

Yellow patch: New turf disease problem with no known controls

A new turfgrass disease with no known controls is spreading through the lawn care industry, according to Dr. Bobby G. Joyner, director of ChemLawn Corp.'s Plant Diagnostic Labs, Columbus, Ohio.

It is called yellow patch, and is not to be confused with brown

patch or *Fusarium* blight. Dr. Joyner told an audience of lawn care businessmen at the recent Ohio Turfgrass Conference.

He said the disease has been noted on Kentucky bluegrass lawns in the North, tall fescue lawns in the transition zone, and on St. Augustinegrass lawns.

"We have seen it spread through the Great Lakes area, and it has become a problem in the home lawn industry in Cleveland, Detroit and Chicago," Dr. Joyner said. "The straight lines have shown that it might be related to sod."

He said there has been much confusion of diseases caused by



Dr. Bobby Joyner

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LAWN CARE INDUSTRY

Serving lawn maintenance and chemical lawn care professionals

THE CONSUMER MAY WIN OUT

Price hikes shrink in '82

Chemical lawn care businessmen around the industry are reporting a softening of pricing increases for the coming season.

Citing factors ranging from an uncertain economic climate to the need to offer consumer incentives, it appears the pricing posture of the industry is sensitive, with some major companies choosing little or no price increases at all.

"This year we happen not to be putting in a price increase, but it is mainly because we have made some significant savings in the cost of delivering services," Fred Rowley, president of Rollins Lawn Care, Atlanta, Ga., told LAWN CARE INDUSTRY. "But we are charging for some services which we have not charged for in the past, such as disease and subterranean insect control."

Although Rollins increased prices last year on the order of 10

percent, and will be looking seriously to raise them in 1983, for the present they will "stabilize." Attributing the move in some respect to the "general state of the economy," Rowley did say that in the mature bluegrass markets of the Midwest, lawn care is a service that is accepted by a much larger

market profile than in the Sunbelt regions.

The economy was also a significant factor in the decision by Hydro Lawn Spray, Salem, Va., to lower their prices in everything but the first three increments in lawn sizes. "It amounts to an overall decrease in gross dollars,"

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CONNECTICUT BILL 5785

Industry reps stonewall bill banning herbicides

The lawn care industry scored an important victory over opponents of the use of the vital post-emergent herbicide 2,4-D in the state of Connecticut last month.

A proposed bill that would have banned the sale or use of any herbicides containing dioxins in that state was set back when members of the professional lawn care, golf course, university, and manufacturing communities met

publicly to oppose the bill.

In a tightly packed hearing room in front of 12 members of the Connecticut House of Representatives, over 15 industry representatives achieved their objective of presenting a substantial show of force and strength in defense of the use of 2,4-D.

Representatives testifying included Dr. Michael Kelty, O.M. Scott & Sons, Dr. James Wilkinson,

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Workers at Leisure Landscaping, Boca Raton, Florida, shearing a pine hedge on one of their many association accounts. A special emphasis on ornamental care characterizes this booming market. For more on Florida maintenance turn to page 14.

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UPFRONT



Pesticide fact, fiction

The lawn care industry is an intensive user of pesticides. And as the industry grows, the use of pesticides will become more intensive. These factors create the need for the **safe use of pesticides**. They also create the need for a

better understanding of pesticide safety by chemical manufacturers, pesticide applicators and even consumers of such services.

Charles Darrah, research agronomist with ChemLawn Corp., Columbus, Ohio, recently address-

sed a group of lawn care businessmen on the topic, "Separating Fact and Fiction with Regard to Pesticide Safety." Here is what he had to say:

"Several concepts are important to understanding pesticide safety. The first is the concept of toxicity. **Toxicity** can be defined as the ability of a compound to cause injury. This is an inherent characteristic of the material. The toxicity of the pesticide does not change. It is important that the toxicity of the pesticide be known and that the measure of the toxicity of the pesticide be understood.

"The toxicity of pesticides is measured using **animal species** in order to gain an indication of their toxicity to humans. Toxicity studies cannot be conducted using human subjects for obvious reasons. Animals, usually rats, are dosed with increasing levels of the pesticide under study. Dosage may be made by giving relatively high amounts of pesticide orally in a single dose (acute oral), or by relatively low amounts given orally over time (chronic oral). Other dosage techniques include exposure to relatively high levels of pesticide applied dermally or inhaled to produce acute dermal or acute inhalation toxicity. Or, exposure to relatively low levels of pesticide applied dermally or inhaled over a period of time is used to determine chronic dermal or chronic inhalation toxicity.

