems, take extreme care when us-

Repeat applications allow the herbicide to attack the weeds while they are still in a weakened state from the previous application and thus, more susceptible to control.

ing these products around the desirable plantings.

BATTLE PLAN GLITCHES. Even the proper control product applied at the correct rate at the right time can have poor results under certain conditions. Prolonged periods of extremely dry weather can slow the

actions of certain products. Heavy rains or prolonged wet periods can wash control products from the weed leaf surface or beyond the root zone. Temperature extremes can slow weed growth and hamper the absorption of postemergence controls.

Unusually late warm up in the spring—for summer annual weeds—or prolonged warmth in the late fall—for winter annual weeds—can postpone the weed's emergence beyond the effective life of preemergence controls.

There's no magic formula or timetable for effective weed control. Each season poses its own set of green invaders and unique conditions.

To stay ahead in the ongoing war, lawn and landscape professionals need excellent maintenance programs, a thorough understanding of the enemy and a flexible battle plan.

The authors are partners in Trusty & Associates, Council Bluffs, Iowa, and are consultants to the horticultural trade.

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Estimating Mowing Costs for Profit

AS A POWERFUL presence in the Akron, Ohio region, R.B. Stout Inc. is a full service landscape company that's been around for 44 years. And its founder is still involved in daily operations.

Stout has come up with some new management and accounting techniques that have boosted productivity even further as the company expands in the 1990s.

Terry Stout, son of the founder, now presides over the company, and he's adopted a somewhat hands-off attitude. He's pleased about the new hierarchies that he's set up, in which private initiative generates teamwork and excitement.

Chains of command involving supervisors, foremen and laborers have achieved unprecedented profitability, according to Jerry Kusar, corporate controller at the company.

Estimating mowing costs — a function of the grounds maintenance division (the other divisions are landscape construction; lawn care, tree and shrub; and retail), boils down to an "X" factor representing an hourly rate the company charges for an overall maintenance service, much as it does in other lawn maintenance organizations.

The maintenance service consists not just of mowing but also mulching, edging, pruning, planting flowers and lawn fertilizations.

The "X" figure accounts for overhead and a slew of other variables. When asked to share his "X," Kusar is understandably reticent.

Every maintenance organization, after all, must come up with its own. Or it would have no value.

There's no magic formula that works for every company, but there are ways to make the numbers balance for profit. Here's how one successful contractor works his costs into the overall business picture.

By Bob Gitlin

ORGANIZATION COUNTS. The brunt of the mowing force is the group of 36 48-inch walk-behind mowers, said Frank Pugliese, op-

erations manager for the grounds maintenance division. He sells all maintenance work, walking each new job he lands as an indication of

his attention to detail.

Stout also uses five 72-inch riders, 20 string trimmers, 20 backpack blowers, 20 power edgers, 18 14-hp self-propelled blowers, three 11-hp blowers, a few 8-hp blowers and several types of hand tools like rakes and shovels.

"We've got 14 crews that are strictly mowing crews," Pugliese said, "ranging in size from two to four people." His division employs up to 60 in peak season.

Small crews work better than large ones, he stressed.

"With a lot of people on the job, it's hard to keep track of what everyone is doing. We check on everybody constantly — from myself on down. I have three supervisors that report back to me; they're in charge of the crews. Each crew has its own foreman who's responsible to the supervisor. In this chain of command, everyone has a job. There's an assistant foreman on each crew if the regular foreman is sick or out, and there are technicians (fix-it specialists) on every crew," Pugliese explained.

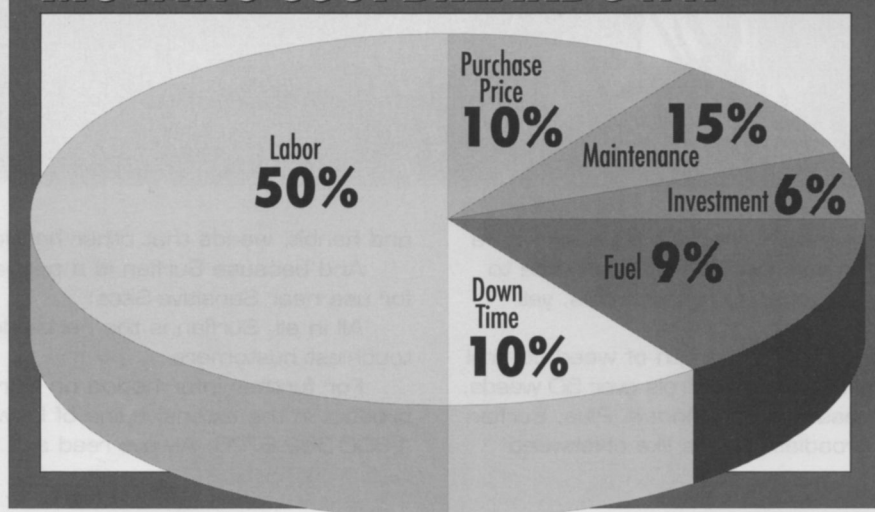
ACCOUNTABILITY.

Pugliese feels the fewer people per crew, the more accountability to expect per man.

"We have properties we could finish with 12 guys in one day, but I'd rather have three people do it in three days," Pugliese said. "They move in a more logical progression. Things get finished. You don't have odds and ends that get missed. And where there are too many people in one place, they tend to get to the point where they're not doing anything. They're acting like

(continued on page 48)

MOWING COST BREAKDOWN



Source: University of Guelph

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USE READER SERVICE #58



Estimating Mowing Costs

(continued from page 46)

they're hard at work."

Another boost for mowing productivity is the direct supervisory role of the foreman, who works alongside the operators, keeping each job moving efficiently, Pugliese added.

"You get a dozen guys out there and two or three are going to stand around and point at something." His way works.

"We'll add another crew next year; we've been adding a new one every year," he noted.

At Stout, there are separate commercial and residential crews. A man on one type of crew will remain on that crew throughout the season. The next year, for cross-training, he might switch over to the other type of crew.

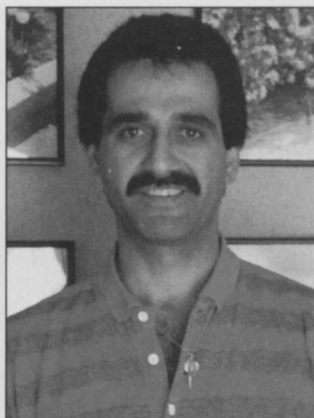
Stout's main source of income are the fast-food franchises in the region, as well as condominiums and other commercial accounts, which usually are charged approximately \$500 or \$600 per month for total maintenance.



Kusar directs Stout's finances.

"We push communication," Pugliese said. "All my supervisors have cellular phones and pagers on them. All crew foremen also carry a pager. If we have a problem and a customer calls in and I'm not here, the secretary knows it's crew number 59 and she can get in touch with the relevant supervisor. Everything is handled instantly."

Because many accounts involve crews on site only once a week, redressing customer grievances commonly means sending a man,



Pugliese manages operations.

or men, out that evening to put things right.

"Otherwise," Pugliese said, "the whole week lapses, and the customer is not happy. He feels he's being pushed aside. We return all phone calls within 24 hours."

Everything is logged.

"We measure everything we do on a daily, job-by-job basis," Pugliese explained. "We know if we're performing adequately, within the bounds we've set."

"Each crew has production goals

and quotas. It has worked well and has made it easier for us to make decisions about job tasking and what to charge. There's still a lot of gut instinct, but now it's offset by hard knowledge of customer history."

PERSONALIZED ATTENTION. Personally visiting all accounts and walking all new jobs ("no matter how big or small") isn't done just to curry favor. There are more variables to calculating mowing job times and billings than may meet the eye.

Pugliese knows better than to think that a square-footage formula is the answer.

"My dad was with the company 40 years, and I've been here, on and off, since I was a kid. What I've learned is that a 100,000-square-foot property can take anywhere from two hours to all day depending on how it's laid out. Some big chemical companies went into maintenance and thought mowing was like spraying—everything by the square foot.

"It doesn't work that way. We've

(continued on page 50)

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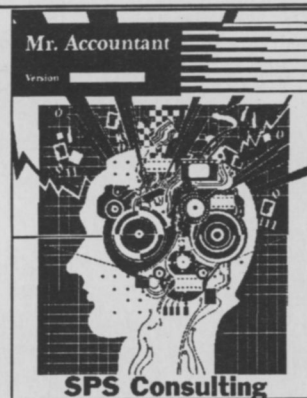
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USE READER SERVICE #59

Estimating Mowing Costs

(continued from page 48)

got 250,000-square-foot properties we spend three days on, and other properties three times that size that we do in one day."

One reason for the diligent measuring is, in fact, chemical costs. Stout does its own chemical applications, with its own spray trucks, although more and more fertilizer applications are going down dry these days. "The dry product stays on the lawn longer, although for weed control, the liquid still does the job better," said Pugliese.

Mowers are used two years, then Stout gets rid of them. Blades are changed twice a week during mowing season.

QUALITY IS KEY. "Quality is our main objective," stated Kusar. "You can't stay in business without doing that. We've come a long way in that area. We rarely lose customers. Places we do lose because of pricing — 90 percent of them come back. You can tell the quality we do just by looking at it."

R.B. Stout Inc. uses this price guideline formula to set its standard mowing costs. The production and cost-monitoring system allows Stout to check each crew's daily productivity, which gives managers a clear picture of actual expenses. Stout also prepares a detailed profile of each customer, which tracks

applications, labor costs and scheduled visits for all lawn care, tree and shrub services and maintenance work.

The sheet includes data on square footage, contract amount and extra services provided. Stout's managers can then calculate yearly bidding rates using the following formula:

1993 PERFORMANCE:

CURRENT OVERHEAD RATE: 45%

CURRENT PROFIT GOAL: 10%

CURRENT LABOR RATE: \$ = x

$$\text{BID RATE} = \$x \div 1 - (.45 + .10) = \$ \text{RATE/HOUR}$$

$$\text{1994 BID RATE} = \$x + .41^* \div 1 - (.45 + .10) = \$ \text{RATE/HOUR}$$

* Assumes a 4 percent raise

Source: R.B. Stout Inc.

That concern for quality applies to equipment. Mowers are fitted with optional, more expensive engines than the factory models, as a measure of the company's insistence on high-quality equipment.

"There's not one piece of junk in our garage," Kusar said. "We spend

\$40,000 a year on new mowers."

The new corporate regimen took hold in 1989, Kusar explained, after a money-leaking 1988. "In 1988, I spent \$60,000 on repairs and we did \$1.6 million in business. In 1994, we did \$2.6 million and our repair costs were only \$66,000."

The moral of the story is: Buying good equipment pays.

The grounds maintenance division had seven crews and two mechanics in 1988, and all struggled through the year, a time when the emergency two-way radio on

(continued on page 52)

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USE READER SERVICE #61

Estimating Mowing Costs

(continued from page 50)

Kusar's desk nearly squawked on a daily basis with cries of help from the field. That flustered force has evolved into today's synergistic team of 14 crews and one mechanic.

"In the past, management liked to squeeze and squeeze, and all we did was run around repairing things. It was ridiculous," Kusar recalled.

ANNUAL BIDDING RATE. "I came up with an annual rate we use for bidding largely on my own," Kusar said. "I've read a lot of books on how to bid and how to estimate."

A former powerlifting champion, the imposing Kusar sits at his desk and spreads thumb and forefinger a few inches apart. "If you have to read a book that thick and try to apply it — good luck. The only people making money are the guys writing those books."

Kusar's average is simple.

He takes payroll costs, divides that by the hours that must be devoted to the job over the full eight-month season, and adds in over-

head and the profit margin.

That rate is multiplied by the number of hours to calculate the total to charge the account for the year. Three-year contracts are the bread and butter at Stout, and the customer gets eight identical bills during each month of the maintenance season.

Checks and balances are built into the friendly professional relationship between Pugliese and Kusar.

Pugliese walks the jobs and estimates the hours they'll take. Kusar may question one of his estimates.

"Sometimes," Pugliese said, "I'll go out and look at a property, and estimate that it will take a three-man crew all day. Partway through the season, Jerry will look at my numbers and say 'Frank, the square footage here is so low, why is it taking so long?' I have to justify it to Jerry by telling him that there are a lot of trees or beds."

Time management budgets are done at monthly, as well as yearly intervals.

Logs familiarize crews with their quotas and responsibilities. They also provide job addresses.

"Crews have a set schedule, the same one every week," Pugliese explained. "It tells the crew how many hours we have budgeted for that property for the entire month. Then they do a lot of their own self budgeting to try to stay within that budget."

"For instance, if they're going to be out on a property there five times this month, they have to decide how they can get everything done in those five visits. The challenge for them is to manage their own schedules skillfully."

The time allotments determined by Kusar are true measurements that are then tightened down 10 percent, so that crews sweat a little bit, which is another motivator. But there's a bonus up ahead if they work productively.

Unprofitable accounts are put on Kusar's dubious "Loser List." He'll get wind of a likely candidate when supervisors tell him they're working very hard and still failing to meet the time budget.

"We started the list in 1989 and had 70 accounts on it by the end of the year. It cost us approximately

\$50,000 in manpower and time to work for these people," Kusar recalled.

"We've got that list down to 15 accounts now. Consequently, our profitability has soared. The problem customers are identified. Sometimes their complaints are off the wall; they're cranks. But we still try to turn those situations around."

That could involve changing crews or talking to the customer to find a better way of getting it done.

