

## Repair or replace?

To answer this question, look at the figures and make a cost comparison

Sooner or later, every lawn care businessman must decide whether to keep an existing unit of equipment or replace it.

As time goes by, equipment such as trucks, tanks, sprayers, mowers, reels, aerators, tractors and pumps deteriorate or become obsolete. Frequent breakdowns occur, defective output increases, unit labor costs rise, and promised work schedules cannot be met. At some point, these occurrences become serious enough to cause you to wonder whether you should replace the equipment.

The problem is that new equipment costs money, and the question that comes to you is: Will the advantage of the new equipment be great enough to justify the investment it requires?

You answer this question by making a cost comparison. To recognize the better alternative you need to know the total cost of each alternative — keeping the old equipment or buying a replacement. Once these costs are determined, you can compare them and identify the more economical equipment. Raymond R. Mayer, professor of management at Loyola University of Chicago, discusses the individual costs which you must consider when computing the total costs of old and new equipment.

### Depreciation

One of the costs connected with any type of equipment is depreciation. For cost compari-

## Ohio conference draws 1,200 to Dayton; hear expanded lawn care program

Over 1,200 lawn care businessmen and other turf professionals traveled to Dayton for the annual Ohio Turfgrass Conference Dec. 6-8.

Organizers of the conference expanded the lawn care educational sessions over the previous year from one to two, in addition to the general grounds sessions available earlier in the three day conference. Each of the sessions was well-attended,

with over 400 lawn care professionals packing the conference rooms.

Some of the over 50 companies exhibiting at the show estimated that the ratio of lawn care businessmen was 3-to-1 over numbers of other turf professionals. Most of the manufacturers had products in their booths designed specifically for the lawn care industry.

Another high point of the

conference was the inception of a booth officially designated as the "consultant's corner." This booth was situated right on the exhibit floor, and gave conference attendees a chance to talk at length with speakers during floor hours.

One of the most interesting sessions to lawn care businessmen was one presented by Dr.

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# LAWN CARE INDUSTRY

Serving lawn maintenance and chemical lawn care professionals.

JANUARY 1978 • VOL. 2, NO. 1 • A Harvest Publication

son purposes, depreciation is simply the amount by which an asset decreases in value over some period of time. For example, if you bought a piece of equipment for \$20,000 and sold it for \$6,000 after seven years of service, you would say that the depreciation during the seven-year-period was \$20,000 minus \$6,000, or \$14,000. This \$14,000 was one of your costs of owning the equipment for that period.

From this, it follows that

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### GOVERNMENT

#### EPA investigates benomyl pesticide

The federal Environmental Protection Agency is investigating the risks of yet another pesticide — benomyl — commonly used on home lawns to control plant rot.

The investigation of the pesticide, made only by DuPont Co., Wilmington, Del., is a first step towards eventually banning the product if it is found to be hazardous. Meanwhile, the product, marketed under the trade name Benlate, may continue to be sold.

Benomyl is being studied because it has been shown to reduce sperm production in laboratory rats and dogs and has caused birth defects among other research rats. It also breaks down into a product called MBC, which damaged chromosomes and caused genetic mutations among rats in laboratory tests.

The EPA is also investigating the safety of a similar disease control product called thiopham-methyl or Topsin M. This pesticide is imported from Japan by Pennwalt Corp., Fresno, Calif. and is used on home lawns.

These two pesticides raise to 26 the total pesticides the EPA is investigating to determine their safety and economic importance. These investigations could take up to a year. A DuPont spokesman said the company will "rebut" the laboratory findings.

### INDICATORS

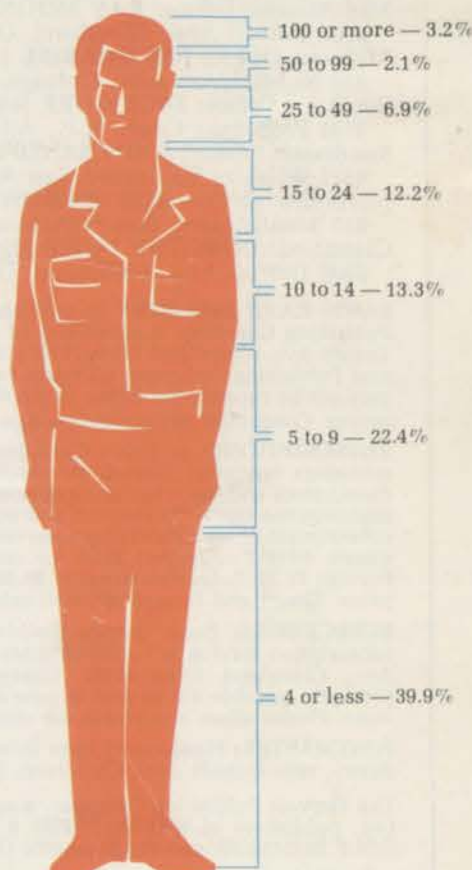
#### Housing starts down slightly in November

Housing starts in November fell 5.4 percent from October's extremely strong level, the Commerce Department has reported, but building permits for single-family homes reached record levels, suggesting continued brisk homebuilding activity.

Work was started on new homes at a seasonally adjusted annual rate of 2,105,000 units, down from October's revised rate of 2,224,000.

Despite the slight decline in housing starts, housing analysts were pleased with the figures. Single family starts are "surprisingly strong," Michael Sumichrast, chief economist for the National Association of Home Builders, told LAWN CARE INDUSTRY. Moreover, he suggested the record level of single-family building permits issued last month "suggests a very strong quarter" for units actually started.

#### LAWN CARE COMPANIES NUMBER OF EMPLOYEES



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For a complete market study of the lawn care industry in Kansas City, see MARKETPLACE, page 12. This is part of a continuing series of in-depth looks at regions of the country where the lawn care business thrives. The study includes a profile of the city, potential lawn care customers, lawn care companies that operate there and how they go about getting and keeping customers.

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## Musser group taps Harvest's Chronister

Hugh Chronister, president of Harvest Publishing Co., Cleveland, has been named to the board of directors of the Musser International Turfgrass Foundation.

Among the magazines the 44-year-old Chronister publishes are LAWN CARE INDUSTRY, WEEDS TREES & TURF, GOLF BUSINESS and PEST CONTROL.

The appointment was made by Dr. Fred V. Grau, president of the organization dedicated to supporting education and research in turfgrass development and management.

## CHEMICALS

### Rhodia announces new preemergent herbicide

The registration of a new pre-emergent herbicide — Chipco Ronstar G — for application in turf and ornamentals has been announced by Rhodia, Inc., Agricultural Division, Monmouth Junction, N.J.

Chipco Ronstar G is a selective, preemergent herbicide for the control of many annual grasses and broadleaf weeds in established perennial bluegrass and bermudagrass turf and container and field grown woody ornamental shrubs, vines and trees.

According to the company, tests indicate that the herbicide provides broader control of annual broadleaf weeds and grasses as well as longer residual than a number of other herbicides.

In ornamentals, the herbicide can be applied on newly planted field and container stock; it controls a number of annuals that are not susceptible to other herbicides, and due to its insolubility, very little horizontal or lateral leaching occurs.

In turf applications, such as fairways, parks and lawns, Chipco Ronstar G is recommended for preemergent control of germinating crabgrass, spring germinating *Poa annua*, goosegrass (silver crabgrass), Florida pulsey, oxalis, stinging nettle, carpetgrass and pigweed.

In turf, the application rate is 200 lbs. per acre (or 4½ lbs. per 1,000 sq. ft.). For woody ornamental shrubs, vines and trees, it is recommended that Chipco Ronstar G be applied broadcast to container or field grown orna-

## HONORS

### Agronomy service award goes to Toro's Watson

Dr. James R. Watson, vice president for customer relations of the Toro Co., Minneapolis, has been named by the American Society of Agronomy as the 1977 recipient of its Agronomic Service Award.

The Society, a 9,400-member scientific educational organization, established the award to recognize the development of agronomic programs and practices, and effective public relations programs aimed at promoting the understanding and use of agronomic science and technology by the public.

Dr. Watson, who is Toro's principal agronomist, speaks at many turfgrass conferences, and is the author of a number of articles dealing with various phases of turfgrass care and management, (see COST CUTTINGS, page 8 for a contribution he made to this month's LAWN CARE INDUSTRY).

In other Toro news, Brady-Holmes Co., Sacramento, Calif., distributor for the Toro Co. in central California and western Nevada, has been sold to E.S. Newton, Toro's director of marketing for turf products.

## MEETINGS

### Landscape Contractors to add lawn session

The Associated Landscape Contractors of America is adding a lawn care seminar to its list of speciality sessions at its annual meeting Jan. 30 — Feb. 2 in Orlando. For further information, contact ALCA executive director John Shaw at (703) 893-5440.

mentals at 100 to 200 lbs. per acre (or 2¼ to 4½ lbs. per 1,000 sq. ft.) depending on the weeds to be controlled.

Chipco Ronstar G is available as a 2% granular formulation in 50 pound bags. Additional information may be obtained by contacting Rhodia Inc. Agricultural Division, P.O. Box 125, Monmouth Junction, N.J. 08852.

## COMPANIES

### Echo Chain Saw expands facility

The Kioritz Corp. of America and its Echo Chain Saw Division will be moving into new and expanded headquarters in spring of this year, according to N. Rock Watanabe, company president.

The new facility, which will be located in Northbrook, Illinois, will encompass 42,000 square feet of warehouse and distribution space, and an additional 4,000 square feet of office space.

## EXPANSION

### Davey Lawnscape to double outlets

Davey Lawnscape Service, Kent, Ohio has announced that it will be doubling the number of cities it serves beginning this year.

According to J. Martin Erbaugh, manager of marketing research for Davey, his company will be moving into Milwaukee, Rochester, Buffalo and Philadelphia this lawn care season.

Markets that Davey is already servicing are Cleveland, Akron, Pittsburgh and Detroit. Davey also hopes to double the number of cities it serves beginning with the 1979 lawn care season.

## EDUCATION

### Chemical slide series offered to industry

Hopkins Agricultural Chemical Co., Madison, Wis. is offering a copyrighted slide series about adjuvants as an educational and training aid to schools, universities, pesticide distributors, dealers and applicators.