"Toxicity in these tests is determined by death of the test animal. And from these tests a dosage level which produces death in 50 percent of the test animals can be determined. This level is called the acute oral LD₅₀, chronic oral LD₅₀, or other LD₅₀, depending on the dosing method. The LD₅₀ is expressed as milligrams of pesticide per kilogram of body weight of the test animal. The lower the LD₅₀, the greater the toxicity of the material.

"These tests are run under well-defined toxicological protocol and they give definite toxicological properties to the test animals and implied toxicological properties to humans. The toxicity of a compound does not change. **Lawn care personnel** should try to obtain as much of the toxicological data that is available on the pesticides they use. Many chemical companies can supply LD₅₀ data on animals such as dogs, cats, ducks, fish and other animals which may come in contact with pesticides sprayed on lawns.

"The second concept in pesticide safety is **hazard**. Hazard is defined as the likelihood that injury will occur from the use of a pesticide in a given situation or environment. The hazard of a pesticide, unlike the toxicity, can change. For example, pesticides in tightly sealed containers present little hazard. Also, pesticides in **concentrated forms** present a greater hazard than in their diluted concentrations at which they are normally sprayed.

"Several factors affect the degree of hazard. One is the **acute toxicity** of the pesticide being used. The higher the acute toxicity or the lower the LD₅₀, the greater the hazard. Also, the **volatility** of

the pesticide. In general, the higher the volatility of the pesticide, the greater the hazard from dermal or inhalation exposure.

"Toxicologists and industrial hygienists can measure this type of hazard. They have developed a term called the **Threshold Limit Value (TLV)** for volatilized pesticides or pesticides on spray-borne particles. This value places a health hazard limit on the concentration of a pesticide or other materials in the air. For example, the TLV for Dursban is 0.2 mg. per cubic meter. Dow Chemical Co. representatives have measured the exposure of lawn spray operators to Dursban and have found a maximum of 0.01 mg. of Dursban per cubic meter of air. This level is well below the TLV. Another interesting fact is that the TLV for 2,4-D is 10 mg. per cubic meter, which is also the TLV for nuisance dusts in the workplace.

"Another factor is **rate of absorption**. The hazard of a pesticide increases as the rate of pesticide absorption through the skin or through internal tissues increases.

"Another factor is **rate of symptom onset**. The hazard of a pesticide increases as the rate of poisoning symptoms, such as nausea, sweating, visual impairment or convulsions, increases. For example, high doses of organophosphates, such as **Dursban** or **diazinon**, may take several hours before the onset of symptoms while the cyanide fumigants produce almost immediate poisoning symptoms.

"Another factor is **rate of enzyme re-activation**. Most of the pesticides in use either impair neural functions, inhibit cholinesterase activity or block cell metabolism by action on one or more enzyme systems. If after exposure, the body is able to quickly metabolize or pass off the pesticide and re-activate the inhibited enzyme system, then the hazard of that compound is relatively low.

"Efforts should be directed to reduce the hazard of pesticides used by lawn care companies. The employee faces the most hazard since he or she handles concentrated pesticides and is usually **repeatedly exposed** over several weeks during a spray period. Therefore, the following methods should be used to reduce hazard:

"**Soap showers** should be taken; fresh clothing should be used each day; a central laundry facility should be utilized to eliminate contamination of domestic clothing; and application equipment should be decontaminated.

"Also, **gloves and boots** should be utilized during spraying, as well as an impervious material on lower legs. And **cholinesterase monitoring** is perhaps the best means to measure employee exposure to the organophosphate pesticides such as **Dursban, diazinon and bensulide**.

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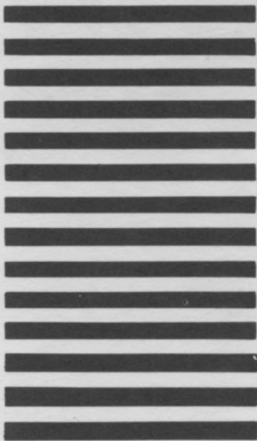
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Understanding nitrogen sources

Nitrogen is without question the nutrient of most importance to the lawn care businessman in his lawn care soil fertility programs.

By understanding the important characteristics of each nitrogen source, the lawn care businessman will have a better idea of what pattern of turfgrass response to expect and should be able to make an informed choice of what product or products are best-suited for his individual situation.

To provide some of the information needed to understand these nitrogen sources, a description of the important properties and turfgrass response patterns has been prepared by the University of Maryland's Dr. Thomas Turner.