BUILT-IN INCENTIVES. Making budgets at Stout means bonuses for supervisors, foremen and even crew members.

"In 1994, our crews failed to make their monthly budget goals only 10 percent of the time," Kusar stressed. It was a big improvement.

Making budget doesn't mean mowing like the Keystone Kops and racing off in clanking equipment, the last man hanging off the truck by one hand.

"We have three supervisors that go around in company vehicles and inspect the properties," Kusar ex-

(continued on page 56)

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USE READER SERVICE #51

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USE READER SERVICE #49

Estimating Mowing Costs

(continued from page 52)

plained. Two supervisors have five crews; one has four. "The supervisor's job — besides hiring, firing and administrative duties — is to make sure that the properties are getting done to our standards. It's not just mowing and going. We make sure the lawns are edged and the beds are weeded to our standards."

Supervisors occasionally will send a crew back for evening or next-day cleanup work if they're not pleased with the quality of performance, Kusar added.

Because they keep the crews in line and fill out reams of maintenance inspections, the supervisors earn a bonus when all their crews finish within set budgets.

If they hustle, the foremen at Stout can make good earnings, too.

"A typical foreman can earn around \$2,600 in eight months, just in bonuses," Pugliese stated. "It's not just \$50 here and there, it's a good chunk of money."

"Don't set the standard too high," Kusar advised. "That's just a big downer. These guys know they're capable of making it with a little extra effort, especially in spring."

SALARIED FOREMEN. Although it is rare in a lawn and landscape maintenance company of this size, the foremen at Stout are salaried, as opposed to an hourly wage rate.

"This way, I can offer a competitive wage," Kusar said. "And I can also budget for that wage. I know what my foremen will cost me for the year going in."

"Before, with hourly foremen, they sat in the truck if it rained," he explained. "Now if it rains, they put on a raincoat and mow. They're scheduled to work five days a week, not seven. We don't push them 15 hours a day. If I see another company's foremen out on Sundays, I say to myself, 'They're losing money.'"

The system attracts people who want to be productive, instead of those who prefer to just work the clock.

The only problem with the system was that the laborers, who depended on long hours to multiply their modest wage rates into something larger, got squeezed by the new productivity-based system.

"We had to raise our average hourly wage. Wage-based bonuses are earned by laborers too, of course," Kusar said. "We have a good core of people who are paid a decent wage. Our wage rate for base performance is significantly higher than the industry average."

All foreman at Stout have come from the ranks of laborers, Pugliese said. "It's tough work and the revolving-door syndrome is rampant. We hired and lost 120 men last season — that's normal for our business. But people don't come here and stagnate. They can move up. With few exceptions, we don't have people that started here as laborers and stayed laborers for 15 years. They move up — or they move out."

(continued on page 103)

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USE READER SERVICE #10

Spring Fertilization:

Take It Easy with Nitrogen

Too much nitrogen can overstimulate turf growth, at the expense of fall's root system development. It may not be obvious for the first few seasons, but overstimulated grass will eventually show the strain.

By Nick Christians, Ph.D.

IT WILL SOON be spring and lawn managers everywhere are anxious to begin early-season treatments. That initial fertilizer application is a vital part of a well-balanced fertility program. It's important, though, not to fall to the temptation of overdoing spring treatments. Cool-season grasses, like Kentucky bluegrass, perennial ryegrass, tall fescue and the fine fescues, need a spring nitrogen (N) treatment as they emerge from dormancy, but it is easy to overstimulate the turf at this critical time of the year.

Thinking on the timing of N fertilization has undergone considerable changes in the past 25 years. In the 1960s and early 1970s, the standard turf fertility program relied on relatively heavy spring N fertilizer applications, with less emphasis on fall treatments. It has come full circle since that time and modern programs emphasize moderate N applications in spring with higher amounts applied in fall.

This change has come about primarily because of the experiences of the lawn care industry. When professional lawn care began to expand in the late 1960s and early 1970s, the typical program included high N applications in spring.

This worked well for a few years, but by the mid-1970s, it became apparent that there was a problem. Some lawns treated by lawn care companies showed significant deterioration in late summer, whereas adjacent lawns that had been managed less

GROWTH OF GRASSES

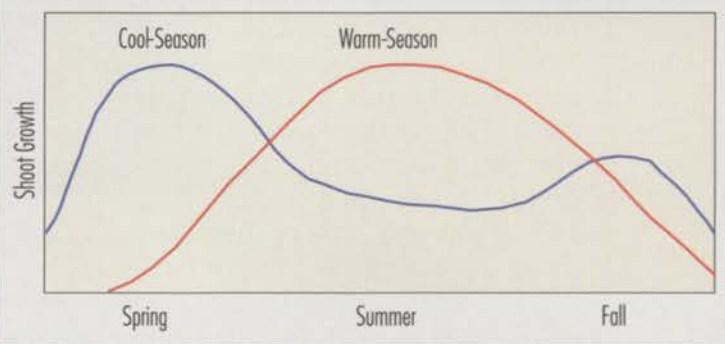


Figure 1.

TAKING ROOT

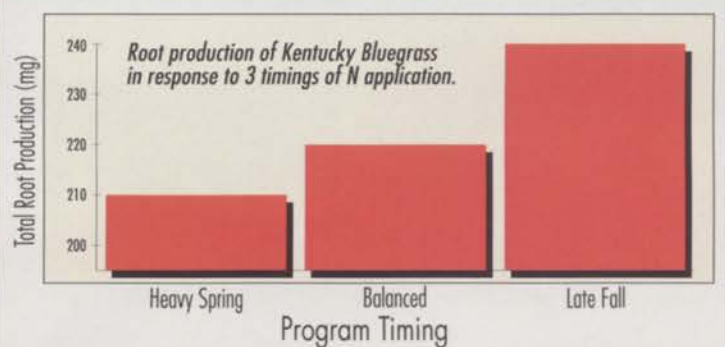


Figure 2.

intensely remained healthy. Further study has at least partially associated this phenomenon with the heavy spring applications of N in these early lawn care programs. To see what impact timing of N applications can have on turf survival, we need to consider how grasses function.

GROWTH CHARACTERISTICS. Grasses are green plants. Their green color comes from a material called chlorophyll, which allows plants to produce their own food materials through a process called photosynthesis. These food materials are called carbohydrates, which are critical to the plants'

(continued on page 60)

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The following chart provides a basic product offering guide but The Andersons is quick to point out that their technical capabilities for custom blending other formulations are virtually limitless in their state-of-the-art turf care products plant. Fully detailed product information is available.

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Spring Fertilization

(continued from page 58)

survival, particularly during times of environmental stress and during recovery from damage, when stored carbohydrates are needed to fuel the plants' regrowth.

Figure 1 shows the shoot growth pattern of both cool- and warm-season grasses. Cool-season grasses grow rapidly when they emerge from dormancy in the spring. They slow considerably during the stress period of midsummer and increase growth again in the fall. Notice that the fall peak of growth is not as high as the spring peak, even though temperatures are quite similar during these time periods.

Grasses lack the capacity to think, but when you study their growth patterns, it becomes apparent that their genetic system is programmed to do some very logical things.

Emergence from dormancy in spring requires the consumption of much of the stored carbohydrates in the plant. The logical thing to do following this reduction in carbohydrate supply would be to pro-

RATES AND TIMING OF N FERTILIZER FOR COOL-SEASON LAWNS

	POUNDS N PER 1,000 SQUARE FEET
March — April	0.5 to 0.75
May — June	0.5 to 0.75
July	—
August	1.0
September	1.0
October	—
November (late-fall treatment)	1.0 to 1.5

Table 1.

duce as much green tissue as possible to undergo photosynthesis and replace the carbohydrates that have been depleted. This is exactly what the plant does.

In summer, cool-season grasses are under a lot of stress due to high temperatures and they may need to rely on the food they stored during the spring growth. This is a particularly difficult time for cool-season turf, especially in high stress years.

In the fall, the grass increases shoot growth, but not to the extent

that we see during the spring growth period. This again makes sense from the plant's vantage point.

The cool temperature period of late-summer and fall is a good time to produce carbohydrates. Rather than expending them in the excess growth of tissue, the plant undergoes a more moderate growth rate and stores the excess carbohydrates for the coming dormancy period.

EFFECTS OF OVERSTIMULATION.

Now, let's return to those lawns that

were deteriorating in late summer following a heavy spring fertilization. In the spring, the cool-season grasses are predisposed to the rapid production of shoot growth.

It is easy to overstimulate growth at that time of year with excess N. The turf will look good, initially, but what's really happening is that the plant will consume the carbohydrates in the production of shoot growth that it should be storing for the stress period of summer.

This may work for a while, but under the right conditions, problems can develop. In summers with unusually severe stress conditions, particularly if the grass is allowed to go into and out of dormancy during the midseason, the carbohydrates that the plant needs to survive the late summer period are depleted. These lawns could deteriorate quickly.

Lawns that receive moderate N applications in the spring are not overstimulated. These grasses can store carbohydrates that are available to help the plants survive the summer stress period.

(continued on page 62)

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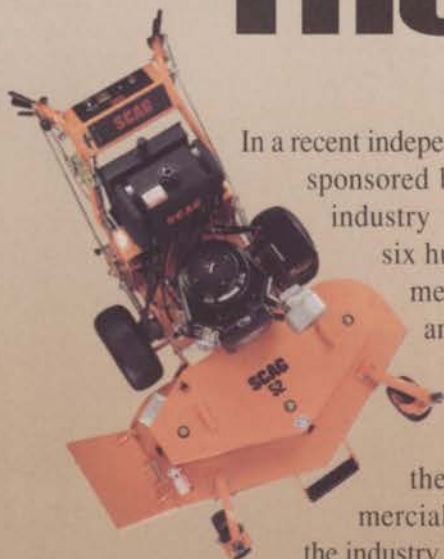
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USE READER SERVICE #64

Spring Fertilization

(continued from page 60)

WARM-SEASON GRASSES. Things are different if the grass is a warm-season species, like zoysiagrass or Bermudagrass. These types of grasses emerge from dormancy slowly in the spring and thrive in the high temperature periods that put such stress on the cool-season grass varieties (Figure 1).

Warm-season grasses should be fertilized when they are growing actively. One pound N to 1,000 square feet per growing month is a standard recommendation. Fertilizing warm-season grasses in early spring does nothing for the dormant warm-season grasses and may encourage cool-season weeds.

THE NITROGEN EQUATION. How much N, then, should be applied to cool-season lawns and when should it be applied? This is a complex question with no one answer.

The amount of N to be applied varies with the species. A species like tall fescue, which has an extensive root system, will require less N

YEARLY N APPLICATIONS AND TIMING IN THE IOWA STATE UNIVERSITY N-TIMING STUDY CONDUCTED BETWEEN 1985 AND 1989			
MONTH	HEAVY SPRING	BALANCED	LATE FALL
Pounds N per 1,000 square feet			
April	0.5	1.0	0.5
May	1.5	1.0	0.75
June	---	---	---
July	---	---	---
August	1.0	1.0	0.75
September	1.0	1.0	1.0
October	---	---	---
November	---	---	1.0

Table 2.

than one like Kentucky bluegrass.

Soil type and water have an impact. Grasses grown on sandy soils will likely require more N than grasses grown on heavier soils. Rainfall and irrigation also will make a difference. The more water the turf receives, the more it will grow and the more N it needs. Leaching of N can also increase with rainfall and irrigation.

There is no clear answer to the

question of how much N to apply. It will not be the same between regions and it will not likely be the same within a region.

A lawn care specialist may find that it will vary greatly over the geographic area that his or her business covers. There are some general guidelines that follow, however, that can be used in developing a sound fertilizer program.

Table 1 includes an N applica-

tion schedule for cool-season lawns. This is an approximate program and will have to be tailored for specific conditions. The program in Table 1 is designed to match the needs of the plant. The goal of the spring application is to give the plant a boost without overstimulating it into excess growth.

It is possible to apply too little N in the spring. If the plant is yellow (chlorotic), it will be incapable of undergoing maximum photosynthesis, and the carbohydrate supply may be reduced.

It is desirable to just meet the needs of a plant in the spring, to allow it to produce maximum carbohydrates without forcing excess growth. Spring N applications generally should not exceed a total of 1.5 pound N per 1,000 square feet.

Use your common sense. In very wet conditions, or if the turf is established on a sandy soil, more N than that shown in Table 1 may be needed. In dryer years, or for turf established on a heavier soil that is higher in organic matter, less N may be required.