The title of the series is "What Is An Adjuvant?" It defines and illustrates the differences between spreaders, stickers, oil concentrates and compatibility agents.

It is available from Hopkins at P.O. Box 7532, Madison, Wisconsin. Phone is 608-222-0624.

## COURTS

### Mower patent suit filed by FMC Corp.

A suit has been filed in U.S. District Court, Milwaukee, by FMC Corp., Chicago, for damages and enjoining another company from allegedly infringing on a patent that FMC owns.

The patent relates to a rotary lawn mower which is marketed by FMC under the Bolens Mulching Mower trademark. Jacobsen Manufacturing Co., Racine, Wis., was the company named in the suit.

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## REPAIR OR REPLACE?

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when considering equipment replacement, you must calculate the future depreciation expense that you will experience with both the old and new equipment.

Insofar as the new equipment is concerned, this calls for knowing certain things about the equipment. You need to know (1) its first cost, (2) its estimated service life, and (3) its expected salvage value. The difference between the first cost and the salvage value will represent the amount by which the equipment will depreciate during its life — that is, during the time you expect to use it.

You determine the depreciation expense for the old equipment in the same general way but for one important difference. This difference is due to the fact that no expenditure is required to procure the equipment because you already own it. However, a decision to keep it does require an investment at the present time. This investment is equal to the asset's market value — that is, to the amount of money the asset would bring in if it were replaced and sold. If this amount is not equal to the equipment's book value, the depreciation expense that was shown for accounting purposes is in error because it did not reflect the actual depreciation.

So to determine the actual future depreciation expense that will be experienced with the old equipment, you must know (1) its present market value, (2) its estimated remaining service life, and (3) its expected salvage value at the end of that life. The difference between salvage value at the end of that life. The difference between the present market value and the future salvage value represents the amount by which the equipment will depreciate during its remaining life in your business.

To sum up, you must begin your cost comparison by determining the first cost of the new equipment and estimating its service life and salvage value. Also, you must determine the market value of the old equipment and estimate its remaining service life and future salvage value.

## Interest

In addition to depreciation, every piece of equipment generates an interest expense. This expense occurs because owning an asset ties up some of your capital. If you had to borrow this capital, you would have to pay for the use of the money. This "out-of-pocket" cost is one of the costs of owning the equipment.

The story is the same even when you use your own money. In this case, the amount involved is no longer available for other investments which could bring you a return. This "opportunity cost" is one of the costs of

owning the equipment.

To cite an example, suppose that the market value of an asset during a given year is \$10,000. Suppose also that at the same time, you are getting capital at a cost of 15 percent per year. On the other hand, suppose that if you converted the asset into cash, you could invest the money and realize a rate of return of 15 percent per year. In either case, a decision to own that asset during that year would be costing you 15 percent times \$10,000, or \$1,500 in interest.

Thus, in any comparison of equipment alternatives, you must take the cost of money into account. So, when determining whether existing equipment should be replaced, you must

estimate what money is costing you in terms of a percent per year.

## Operating costs

There is a third type of cost — the cost of operation — that is experienced with a piece of equipment. Typical operating costs are expenditures for labor, materials, supervision, maintenance, and power.

These costs must be considered because your choice of equipment affects them. You may find it convenient to estimate these costs on an annual basis. You can get figures for each unit of equipment by estimating its next-year operating costs as well as the annual rate at

which these costs are likely to increase as wage rates rise and the equipment deteriorates.

For example, you might say that operating costs for the new equipment are likely to be \$16,000 during the first year of its life. You might also estimate that after the first year, the operating costs will increase at a rate of \$500 a year.

Or you can estimate average annual operating costs rather than year-by-year operating costs. In the above example, you might simply estimate average operating costs for the new equipment to be, say, \$19,000 a year.

You can simplify the problem of estimating these costs by either (1) ignoring those costs





that are the same for the old and the new equipment or (2) estimating only the differences between the operating costs of the two units. With this simplification, the total costs which you calculate for each type of equipment will be understated by the same amount. Therefore, the difference between these total costs will remain the same, and you will still be able to recognize the more economical alternative.

#### Revenues

Often, the revenues generated by the old and the new equipment will be the same. When this is true, revenues can be ignored for the same reason

that you can ignore equal operating costs.

But if revenues are affected by the choice of equipment, they must be considered. For example, you might estimate that the higher quality of output from the new equipment will increase annual sales by \$1,200. You can handle this difference in revenues in either of two ways.

One way is to show the \$1,200 as an additional annual cost that will be experienced with the old equipment. The other way is to treat the \$1,200 as a negative annual cost and associate it with the new equipment. The total costs which you calculate will be affected by your choice of method, but the difference between these costs is the same.

#### An annual average cost

In brief, you can make the necessary cost analysis on the new and old equipment only after you have the proper data for each. For the new equipment, the data include its first cost, service life, salvage value, operating costs, and revenue advantage. For the old equipment, the data include its market value, remaining service life, future salvage value, and operating costs. In addition, for both alternatives, the cost of money must be stated in the form of an interest rate.

By using these data, you can determine the elements of the total costs. These elements consist of depreciation expense,

interest expense, operating costs, and possibly lost revenues. Now, it so happens that these costs can be expressed in a variety of ways.

However, the simplest way for cost comparison purposes is to describe these cost elements in terms of an average annual cost. Doing so permits you to calculate and compare the total average annual costs of the old and new equipment and reach a decision.

How these costs can be computed is shown in the example that follows.

#### The old equipment

Look first at some facts about an old piece of equipment. It has a market value of \$7,000. If retained, its service life is expected to be four years, and its future salvage value is expected to be \$1,000. Next-year operating costs are estimated to be \$8,000 but will probably increase at an annual rate of \$200. The cost of money is 12 percent per year. With this set of figures, you can obtain the total average annual cost of the alternative of keeping this equipment.

Annual depreciation expense. You begin by calculating the equipment's average annual depreciation expense. You do this by determining the total depreciation and dividing that amount by the asset's four-year life. Your answer is \$1,500 which you get as follows:

$$\begin{array}{rcl} \text{Annual} & & \\ \text{Depreciation} & & \\ & = & \frac{\$7,000 - \$1,000}{4} = \\ & & \$1,500 \end{array}$$

Next, you calculate the average annual interest expense. The maximum investment in the equipment is \$7,000, its present market value. But as time goes by, the investment in the asset decreases because its market value decreases. The minimum investment is reached at the end of the equipment's life when it has a salvage value of \$1,000. The average investment will be the average of these maximum and minimum values. You calculate it as follows:

$$\begin{array}{rcl} \text{Average} & & \\ \text{investment} & & \\ & = & \frac{\$7,000 + \$1,000}{2} = \\ & & \$4,000 \end{array}$$

To determine the average annual interest expense, you multiply the average investment (\$4,000, in this example) by the annual interest rate of 12 percent. Doing so yields:

$$\begin{array}{rcl} \text{Annual} & = & \$4,000 \times .12 = \$480 \\ \text{Interest} & & \end{array}$$

You can determine the average annual operating costs by computing the average of the individual annual operating costs. In this example, they are estimated to be \$8,000, \$8,200, \$8,400, and \$8,600. The average for these figures is \$8,300 which you can obtain as follows:

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Several other big-tractor features are standard, such as a differential lock that engages on-the-go for added traction in slippery conditions. There's a 540-rpm rear PTO that's fully shielded. Also individual rear wheel brakes that lock together for highway transport and lock down for parking. There's a heavy-duty, 4-position drawbar. The dash has full

instrumentation and a non-glare finish. Both hand and foot throttles are standard. There's a 3-point hitch (Category 1) for easy hookup of integral equipment. The seat is adjustable and fully cushioned for operator comfort; it tilts forward for weather protection.

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## CIBA-GEIGY



James F. Wilkinson, research director of ChemLawn Corp., Columbus, Ohio. He spoke on research needs of the lawn care industry.

He said the lawn care industry is expanding at a tremendous rate and has the potential to become the largest part of the turfgrass industry. He stressed the need for more turf research at the university level on lawns, such as the breeding challenges of finding disease-resistant cultivars, and special fertility problems for the industry.

Wilkinson said that because of the nature of many lawn care companies with a less frequent visit schedule, they need

chemicals with adequate residuals. This is because company representatives are not usually on the lawn frequently enough to anticipate problems. He said liquid systems for solubles and insolubles need to be researched as much as dry systems have been in the past. He also mentioned problems of chemical incompatibility and placement incompatibility that lawn care companies faced that have to be researched for the future.

He also said the industry needs specialized application equipment, particularly equipment that would allow an operator to do different types of applications with one unit. He said more research is needed to

be done on liquid fertility to offset dangers of fertilizer burn. He suggested that liquid slow-releases nitrogen sources would be well-accepted by the industry. Also, alternative forms of pesticide releases, such as encapsulated slow-release pesticides are a possibility. He also said research has to be done to develop new products for the lawn care industry, products like improved spray adjuvants, anti-drift agents and growth retardants.

Another interesting session to the lawn care businessman was that of J. Martin Erbaugh, manager of marketing research for Davey Lawnscape Service, Kent, Ohio. He spoke on the implications of an expanding business.

He likened the lawn care industry at its present stage to Davey's start in the tree service business in the 1920s. He called it a "first-user market," one where most of the customers are those who are receiving lawn care services for the first time. He also said market penetration is occurring at a faster rate than housing construction, but that at some point in the future — perhaps five years, perhaps 20 years — market growth will be based solely on professionalism within lawn care companies and not new potential customers represented by single-family home construction.

He said that in the future, perceptive companies will define their market strategy for years in advance, planning their expansion into new market areas, taking into consideration competition in those areas. He also said that companies will have to decide their position in a particular marketplace and in-

corporate promotion and advertising techniques that follow that position strategy.

He said lawn care companies in the future will borrow techniques from other industries, techniques such as computerization and data processing. Erbaugh also said that lawn care companies will have to work with universities to explain to them the needs of the industry. He also said that companies have to help develop the curriculum of universities, because many turf students coming out of the schools do not have the proper tools to be lawn care professionals.

Licensing standardization is something lawn care companies will have to face in the future, he said. Companies will be increasingly faced with regulations from the Occupational Safety and Health Administration, wage and hour restrictions, and regulations from other agencies as the industry becomes more visible. He also said that the industry will in the future have to respond as a whole to legislation drafted that affects the industry.