Sulfur-coated urea

Two basic types of sulfur-coated urea products are produced, Dr. Turner said, one by the Tennessee Valley Authority process, in which urea is coated with sulfur. This type is manufactured and marketed by Lakeshore Equipment & Supply Co., Elyria, Ohio. The second is by Chipman, Inc., Stony Creek, Ontario, in which prilled urea is coated with sulfur. Typical sulfur-coated urea products contain from about 32 to 37 percent nitrogen and 20 to 35 percent sulfur.

While the degree of slow-release of nitrogen from IBDU and urea-formaldehyde can be expressed as water-insoluble nitrogen, no standard has yet been generally applied to sulfur-coated urea. In some areas, a water-soluble nitrogen or controlled-release nitrogen statement is made on the fertilizer bag. For research purposes, however, the slow-release nature has been expressed as the dissolution rate.

Dissolution rate

Generally, the dissolution rate refers to the amount of sulfur-coated urea that will dissolve in water in seven days under given laboratory conditions. This value, in effect, is an indication of the water-soluble nitrogen. For instance, if a sulfur-coated urea product has a dissolution rate of 35 percent, then 35 percent of the material will act similar to quickly available nitrogen source and the rest will be gradually released over a longer period of time. Some, but not all, sulfur-coated urea bags contain a statement indicating the dissolution rate.

Since sulfur-coated urea is manufactured from a very soluble material (urea) which is coated, the primary means of nitrogen release from sulfur-coated urea is through pinholes or cracks in the coating and also degradation of the coating. Thus, the most important factor affecting the rate of nitrogen release from sulfur-coated urea is the coating thickness, with soil moisture and to a lesser extent soil temperature will also have an effect.

Sulfur-coated urea products ranging from extremely slow release to fairly rapid release can be

produced simply by adjusting the coating thickness. However, products with less than a 20 percent dissolution rate (due to a thicker coating) have been shown to release nitrogen too slowly for

not been as good as with IBDU, but has been better than urea-formaldehyde, Dr. Turner said. Although nitrogen release from sulfur-coated urea increases with soil moisture, excessive growth

"Exaggerated statements have been made about the possibility of the breakage of the sulfur-coated urea products and burning of turf. The only way this might occur would be the gross misuse of the product."

satisfactory turf growth and are less efficient than other materials. Dissolution rates of 25 percent to 35 percent have been found to be the most satisfactory for turf.

Cool-weather turf response to sulfur-coated urea generally has

during wet weather has been less of a problem with sulfur-coated urea than with IBDU.

Exaggerated statements have been made about the possibility of breakage of sulfur-coated urea particles and subsequent burning

of turf. The only way this might occur would be gross misuse of the product. If recommended rates and practices are used, no problems of this type will occur with sulfur-coated urea, Dr. Turner said. Some recent research has shown that, with two applications a year, sulfur-coated urea generally results in a more consistent year-round response than other slow-release materials also applied twice a year.

Also, one application per year of sulfur-coated urea has come closer to providing satisfactory turf year-round than other slow-release materials applied once a year.

Ureaformaldehyde

Ureaformaldehyde has been used since the early 1950's and is still a popular nitrogen source. Produced by reacting urea with formaldehyde, the most common ureaformaldehyde products are 38

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INSIDE THE INDUSTRY

'What's it gonna run?'

Budgeting for machinery costs



R.K. Reynolds

The machinery employed in the lawn care industry often represents a substantial capital investment. So said R. K. Reynolds, extension specialist in farm management at Virginia Tech at the New Jersey Turfgrass Association Expo. The annual cost associated with this investment is likely to be a significant part of the total cost of doing business.

Management must, therefore, continually evaluate the machinery cost for various lawn care jobs and take the appropriate steps to reduce these costs. To buy new (or used) or lease a particular machine can be an important decision and have a major impact on machinery costs.

When to replace machinery is also a critical decision that will often greatly influence business success.

Machinery budgeting is the appropriate tool for management to use in evaluating the costs involved with owning and operating the necessary machinery and equipment in the business. The example that follows illustrates the use of the machinery budget in estimating the annual cost of a one and one-half ton truck.

The form used provides an easy to follow set of steps that lead from the purchase price to the total cost per year and the total cost per hour (or any other unit of measure) of use. Most of the numbers are hard

facts or else require management to make reasonable estimates.

Having estimated the total costs, the effect of increasing or decreasing the volume of use can be evaluated. Note that total fixed or ownership costs consisting of depreciation and interest (combined as cost recovery), insurance, taxes and housing, remain the same regardless of how much or how little use is made of the machine.