(continued on page 68)

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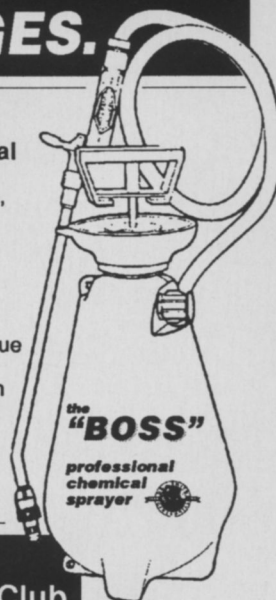
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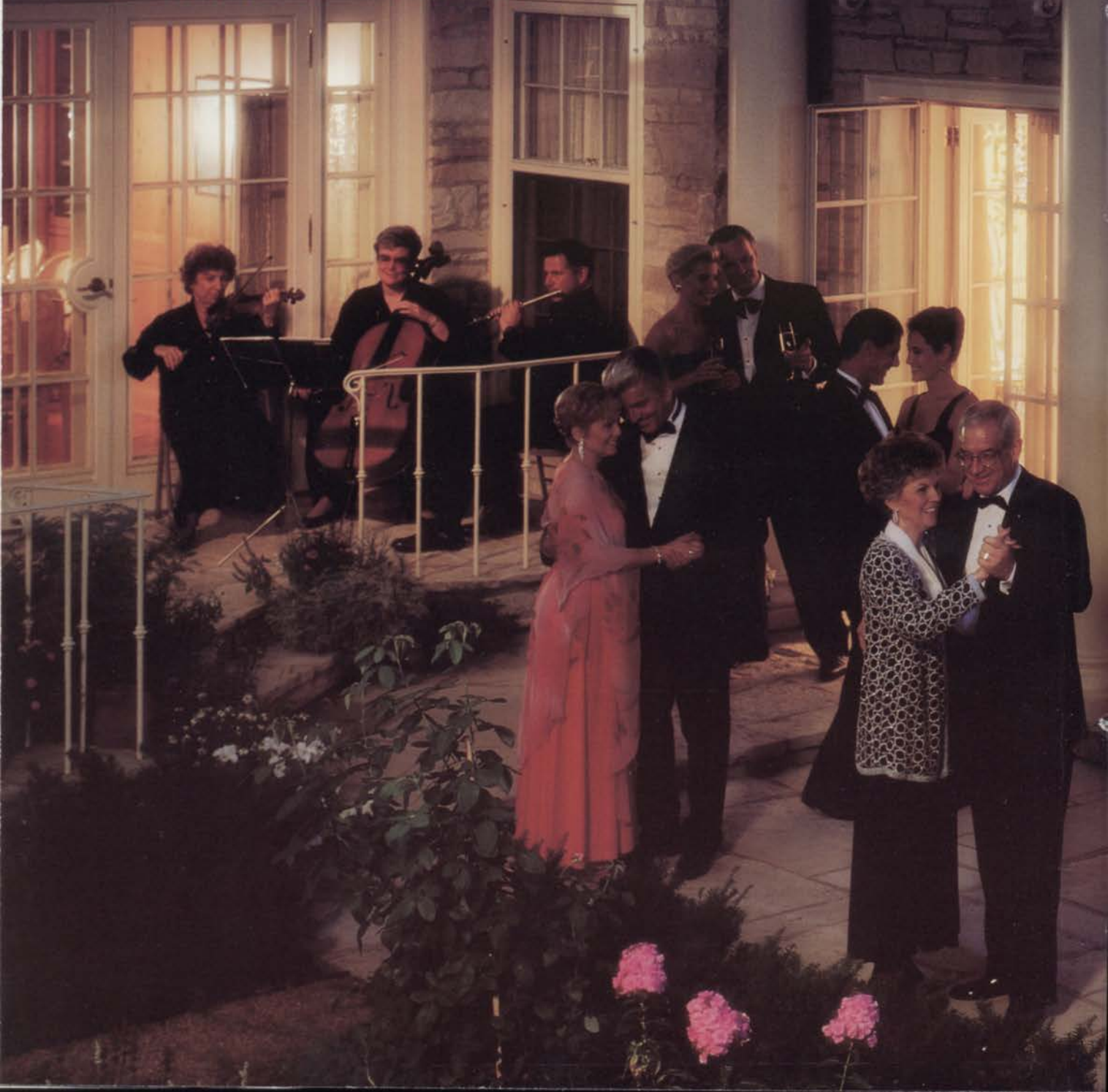
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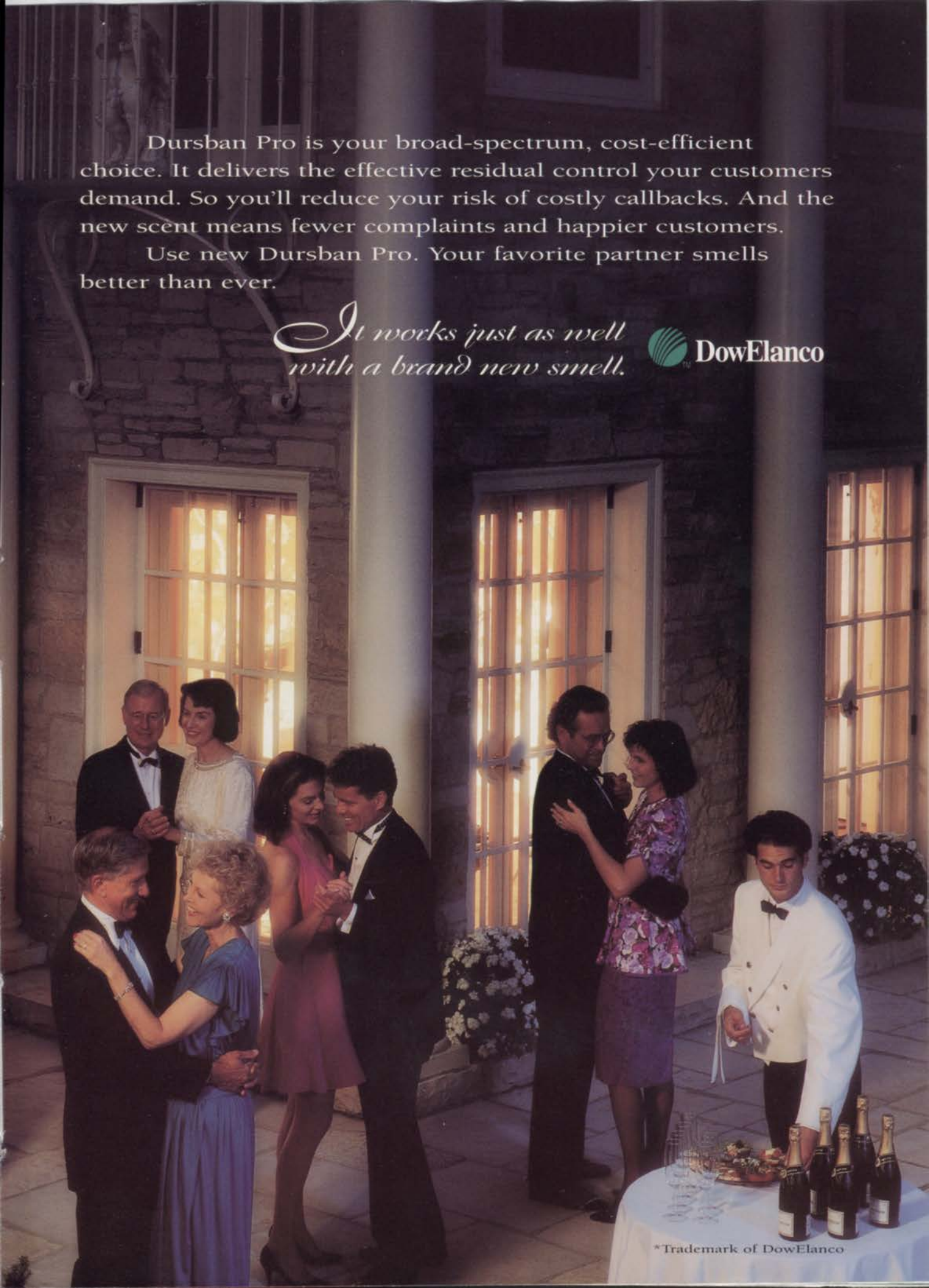
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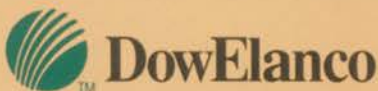
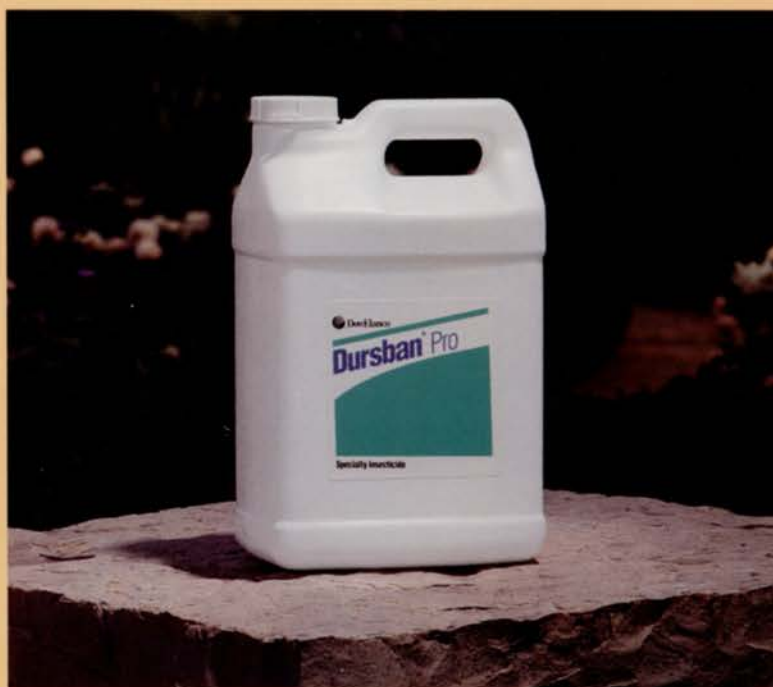
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Spring Fertilization

(continued from page 62)

No N is recommended in the heat stress period of July, but if the turf shows signs of chlorosis in midsummer, a light N application may be warranted. The late-summer and early fall is a good time to boost the N application.

In lower maintenance areas, where budgets are limited and only one application of N can be applied per year, August to September

A practice that is growing in popularity in much of the cool-season region is to apply a late-fall application of nitrogen.

would be the best time to make that application. The most benefit per dollar spent on fertilizer can be expected in that time.

APPLICATION OPTIONS. A practice that is growing in popularity in much of the cool-season region is to apply a late-fall application of N. This application is timed after the last mowing in the fall and before the soil temperatures fall below the critical temperature for root growth. In 1985, a four-year fertilizer study was initiated at Iowa State University to investigate the effects of N application timing on three Kentucky bluegrass varieties.

The objective was to compare the effects of heavier spring N treatments, a program that included balanced treatments in spring and fall and a late fall program. The three N programs used in the study each year are shown in Table 2.

The study included urea, ureaform, methylene urea and methanol urea N sources, each applied to separate plots according to the program shown in Table 2.

Data were collected on visual



Too much nitrogen in spring applications may limit fall's root growth.

quality, clipping yield, thatch development, shoot density and root weight during the 1986, 1987 and 1988 seasons of growth.

Yearly quality ratings generally

were higher for the heavy spring fertilizer program than for the other two programs.

However, in both 1987 and 1988,

(continued on page 70)



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USE READER SERVICE #13

Spring Fertilization

(continued from page 68)

the heavy spring program resulted in the production of from 3 to 10 percent more total shoot growth than did the balanced and heavy fall programs.

Root growth was favored by the late fall program, which produced 9 percent more root mass than the balanced program and 8 percent more root mass than the heavy spring program (Figure 2).

Conditions that lead to late summer deterioration in quality were not a problem on this site during the study, and the area was irrigated to prevent moisture stress in most years. The loss of quality in July and August was not observed on the plots treated with the heavy spring treatments.

But the trend toward rapid shoot growth and subsequent reduced root growth clearly were present on areas treated with high rates of N in the spring. It is likely that the long-term effect would be eventual damage to the grass receiving the heavy spring treatments of N.

Lawns that receive moderate N applications in the spring are not overstimulated. These grasses can store carbohydrates that are available to help the plants survive the summer stress period.

HOW ABOUT P AND K? The application of phosphorus (P) and potassium (K) should be based on a chemical soil test. The amounts of P and K needed in a fertility program will vary greatly among lawns and properties.

There are many situations where levels of these elements are high enough that N alone may be sufficient for fertilization.

In other cases, either P, K or both elements may be needed in larger amounts. On many soils, K will be the element needed in the largest quantity next to N. This is particularly true on sandy soils that have a low K-holding capacity.

Potassium sources may add to the burn potential of fertilizers. A good rule of thumb is: The higher the temperature, the more likely these fertilizer materials will damage the turf.

When high K levels are to be used, they should be timed in the cooler periods of spring and fall, if possible.

MICRONUTRIENT ADDITIONS.

Micronutrients generally are available in sufficient quantities on most soil types. Most deficiencies will be localized problems that should be evaluated through soil tests and through evaluations of micronutrient treatments on test areas of turf.

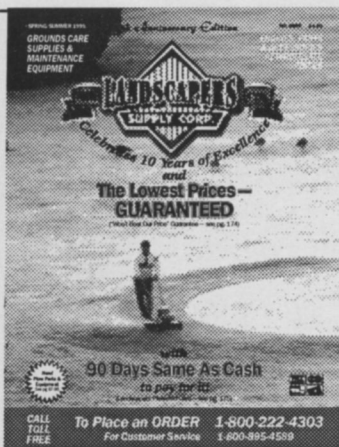
Iron chlorosis is the exception. It

is common in turf established on high pH soils (above pH 7). The usual situation where this problem exists is where the grass doesn't seem to be responding to N. The treatments use more N, but the results are less than expected.

If this has been a problem, run a test with one of the many commercial iron materials available for use on turf. If there is a deficiency, a green-up of the turf will be apparent within a couple of days. There will be a much more efficient use of N if iron is added to the program.

CONCLUSION. Spring is an important time of year in turf management. For cool-season grasses, the initial spring application should be a part of a balanced fertility program, rather than one with heavy N amounts. An understanding of the turf and how it grows is a key part in developing that program and of establishing a successful lawn servicing business.

The author is professor of horticulture in the College of Agriculture at Iowa State University, Ames, Iowa.