Dr. Harry Niemczyk of the Ohio Agricultural Research and Development Center, Wooster, Ohio, spoke on grub control and gave a research update on the bluegrass billbug.

He stressed that particularly in a home lawn situation, thatch can interfere with the movement of insecticides down. The insecticide has to get to ground level to have any effect at all on the grubs, and thatch can tie it up before it can do any good. He said insecticides like Diazinon, Dursban, Dylox and Proxol are commonly used on home lawns,

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## COST CUTTINGS

### Lawn care during a water shortage

With drought conditions in the West and elsewhere across the country, home lawn watering has been restricted in many areas in the recent past. Here are some suggested tips from Dr. James R. Watson, vice president and agronomist for Toro Co., Minneapolis, that you can pass along to your customers, to keep their lawns alive and well with a minimum of water.

Irrigate when there is the best combination of little wind, low temperature and high humidity. In a 24-hour period, that combination most often exists just before dawn. With an automatic underground irrigation system it is easy to program it to water at this time. Another distinct advantage of the automatic system is that it may be scheduled to water during "off-peak" use periods between 2 and 5 a.m.

Fertilize to encourage maximum root system growth but minimum leaf growth. Have the soil tested and fertilize accordingly. Pay special attention to pH (it should be in the 6.5 — 7.2 range) and to the level of mineral nutrients like phosphorus, which is beneficial to root growth.

Mow less frequently, and save all clippings for mulch. Raise the height-of-cut on the mower. Although this enlarges the surface area through which moisture is transpired the benefits gained — mainly root extension — are most important. Finally, cultivate (aerate, spike or spike disc) more frequently. Use the equipment to open the soil to insure that the moisture enters, and does not run off.



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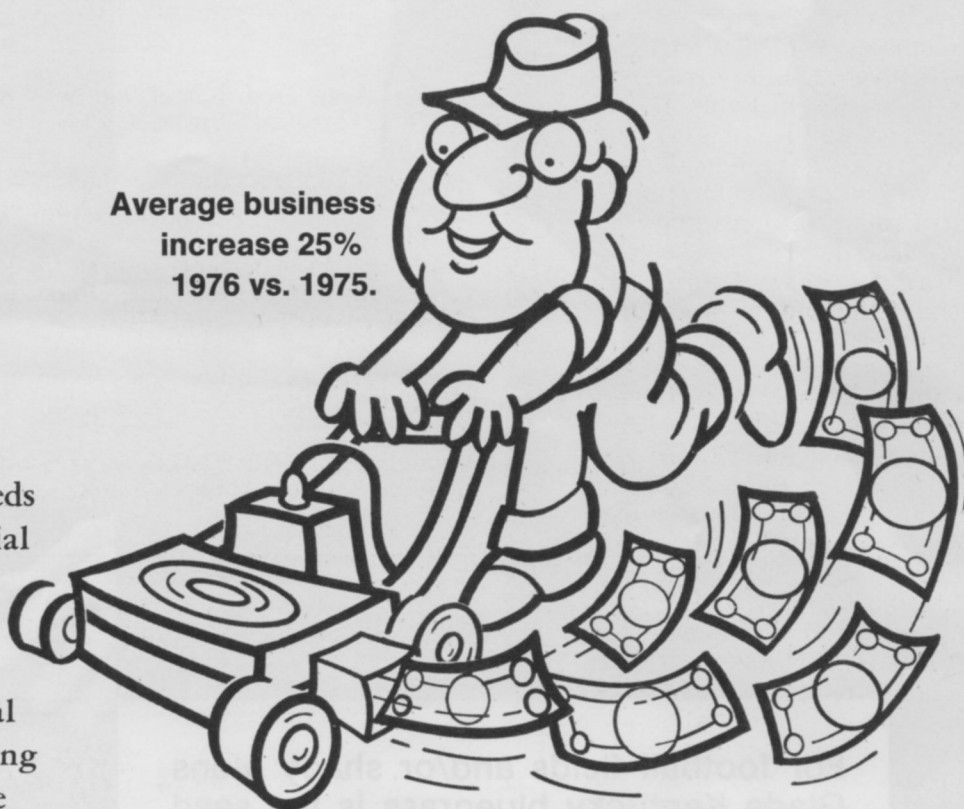
Another fine, quality-controlled product of Jacklin Seed Company.



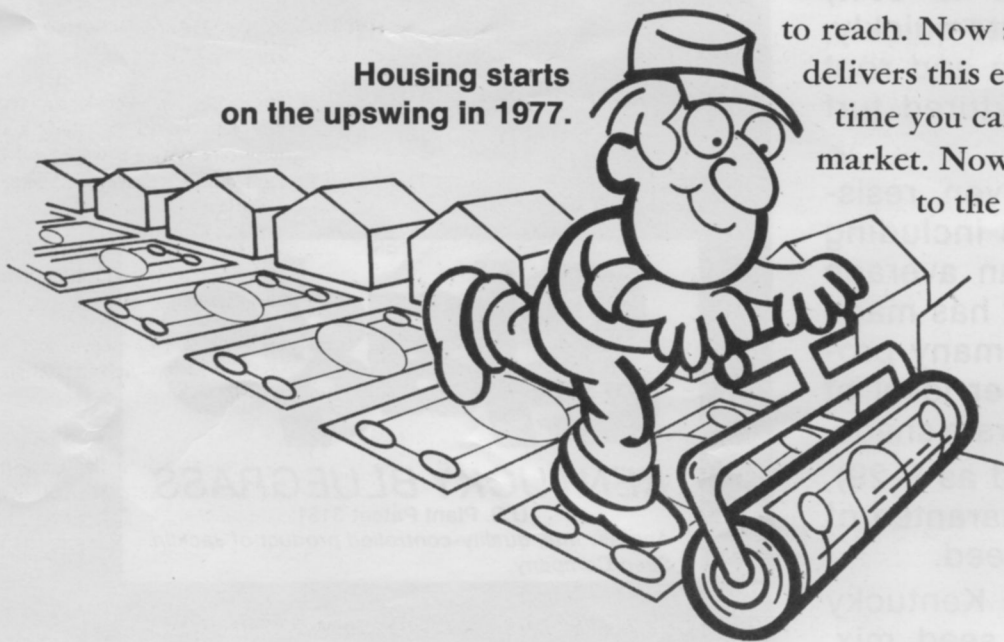
# Let's get down to grass facts!

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increase 25%  
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but stressed that Dasanit is too toxic to even be considered for home lawn use.

He said that bluegrass billbug is becoming more pronounced problem all over the country, and has been found as far out West as California and did particularly bad damage in Michigan this year. He stressed that knowing the life patterns of the billbug or any other insect is important to be able to control it.

In the case of billbug control, Dr. Niemczyk said the best time to control it in a home lawn situation is during its adult stage from about mid-April to mid-May. To control it in its larvae stage, control is needed from about mid-May to late June. But he again stressed to watch out for problems of the insecticide getting tied up in the thatch layer.

Other speakers and their topics during the lawn care sessions included: Robert Robinson, ChemLawn Corp., "The Development and Monitoring of an Effective Cholinesterase Program;" Dr. Roger Funk, Davey Lawnscape Service, "Lime and Other Products for Acid Soils;" Dr. Noel Jackson, Department of Plant Pathology, University of Rhode Island, "Turf and Ornamental Disease Requiring Special Attention in the Home Landscape;" Dr. Thomas L. Watschke, Department of Agronomy, Penn State University, "Growth Regulators — Present Status and Future Perspective;" Herb Day, Sales Manager, Stauffer Chemical Co., Westport, Conn., "Tank Mixes of Pesticides and Pesticide Fertilizer Combinations."

Also, Dr. John Long, Director of Biochemical Research, O. M. Scott & Sons Co., Marysville, Ohio, "Alkaline Soil Problems — Causes and Correction;" Dr. John Jagschitz, Department of Plant Science, University of Rhode Island, "Chemical Control of Annual Grasses and Weeds in Turfgrasses;" Skip Skaptason, Vice President, PBI-Gordon Chemical Co., Kansas City, Kansas, "Effective Control of Summer Annual Broadleaf Weeds;" Gary Kitchel, Manager, E-Z Lawn Service, "Using Advantages and Overcoming Disadvantages Facing Small Lawn Care Companies."

Also, Dr. David P. Martin, Department of Agronomy, Ohio State University, "Roundup and Basagran Herbicides for Turf;" Dr. Phillip O. Larsen, Department of Plant Pathology, Ohio State University, "Helminthosporium Leaf Spot and Melting Out and Their Control;" Dr. Robert W. Schery, Director, The Lawn Institute, "Preventive Weed Control; Autumn Treatments Bring Spring Benefits;" and Dr. Jack D. Butler, Department of Horticulture, Colorado State University, "Soil Conditions and Turf Problems."

## MEETING DATES

**Penn State University Turfgrass Conference**, J. Orvis Keller Conference Center, University Park, Pa., Jan. 16-19. Contact: Joseph M. Duich, 21 Tyson Building, University Park, Pa. 16802.

**Virginia Turfgrass Conference**, Sheraton Motor Inn, Fredericksburg, Va., Jan. 18-19. Contact: Dr. R. E. Schmidt, Agronomy Department, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061.

**Northern California Turfgrass and Environmental Landscape Exposition**, Hall of Flowers, San Mateo Fairgrounds, Jan. 25-26.

**Southern Turfgrass Conference and Show**, Broadwater Beach Hotel, Biloxi-Gulfport, Miss., Jan. 29-31. Contact: Dr. Euel Coats, Southern Turfgrass Association, Drawer CP, Mississippi State, Miss. 39762.

**Associated Landscape Contractors of America Annual Meeting and Trade Exhibit**, Hyatt House, Orlando, Fla., Jan. 30 — Feb. 2.

**University of Tennessee Ninth Annual One-Week Winter Course in Turfgrass Management**, 323 McLemore Ave., Nashville, Tenn., Jan. 30 — Feb. 3. Contact: Dr. Lloyd M. Callahan, Dept of Ornamental Horticulture and Landscape Design, Plant Sciences Building, University of Tennessee, Knoxville, Tenn. 37901.