Total operating costs have a direct relationship with the level of machine use. Therefore, while total fixed costs remain the same, the total fixed cost per hour decreases as the machine is used more and more because these costs are spread over more volume or hours of use. Many firms get into financial trouble because they are under-utilizing their equipment.

Total operating costs

Total operating costs increase with greater use and decrease with lesser use. But, total operating costs per hour will remain about the same, regardless of use, in the illustration, if the one and one-half ton truck was utilized 900 hours rather than 600 hours, total fixed-cost per hour would increase from \$5.11 per hour to \$3.41 and total cost per hour would drop from \$12.53 to \$10.83.

Conversely, if the one and one-half ton truck used less than 600 hours annually, say 400 hours, total fixed cost per hour would increase substantially (to \$7.67) and total cost per hour would be significantly greater (\$15.09).

The preparation of Estimates of Annual Machine Cost for both new and used machines will help management determine which is the better buy. Comparison of the cost of leasing the same machine with the total of the appropriate costs from the budget will allow management to determine break-even machine rental rates.

Break-even labor cost

With regard to labor-saving machinery, the total annual machine cost (line 18) divided by the labor cost will indicate the hours of labor necessary to save each year to justify that annual machine cost. Similarly, dividing the total annual machine cost for a labor-saving machine by the hours of labor estimated to be saved will reveal the break-even labor cost per hour that could be paid before purchasing the machine.

Since labor and machinery can substitute for each other in some instances within the business operation, it is often helpful to analyze these segments of cost at the same time. The machinery budgeting technique outlined here along with labor budgeting are the appropriate management tools for such analyses.

When to replace machinery is an

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EVALUATING MACHINERY REPLACEMENT 1½ TON TRUCK

Line	Item	Present Machine		Replacement	
		Ave. Yr.	Extra Yr.	Alternative I (Ave. Yr.)	Alternative II (Ave. Yr.)
1.	Purchase Cost	\$10,000	—	\$13,000	\$11,750
2.	Salvage value	1,000	—	1,300	1,175
3.	Cost to be recovered (line 1 minus line 2)	\$ 9,000	—	11,700	10,575
4.	Estimated years of life	5	Year 6	5	5
5.	Estimated annual use	600 HRS.	600 HRS.	600 HRS.	600 HRS.
Fixed or Ownership Costs:					
6.	Factor for cost recovery & interest	(12%) .2774	XX	(15%) .2983	(12%) .2774
7.	Cost recovery and interest (line 3 x line 6)	\$ 2,497	XX	\$ 3,490	\$ 2,934
8.	Interest on salvage value (line 2 x interest rate)	(12%) 120	\$ 120	(15%) 195	(12%) 141
9.	Insurance, taxes, housing	400	400	400	400
10.	License	50	50	50	50
11.	Total fixed cost (add lines 7 through 10)	\$ 3,067	\$ 570	\$ 4,135	\$ 3,525
12.	Fixed cost per hour (line 11 ÷ line 5)	\$ 5.11	\$ 0.95	\$ 6.89	\$ 5.88
Variable or Operating Costs:					
13.	Fuel (gal./hr. x no. hrs. x price/gal.)	\$ 3,750	\$ 4,500	\$ 4,125	\$ 4,125
14.	Oil, grease, antifreeze	100	130	120	120
15.	Repairs (incl. service labor, tires, etc.)	600	1,878	800	800
16.	Total variable cost (add lines 13 through 15)	\$ 4,450	\$ 6,508	\$ 5,045	\$ 5,045
17.	Variable cost per hour (line 16 ÷ line 5)	\$ 7.42	\$ 10.85	\$ 8.41	\$ 8.41
18.	Total annual machine cost (line 11 + line 16)	\$ 7,517	\$ 7,078	\$ 9,180	\$ 8,570
19.	Total cost per hour (line 18 ÷ line 5)	\$ 12.53	\$ 11.80	\$ 15.30	\$ 14.28
20.	Other factors: downtime, reliability	XX	\$ 1,000	XX	XX
21.	Total cost (line 18 + line 20)	XX	\$ 8,078	\$ 9,180	\$ 8,570

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release from ureaformaldehyde depends primarily on the ratio of urea to formaldehyde used to manufacture the fertilizer. The more urea used in production in relation to the amount of formaldehyde, the quicker will be the release of nitrogen from ureaformaldehyde. As more formaldehyde is added, longer-chained ureaformaldehyde polymers form from which nitrogen is more

to page 17

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TOOLS, TIPS, TECHNIQUES

Watch for borer damage in May, June

It is not always the bugs that you see on leaves that are damaging customer shrubs and trees. Sometimes, a group of internally feeding insects — known collectively as borers — cause destruction by working chiefly on the vital cambium, or "living bark" of trunk and root systems.