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New Equipment Designs Reduce Vibration

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THE DAYS of quaking flesh, tingling fingers and a "buzz" felt through the body may soon end, as new designs continue to improve

outdoor equipment. In the new design equations, manufacturers are adding elements that reduce vibration and its negative effects.

Emissions, noise and ergonomic factors have played a large role in European equipment design for the past few decades. Traditionally, Eu-

ropean governments have played a more active role in determining product design requirements than in the United States.

However, equipment manufacturers here have felt the push to produce power equipment with lowered emissions and sound levels. This trend continues as more regulations are developed. Ergonomic design has gained ground as contractors look for equipment that will allow greater productivity with less physical stress on operators.

PUSH FOR LOW VIBE. Early developments in low-vibration equipment evolved in the 1960s, as manufacturers produced chain saws with anti-vibration elements. Many of those models were large clearing saws, and the new designs were intended to reduce stress on the operators' bodies.

One example was a then revolutionary low-vibration chain saw manufactured by Husqvarna Forest and Garden Co. in 1969. The saw introduced a new design that built the tank unit into the handle to reduce vibration by one-third. The new design, called "integrated two-mass technology," was used only on professional clearing saws.

Gradually, the two-mass design became a standard element of smaller machines produced by the company. In the early 1990s, it produced low-vibration power equipment within the 36-cc range.

The company's experience in the European market powered the introduction of low-vibration technology into smaller machines. For instance, it added the design to brushcutters, which are popular with European contractors because they do more land clearing and use less herbicides than in this country.

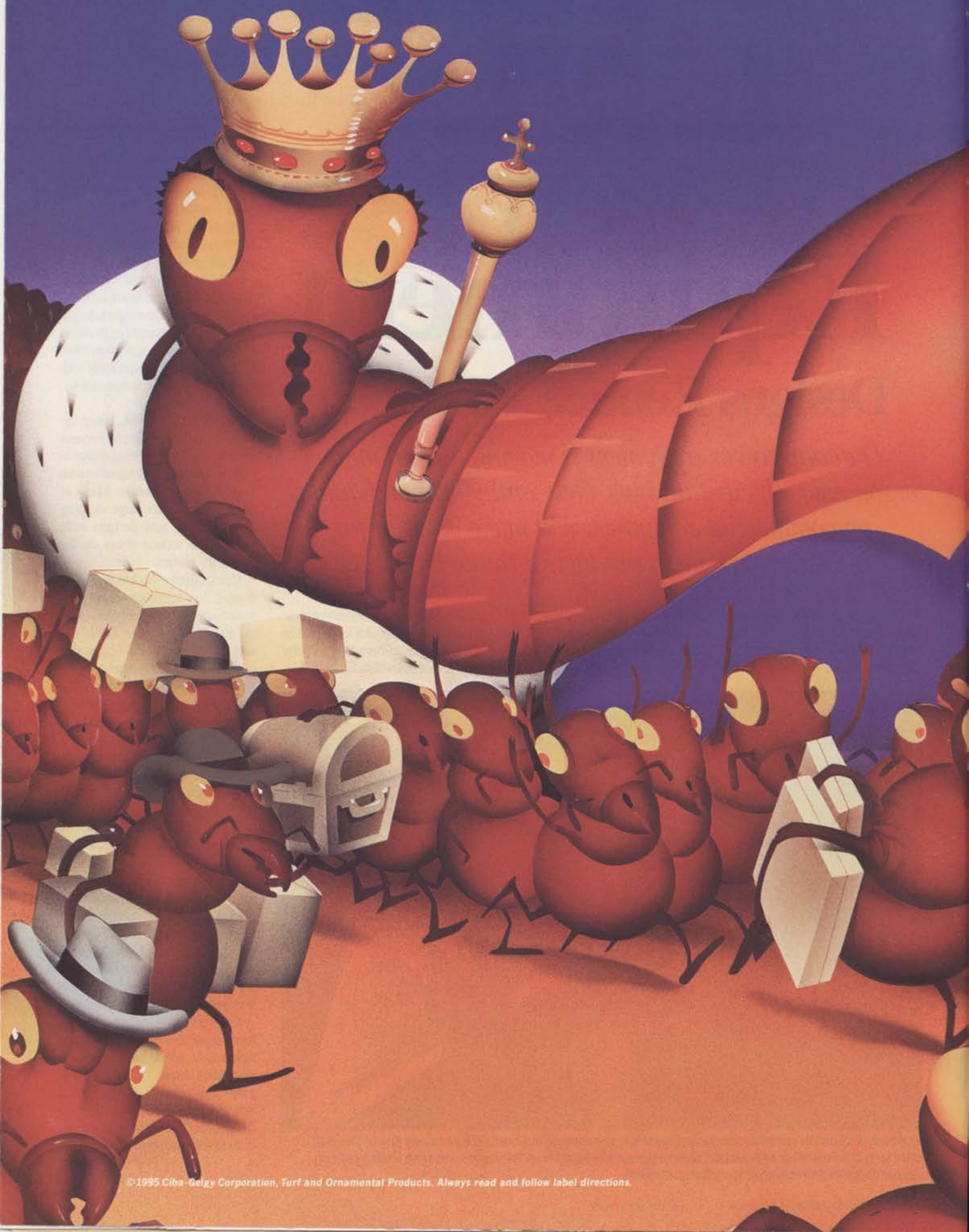
Conversely, U.S. contractors tend to prefer string trimmers for lawn maintenance work on smaller properties. Many of these have a loop-handle design and are scaled down into the 25-cc power range.

"Europe has traditionally been in tune with the ergonomic factors

(continued on page 74)



Husqvarna's LowVib vibration dampening system is standard on the manufacturer's new line of Swedish trimmers. The handlebar and support components are isolated from the engine and drive shaft by strong rubber dampers that absorb and minimize vibration.



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Low-Vibe Equipment (continued from page 71)

of design," commented Mark Michaels, forestry product merchandising manager for Husqvarna. The low-vibration trimmers "are important because they address the unique needs of the professional market. Other than weight reductions, there have been no other significant innovations in commercial trimmers in several years."

The line of CARB-certified trimmers and brushcutters includes four 25-cc models, two 31-cc models and a 36-cc unit. Handlebar and support components are isolated from the engine and drive shaft by strong rubber dampers that absorb vibration. The trimmers and brushcutters also feature an angled handle for operator comfort.

Michaels estimated that the design could improve productivity by 10 percent to 15 percent.

HANDLING VIBRATION. The two-mass principle developed for chain saws separated the handles and parts touching the body from the engine, shaft and cutting attachments.

The technology is now used throughout the company's clearing saw and small trimmer lines. Michaels explained: "Users appreciate the fact that vibration has been reduced in both hands. Until two-mass technology was developed, there wasn't an effective system to reduce the operator's vibration exposure; manufacturers, in many cases, simply added padding to a handle."

With the Occupational Safety and Health Administration's new ergonomics rule looming on the horizon, many landscape contractors are paying closer attention to factors like low-vibration when choosing equipment.

OSHA's proposed ergonomic standard outlines potentially hazardous job activities — including the "use of vibrating or impact tools or equipment for more than a total of two hours."

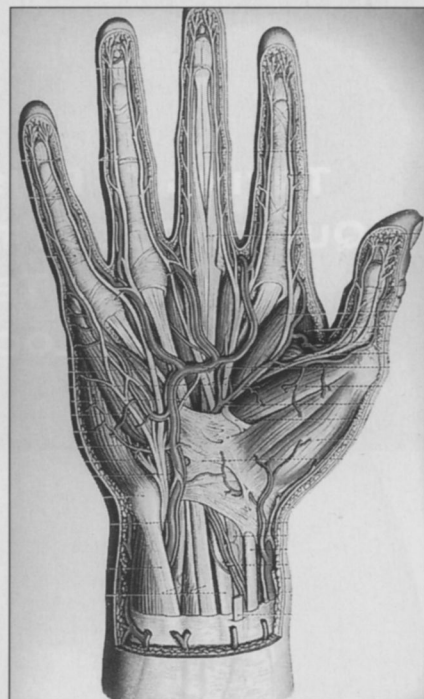
MOWING COMFORT. Manufacturers also are taking a closer look at reducing vibration in riding and walk-behind mowers, said Roger Andersson, vice president of lawn and garden development for Husqvarna Sweden.

"Because lawn care professionals use their machines so many hours a day, they are at higher risk of developing vibration syndrome (also known as Raynaud's phenomenon or vibration white finger), an adverse circulatory condition affecting some users of vibration equipment," Andersson explained. Commercial mulching models featuring anti-vibration adaptors already have been introduced in Sweden.

Features like seat suspension can help reduce vibration exposure, as do special mounts that dampen vibration transmission throughout the equipment. But the best solution lies in correcting the problem at its source.

"We care about the rider, so we work closely with engine manufacturers to develop good quality engines for our product line that vibrate as little as possible," Andersson noted.

Andersson said that while customers should be aware of vibration's effects, they shouldn't be overly concerned about vibration exposure.



Operators of vibrating equipment are at higher risk for disorders like vibration syndrome, a condition that adversely affects blood circulation to the hand.

"Make sure that your mower has a straight blade system, because if the system is unbalanced, you have more risk of vibration," he said. "If you notice an undue amount of vibration, take your unit in for repair."

CONTRACTOR EXPERIENCE. Both Andersson and Michaels stressed the need for cooperation between contractors and manufacturers.

"Low-vibration technology came about because engineers listened to what the industry needed, giving lawn and landscape professionals the things they needed before they were fully aware of the potential benefits," Michaels said.

Product prototypes are tested for vibration and noise levels in labs; engines and belts also are subjected to life-cycle tests. Typically, researchers measure vibration levels via meters placed on the handles of free-running trimmers. The machines are placed in a variety of cutting positions for running tests. Because operators tend to rest trimmers on their hip or leg, researchers also check vibration levels at those points.

But ultimately, the user is the final judge of a product's quality, according to Andersson.

Michaels explained, "In field tests, we can see if the operator experiences any differences in vibration on a real-use basis. There's a big push for operator-friendly equipment that has light weight and enough power."

FUTURE TRENDS. "We'll continue to see an emphasis on environmentally conscious products, with low noise and emission levels," Andersson predicted. "And with the attention being paid to health issues, we'll continue to concentrate our efforts on low-vibration and other user-friendly ergonomic designs." ■

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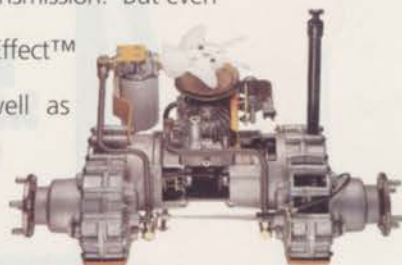
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USE READER SERVICE #16

Southern California Market Report: “It’s Different Out Here”

The giant southern California economy has a life of its own, and it appears to be on the road to recovery. That’s good for contractors, because its climate and culture are challenge enough.

By Susan Gibson

IT SEEMS LIKE every natural disaster in southern California gets an inordinate amount of media attention, but there’s a good reason for it. Drought, earthquakes, fires and floods can wreck enormous financial and horticultural damage on one of the largest economies in the world.

At this writing, the area is suffering from a second onslaught of record-breaking rains. And people living in the area have every reason to expect more earthquakes, brush fires and drought in the future. It’s even become an industry of itself — where else would “disaster preparedness stores” be found in shopping centers?

Several lawn care and landscape contractors interviewed for this article echoed the sentiment, “It’s different out here.” Besides the elements of nature that play havoc with everyday operations, southern California’s economy is a force of its own. Skyrocketing property costs, huge defense industry cutbacks and an ever-increasing number of immigrants who depend on government support have burdened a system unlike any other in the United States. As a result, the area has been slow to recover from the recent recession.

The sheer size of the market — a megalopolis that extends over a vast geographic area — can put unusual complications on simple matters like scheduling the week’s service calls. One landscape contractor estimated that there are 25 million homes in the market, making it huge in potential but also problematic in terms of logistics and market strategies.

One other factor plays a major role in the southern California lawn and landscape maintenance market — the climate. Californians have a different mentality about services. Contractors report that homeowners have traditionally used the services of “gardeners” to maintain their landscapes year round, rather than do it themselves, which is more common in eastern states.

California homeowners usually don’t think “seasons,” in fact, they sometimes don’t even think “lawns,” which makes selling chemical lawn care services a big challenge.

NATURE RULES. While contractors in the East and North watch the snow accumulate on the

(continued on page 78)



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Market Report

(continued from page 76)

ground, they might let their thoughts stray from the cold weather to the consistently warm, sunny climate of California. It's easy to forget how quickly an earthquake or brush fire can destroy a landscape or a livelihood.

Southern California contractors know there are real economic consequences to natural occurrences. The drought of the late 1980s and early 1990s brought water rationing issues to the forefront of public debate, causing landscape and irrigation contractors to design programs for greater efficiency and spend time and money educating customers and public agencies. It also resulted in more efficient, cost-saving products from manufacturers.

Contractors have yet to recover from damage caused by the Northridge earthquake of January, 1994. Robert Cohen, president of Green Scene, a chemical lawn care firm in Sun Valley, explained that events like the earthquake can be a blessing and a curse.

"That earthquake affected most well-to-do areas in Los Angeles and it resulted in a dual market. First, there was plenty of insurance money available for rebuilding, so it improved the market for our services. As landscape installers rebuilt the landscapes, we got work that trickled down," Cohen said.