**Landscape/Garden Center Management Clinic**, Galt House, Louisville, Ky., Feb. 5-8. Contact: Clinic, 230 Southern Building, Washington, D.C. 20005.

**American Sod Producers Association Midwinter Conference**, Nassau Beach Hotel, Nassau, Bahamas, Feb. 12-15. Contact: Bob Garey, ASPA, Association Building, Ninth and Minnesota, Hastings, Neb. 68901.

**Capital Area Turf School**, Hershey Motor Lodge, Convention Center, Hershey, Pa., Feb. 21-22. Contact: Harold E. Stewart, 75 S. Houcks Rd., Suite 101, Harrisburg, Pa. 17109.

**Western Pennsylvania Turf School/Teade Show**, Howard Johnson Motor Lodge, Monroeville, Pa., Feb. 21-23. Contact: Henry F. Meinert, Jr., 16 Schenck Terrace, Pittsburgh, Pa. 15215.

**Landscape Design Short Course** for Residential Properties, Ohio Agricultural Research and Development Center, Wooster, Ohio, Feb. 23-25. Contact: Fred K. Buscher, Area Extension Center, OARDC, Wooster, Ohio 44691.

**Iowa Turfgrass Conference**, Hilton Inn, 6111 Fleur Drive, Des Moines, Iowa, Feb. 27 — March 1. Contact: Dr. William E. Knoop, 307 Horticulture, Iowa State University, Ames, Iowa 50011.

**Northeastern Pennsylvania Turf School**, Master Host Inn, Wilkes-Barre, Pa. Feb. 28, Contact: Cy Chadwick, Court House Annex, 5 water St., Wilkes-Barre, Pa. 18702.

**Midwest Turf Conference**, Purdue University, West Lafayette, Ind., March 13-15. Contact: Dr. William H. Daniel, Department of Agronomy, Purdue University, West Lafayette, Ind. 47907.

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# LAWN CARE INDUSTRY Marketplace

Even if Jim McGee wasn't six-foot-four, you would listen to him anyway.

Because he is smart enough to take \$70 to Las Vegas recently and parlay it into \$2,500 playing blackjack. His advice: "Figure the dealer for eight in the hole; if you figure him for 10 you'll lose it every time."

He also has some smart advice about making it in the Kansas City lawn care market as he settles down to lunch at his favorite restaurant. He orders what they call a "flying saucer", which is nothing more than a giant taco, and says:

"There is a lot of potential here, no doubt about it. Companies realize enough gross dollars to make it, but they are not organized, don't spend enough time thinking about management. The ones who stay in business year after year are and do."

McGee, owner of Smith Lawn & Tree Service on the Missouri side, has been in business 30 years and has seen a lot of companies come and go. About five or six years ago, some of the major chemical lawn care companies such as ChemLawn Corp., Ever-Green Lawns, and Green Lawn Fertilizer Corp. opened their doors and began spraying their first lawns. The business has been booming for both the chemical application companies and the maintenance/landscape operations. It is estimated there are probably 50,000 home lawns receiving some form of lawn care in the Kansas City area. The year 1974 was a particularly good year for growth, because homeowners were finally sufficiently familiar with the chemical companies, knew what they could do, and were buying the service.

Another reason for steady growth is that the Kansas City area has had excellent growing conditions for the last three or four years, and most home lawns have blossomed, keeping the customers were happy.

But last lawn care season was a killer. Heavy spring rains caused problems with crabgrass control, and hotter and more humid weather than usual caused heavy summer disease problems for the first time in years.

Add to this, one lawn care businessman joked, the fact that there are rumors curvaceous Channel 9 weathergirl Cheryl Jones might be leaving the station, and the bottom line is that many homeowners are going to be in questioning moods this lawn care season. As one operator put it:

"It is going to be like so many pennies thrown up in the air. We are going to lose some customers, and we are going to pick up some others that are dissatisfied with the people doing the work



(Above) Harry S. Truman Sports Complex, the world's only side-by-side sports stadiums, which house the Kansas City Royals and the Kansas City Chiefs; (right) The Kansas City downtown area; (far right) Kansas City International airport, which serves nine major airlines and 40,000 passengers daily — its multiple-terminal design was a prototype in employing the concept of an integrated passenger terminal facility.



for them now. The most professional companies are going to gain the most."

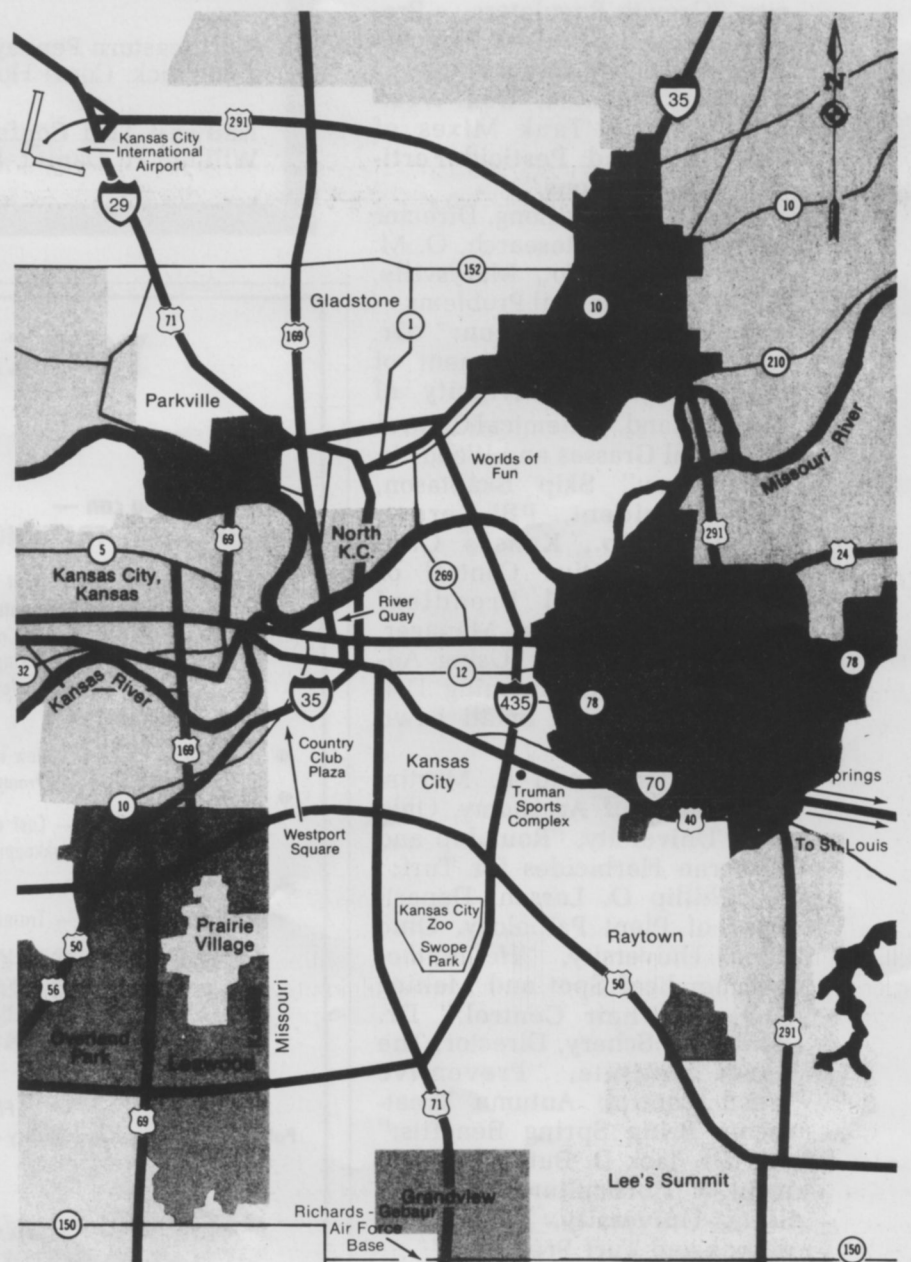
Just like Jim McGee said.

There are 71 companies listed as providing lawn maintenance in the Kansas City Yellow Pages. Along with ChemLawn, Ever-Green, Green Lawn and Smith Lawn and Tree some of the larger companies would include: Frey and Frey Landscaping, Chiswell Lawn Service, Green Valley Co., Mount Moriah Lawn and Tree Service, Keller's Turf and Shrub Care, Shelton and Son Landscaping, Suburban Lawn and Garden and many others.

The population of the metropolitan area is 1.27 million, and lawn care companies have between 15 and 20 percent of the approximate 300,000 single family homes receiving some kind of lawn care services.

"It's a competitive market," says Bo Stueck, who along with her husband Bill runs Suburban Lawn and Garden. Dave Murphy of Green Valley says: "We see each other's trucks all over town, and eat lunch at the same places." Harold Coleman of Faultless Pest Control calls it "certainly a sleeping market, and companies like ChemLawn opened it up by blanketing the market with promotion."

Paul Constant of Constant Care Lawn and Tree Service says: "The big companies are hitting what had been a dormant







# Kansas City



market. People were always willing to a pay between \$100 and \$150 to have their lawns sprayed with fertilizers and pesticides, it was just that nobody ever asked them until a few years ago."

According to lawn care businessmen operating in Kansas City, the average person who receives a lawn care program is between 25 and 40 years old, has a \$50,000 home, the household income from two salaries is between \$20,000 and \$25,000, and the average size lawn is 8,500 square feet.

The people are becoming more sophisticated. Dave Murphy says: "Three years ago it was a lot easier than it is now. I go out now and the people tell me that they like my program and they probably will go with me, but that they have five other companies coming out to give bids and their husband wouldn't understand if they took the first offer."

And Dan Adams of Shawnee Lawn and Garden says that many of his customers are what he calls "switchers", people who have had service from a larger company, but are "interested in getting more personal service from a smaller company."

Most of the lawns in the Kansas City area are bluegrass with a few zoysia and even a few tall fescue and bermudagrass lawns. Kansas City is in the transition zone, which causes problems for lawn care businessmen because

of the wide variations in weather conditions — temperatures from below zero to near 110°, and alternating dry and high rainfall periods.