May and June are the months for borers to be active — and this is also the time to take control measures, says Dr. Lee Hellman, extension insect specialist and associate professor of entomology at the University of Maryland.

Dr. Hellman said that insect traps indicated an especially high number of lilac borers in his area last year. Sample counts also indicated fairly high populations of dogwood, peachtree and rhododendron borers.

Fruit and shade trees, as well as several kinds of ornamental shrubs, suffer severely as the borer larvae eat the succulent tissues of the swelling cambium layer.

The borer larvae emerge during May and June from eggs laid

to page 19

DEBATE

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2,4-D from page 1

Old Fox Lawn Care, Inc., Harold Duncan, Asplundh Tree, Dr. Robert Yeary, ChemLawn Corp., and Robert Osterman of the Golf Course Superintendents Association of America.

Dorothy Gifford, a local citizen who alleged that she and her children suffered after affects of 2,4-D sprayed near her home, testified in favor of the bill.

Jim Wilkinson, representing the Professional Lawn Care Association of America, testified that he knew of no known instance of human injury resulting from the application of 2,4-D following labelled directions.

Wilkinson testified that the highly toxic dioxin 2,3,7,8-TCDD has not been shown to be present in 2,4-D, the loss of which would place a considerable economic burden on the average small businessman operating in the lawn care industry. There are over 70 known dioxins, some of which are highly toxic. None of these have been identified in 2,4-D.

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said Peter Connelly, vice-president. "But we don't have quite the pressure that other markets do."

The first three increments in lawn sizes will be raised, however, with the smallest standard size up 7.6 percent, the next smallest up 3.5 percent, and just 1.4 percent for the third lawn size increment. Thereafter, says Connelly, the prices for the bigger lawns will drop in price just less than eight percent.

"There are two basic reasons we are approaching the year this way," said Connelly. "First we are very aware of the economic pressure facing consumers in 1982. On the other hand, we have faith in the ability of the economy to hold the line on inflation. And right now our cancellation rate is running lower. We are cautiously optimistic about the coming year."

Connelly's comments were echoed by Ralph Lund, director of marketing at the ChemLawn Corp., Columbus, Oh., who told LAWN CARE INDUSTRY that ChemLawn plans only marginal price increases in 1982. "Everybody is very aware that the state of the economy is not at its best this year," said Lund. "And that, to a large extent, influenced our decision."

Bulk urea down

In the more westerly market of Hubbard, Ore., where Paul Bizon is manager at Pro-grass Lawn Service, Inc., prices will hop five percent. "While we didn't want to raise prices a whole lot," said Bizon, "we did want to lessen the burden for 1983, when we assume the cost of chemicals, wages and prices will rise. Bizon said that the cost of bulk urea has gone down this year which would help defray costs somewhat.

John Latting, of Lawn Groomer, Normal, Ill., said that his company was paying about 10 percent less for urea than it had in 1981, and that this in part allowed his company to raise prices only three percent on the average this year.

He said that he expects to see the fertilizer market "significantly depressed" for some time. He also said that the general economic climate had not affected his company's cancellation rate this year, which is running from between six to eight percent, depending on the area.

"They'll never get this industry for price fixing, that's for sure," said Jerry Faulring, president of Hydro Lawn, Gaithersburg, Md. Faulring is optimistic about his 1982 prospects and said that Hydro Lawn will raise prices in the range of six-and-a-half to seven percent according to program features this year.

He remains concerned, however, with what he considers a softening of price structuring around the industry. "I am one who firmly believes that the industry is giving away services to begin with and that our whole base line is too low. I think you should increase your prices at least with the rate of inflation and maybe even more to recover what the industry has given away over the years."

Faulring stated that the real winners this year will probably be

the consumers who have been paying a cheap price all along. "The survivors in this industry are going to be the ones that are strongly oriented to customer service — follow ups, the whole relationship."

At Pro-Lawn Plus in Baltimore, Md. prices will be increased two dollars an application. The effect is that the smaller accounts would be hit with about an eight percent increase, while the largest accounts will incur insignificant increases. "In 1974, the industry was very young," said Frank Stevens, president. "You could almost increase your business whether you wanted to or not. This time around I feel that the economic outlook is a bit more gloomy, and a feel that most people are feeling some of the results of the recession."

On the other hand, Stevens says that Pro-Lawn Plus has not experienced the normal number of cancellations this year.