"But for those people who only sustained minor damage to their properties, landscape restoration is one of those extras costs they had not anticipated. They'll fix up the landscape but then cut back on maintenance. That makes the market more stubborn. I'd estimate that we might have had 50 to 100 accounts who called and said 'Don't come out for service, we don't have a house anymore.'"

Cohen added that as installers have had a busy year restoring damaged landscapes, companies like his must wait until rebuilding is finished. "Construction ruins the existing lawns," he said, pointing out that homeowners must wait to reestablish lawns as a final step. Only then can his company recommence services.

Capricious brush fires, too, have affected southern California's landscape business. The area rarely gets any rain from April to November. Weeds that establish themselves in the spring often die out in the summer, creating a fire hazard waiting to happen. Al Galuchie, president and owner of Pacific Green Horticultural Services in Chino Hills, adds summer weed abatement to his yearly schedule of chemical lawn care.

"Once the weeds die, they become a fire hazard," Galuchie explained. "People here know that they need to keep their weeds down. It's required by law. For instance, we have a law that says the owner of a one-acre lot in the city is

required to provide weed abatement by a certain time of the year. They can plow them under or use pre- or postemergent herbicides, but they must get rid of them."

The frequency and ferocity of the area's brush fires has led to a push for landscape designs that reduce amount of plant materials placed directly near buildings. Some designs use only fire-resistant succulents within 30 feet of a building. Several landscape contractors provide brush and weed removal services to residents in an effort to limit the hazard.

ENOUGH IS ENOUGH. Southern Californians waited for the economic recovery to swing their way until late in 1994. While markets in the rest of the country started rolling into gear, California's remained sluggish, overloaded local governments cut back on maintenance budgets and landscape customers looked for the lowest bid. This situation hit especially hard in the areas of landscape maintenance, interiorscape and landscape restoration.

"Maintenance and landscaping have taken a hit over the last few years because the building industry was down," commented Mark Marcus, owner of Centrescapes in Azusa. He saw many new competitors enter the landscape maintenance market without professional experience. "It hit prices hard and there were many bankruptcies in maintenance, wholesale and installation companies."

In the commercial market he serves, Marcus saw office property owners take two tacks. "Either they spent money to make a place look occupied, or they would hammer you on price."

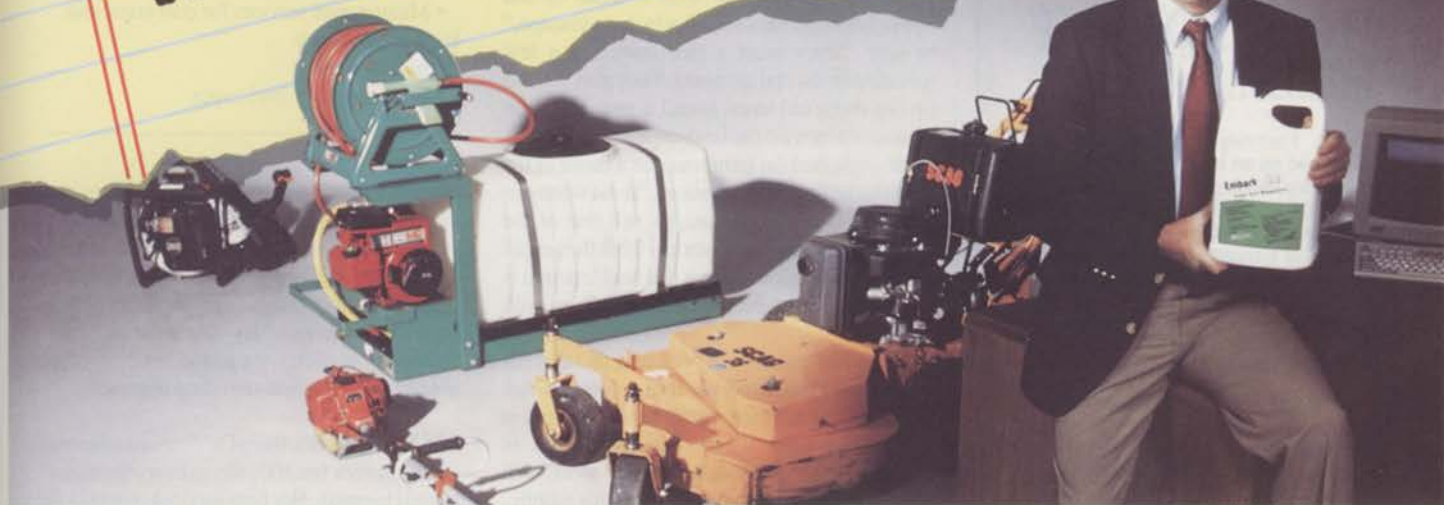
Ed Beardsley, owner of Carson-based Massey Sutherland Associates, agreed. "It was a terrible time for maintenance. A lot of people went out of business because they couldn't survive the business cycles. We're multifaceted in our ser-

(continued on page 80)



Municipal maintenance budgets have been squeezed by the recession.

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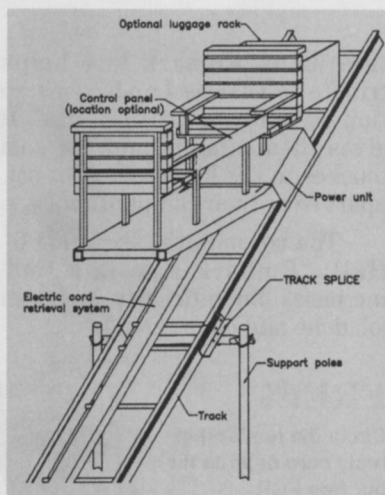
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Market Report

(continued from page 80)

vices, which is probably why we survived. When our interior work was slow, our exterior work kept us alive."

Beardsley sees a definite upswing in the market, however, which he detected late in 1994. "For a while, especially in interior work, people stopped spending money. It was not just wanting low prices, but worse. They just stopped," he explained. "But in the third quarter of 1994, things picked up. We had projects we've waited on for one or two years and they came in all at once. We've been scrambling to accomplish all the jobs that have come to us."

"The clients seem to want to clean up old business and get back to basics in the landscape," he said. "They want a nice lawn and a few specialty landscape elements. They may want to rip out those old trees, install a new irrigation system or renovate the landscape."

He explained the turnaround as a factor of the area's huge financial resources. "Even when our economy is in the dumps, it's still one of the largest economies in the world. I think the people of southern California have just said 'enough is enough, let's just go forward and get on with business.'"

Lydia Hamman, vice president of sales for Associated Plantscapers in Irvine, believes that the future for exterior maintenance services is bright. Her firm, which has specialized in interiorscaping and holiday display work, will start up exterior maintenance work this month.

"More and more companies are looking at where they're spending their money," she noted. Interior work has become more and more of a struggle because of the economic slump. "I think the interior market here is shrinking. It's not as important here as it is in climates with definite seasons. It's rare, for instance, for a commercial building to have an atrium. They'd rather put their money into the exterior landscape."

Associated Plantscapers' owners view exterior maintenance as a "more recession-proof industry," compared to interior work. It recently purchased an existing maintenance firm and the employees in Orange County and expects a

Finding a Market Niche

Southern California's lawn and landscape contractors work in a huge market for their services. Their typical services are:

- Chemical lawn care
- Bare dirt weed control/abatement
- Weed control on rocky areas
- Brush clearing on fire-vulnerable hillsides and near properties
- Landscape renovation
- Irrigation design and installation
- Xeriscape designs
- Holiday displays
- Maintenance services for cost-conscious local governments
- Interiorscaping
- Back-to-basics landscapes

smooth transition. "We're already able to provide a high level of technical service, customer service, and marketing because of our interior experience," said Hamman. "We've gotten many complaints from our interior clients about their exterior contractors." By offering exterior services to those clients, she added, her firm will be able to provide a one-stop shop approach.

ONLY IN L.A. "Southern California is so spread out that it stretches 100 miles in every direction," stated Hamman. Her firm services clients in six counties, including San Diego, about 100 miles south of Los Angeles. Plans for the new exterior business initially are limited to the Orange County area.

Each lawn care or landscape contractor in the area has to make a conscious decision about the area's geography before committing to any marketing strategy. Cohen's company services a huge area stretching west and north of the Los Angeles city center.

Daniel Lapka, owner of Lawn Master, a lawn care firm in Apple Valley, said his company covers areas far to the northeast of the Los Angeles city area, outside of the main city.

Marcus, whose business concentrates on large commercial centers and malls located 20 miles or more apart, has found facilities he uses as satellite staging areas. "We store equipment and trucks near our large accounts, then we're able to move out from there to other projects nearby."

As business expands outward, he'll use a similar system, but plans to avoid the congested Orange County area.

Distance is not a prob-

(continued on page 82)



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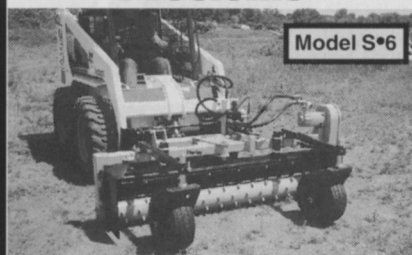
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USE READER SERVICE #59

Market Report

(continued from page 80)

lem for Galuchie's business, which concentrates on large properties averaging 6 acres or more. "We do work in Los Angeles, San Bernardino, Orange and Riverside counties," he said. The distances are manageable because a crew may spend the entire day at one large job site.

Travel can be a big factor for firms servicing smaller projects, however. Beardsley's company started out with two offices and travelled to get new business throughout the Los Angeles basin.

"We needed the business, so we went anywhere," he explained. "Now, we've allowed some clients to leave because of the distances and we found other landscapers to service them. We considered expanding to San Diego, but no matter what we did with the numbers, we decided it wasn't worth it. We pay a cost for doing business nearby, but that's why we're diversified."

Hamman's company depends on travel for its business. "We just have to find employees willing to work alternative schedules. We have a huge, wonderful labor pool here" and the company has found employees willing to drive the large distances.

WIDE-OPEN MARKET. The good news for southern California lawn care owners is that the market is practically unlimited. The bad news is that few people even understand lawn care services. The climatic factors that affect the landscape industry pale in comparison to the challenge of educating residents to the value of lawn care.

"People out here have different ideas about landscaping," said Lapka. "We don't have the concept of wall-to-wall grass like they do in the east. There, homeowners cut their own grass and pay professionals for fertilizer treatments. Here, they use gardeners to handle maintenance work."

The climate forces other changes in attitude, he explained. "In the east, there's grass and square-cornered lawns. Here, it's more like grass and rocks. The typical 1/2-acre lot may have half the area landscaped and the other half just rocks."

"Educating the customer is the biggest thing we do here," he continued. "In the east, lawn care people are losing customers because of cost. That isn't an issue here. We don't even have set prices because there's no competition to speak of. I would actually like competition because it would help me educate the customer. They don't even know enough about the service to have expectations of good and bad service."

Lapka pointed out that techniques like telemarketing don't have much affect in his market. "We could be calling everyone but no one has grass. We get most of our business when people tell other people about it."

Cohen agreed. His firm has only one large competitor. "If there's only one company out there, the popularity of the service is going to be difficult to promote. I'd like to see some major players from the East with big advertising budgets enter the market."

The service concept is new to area residents, who have a different attitude toward their land-

scapes. "I'd say that 98 percent of the homeowners here have regular weekly maintenance 'gardeners.' People take the landscape for granted," Cohen added.

"In the East, people have a different appreciation of nature," he continued. "There's a limited season there. I've expanded my business as the people here have become more aware of the value of professional lawn care services."

California's leadership in pesticide legislation offers a benefit for lawn professionals looking for a way to communicate value to customers. Galuchie explained, "Our pesticide laws already are strict and will be getting more strict."

He said this will improve his business as more maintenance contractors and local governments subcontract the work to licensed professionals. It's also a persuasive argument not to use an unlicensed gardener for applications.

Galuchie's company serves commercial and local government accounts and has felt the crunch of budget cutbacks, as California's massive welfare and social services demands eat up available funds for other services.

Even privatization of landscape maintenance services offers little remedy when the money just isn't there. "The prices for public maintenance work are incredibly low."

"Several cities have lost a lot of state funding and have cut back on their landscape maintenance services for the last two or three years," he commented. "For a while, they tried to maintain properties, but now it's not being done. They used to do fertilization and weed control in parks and city areas, but many places have just cut it out. And I don't see it changing as things continue to get tighter."

Pacific Green performs chemical lawn care as a subcontractor to other firms working with commercial properties also under tight budgets. "As prices continue to go down, the charges for maintenance services are not even at the old levels," Galuchie said. His firm supplements chemical applications with weed abatement and tree spraying services.

Lawn care services have potential, however, given California's mix of transition grasses. "My main challenge is technical," explained Cohen. "It's a climate where everything grows. I have nine different types of turf in my company's database."

It's a technically difficult thing to use herbicides, because everyone defines 'weeds' differently."

Even rocky landscapes offer business opportunities. Lapka's location in the desert northeast of Los Angeles brings in business for bare dirt weed control and work on rock landscapes.

"We spray over and around the rocks to get weeds that grow in their midst," he explained. He concentrates his customer education efforts through face-to-face discussions of the need for professional services on lawns and rocky areas. "It may take a year or two, but once a person realizes the value, we'll make money." ■

The author is Managing Editor of Lawn & Landscape Maintenance magazine.



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Build Strong Relationships with Smart Bidding and Estimating

The complicated art of profitable bidding and estimating involves a balance of hard figures and informed guesses. Understanding the client's needs and your own capabilities is essential.