Disease problems mentioned most by businessmen include leaf spot, *Fusarium* blight, *Pythium* and brown patch. Most troublesome weeds include crabgrass, chickweed, spurge, foxtail, nutsedge, dandelions and bindweed. Insect problems include armyworms, cutworms and sod webworms. Also, this year for the first time, some lawn care operators said they saw evidence of the *Ataenius spretulus* beetle, a grub problem first identified in the Northeast.

Many of the companies provide lime as late fall application if a soil test denotes that it is needed. Other fall work done on a particularly large basis by many companies includes overseeding, power raking, verticutting, dethatching, and other lawn building practices. Many companies also install automatic sprinkler systems.

Many lawn care businessmen in the Kansas City area are concerned about unfair business tactics. While being interviewed, one such businessman pulls out a file from his drawers, and it is marked "lowballs." Simply, this is the process of underbidding the amount of square footage of a home lawn, he says, with the intent of getting the job with the lower bid.

Another businessman said: "This past year I got five or six calls myself from one company. On about the third call, I told them to come out and measure my yard just to see what they would do. Nobody came out. Another call, and I told them the same thing, but nobody came out. On the fifth call, the guy on the phone said they had measured my lawn while I was not home, and that I would be charged for 8,000 square feet if I bought their service. I have a yard that is a full acre and I told him so. All he said was that I was going to get a good deal then. But how can they do it that way and still put on the right amount of material for the size of the lawn?"

Another says: "We have had people we have been servicing for four years call us and tell us we have been robbing them because somebody else comes out and says their lawn is so many thousand square feet smaller. All we do is offer to go out and re-measure it while they watch us. It usually works."

What does the future hold for the lawn care industry in Kansas City?

There is substantial home building going on; 4,100 single family home building permits were issued in the first eight months of last year, as opposed to only 3,000 for all of 1976. The growth is to the north of the city near the airport; to the southwest corner of Kansas City; John-

son County in Kansas; Independence to the northeast; and Overland Park and Leawood in Kansas, just to name a few places.

What do the lawn care businessmen themselves think about the future and growth of their industry. It depends on who you talk to. Here are some quotes from a cross-section:

"We are looking for 50 percent growth in customers this year and we are adjusting our budget, equipment and advertising outlays accordingly."

"I think it has reached a plateau. The weather problems disenchanted many of the homeowners who expected more than they were getting and more than they really are paying for, to be fair."

"The fast growth is over, but we feel it is going to be a steady incline for awhile."

"The market is pretty saturated, the companies making it now are the ones who started five years ago. Most of the business available in the next few years is going to be from smaller companies losing customers and the majors picking them up."

"We lost some customers this last year because of the weather, but we going to pick up some too. We are hoping we gain more than we lost."

For the names and faces behind the lawn care industry in the Kansas City area, please turn the page.



# Kansas City

from page 13



Dave Murphy, 29, (left) and his father Jerry (lower right), started **Green Valley Co.**, in Shawnee Mission, Kansas, five years ago. By the end of 1973, they had

150 chemical-application customers, by the end of 1974 they had 300 customers, and by the end of 1975 they had 600 customers, 200 of which they also mowed lawns for. In 1976 they cut the mowing operation and doubled their customer list to 1,200. They presently have almost 2,000 customers and hope to increase this by 50 percent in the coming lawn season. They feel that their strong suit is the amount of communication they have with their customers. They do three to four mailings a year to their customer list, usually at special times telling of special problems. Last year, for example, when the disease problems began to hit the Kansas City area, they saw what was happening and got a mailing out to their customers identifying the diseases and telling their customers what to do. "It cost us \$1,200, but it was worth it," Dave says. They also put out what they feel is one of the most complete customer booklets in the city, explaining to their customers watering, aerating, seeding and liming procedures. "We feel that if the customer is informed, and knows what he is buying, then he will be a better customer and easier to work with," says Dave.



Jim McGee (left), is the owner of **Smith Lawn & Tree Co.**, Kansas City, Mo., and has been in business 30 years, doing about 50 percent lawn work and about 50 percent tree work. He handles about 200 full-time accounts, 30 percent of which are home lawns. A percentage of his work revolves around reseeding and overseeding twice a year for over 100 customers in spring and fall. He feels organization and management is the most crucial part of a lawn care business — in a business like his, for example, having a full-time manager to complement McGee's duties in bidding jobs and using his knowledge to troubleshoot specific problems.



Darrell Kenmore (left) is assistant manager of the **ChemLawn Corp.** branch in north Kansas City, and Jim Pope, (bottom right) has been with the company since it opened its doors in Kansas City in 1972. Bob Hart is branch manager of the north Kansas City branch, Phil Johnson is branch manager of the Kansas City, Kan. branch, and Doug Coleman is manager of the southeast Kansas City branch in Grandview, Mo. opened within the last year. It is estimated that ChemLawn is the

largest lawn care company operating in Kansas City, with approximately 16,000 customers, although it is only an estimate. According to Pope, the company started in Lenexa, Kan. in 1972, and had about 2,000 customers after the first lawn season. The branch Kenmore works with goes as far north for applications as Platte City, and as far east as Buckner and Oak Grove. Kenmore estimates the average home his company handles is valued at between \$40,000 and \$60,000, the household has two incomes totaling between \$20-25,000, and the average age of a customer might be anywhere from 25 to 40, although there are many older people who re-

ceive the service. The average-size lawn is 8,500 square feet. "We see many younger families go on the program, and then sell the concept to their fathers," Pope told **LAWN CARE INDUSTRY**. Both Kenmore and Pope feel that federal bodies like the Environmental Protection Agency are going to be keeping a close watch on the lawn care industry as it becomes more visible, and that a lot of the smaller companies that do not follow government guidelines will be in trouble when the time comes.



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Five years ago this month, Neil Darnell, 28, (left) Joe Jackson, 26, (lower right) and Louis Mattoon, 34, started **Green Lawn Fertilizer Corp.** in Raytown, Mo., east of Kansas City. The first year they finished the lawn season with 800 customers. Then they tripled their business for chemical application in 1974, and now count 6,000 customers on their books. They offer four applications a year, with a basic cost of \$18 for 5,000 square feet and \$2 for every 1,000 square feet

after that. They use a slow-release fertilizer in all four applications, because "we feel it gives us an edge on the competition," Darnell said. They also apply insect control in their two summer applications, mostly to control sod webworms. They have been doing business in Springfield (about 130 miles southeast of Kansas City) for about a year, and say they have 1,000 customers there and are the only company operating on a major basis. They also are breaking into the St. Joseph, Mo. market, about a 1½-hour drive to the north. Also, as part of their program, they offer a fifth application of lime as an option, which is

usually applied late in the season. "We don't truck mix," Jackson says, "we tank mix and then feed it into our trucks. This way we keep a close watch over the mixture. We also have our drivers fill out daily reports, and we don't allow any more than five or 10 gallons off on a typical day of 400,000 square feet of applications." The main advice they offer to lawn care operators is to "keep your reputation up," Jackson said. "And don't try to grow too fast," Darnell adds.



Al Buford, 30, (right) joined **Mount Moriah Cemetery** in Kansas City, Mo. four years ago as manager of its lawn care department. The company also does tree work, however, most of its 1,700 customers receive lawn chemical applications. The company began using granular fertilizer as a selling point, but will be going to a liquid program to a great extent this lawn season. Buford's philosophy, though, is different than some of the other major lawn care companies. "I don't believe in using fertilizer in the third, or summer, application," he says. "You are not supposed to fertilize bluegrass and ryegrass in the summer, and we don't." He says they get at least 50 percent of their customers after they have tried another lawn care service. They are going to keep the lawn care customers they have and go more heavily into the tree care business in the future.



Ron Chiswell, 44, (right) started **Chiswell Lawn Service**, Kansas City, Mo., 10 years ago on a full-time basis. He runs two three-man crews during the year to handle his 500 customers, 250 of which he mows on a regular basis and 250 for whom he does other work such as power raking, seeding, dethatching, verticutting, etc. He also handles the Crown Center complex in downtown Kansas City. He said finding dependable help is his biggest problem, and warns a lawn care company from trying to get too big too fast, and stresses that it is important to charge enough to make a profit.



Harold Coleman (left), owner of **Faultless Pest Control**, Kansas City, Mo., hired David Bulk (bottom right) to run

his lawn service work two years ago when it got to be too much of a sideline to handle himself. He now has 200 lawns that he sprays with liquid applications, and he also does spot seeding, aeration, etc. Like many pest control companies in Kansas City and elsewhere, Coleman found that lawn service can be a profitable sideline. It is less than one percent of his business now, "but we don't intend on keeping it that way," Coleman said.



to page 16

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## TOOLS, TIPS & TECHNIQUES

### When does a tree need fertilizer?

Many lawn care companies have always done tree feeding, or are thinking about getting into that area to increase their scope of business, and they may have questions about when a tree needs fertilizer, how much is necessary, and what time of year is best for applications.

Roy K. Rasmussen, director of grounds at the University of Nebraska, reports that trees that need fertilizer are generally those growing under adverse conditions such as poor soil or subsoil, or trees surrounded by pavement or packed earth — the conditions under which most of your customers' trees grow.

Symptoms of a starving tree include: the leaves are smaller and lighter green color than leaves on a healthy tree of the same kind; the tree generally accumulates several dead branches; the annual growth, both in trunk and ends of the twigs, is less than that of a healthy tree. Fertilized trees ward off borer attacks and withstand drought periods better. They come back with a new crop of leaves after a severe attack of leaf-eating insects because of materials stored in the tree.

Trees should be fertilized only enough to keep them healthy, Rasmussen reported in *The Golf Superintendent*. Fertilize a tree every year or two until it starts growing normally again and then every three to five years as necessary to keep a healthy green color. Some trees may need constant treatment, depending on conditions.

Spring is the best time to fertilize, but the tree can be fertilized any time of the year that the soil will take fertilizer. Because fertilizer travels only downward to the roots, it must be placed in or above the root area. Roots cannot seek out fertilizer, so as many holes as possible should be made in the root area for fertilizer.

One way to determine the proper amount of fertilizer to use is to figure from the diameter of the trunk. The generally accepted rate of actual nitrogen per tree is one-half pound of actual nitrogen for each inch of the trunk diameter, Rasmussen said.