COST CUTTINGS

Paying attention to software

Many lawn care businessmen make a lot of mistakes when they shop for their first computer, reports the *Associated Landscape Contractors of America Construction newsletter*. They become too involved with the purchase of the hardware, and don't pay enough attention to the software. You can have the largest and finest piece of IBM equipment in the universe, but if it's not programmed to do your job, it's not going to be cost-effective for you.

Instead of spending a lot of time listening to the hardware sales pitches, talk to other businessmen who have already purchased computers. Ask them specifically about the advantages and disadvantages of their machines. Spend some time reviewing those aspects of your business that you'd like to automate. Think about additional tasks that would be practical with the appropriate computer. You can never spend too much time learning about computer systems.

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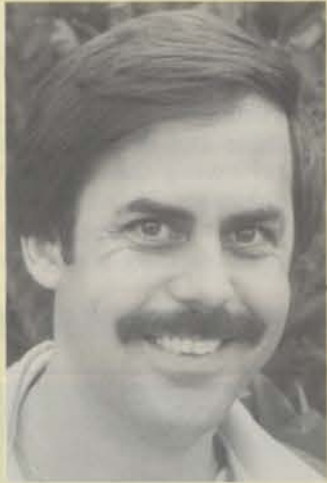
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MOWING/MAINTENANCE MARKETPLACE

How these four men make



Tom Oyler



Jim Oyler



Vic Nocera



Frank Timmons

Florida look this good:

The list of contradictions that characterize the state of Florida seem to be endless. A proudly southern state — but by no means Dixieland — it's inhabited by hordes of northern cousins. A state that gives off the illusion of youth, it's also a haven for the elderly. And a state of immense wealth, much of it is industrially underdeveloped.

But Florida landscape maintenance contractors aren't in the least squeamish. On the contrary, they are sure and optimistic about a market that promises to break wide open in the coming years as more and more people flock to their state in search of greener pastures. The place is in the middle of a bout of condo-mania second to none. And maintenance contractors are taking advantage of it.

One of the toughest

But let's begin at the beginning — from the ground up. Most of Florida's landscapes are made up of St. Augustine and Bahia — dark green, creeping perennial grasses. Since much of the soil in Florida is exceedingly sandy and salty, the grasses have to be fairly salt tolerant and drought resistant. "This is one of the toughest maintenance markets in the United States," said Frank Timmons, president of Ladybug Industries in Jacksonville. "Everything, including insects and disease, thrives here."

Since most of the grasses are of a creeping nature, Timmons says that sidewalks, curbs, and beds have to be edged and trimmed every week. Because the soil is so sandy, the ground acts as a sieve, and water and soil nutrients tend to leach rapidly. "We can have three inches of rain and in an hour can be out there mowing with very



The rolling landscape of the Boca West resort in Boca Raton has been maintained with special attention to detail by Leisure Landscaping of southern Florida.

little visible effect," said Timmons.

In addition, mole crickets in northern Florida have developed a healthy appetite for the Bahia and strong resistance to MOCAP, an insecticide with a low LD-50. "Their resistance to the treatment is very high the further south you go," said Bruce Saar, a maintenance manager at Ladybug. "You may have two or three hatches a year and they dwell about three feet under the surface during the day. At night, they come up to feed and you have to get them with surface baits."

Another hazard of mole crickets in the Florida area is that they are a tunnelling creature. The furrows

left by their forages allow air into the soil which may damage turf and leave the turf carpet spongy. "The maintenance result is that if you are going to run a lot of heavy equipment over the soil, you may eventually alter the landscape over the long term," said Timmons.

Machinery intensive

In order to tackle their maintenance effort in Jacksonville, Ladybug's equipment inventory includes two Toro Groundsmasters, five 72-inch Hustlers, three 50-inch Jacobsens, and an assortment of Tractors and Bush-hogs; also: a fleet of 50 Jacobsen 21-inch cutters and four Turf King 84-inch.

Their inventory lacks, however, a heavy stock of the intermediate-ranged 36-inch mowers. Timmons believes that these mowers are probably less than cost effective. "I think people are deluding themselves as far as those mowers go," he said. "It takes two men, for instance, to load and unload one of them. And in comparison, there are very few turf areas that an even bigger mower can't get into."

A company as machinery-intensive as Ladybug is particularly sensitive to the ready availability of replacement parts for their large inventory. Timmons, like many mowing and maintenance businessmen, decries the sometimes scant availability of neces-

sary parts and accessories for his expensive mowers. "At eight and ten thousand dollars a crack, it gets very expensive when a machine is down due to the lack of a small part."