By Curt Harler

PEOPLE FACTORS, more than economic factors, will determine the success of landscape contracting bids. Across the country, experts agree that how lawn and landscape contractors handle the bids and how well they establish long-term relationships is more important than absolute dollar figures.

"Estimating will have to be more accurate," said industry consultant Phil Christian, president of pdc Consultants, Alpharetta, Ga. "Right now, we see more guesstimating than estimating." He predicted it will be a good year for installation and construction projects. "Real estate managers are willing to put money into well-done projects," he explained. However, general maintenance will stay the same or go down, and there will be pressure on maintenance prices to hold the line.

"The real estate manager we work with is catching on and will be more demanding," Christian predicted. "The bottom line is that those managers are waking up more quickly to estimating and cost containment than we are."



Each landscape represents a unique bidding challenge.

BIDDING FOR PROFIT. With 80 percent of profits coming from 22 percent of the typical company's jobs, the pressure is on the contractor to make a bid that the buyer finds reasonable, but will still turn a profit.

"We find the more heads we have, the better," said Dave Cromley, with Hyland Brothers Lawn Care, Fort Collins, Colo. "We usually have at least four people looking at any given project."

Contractors must consider variables such as the types of plant material, weather conditions and equipment needed before they estimate a project's costs.



As spray manager for the firm, he bids on fertilization, pest management and turf growth regulators. The maintenance manager pulls together time figures. The tree manager will estimate the pruning costs. Then, the team sits down with Pete Hyland, one of the owners, to come up with some hard numbers.

Hyland Brothers managers estimate they probably work with a higher personnel cost number than most other firms. While many owners look at the per-hour charge, Hyland Brothers has re-evaluated those numbers in light of what it costs to put a worker on an expensive piece of equipment. That changes the contract cost.

The estimators follow a printed list they have developed over the years. Because of the variation in jobs in northern Colorado, there can be few fixed prices. The company is large enough that it can budget in another mower or truck, if the contract will make it worthwhile.

Joe Carpenter, president of Landmasters Inc., Gastonia, N.C., has all of his bid processes set up on a unit basis — square yard, square feet and cubic yards. "We calculate the square feet to be treated, add in the materials, our costs for labor and equipment, then add our profit markup," he explained. There will be no change in his profit figure.

"We keep overhead as low as possible and reduce costs by managing our people well and investing in training."

Like Carpenter, Tom Angelotta makes all of his lawn maintenance estimates on basic units of measurement, generally square feet of lawn. He is president of Angelotta Landscaping in Beachwood, Ohio. "I do factor for difficulty, like hills," he noted. He adds as much as 20 percent to his base level for tough properties.

Jobs like leaf collection, pruning and cultivating are done on a man-hour basis. He tries to figure the number of trips required per year. If the job is deciduous flowering shrub care, he knows one trip will do it. If there are a number of evergreens, it will take two or more trips per year.

Carpenter sees little difference in 1995 margins vs. those in 1994. The only increases he anticipates are in materials. Occasionally, there are special considerations. Some job sites, where image is important, demand that all new equipment be used.

"We've taken on projects that require specialized equipment like a slope mower," he said. Carpenter will agree to such requirements. His strategy is to be sure the new equipment he owns is amortized over the life of the contract.

LOOKING GOOD. Professional image is another item to factor into your bidding. Carpenter said many of the firms he works with have run into problems when work crews appear less than professional in their dress or demeanor.

He explained that unprofessional looking crews and equipment may backfire at contract renewal time. Carpenter added that women, especially, are averse to walking across open areas where poorly dressed men appear to be loafing, instead of working. It can be perceived as a security problem, he said, and one way to eliminate that fear, both for the landscape manager and the workers, is to dress all employees in uniforms and make sure the crew is productive.

New equipment helps, too. So do well-maintained trucks. "You have to do a better job of image," Christian stressed. "You don't want a worker who looks like a bag man."

BIDDING WARS. The estimator has to keep in mind the purchaser, who wants a superior job at rock-bottom price. The question remains: Is the low bidder providing inferior work? The plaque reading "Long after the sweetness of low price has faded, the bitterness of poor work remains" hangs on many walls.

In fact, in some areas, both low bidder and high bidder get thrown out — the former because of the belief that a low-ball estimate is uninformed or based on mediocre work, the latter because of a fear of gouging. The remainder of the

workers involved in the project.

Leaf removal also should be done on an hourly basis, and leaf bids should be good for seven days or less, since wind and weather can change the complexion of the job. If the customer demands a fixed quote, add 15 percent to the normal rate for the job.

Mulching is best figured as a materials-plus-labor operation. Add 50 percent to 70 percent of retail cost of the mulch for labor and you'll be in the ballpark.

Two more tips for smooth operations. Farleigh Brooks, a landscape contractor in Louisville, Ky., recommends: It is probably too wet to work if you need a four-wheel drive vehicle to get to and maneuver around a worksite.

Joe Kaiser of Covington, Ky suggested a way to speed up stump removal: The rule of thumb is to use the equivalent of one stick of dynamite to blast every four inches of tree diameter from the ground.

RULES OF THUMB

(from Wayne Volz's *Bidding and Contracts*)

Everyone likes rules of thumb, if only to argue about their accuracy and usefulness. Here're a few to consider:

Know your time to mow a given area. Add between 25 percent and 30 percent to cover weed eating. If you add between 4 percent and 8 percent of mowing time, that's what it will take for blowing.

A walk-behind aerator is capable of plugging about 15,000 square feet per hour, making two passes over a typical lawn.

A minimum job size should be 3,000 square feet. Charge a flat rate for every 1,000 square feet over that.

A good power-seeder can seed about 12,000 square feet per hour, going in two directions. Count on one call-back to seed small areas.

Thatching is dirty and time-consuming work. Bid it on an hourly basis times the number of

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3.00	0.97	0.0309
4.00	0.96	0.0417
5.00	0.95	0.0526
6.00	0.94	0.0638
7.00	0.93	0.0753
8.00	0.92	0.0870
9.00	0.91	0.0989
10.00	0.90	0.1111
11.00	0.89	0.1236
12.00	0.88	0.1364
13.00	0.87	0.1494
14.00	0.86	0.1628
15.00	0.85	0.1765
16.00	0.84	0.1905
17.00	0.83	0.2048
18.00	0.82	0.2195
19.00	0.81	0.2346
20.00	0.80	0.2500
25.00	0.75	0.3333
30.00	0.70	0.4286
40.00	0.60	0.6666
50.00	0.50	1.0000

From Bidding & Contracts: Your Key to Success, 1992, published by Profits Unlimited, 3930-B Bardstown Road, Louisville, Ky., 40218.

bids are averaged and the bid closest to the middle is accepted, on the presumption that the contractor will do a reasonably good job at a fair price.

"Low bidder certainly comes back to haunt anyone who's been around — both buyer and seller," Cromley said. "It's a piece of cake figuring the hours. The problem comes in when it gets to variations on the details. We won't be the low bidder, but not the high bidder, either. We are out there to get the job done. Is that a strategy, or just common sense?"

This year, he expects to see an increase in spray rates for slow-release nitrogen applications in the range of 5 percent to 15 percent. In most cases, new bids will be up 3 percent to 6 percent over a year ago. Older contracts usually will have an increase built into them.

But low bids aren't always based on deception, and some firms find themselves on both ends of the bid spectrum at different times. "There was one job where we got \$65 per trip to cut the lawn. We saw a

bid for \$32 from another reputable firm, and they threw in leaf removal," Angelotta recalled. Another time, he bid \$12,500 to do an installation and figured he would make a reasonable profit. A competitor was asking \$62,500.

His answer: If you are confident they will do the work well, go hire them. "I believe our prices are fair," he maintained. They are based on a \$30 per hour labor cost and a 25 percent profit margin. The figures will be adjusted depending on the service.

He warns that some bottom-fishing operators will low-ball a lawn care job, hoping to make their money on the rest of the maintenance business.

The universal advice from professionals is to know your costs, add a reasonable profit margin, and stick to it. Jake Volz of Wayne's Lawn Service, Louisville, Ky., figures a minimum charge of \$25 per hour per man. "But that hourly rate will vary from place to place across the state and the country."

AVOIDING WASTE. According to Christian, the industry faces a paradox: the typical real estate manager is paying too much, but the contractor isn't getting enough for the jobs being done. Where's the money going? Christian said it's going to waste — spending too much time picking up clippings and using the wrong mowing equipment.

"The chickens will come home to roost in 1995-96," he predicted. He advised contractors to check the early season jobs, evaluating whether the right things are being done in the right spots.

Christian teaches his clients to think,

not in basic measurements, but in terms of production factors — like the number of square feet per job per person per hour. He cautioned that figures like 30,000 feet for mowing or 1,200 feet for edging are not meaningful unless you've done the calculations for your own system.

Scott Annan, president of Gator Landscaping in Orlando, Fla., goes beyond basic measurements for estimating bids. "It's just like diving," he said. "You have to factor jobs for degree of difficulty." A job that normally will take an hour to mow may require one and a half to two hours at a site with a slope.

Annan has kept careful records of job costs, but holds them close to the vest because of competitive factors.

WHEN TO FOLD THEM. It's important to know when to hold them, and when to fold them. One area that doesn't turn a profit for larger firms is lawn mowing.

(continued on page 102)

Compost Digest

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USE READER SERVICE #67

USE COMPOST WHEN ESTABLISHING NEW TURF

SPRING IS coming and along with it, the smell of fresh-cut grass, wet weather and that frisky feeling of getting closer to summer. It never fails that every year, someone says, "I smell worms" during a warm spring day. Amid the anticipation of these seasonal wonders is the landscape contractor, plodding and planning, always trying to improve the business of landscaping. Using compost can be a good first step toward success.

Five years ago, many contractors did not know where to find compost, how to use it or how it benefits establishment of turf. However, with research at leading universities and with ingenuity, compost use in turf establishment programs has grown dramatically. In fact, in many areas, lawn establishment happens to be the number one use for compost products.

A lot has been discovered about compost in the last five years, especially about how to use it effectively. But little work has continued on the basics of what we use it

(continued on page 88)



Compost plays a vital role in improving both clay and sandy soils and making it easier for grass seed to germinate.

Step-By-Step Lawn Establishment

1. Remove old sod, weeds or current vegetation. For new sites, clear away rocks, brush or other debris that will keep seed-to-soil contact from occurring. Many contractors prefer to use a non-selective herbicide prior to stripping old sod, making sure that problem weeds and other grasses are controlled.

Level the area by using a machine like a rototiller, rake or a tractor. A level lawn helps prevent future scalping by the mower. It is important to completely break up the soil so it is loose before moving on to step two. If this is not accomplished, the tilling equipment may not get as deep into the soil, limiting future root activity.

2. Prepare the seedbed. Germination of grass is best when seed-to-soil contact is maximized. Spread about 1 to 2 inches of compost on the surface and work it into the soil using a rototiller, rake, shovel or other mechanical device. It is best to loosen the soil once before applying the compost to make sure adequate mixing occurs when the rototiller passes through both materials. It may be necessary to make two or more passes in each area if soils are extremely poor and high in clay content.

The incorporation should reach at least to a 5-inch depth. A well mixed compost/soil blend appears dark and somewhat mottled in color but should be devoid of black streaks of compost or yellow streaks of clay.

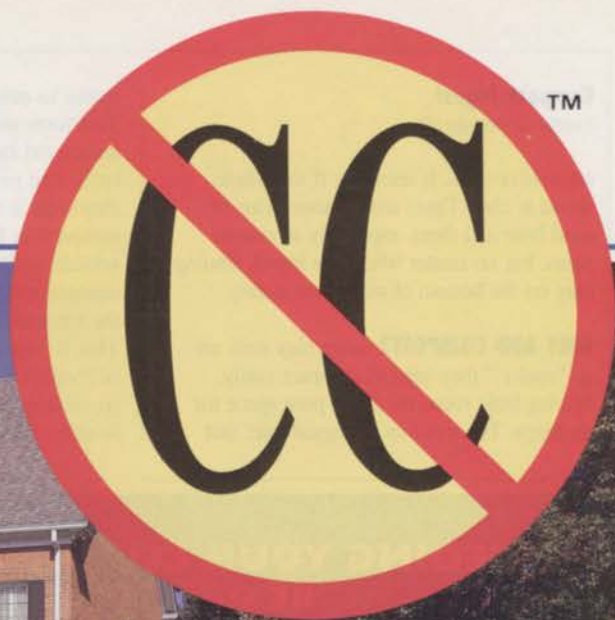
3. Sow the seed of your choice. Select a seed variety that suits your planting area. For instance, shade areas are more suited to shady varieties of turfgrass. Consult your local garden center or extension agent to discuss what may be best for your area and climate.

Try to avoid seeding on windy days due to challenges associated with even applications. Cover the soil and seed with a light dusting of compost or straw. Since compost is already on site, it is easy to use as a light cover, providing moisture retention and immediate nutrients for germinating seeds.

4. Water the entire area thoroughly, soaking the soil to a depth of six inches. After the initial soaking, water lightly for about 10 minutes two or three times a day, depending on weather conditions. When grass begins to grow, gradually decrease the frequency and increase the duration of each watering until nature takes its course. Fertilizer may not be needed for the

(continued on page 90)

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Compost Digest

(continued from page 86)

on...native soils. It seems as if the whole world is clay. There are obvious veins of sand here and there, especially in coastal areas, but no matter where we travel, finding clay on the bottom of our shoes is easy.