## Kansas City

from page 15



Seven years ago, Pete Levy, 24, (left) started with **Line-Mai Construction Company**, Kansas City, Mo. installing sprinkler systems during the summer. He got so good at it, that he went at it full-time when he graduated from the University of Kansas two years ago. He says his company installs about 50 residential automatic sprinkler systems a year, at a cost of about 25 cents a square foot, or about \$2,500 for a typical 10,000-square-foot lawn. He stresses to his customers that adding a sprinkler system adds that much value to a house at resale time the same as a room addition might.



Dan Adams, (left) owner of **Shawnee Lawn & Garden**, Shawnee, Kan., began tree spraying eight years ago and gradually moved into the lawn spraying business. He now sprays the lawns of 300 customers. Also, 3½ years ago he got into the retail lawn and garden center business, an area that many lawn care companies hope to branch into someday. He said the first year the retail store was 30 percent of the business and the lawn spraying 70 percent. Now the ratio is reversed.



When 33-year-old Donald Keller, (left) owner of **Keller's Turf and Shrub Care**, Independence, Mo., went back to his high school reunion re-

cently, many of his friends came up to him and said, "Hey, you're a gardener," and kind of laughed on the side. But he has built what started out as a sideline mowing business six years ago into 70 commercial mowing accounts, 20 home lawn mowing accounts, and 450 home lawns on which he sprays pesticides and fertilizes with granular applications. And he says: "Companies like Chem-Lawn have given our industry a bit of professionalism, they have paved the way for us. The day of sending out a lawn care crew with no shirts and bermuda shorts is long gone." Keller is going to liquid spray applications of fertilizer this lawn season and hopes to add more trucks and lawns the following year.

These companies of course are not the only ones in the Kansas City lawn care market. Paul Constant of **Constant Care Lawn & Tree Service**, Kansas City, Mo., does mowing, spraying, shrub care, trimming, landscaping, sodding, snow removal, sprinkler installation, and other services. He has over 300 customers.

Bill Stueck, owner of **Suburban Lawn & Garden**, Overland Park, Kan., provides mowing, tree spraying, lawn spraying, shrub care, sprinkler installation, landscaping, and one of the largest retail stores in the Kansas City area. He employs 200 workers during peak times of the year. He bills 1,000 residential customers on a yearly basis.

Ray Shelton, owner of **Shelton & Son Landscaping**, Kansas City, Mo. has one of the largest landscaping and lawn care operations in the area. He did the landscaping for Kansas City International Airport and Arrowhead Stadium, and has about 600 residential lawns that his company cares for.

More than 100 of these residential customers get complete services from Shelton, the rest receive anywhere from a one-time cleanup to twice-a-year overseeding and renovation work.

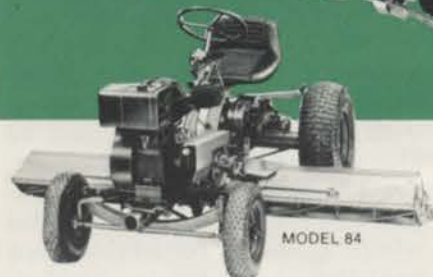
Other companies providing lawn care in the Kansas City area include: **Augustine Exterminators**, **Ever-Green Lawns**, **Economy Exterminating Co.**, **Frey & Frey Landscaping**, **Lawn Medic of Olathe-Lenexa**, **G & G Lawn Service**, **Home Lawn & Shrub Maintenance Co.**, **Lindesay Lawn & Tree Service**, **Meyers Liqui-Turf**, **Jennings Tree & Lawn Care**, **Lawn-a-Mat of Shawnee Mission**, **Lawn Doctor of East Johnson County** and **Soil Service Maintenance**.

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## Bend-over-backward approach spells Kansas City success

The words on a poster on a wall of the office at the back of the equipment and materials warehouse hold more than a small significance to Vern Brown.

The poster tells how a firm loses customers. It says, "One percent of your customers die, three percent move away, five percent leave because of friendships with personnel of other companies, nine percent leave for competitive reasons — often price — 14 percent because of dissatisfaction with the product and 68 percent quit because of the attitude or indifference of employees."

The owner of Vern Brown Landscaping Service, Inc., Overland Park, Kansas, has battled the effects of that last problem since he founded the business six years ago. He works doubly hard to improve when he encounters a situation such as the one taking place recently with a young worker.

"The kid had just come back from a job at a residence," he

told LAWN CARE INDUSTRY, "and said that the lady had told him to trim a couple of bushes. But he said that it was not on his job list.

"I came close to blowing my stack," he said. "It made me realize that despite all my stress that the customer's word is law, I am not getting through to some employees."

He feels that unlike many industries, customers of the lawn care industry react very favorably to bend-over-backward treatment.

And this is one of the basic philosophies that has built a company started in 1971 with 10 customers, a Small Business Administration loan and a prayer into a real success. The business grossed \$25,000 the first year, had doubled that figure by the third year and this year will gross more than a quarter million dollars.

Those 10 original residential customers have grown to 150 and there is a nice core of commercial contracts including a \$97,000



"The lawn care company owner who fails to maintain regular contact will lose customers," says Vern Brown, Kansas City operator who has built his business into a quarter-million dollar operation in six years.

grounds care job at the Capitol Building in Topeka, Kansas. The firm was recently awarded a \$54,000 contract at the National Cemetery in Kansas City, and it also is regularly assigned to projects at Kansas City International Airport.

Brown says that once he gets a customer, he usually manages to hold him by pleasing him. "Mistakes we make are usually due to communication failures," he said. "When we handle a yard for the first time, I emphasize to the customer that my men are human and subject to human frailties. If they make a mistake I want to be told immediately, and I promise that we will make things right."

To keep open lines of communications with customers, Brown gets around to them all at least once every two weeks during the season. He has already put 30,000 miles on the Jeep he bought last year.

The typical home lawn treatment schedule normally starts with mowing and includes an array of added services. He feels it is the extras that make it all worthwhile. "I sell needed add-ons like a men's clothing store clerk sells ties and shirts after making a suit sale."

His fees for mowing home lawns range from \$15 to \$80; commercial mowing fees are from \$80 to \$300. Herbicide applications call for fees from \$15 to \$300. Prices for power raking are from \$50 to \$500. A good percentage of his jobs fall under the heading of "renovation work" and prices — depending on size — run from \$75 to \$500. These include power raking, aerating, cleaning beds, seeding, etc.

When Brown sells a job he promises his customer two things. "First, I promise that we will be dependable — and that is a big selling point in this business," he said. "Second, I promise that I will give them personal attention. We make good on both talking points. If my business has been successful, it is only because right from the start I took the attitude that if I treated each customer right he would gain me three more, and the business has snowballed."

## MARKETING IDEA FILE

### Lawn care company branches out

Jim McCurdy of Green Lawns, Inc., Belleville, Ill. had a problem about six years ago — what to do in the off-season? That is when he expanded his services to include industrial weed control, and "the business has doubled every year for the past three years," he says.

The industrial herbicide operation now accounts for about one-fourth of his total operation, and is the top money-maker in his shop.

Actually, finding something to do in the off season is nothing new for McCurdy. As proprietor and owner of the McCurdy Chemical Co. back in 1957, he specialized in on-farm application of fertilizer.

"That job really left me with time on my hands," he explains. "And that's how I got into the lawn care business. I started applying fertilizer on lawns and found it was more profitable. I had my last farm job in 1965."

For his lawn customers, McCurdy takes care of fertilizer, herbicide and insecticide needs. He makes most of its lawn care applications in March through October when lawns are usually treated with various combinations of fertilizer, herbicides and insecticides about four times. That leaves a lot of time for the industrial weed control business.

McCurdy says that most of his industrial herbicide work is done in the spring and he has found that Krovar is effective for broad-spectrum weed control.

As for his equipment, he has a 1,000-gallon tank truck with 300 feet of hose and guns with off-center nozzles. McCurdy insists on 100 gallons of water per acre and says he seldom ever uses more than 15 pounds of herbicide per acre. He's also found that when ground is treated in second and third years he can decrease his herbicide rate the second year.

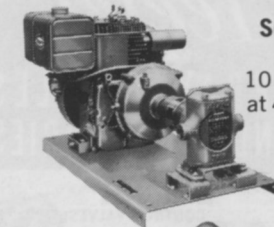
These spring applied weed killers give summer-long control of weeds and grasses, which of course, fits right in with McCurdy's lawn care services. His clients obviously are pleased as 90 percent of them account for repeat business in an enterprise whose volume has been doubling every year.

Right now McCurdy says he's only got one more problem — he still can't find anything to fill the rest of the year and has resigned himself to travel (he prefers Florida and Arizona) and afternoons of golf.

## Hypro sprayer pumps

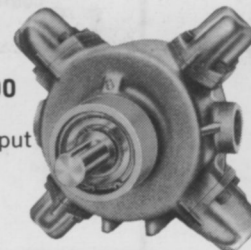
Choose from a wide range of pump designs and materials to suit your requirements: cast-iron, Ni-Resist and bronze pump housings... even nickel plating on piston pumps.

### PISTON PUMPS



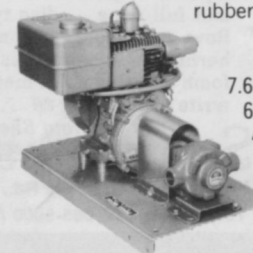
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## NEWSMAKERS

Thomas M. Carter has joined **Jacobsen Manufacturing Co.** as manager of engineering for the Turf Products Division, Racine, Wis.

Dr. Dwight Barkley, a well-known person in turfgrass management in Kentucky, has accepted the position of chairman of the Department of Agriculture at **Eastern Kentucky University**.

Robert Nelson has been promoted to vice president and general manager of **Cal-Turf**, Camarillo, Calif., the state's largest producer of sod and stolons. Ralph Evans was named assistant general manager.

Jack D. Buzzard has been named vice president of international sales and marketing for **Rain Bird International, Inc.**, Glendora, Calif.

Charles Bradley has been promoted to the new position of manager of rider development for **Toro Co.'s** Outdoor Power Equipment Group, Minneapolis, Minn. He lives in North Miami, Fla. Also, the Irrigation Division of Toro has named John S. McLaughlin to the new post of national sales manager for its line of backflow preventers. Also, Terry Anstett has been

named group director of manufacturing for the Outdoor Power Equipment Group.