But he does not blame the manufacturers exclusively for this problem, but believes that the maintenance industry itself is somewhat to blame. "We are not exclusively non-negligent as an industry," he said. "The principle that keeps us in business is finding a better or more efficient way to do something. And we obviously have not solved the availability problem thus far."

Timmons believes that the maintenance contractors around the country can afford to be more communicative as an industry. A much talked about, but little acted-upon example is the formation of a cooperation of contractors, an association of businessmen that might act as their own suppliers. "It is not a new idea," he said. "But it is a good one. Manufacturers might shy away from it at first, but only until they realized they were dealing with a billion dollar industry."

Wide open market

As far as he is concerned, the Florida mowing and maintenance market is wide open, only just partially penetrated by the maintenance contractors throughout the state. "We are not even beginning to see what will develop," he said. "Government bidding, public works, utilities, and industrial accounts, these are some areas that will be opening up in the coming years."

In order to prepare for this kind of large-scale maintenance venture and to better analyze just exactly what it does cost to do a job, Ladybug Industries is now equipped with a computer which has a current software capability of some 50 programs. Among them now instituted are payroll, billing, job costing, accounts payable, and budgeting programs which can retrieve and accept historical business data in a fraction of the time it would take a financial staff. And, it can extrapolate existing statistics as an aid to planning investment and growth.

"More companies will become very large in the future," muses Timmons. "But it will not happen until we as an industry have maximized both our management and equipment knowledge to the point at which we know just exactly what it will cost to do the jobs that will be coming down the pike."

Over three million

A set of businessmen who would agree with this assessment are Tom and Ken Oyler of the Oyler Brothers, Inc. in Orlando. A company that posted in excess of three million dollars last year, Oyler Brothers are very conscious of cost determination. "The key to success in this industry, especially for the smaller contractor," said Tom Oyler, "is to keep on top of your cash flow. It is what hurts the underdeveloped contractor everytime."

Started in the mid-seventies with one mower and a 1965 Cor-

vette, Oyler Brothers, Inc. was founded upon work that was considered unglamorous at the time. In the midst of a real estate boom that was perhaps overly sanguine, the Orlando market was being raided by those looking for quick returns. When the market finally ebbed, Oyler was there with a solid base of moderate accounts which

provided him with ready receivables. And he had a reputation. But the real basis of the business is a provision for quality maintenance. It is currently the basis of a company that has expanded into a variety of maintenance services including business consulting. "We want to sell high maintenance jobs," said Ken Oyler, vice-president of the company and heavily involved in maintenance responsibilities. "We are extremely conscious of keeping our maintenance work emphasized."

Although involved more heavily in route maintenance, wherein a crew has an established weekly schedule of appointments, Oyler

"A groundskeeping system coupled with a routing system is the method that works best for us," said Ken Oyler. "But we still hold that a maintenance business is unadaptable to traditional forms of marketing."

Brothers has for some time now developed their "groundskeeping" maintenance accounts — a job system in which an Oyler Brothers crew works an account permanently, with an exclusive equipment, operations, and profits base. "Ultimately we would like a good balance between our route

and groundskeeping accounts," said Oyler. While skeptical about the merits or even the possibility of marketing maintenance services, Oyler Brothers believes that the best way to expand their services is by setting up a groundskeeping account first and then developing a routing system with the market area. They currently have on-site maintenance centers in Tampa, Clearwater, Ocala, St. Petersburg, and Port Richie.

"We don't want to add a route until we have a groundskeeping base sufficient to offset the major overhead costs of a route in that market," said Oyler. "The groundskeeping on-site profit centers work because they are relatively low overhead accounts with a far lower indirect job overhead than in a route system. The beauty of the system is that there is virtually no unapplied labor on a groundskeeping job once the contract has been signed."

to page 18

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important question that management must evaluate carefully in order to avoid an unnecessary drain on business profits. When engaged in making machinery replacement decisions, a number of other questions surface. Is it time to trade? Should I repair this machine or replace it? Sooner or later these questions must be answered.

Just how soon depends upon: (1) the age and condition of the present equipment; (2) the availability and cost of repair parts and service labor; and (3) the projected use of the equipment; (4) financial capability of the business; (5) the type and quality of maintenance program; (6) labor cost (wages and bonuses plus value of fringe benefits); (7) the availability and cost of new technology, either labor-saving or quality-enhancing; and (8) the skill of the equipment operators.

In evaluating machinery replacement there may be a number of options: (1) continue to operate the old machine with escalating repairs and downtime, (2) to incur a major overhaul that will restore the machine to near normal performance for a few more years, or (3) replace with another machine.