WHY ADD COMPOST? Since clay soils are so "sticky," they tend to compact easily, leaving little room for air or pore space for drainage. The result is a sluggish turf that

seems to struggle to fill in. Turf roots are somewhat smothered by these heavy soils. The problem of heavy clay soils is magnified when compaction from foot or vehicle traffic is added, squeezing out even more of the minimal pore space. That is why the center areas of football fields are always so challenging to grow healthy, thick turf. Adding



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compost to these types of soils helps break them up and keep them apart long enough for drainage holes and roots to penetrate.

Compost gives the native soils more "spring back" potential, reducing compaction problems, at least temporarily.

On sandy soils, compost also acts like a sponge, but this time by holding onto moisture that sands are not able to absorb. A typical sandy soil may hold up to 25 percent of its weight in water, while compost may hold up to 150 percent to 200 percent.

The addition of compost to sandy soils drastically increases the water-holding and nutrient-loading capacity. Landscape contractors in coastal areas who are concerned about nutrient movement through the soils can use compost as a management tool to help reduce mobile nutrients, because it helps increase the cation-exchange capacity.

SELECTION GUIDELINES. Many misconceptions exist about the type of compost that is best to add to soils. Some people believe that the finer the product, the better. This is true only for topdressing of established turf. When rototilling a clay soil, it seems as if fine compost products are not as visible as coarse products.

For instance, imagine the effectiveness of keeping two clods of sticky clay apart using compost as fine as flour or as coarse as a fine mulch. In practice, the coarser products are better in the long run because they help keep the soil looser for longer periods.

Clay is such a fine soil already that adding fine compost to it does not help as much as coarser products. Besides, the coarse fragments take longer to break down and promote soil microbial activity, which is indicative of a healthy soil.

Sandy soils seem to perform well with both fine and coarse products, but due to their porous nature, a fine product works especially well.

What is coarse and what is fine? Compost producers generally sell compost products based on production equipment available. Screeners often have 1/4, 1/2, 3/4, and 1-inch openings that size products accordingly. There some screeners that are 3/8-

(continued on page 90)

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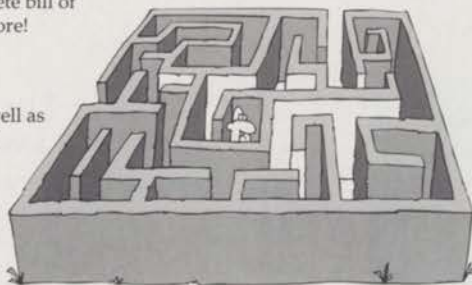
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USE READER SERVICE #69

Compost Digest

(continued from page 88)

and 5/8-inch, etc., but as a rule, the even numbers seem popular.

Compost products screened through a 3/4-inch or smaller screen size usually are sold as "finely screened," and larger products are sold as either "1-inch minus" products (coarse) or unscreened.

The unscreened products, as long as they are contaminant free, can be effective if they are fully degraded composts. They are fully degraded if the original ingredients, like grass clippings, are not identifiable.

SOIL IMPROVEMENT. The number one reason for using compost in lawn establishment is to increase the organic content of the native soil. All projects should start with a soil test, but that rarely happens, due to the pace at which the season usually progresses.

As a rule, adding 1 or 2 inches of compost can increase native soil organic matter levels from 0.25 percent to 1 percent or more, depending on the native soil, the compost product and the climate. Warmer climates have extremely fast decay cycles for organic matter due to the heat and humidity, making organic matter management a challenging task.

A generic step-by-step guide to installing a new lawn is outlined on page 86. Although the specifics of fertilization, watering and maintenance are variables that differ in certain regions of the country, setting up the best possible physical setting by using compost can make them more effective in the long run.—Rod Tyler

The author is a Certified Professional Agronomist and free-lance writer residing in Medina, Ohio. He is employed by BFI in Oberlin, Ohio.

Step-By-Step Lawn Establishment

(continued from page 86)

first growing season, if at least one inch of compost is used. However, many lawn and landscape contractors still use starter fertilizer as "insurance."

5. Maintain regularly. Aerate and topdress with finely screened compost or a mix of compost and sand at least once per year. Adapt a regular fertility program to the goals of the project. A program of aerating and topdressing once yearly (either in the spring or fall) should supply adequate nutrients for areas receiving less use.

(Adapted from Sanchez and Sears, "Seeding a New Lawn," *Horticulture* magazine, August/September, 1994, pp. 56-57).

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People

STANLEY MORSE has joined the sales team at CoRoN Corp., with responsibilities for sales and technical support of the firm's liquid controlled-release nitrogen fertilizer products in the Southwest and mid-South regions. He formerly worked for Vicksburg Chemical and Arcadian Corp.

Expansions continue in the staff of Chapel Valley Landscape Co., which named **Ed Cinkole** to the position of marketing representative for large-scale commercial and golf course landscape projects. He has more than 10 years of industry experience. **Lisa Johnston** was appointed as an estimator/design assistant at the firm's Maryland office, and **Richard Egan** has joined the Virginia office to handle new business development for commercial and design/build projects.

Echo Inc. appointed **Steve Holley** as the new product manager. His responsibilities will include developing new products and accessories, as well as marketing strategies.

Jim Beckmann was appointed Iowa sales representative for Plantabbs Products division of Tango Industries. He will add the Iowa territory to his current responsibilities for sales in Kansas, Missouri and Illinois.



Morse



Pulliam

Keelan Pulliam was named business director for Zeneca Professional Products. He has more than 16 years experience with the firm, most recently as director of sales for Zeneca Ag Products. His new responsibilities include overseeing the division's business growth and direction.

James Budzynski formed Gateway Management Solutions, a marketing management consulting company based in St. Louis, Mo. Previously, he served in Monsanto's product development and marketing departments for 12 years, with responsibilities for the launch of turf herbicide products.

Husqvarna Forest & Garden promoted **Chuck Lemieux** to director of sales. His 24 years of experience in the outdoor power

equipment industry include sales development for Husqvarna and work as a dealer and distributor representative.

New appointments at Jacobsen Division of Textron include: **Tony Saiia**, to vice president customer service and product support, a newly created position; **Steve Yolitz**, to director of product management; **Terry Herlihy**, product manager with responsibilities for new product development and current product updates; and **Bob Krick**, to manager of product and service training; **Wayne Snell**, product and service training; and **Ralph Sylvester**, product and service training.

Briggs & Stratton named **Marv Klowak** product engineering manager for its large engine division, with responsibilities for product design and development. He joined the firm in 1988. **Teri Dallmann** was appointed product specification supervisor. Her new duties include processing engine specifications and pricing for the products in all of the company's engine sales divisions.

John Helderop is the new national sales manager for the engine division of Kawasaki Motors Corp.

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(continued on page 97)

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☒ Others (please describe): Twelve Education & Research

3. What best describes your title? (please check one)

- ☒ Owner, Pres., Vice Pres., Corp. Officer
☐ Manager, Director, Supt., Foreman
☐ Agronomist, Horticulturist
☐ Entomologist, Plant Pathologist
☐ Serviceman, Technician
☐ Scientist, Researcher
☐ Company, Library copy only
☐ Other (please specify) _____

4. Based on overall dollar volume, estimate what percentage of your business is derived from:

- _____ % Mowing
 _____ % Tree Care
 _____ % Fertilizer
 _____ % Seed
 _____ % Pesticide Applications
 _____ % Irrigation Installation
 _____ % Irrigation Maintenance

5. How many people does your business employ (including yourself)?

- _____ Year-round
 _____ Seasonal

6. What is your annual purchasing budget for:

- \$ _____ Pesticides
 \$ _____ Equipment

7. In peak season, how many crews do you operate in the field for:

1	21	41	61	81	101	121	141	161	181
2	22	42	62	82	102	122	142	162	182
3	23	43	63	83	103	123	143	163	183
4	24	44	64	84	104	124	144	164	184
5	25	45	65	85	105	125	145	165	185
6	26	46	66	86	106	126	146	166	186
7	27	47	67	87	107	127	147	167	187
8	28	48	68	88	108	128	148	168	188
9	29	49	69	89	109	129	149	169	189
10	30	50	70	90	110	130	150	170	190
11	31	51	71	91	111	131	151	171	191
12	32	52	72	92	112	132	152	172	192
13	33	53	73	93	113	133	153	173	193
14	34	54	74	94	114	134	154	174	194
15	35	55	75	95	115	135	155	175	195
16	36	56	76	96	116	136	156	176	196
17	37	57	77	97	117	137	157	177	197
18	38	58	78	98	118	138	158	178	198
19	39	59	79	99	119	139	159	179	199
20	40	60	80	100	120	140	160	180	200

- _____ Installation
 _____ Maintenance
 _____ Pesticide Application

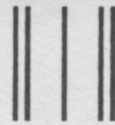
8. What is your approximate annual sales volume? \$ _____

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Products

(continued from page 94)

interchanged quickly to provide breaking, tamping and chiseling on a variety of materials. Hammer transports easily, without the complications of a compressor unit.
Circle 128 on reader service card

A new design for **Monsanto's** 2 1/2-gallon herbicide containers provides faster, smoother pouring with reduced exposure to materials. A resealable cap replaces the foil seal for easy opening and a split inner opening in the handle lets air flow into the container to improve pouring action. Other improvements include a no-drip lip, textured grips, larger handle and recyclable plastic construction.

Circle 129 on reader service card



Disc-style brush chipper from **Vermeer** handles debris up to 6-inches in diameter and uses a 4-sided bed knife and thick cutter disc for cutting power. Automatic-feed sensor system monitors and controls feed-



roller speed by sensing the engine's load. A 64-inch feed table and 240-degree rotating discharge chute keeps operators away from the cutting action.

Model 625 chipper also features a variable-speed hydraulic system for higher torque and comes with a choice of three engines from 20-hp to 23.5-hp.

Circle 130 on reader service card

Barenbrug USA has introduced Barkoel (*Koeleria macrantha*), a low-maintenance turfgrass that requires almost no fertilization

after establishment and thrives on cutting heights under 1 inch. Its fine leaves resemble fine fescues, with the added benefit of tolerance to drought and salt. Other advantages include disease resistance and slow growth characteristics.

Circle 131 on reader service card

A low application rate of 8 ounces per acre of Mavrik® insecticide from **Sandoz Agro** has been tested effective on tough surface feeders in turf. The odor-free formulation is said to reduce the environmental load by as much as 85 percent over other products, without the need for employee testing.

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ants, chiggers, brown dog ticks, fleas, bluegrass billbugs and other pests. It can be used safely around hummingbirds and bees.
Circle 132 on reader service card

Willibald TBU 3000 compost turners from **Fecon** are said to allow up to 5 times more material to be processed per acre in trapezoidal composting. Inclined motor drum is fitted with flail cups that mill



material, then deposit it on a conveyor for transport. This action inverts and aerates compost at a rate of about 400 cubic yards per hour. The standard version is driven from a tractor.

Circle 133 on reader service card

Reemay's Germinator™ lightweight polyester fabric promotes grass seed germination by providing a greenhouse-like atmosphere at ground level. Porous fabric allows sunlight and water to penetrate, but keeps egg-laying insects and other animal pests from reaching seedlings. Users unroll it on landscape areas, then roll it up and store it after germination for repeated use.

Circle 134 on reader service card.

Fertilizer, seed and dry pesticide applications can be simplified with **Course Air's** Turbo II air flow machine. Improvements include a 20 cubic-foot hopper, 16 or 20-



foot boom spread, breakaway boom design, environmental shields that eliminate drift and a shorter tongue for easy turns. Applicators can choose rates from 5 pounds to 500 pounds per acre.

Circle 135 on reader service card

DK Enterprises has introduced WinLawn™ lawn care software for Microsoft Windows systems. Simple point-and-click functions produce full-color data on routing, servicing, sales, invoices, call-backs, marketing, renewals and other business operations. An automatic year-end rollover displays at the push of a button. Ten 2- and 3-D rotating graphs illustrate sales, cancellation and renewal trends for easy analysis of business.

Circle 136 on reader service card

Contractors can control scale, anthracnose, powdery mildew and other diseases on ornamental plants with **Best Sulfur Products'** newly approved Lime-Sulfur Solution. The calcium polysulfide material has a high alkaline nature that acts as a contact pesticide, regardless of temperature. Fine particle size of the colloidal sulfur provides even surface distribution and sticking characteristics for residual benefits.

Circle 137 on reader service card

Model 9400 Ultimate Turning Radius™ mower from **Excel** relies on all-wheel drive and all-wheel steering to handle challenging



terrain and slopes. Its Twin Walking Beam™ frame gives all four drive tires contact with the ground at all times. Mower is powered by a 65-hp diesel engine.

Operator features include a deluxe seat with tilt suspension, hydraulic power steering and a round steering wheel.

Circle 138 on reader service card

High power landscape edger Model FC 72 from **Stihl** has a depth adjustment wheel for accurate edging along landscape borders. Electronic ignition system, 1.45-cubic-inch engine, replaceable wear guard, flexible debris shield and quick-access blade simplify operation and maintenance. An optional extra-wide depth wheel provides stability in grassy and brush-filled areas.