Buzzard



Bradley

**Monsanto Agricultural Products Co.**, St. Louis, has announced a number of appointments: Jane E. McKinney is advertising promotion manager; William E. Phelps, III is manager of its Janesville, Wis. district; M. Rose Jonas is personnel manager for its research department; and Robert L. Fields is manager of its El Dorado, Ark. manufacturing facility.

Gene Probasco has been named merchandising manager of **LESCO Truck Sales by Lakeshore Equipment & Supply Co.**, Elyria, Ohio. Also, Howard Altman has been named the company's sales representative for the eastern Michigan marketing area.

**Wisconsin Marine, Inc.**, Lake Mills, Wis. has announced the appointment of Thomas Blackman to the position of director of engineering. He has been a project engineer at **J I Case** and **Gravely**, where he was responsible for the design of lawn and garden equipment, farm and industrial machinery. Recently, he was chief engineer at **Clark Equipment Co.**, where he was responsible for the design of electrically powered hydraulic

trucks. Also, William D. Rapp has been named eastern regional sales manager for the company. He worked most recently as regional sales manager for **Yardman**. Prior to that he was a salesman and branch manager for a large east coast lawn mower distributor. The Rapp appointment was announced by Rowland R. Lehman, vice president; the Blackman appointment was announced by Dane T. Scag, president.

## MONEYWISE

### Reducing Workmen's Comp premiums

Many lawn care companies may be paying higher premiums than they have to for Workmen's Compensation insurance because of the manner in which they compute and record their payroll.

The net premium paid for Workmen's Compensation insurance is determined at the end of the policy year by an audit of your actual payroll. The premium you pay at the beginning of the policy year is an estimated premium based on an estimated payroll. A plus or minus adjustment is made in premium as a result of the payroll audit at the end of the policy year.

The premium for Workmen's Compensation is based on straight-time pay for all hours worked and should not include one-half extra pay for overtime hours worked, reports the American Association of Nurserymen. Companies are allowed a deduction of one-third of overtime pay off of the total gross wages to compute the payroll applicable to premium charges.

## MEMOS

### Lawn problems may be due to nematodes

Lawns with thinned out spots that do not respond to fertilizer or pesticides may be infested with nematodes, small round worms which feed on plant roots, according to Dr. James R. Bloom, professor of plant pathology at Pennsylvania State University.

Nematodes are parasites less than one-sixteenth of an inch long and are often overlooked as the cause of plant diseases.

Dr. Bloom suggests that a soil sample should be examined for nematodes, so a suitable chemical can be used. He said they become active in the spring when the soil warms up. The mouth of the parasitic nematode is similar to a hypodermic needle. This eyelet or spear is inserted into the cells of a root. Digestive enzymes are injected into the cell through the stylet and predigested cell contents are withdrawn from the cell as food for the nematode.

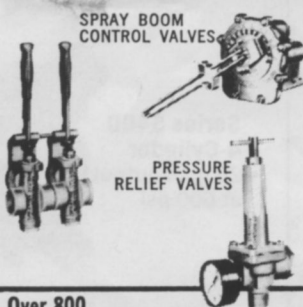
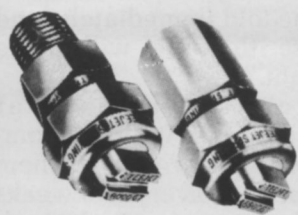
Root cells thus injected by nematodes are not killed but cease to function at a normal rate. If enough cells are involved, the plant will suffer. Nematode feeding may also produce galls or knots on roots. Nematodes usually do not kill a plant but weaken it so that it is more easily killed by insects, diseases, or winter cold.

Tiny feeding wounds caused by nematodes may give soil fungi and bacteria a means of entering the root. In such cases, root rot can become more serious in soils infested with nematodes than otherwise — even though the nematode is not a direct cause of the root rot.

Plants lose vigor, Dr. Bloom explained, when roots are devitalized by nematodes faster than the plant can produce new roots. The root system, in such cases, is unable to absorb water and minerals needed by the plant to produce normal growth.

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## REPAIR OR REPLACE?

from page 5

### Annual operating costs

$$= \frac{\$8,000 + \$8,200 + \$8,400 + \$8,600}{4}$$

= \$8,300

For the old equipment, the total average annual cost is simply the sum of the calculated average annual cost for: (1) depreciation, (2) interest, and (3) operating expenses. This sum is \$10,280, as show below.

Item	Average annual cost
Depreciation	\$ 1,500
Interest	480
Operating costs	\$8,300
Total	\$10,280

### The new equipment

Look now at the facts on a piece of new equipment which may be a replacement for the old equipment. The first cost of this new equipment is \$30,000. Its life is estimated to be 10 years, and it will probably have a salvage value of \$6,000. Operating costs with this equipment are expected to average \$5,200 a year. Furthermore, it is estimated to have an annual revenue advantage of \$300 over the old equipment. The cost of money is 12 percent per year.

You use the same approach as you did for the old equipment to determine the total average annual cost of this new equipment. You start with the average annual depreciation expense and find it to be \$2,400, as follows:

$$\text{Annual depreciation} = \frac{\$30,000 - \$6,000}{10} = \$2,400$$

You multiply the average investment in this asset by the interest rate to obtain the average annual interest expense. The average investment is \$18,000 (one-half of the sum of the \$30,000 first cost and the \$6,000 salvage value). The average annual interest expense is \$2,160, obtained as follows:

$$\text{Annual interest} = \frac{1}{2} (\$30,000 + \$6,000) \times .12 = \$2,160$$

When you also take the estimated operating costs and revenue advantage into account, you find the total average annual cost to be \$9,460, as show below:

Item	Average annual cost
Depreciation	\$2,400
Interest	2,160
Operating costs	5,200
	\$9,760
Less: Revenue advantage	300
	\$9,460

### The comparison

When you have the total average annual cost for the old and the new equipment, you are ready to compare the two. In the example, the calculated annual cost is \$10,280 for the old equipment and \$9,460 for the new. On

the surface, the new equipment is more economical than the old. But is it?

You may argue that with the old equipment you are committing yourself for only four years, whereas with the new, your commitment is for ten years. This fact suggests a need for considering the kind of equipment that may be available for replacement purposes four years from now as compared with ten years from now. But no one can forecast that far into the future. It is best to ignore the nature of future replacements in your computations and assume that the replacement available four years from now will have the same annual cost as the one available ten years from now.

### Irreducible factors

When your calculated annual costs show that the one unit of equipment has a decided advantage over the other, you can usually select the better alternative by comparing these calculated costs. But what do you do when the annual costs of the old and the new equipment do not differ greatly? In such a case, you should consider the fact that the estimates might contain errors and that there are things on which a dollar value cannot be placed.

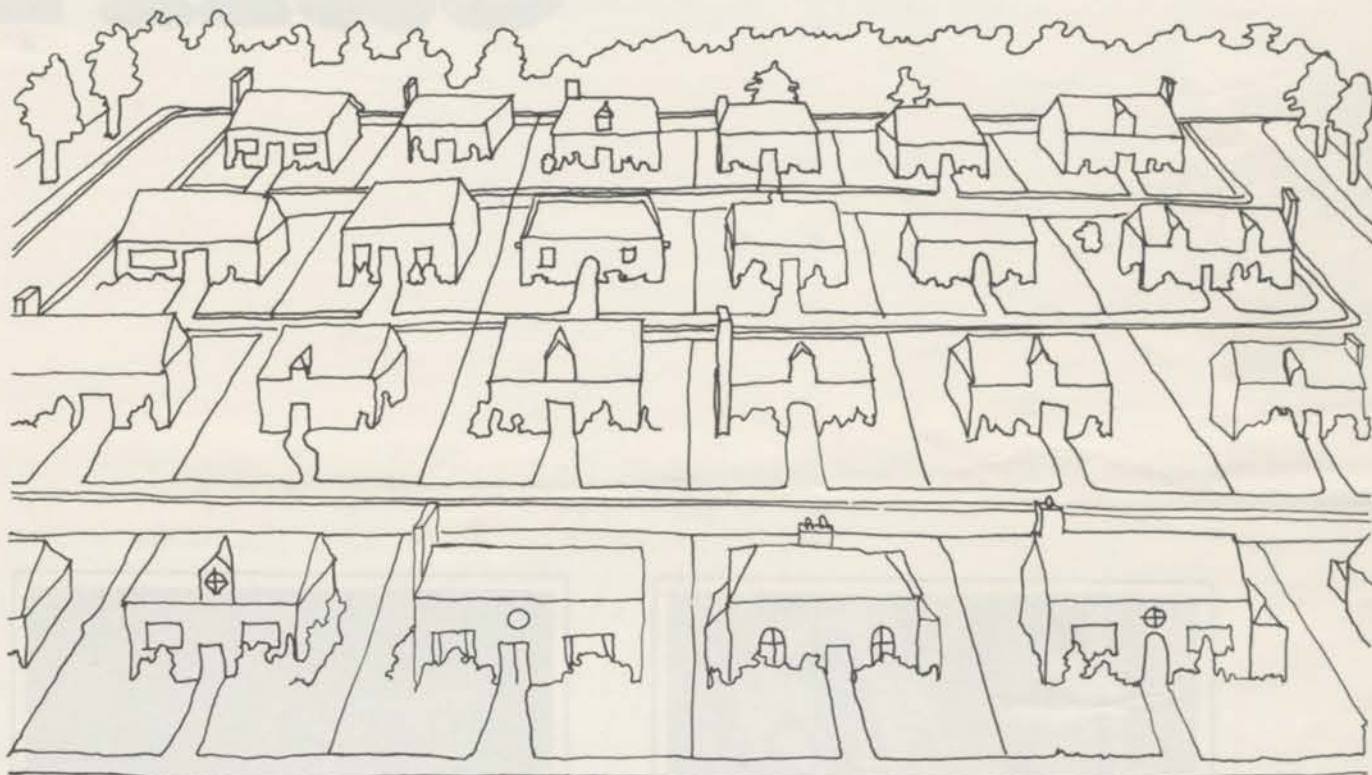
So you may have to base your decision on irreducible factors — factors that cannot be reduced to dollars and cents.