Circle 139 on reader service card

Ditch Witch's directional boring tracking system combines the Subsite® 65TKR receiver with the SBR beacon for the ability to locate components at depths to 10 feet. Advanced digital signal processing

technology and choice of antenna settings provide data on boring head location and depth. Operators use color-coded keys and



simple controls to retrieve pertinent information and depth calculations.
Circle 140 on reader service card

The Quattro 4-hp, 10-cubic-inch vertical shaft engine from **Briggs & Stratton** takes advantage of a large rewind and mechanical



compression release for quick starts. Electronic ignition, extended oil fill, automotive-type dipstick and foam-element air cleaner are operating features of this model.
Circle 141 on reader service card

Pisa Retaining Wall Systems has introduced Pisa II® precast concrete components with a tongue and groove design that requires no mortar or pins. The self-sloping, self-aligning units for curved or straight walls measuring up to 4 feet high come with textured

surfaces in earthtone colors. Corner units can be installed at a 90-degree angle. All components are designed to withstand 5,000 psi pressure.

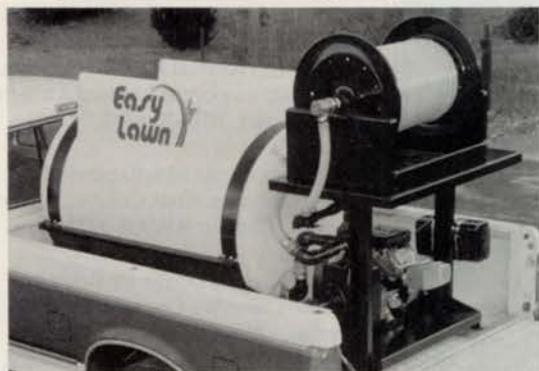
Circle 142 on reader service card

Woodscape Planting Tablets from **Vigoro Professional Products** provide long-term fertilization for trees and shrubs. Briquette-shaped tablets can be used at planting time to release nutrients over a period of up to 2 1/2 years, depending on the size used and the climate. The slow-release action eliminates problems from leaching or runoff. Two formulations are available: 14-3-3 N-P-K and 9-9-4 N-P-K, in two sizes.
Circle 143 on reader service card



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Calendar

FEB. 27-28 PLCAA Day on the Hill, Washington, D.C. Contact: PLCAA, 1000 Johnson Ferry Road, NE, Suite C-135, Marietta, GA 30068; 404/977-5222.

FEB. 28-MAR. 3 International Erosion Control Association Conference & Trade Expo, Atlanta. Contact: IECA, 303/879-3010.

MAR. 1 New Jersey Landscape '95, Meadowlands Convention Center, Secaucus,

N.J. Contact: Associated Landscape Contractors of New Jersey, 201/664-6310.

MAR. 1-4 California Interior Plantscape Association Council CalScape Expo, Irvine Marriott, Irvine, Calif. Contact: Peter Herrera, 800/442-4484.

MAR. 3-4 Masters in Management in the Landscape Industry seminar, Denver. Contact: Associated Landscape Contractors of

America, 12200 Sunrise Valley Drive, Suite 150, Reston, VA 22091; 800/395-ALCA.

MAR. 6-8 Massachusetts Turf Conference. Contact: Mary Owen, University of Massachusetts Cooperative Extension System, 508/892-0382.

MAR. 7 Building with Trees, Cincinnati, Ohio. Contact: The National Arbor Day Foundation, 402/474-5655.

MAR. 7-8 Landscape Construction: A Demonstration of Techniques, Cook College, Rutgers University, New Brunswick, N.J. Contact: 908/932-9271.

MAR. 7-9 1995 Western PA Turf Conference and Trade Show, Pittsburgh Expo Mart/Radisson Hotel, Monroeville, PA. Contact: Eric Oesterling, Westmoreland County Cooperative Extension, 971 Old Salem Road, P.O. Box 250, Greensburg, PA 15601; 610/837-1402.

MAR. 8 Professional Turf & Plant Conference, Huntington Town House, Huntington, N.Y. Contact: Nassau/Suffolk Landscape Gardeners Association Inc., 516/665-2250.

MAR. 8-9 Metropolitan Detroit Landscape Association Trade Show, Novi Expo Center, Novi, Mich. Contact: MDLA, 810/646-4992.

MAR. 14 Shigo on Trees, Atlanta. Contact: The National Arbor Day Foundation, 402/474-5655.

MAR. 24-26 ALCA Student Field Days, North Metro Technical Institute, Acworth, Ga. Contact: Associated Landscape Contractors of America, 703/620-6363.

MAY 2 Microscopic Identification of Turfgrass Diseases, Cook College, Rutgers University. Contact: 908/932-9271.

MAY 4-5 Digging Deeper for Better Solutions, Columbus Convention Center, Columbus, Ohio. Contact: Tree Care Educators, 605 SE 70th Avenue, Portland, OR 97215; 503/254-0482.

MAY 21-23 Trees, People and the Law, Lied Conference Center, Nebraska City, Neb. Contact: The National Arbor Day Foundation, 100 Arbor Avenue, Nebraska City, Neb. 68410; 402/474-5655.

JUNE 23 - 25 Plantec International Trade Fair for Horticulture, Frankfurt, Germany. Contact: Messe Frankfurt, 404/984-8023.

JULY 16-19 Urban Forests Conference, Windsor, Ontario. Contact: Canadian Forestry Association, 519/255-6270.

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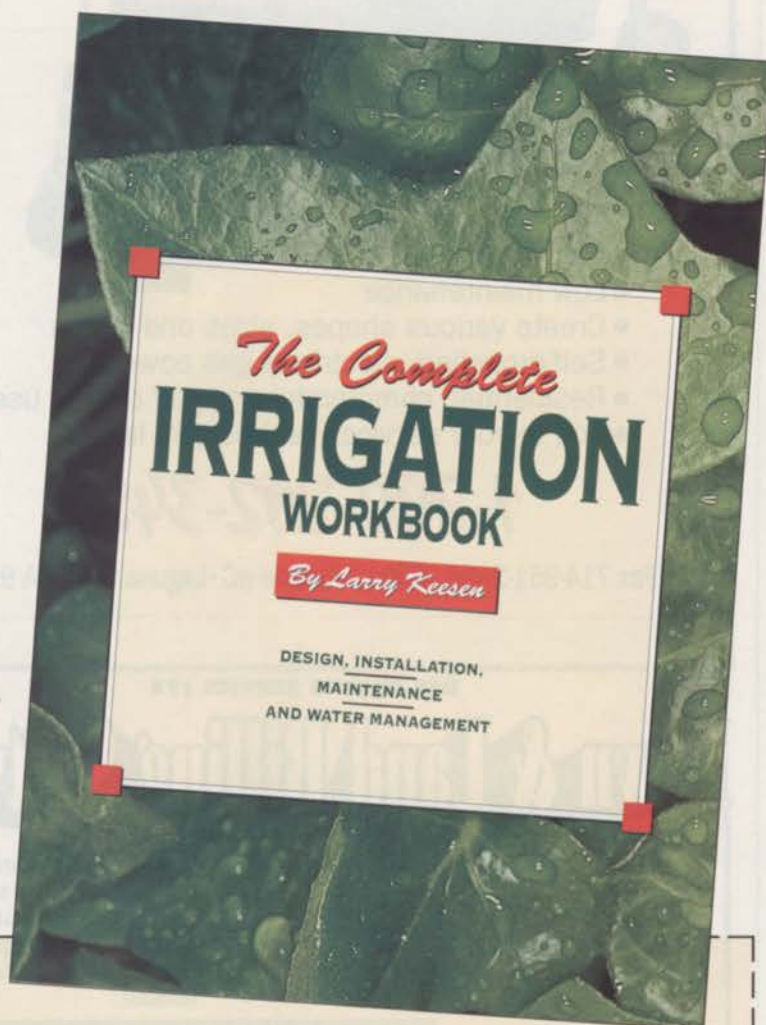
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Jones	11/1/94		Late Charge	5.00	
Ivey-123	11/1/94		Payment	82.03	

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USE READER SERVICE #68

Bidding and Estimating

(continued from page 85)

Hyland Brothers won't take on 12,000 square foot mowing jobs any more. It simply is not profitable for them to send out a trailer, three workers and a mower.

Some contracts just are not worth it. Carpenter does not go after condominium associations at all. "You just about have to live with the people to manage it," he explained. "You have to attend the association meetings. It takes a lot of time."

On top of that, Annan noted that landscaping often is the largest line item in association budgets. With every change of an association board, a new member wants to be a hero by cutting costs. To counteract that tendency, "We qualify multifamily up front," he said.

Much of Hyland Brothers' work, however, is with homeowner associations, and Cromley agreed that it is a challenge working with the constant turnover on association boards. He said they will not bid on some senior citizen homeowner associations where the expectations far exceed what they can do.

However, Carpenter pointed out that there are those who have developed a niche working with homeowner associations and, once they have learned how to work with them, have done well.

Angelotta prefers the one-year review on new jobs, giving him a chance to review the time and hours taken and adjust accordingly. "Government and commercial jobs are cut-and-dried according to the contract," he said. But some homeowners are very particular and others simply want a nice job done. "You may take a bath if they want you to do every little thing. Or you may do well."

His solution is to track costs on every job closely and then bid accordingly the following year.

Even losing a bid doesn't mean all is lost. Hyland Brothers always follows up bids with letters, whether they win or not. "We pick up a lot from persistence," Cromley noted.

CONTRACT TIME. "Three years are as long as we can convince people to go," Cromley said. Hyland Brothers likes to write in regular increases over the life of the contract. While 5 percent seems a reasonable target to shoot for, that number may be less in situations where there is more pruning than there is complicated renovation. The increase will be adjusted depending on how much the firm figures it can cut call-back time over the life of the contract.

Carpenter explained that many of his contracts are negotiated, not bid. "I prefer the three-year contract if we can get it," he said. "Our increases are worked in,

and as long as we do the work properly, we are set for three years."

PRIVATIZATION. Government jobs may be one of the most promising emerging markets for landscape contractors. "The key word is 'outsourcing,' and both government and big commercial corporations are doing it," Christian said.

He noted that government contracts will require an attitude of partnering. He sees a number of large contracts going, not to the low bidder, but to the firm the land managers feel is the best partner.

Christian said that today, 10.5 percent to 12 percent of total contract costs nationwide on construction are earmarked for litigation. That figure was 3.5 percent to 5 percent 10 years ago. "The important thing to remember is that real estate managers have come to the conclusion that this is relationship-centered," he stressed.

One of the things Annan likes about bidding government jobs is the longer contract period. "We've made an aggressive attempt to get on the municipal, county government, aviation authority and utility mailing lists," he explained. The Invitation to Bid appears in most local newspapers.

"You must meet their criteria of having three years of experience, insurance and references," he continued. "The work is extremely price-sensitive."

"The key is to take on anything that will turn a profit," Cromley noted. He said Hyland Brothers likes to do government work, even though some firms shy away

from the red tape. The company has been successful in Fort Collins, where it maintains bike trails, city areas, Fort Collins Light & Power properties and several school sites.

"We have the background in government contracts," he continued. The company is the school district's on-call weed experts.

Landmasters does not do a lot of government work. "The bidding is so competitive," Carpenter noted. "Most programs have set-asides for minority and women-owned firms, and Landmasters doesn't qualify."

His wife, Gloria, however, runs a separate firm, Superior Seeding, which does bid government jobs. She has won a number of contracts and does highway seeding projects for the government.

Three years on a government contract is typical. Technically, the contract is written for one year with two one-year options to renew. In most areas, the agency has to let bids every so often, and three years is typical. After the first year, the landscape contractor has to send a letter stating a desire to renew the contract and the next option goes into effect.

The process of working with government agencies and other institutions can be complicated, but many lawn and landscape contractors feel the effort is worth it, in terms of steady income and predictable cash flow.

The author is a free-lance writer in Strongsville, Ohio.

Estimating Mowing Costs

(continued from page 56)

CLIENT FEEDBACK. Stout sends a monthly fill-out card to all of its maintenance accounts, giving them opportunity to vent their spleens. Fewer than 10 percent do so.

"I read them all, but I'm not as concerned about the 90-plus percent that say they're happy," said Kusar. "By that, I mean that I zero-in on the problem accounts. Someone didn't like the way we swept the sidewalk leading from the parking lot to the side door? They have a chance to communicate it without feeling embarrassed by calling us. I will send someone right out there. Our customer retention rate is phenomenal."

Pugliese estimated the retention rate at more than 95 percent. "We've held customers for 26 years," he said. "We've serviced a few of them since the company was established."

Estimating mower productivity isn't done on the basis of a mower's manufacturer-estimated hourly mowing capacity any more than it's done on the basis of a square-footage formula. At Stout, estimating mower productivity rates is part of an overall maintenance billing. Each mowing company would have to come up with its own hourly number, Kusar stressed.

"It differs from place to place," he said. "Lower overhead comes with a lower number. Increased productivity lowers your number. I check my number every three months. Most of the time, I find that in a good year, we can be coming in lower than that number by as much as 30 percent. I could actually bid \$5 less an hour. We expect at the end of the year, after taxes, to make 10 percent. And we've made that goal five years straight now."

"We're soaring," Kusar boasted. "We've projected \$2.4 million for 1996 and we're at \$2.6 million already. Contracts we lost because of pricing have said, 'You know what we got for our \$20,000. Come out here and fix it for us.' We do top quality work, and people want to buy it now."

Constant monitoring is the key to making Kusar's system of estimating mowing costs work. "If you have an estimating system that gives you no way of seeing if it's working, and at the end of the year you're waiting to make money—you're going to lose it. We have established a six-year history of properties. We can go to a property and give them a good, fair price for the best work they're going to get in this area."

The author is Contributing Editor to Lawn & Landscape Maintenance magazine.

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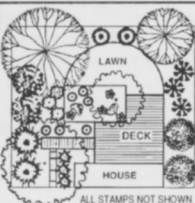
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