A few examples will suggest the nature of such factors. First,

if total average annual costs are about the same, you will probably favor the equipment that requires the smaller investment and has the shorter life. The same will hold true when you suspect that technological advances will result in more efficient equipment becoming available in the near future.

As another example, you will prefer the equipment which has such advantages as greater output capacity, safety, and reliability even though the value of these things is unknown.

And finally, when you suspect that interest rates and the price of new equipment will increase significantly, you will be inclined to invest in new equipment now rather than later.



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LAWN CARE INDUSTRY

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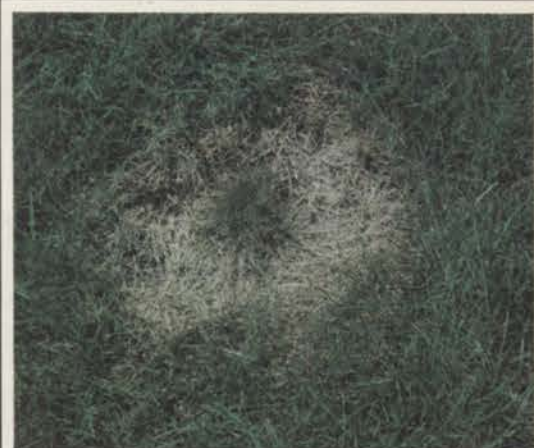
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## Mulching mower

Yard-Man Co. announces the introduction of its new model 11170 "Mulch/Mow", a double-acting mulching mower. It may

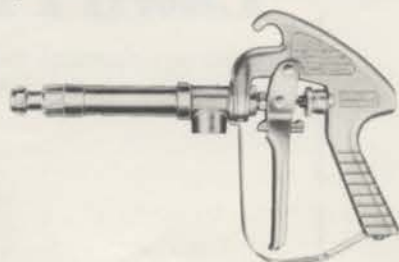


be used as a mulcher, or converted to a standard side-discharge rotary mower. The unit mows, cuts and re-cuts clippings to particle size that filter down to the root system, where they retain already applied fertilizer for the lawn. It has a 20-inch cutting width.

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## Spray gun

The new #43 "Gunjet Spray Gun" series with "Trigger Guard" will replace the standard series manufactured by Spraying Systems Co. The trigger guard



has been added to help avoid accidental bumping of the trigger. The series also features a comfortable pistol grip for easy four-finger control and drip-free shutoff. A free data sheet is available.

Circle 203 on free information card

## Lawn and garden tractors

The John Deere Lawn and Garden Tractor Line for 1978 includes eight models, four of which are pictured here. The John Deere 100 lawn tractor (upper left) features an eight-horsepower engine that is enclosed for quiet operation on the customer home lawn, a three-speed great transmission, and a 34-inch mower. The 200 Series lawn and garden tractors (upper right) are powered by 8-, 10-, 12-, and 14-

horsepower engines. They feature a four-speed transaxle (most with variable-speed drive), seven-position manual equipment lift (electric and hydraulic lifts optional), and a variety of attachments for four-season versatility for the lawn care businessmen. The 300 Series (lower left) units are available in 12- and 16-horsepower models. The



400 hydrostatic tractor is powered by a twin-cylinder 19.9-horsepower engine.

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## "Hi-Pop" sprinklers

To water taller, thicker grass on home lawns, Rain Jet Corp. has developed a complete new line of 2½-inch sprinklers. Water



pressure causes the center portion of the heads to pop up 2½ inches above the turf line. A heavy duty stainless steel spring returns the all-brass sprinkler unit into its housing when the water is shut off. There are 15 different models in the company's Series 4000 line, includ-

ing three square pattern heads covering 30 square feet, six full-circle patterns, parkway and strip heads, and half- and quarter-circle heads.

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## Rotary spreader

The ProTurf Division of O.M. Scott & Sons has introduced an improved rotary spreader for professional lawn use. The push-



type R-7X professional rotary spreader combines the best features of the R-7 and PR-1 model spreaders in it replaces in the ProTurf equipment line. The spreader provides a fan-shaped distribution pattern as the product is gravity-fed through three parts onto a spinning disk. A new pattern adjustment slide shifts the distribution pattern to compensate for the physical properties of different products. The fiberglass hopper has a capacity of 2,800 cubic inches. The unit weighs 25 pounds.

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## Flail mower

A new flail mower, with exclusive bottom-sharpened, self-cleaning blades, has been introduced by the Woods Division of the Hesston Corp. Model FM72 cuts a six-foot swath, and is designed for tractors rated at 30 to 60 horsepower, with a three-point hitch.

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## PRODUCTS

### Sprinkler controllers

The Toro Co.'s Irrigation Division is offering a new line of controllers and automatic valves for underground commercial/residential irrigation systems. The



"Freetime" controllers are available in four-station and eight-station models, in both electric and hydraulic versions. The Series 230/232 diaphragm-type plastic control valves have all the popular features of diaphragm valves but at less cost. The valves offer a choice of in-line or angle configurations, also in electric and hydraulic versions.

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### Tank mix compatibility

Hopkins Agricultural Chemical Co. is offering a new compatibility agent for lawn care tank mixes. "Unite" is used with



fertilizer/pesticide mixtures to insure uniform mixing and dispersion, prevent separation, coagulation or other unwanted changes. When used as directed, the agent improves the compatibility of fertilizer/pesticide mixtures and results in uniform and stable mixtures both in the spray tank and spray hose, the company said.

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## CLASSIFIED

When answering ads where box number only is given, please address as follows: Box number, c/o LAWN CARE INDUSTRY, Dorothy Lowe, Box 6951, Cleveland, Ohio 44101.

Rates: 35¢ a word for line ads, 65¢ a word for display ads. Box numbers add \$1 for mailing. All classified ads must be received by the publisher before the 10th of the month preceding publication and be accompanied by cash or money order covering full payment.

Mail ad copy to Dorothy Lowe, LAWN CARE INDUSTRY, Box 6951, Cleveland, Ohio 44101.

### FOR SALE

**WANT TO SELL** — Lawn maintenance business. Central Florida, \$270,000.00 a year gross. Established large condominium and apartment complexes. Send inquiries to Box

2, Lawn Care Industry, Box 6951, Cleveland, Ohio 44101.

### MISCELLANEOUS

**HELPFUL NEW BOOKLET** tells how you can start your own landscape maintenance business, full or parttime. Written by manager/owner of a profitable ongoing lawn care firm. Send \$3.85 postpaid to Ron Phillips, c/o Phillips Lawn and Tree Service, 4921 South Bowen Road, Arlington, Texas 76017.

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P.O. Box 2477  
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**SERVICE SUPERVISORS** — Growth oriented lawn care firm in Chicago market seeks qualified candidates for supervisory positions. Requirements include education in turf or agronomy, 3 years field experience, good communication skills and ability to direct and lead others. Send letter of qualification and experience to: Box 3, Lawn Care Industry, Box 6951, Cleveland, Ohio 44101.

# We're making less size (and money) do a lot more work.



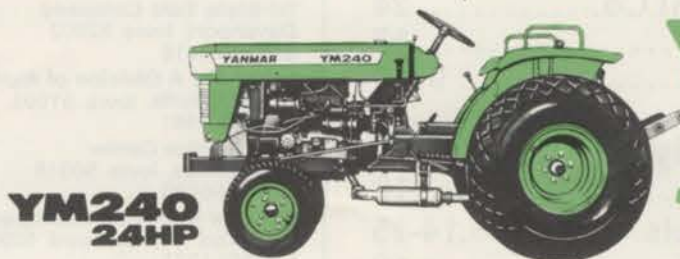
Many diesel tractors have capacity they never use. And a size that can get in its own way. Not Yanmar, though.

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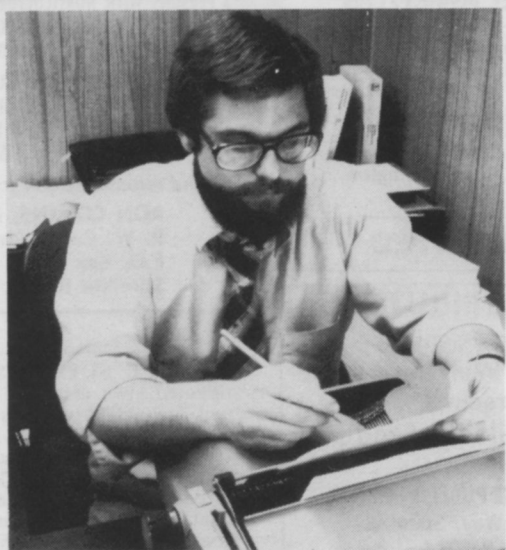
1-11-1, Marunouchi, Chiyoda-ku, Tokyo, Japan  
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## BEHIND THIS ISSUE



I spent a good part of December on the road again (driving rented Pintos, by the way), talking to lawn care businessmen. And I've got some good news and some bad news.

The good news first. Simply — the Ohio Turfgrass Conference. Over 1,200 turf professionals braved the snows of southern Ohio to travel to Dayton for this annual event and it was the best ever. Manufacturers that I talked to in their exhibits at the show estimated that three out of every four people they spoke to were lawn care businessmen. They are taking note of the buying power this industry represents, and are designing chemicals and equipment specifically for your needs.

Also, the educational program that OTF executive secretary Dave Martin and others put together for the lawn care industry was twice as extensive as last year, and well-attended. With people like this, you can't go wrong: Dr. Roger Funk and J. Martin Erbaugh of Davey Lawnscape; Dr. James Wilkinson of ChemLawn Corp.; Dr. Harry Niemczyk of the Ohio Agricultural Research and Development Center; Dr. John Long of O.M. Scott & Sons; Skip Skaptason of PBI-Gordon Corp.; and Herb Day of Stauffer Chemical Co. If you are serious about your lawn care business, make room on your calendar for this important show next year.

Now the bad news. In every city that I have been in interviewing for MARKETPLACE stories, I have been hearing stories about lawn care companies who employ unsavory business practices — things like undermeasuring a lawn to get a job, stealing other companies special equipment, stealing customer lists, high-pressure sales tactics and simply not delivering services promised.

These types of practices give every good lawn care company in the business a bad name. And in the future, you can count on LAWN CARE INDUSTRY to use whatever power it has to bring these situations to light and put a stop to them.

*Bob Enley*

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