Time to replace

Essentially, when the projected cost of operating a machine one more year is equal to or greater than the projected annual cost of its replacement, it is time to replace.

To fully evaluate machinery replacement may require that a number of machinery budgets be prepared as shown in the one and one-half ton truck illustration. Assume that the busy season in year five of the truck has been completed and management is in the process of putting together next year's proposed budget.

The condition of the one and one-half ton truck is such that significant repairs will be necessary if this machine is to be counted on for use in business operations another year. Thus, a decision must be made as to whether or not to replace the one and one-half ton truck at this time.

Salvage value

In the illustration, the first column contains the figures as shown earlier that represent an average year during the five year life of the one and one-half ton truck. The second column contains cost estimates for another or extra year beyond the original estimated life, which is represented by year six. It is important to note the differences in some of the costs for year six from those shown in the average year column. To begin with, by the end of year five the purchase cost less salvage (described as cost to be recovered) has been fully recovered and is, therefore, excluded as a fixed cost in year six.

The salvage value (\$1,000), however, would continue in existence and thus the 12 percent interest charge is also shown in year six. The remaining fixed costs would continue should the truck be kept another year. With the exclusion of the cost recovery and interest charge in year six, the

estimated total fixed cost (line 11) for one more year beyond the five-year life is significantly lower (\$570 compared to \$3,067 for the average year).

Some differences also are likely to exist in year six for the variable or operating costs. Fuel consumption is estimated to be less efficient

as shown below and the need for additional major repairs should the truck be kept another year, repairs and tires are estimated at \$1,878 for year six (a 75 percent increase from year five).

1½ Ton Truck Repair Cost — Records To Date

- Year one — \$300
- Year two — \$395 — 32 percent increase
- Year three — \$517 — 31 percent increase
- Year four — \$715 — 38 percent increase
- Year five — \$1,073 — 50 percent increase

When to replace machinery is an important question that management must evaluate carefully in order to avoid unnecessary drains on business profits. You should ask: "Is it time to trade? Should I repair it?" Sooner or later these questions must be answered.

in year six than was the case, on the average, during the original five-year life (six gallons/hour in year six rather than five gallons/hour). An increase in oil usage is anticipated, thus, raising this cost.

A primary cost increase in year six has to do with repairs. Based on the repair cost record information

- \$3,000 — Avg. \$600/year.
- Projected for year six — \$1,878

The variable costs for another year total \$6,508 (line 16). Other factors such as reliability and downtime as described earlier must also be considered when evaluating machinery replacements. In the illustration, management has estimated that there could be a loss of income in year six, even with the major repairs being made, due to the truck breaking down, being out of service for repair or performing unsatisfactorily.

This loss of income has been estimated at \$1,000 for year six (line 20). Therefore, with the estimates shown, the total cost to keep the present one and one-half ton truck an extra year equals \$8,078 (line 21).

The two remaining columns on the illustration contain projected annual costs for two one and one-half ton truck replacement

**How many turf
in this**

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alternatives. With regard to the replacement shown in the alternative I column, it is assumed that the purchase cost for a comparable one and one-half ton truck is \$13,000 with a cost to be recovered of \$11,700 over five years at 15 percent interest. This assumption, along with a 15 percent interest charge on the salvage value and other fixed costs remaining as shown in previous columns, results in a total annual fixed cost of \$4,135 (line 11). Annual variable cost for this replacement alternative totals \$5,045 (line 16).

This total is greater than that shown in the Average Year column for the present machine because of an anticipated lower fuel efficiency (5.5 gallons per hour versus five gallons per hour) and higher prices for oil, grease, anti-freeze and repairs. The total annual cost for replacement Alternative One is \$9,180 (line 18).

Based on the evaluation to this point, the correct management

decision would be to keep the present one and one-half ton truck another year since the annual cost for replacement Alternative One exceeds the extra-year cost (year six) of the present machine by \$1,102 (\$9,180 minus \$8,078).

Obviously, the primary conclusion in this evaluation is that, based on the assumed capital recovery rate for the replacement (15 percent, five years), a very significant expenditure for repairs, tires, etc., may be feasible before investing in a replacement machine.

Would it change the decision if, through more shopping around for a comparable one and one-half ton truck and for better financial arrangements, the purchase cost could be lowered to \$11,750 and the interest rate lowered to 12 percent? This replacement possibility is shown in the Alternative II column. Except for the lower purchase cost and interest rate, all other factors are held the same as

to page 19



Grub control doorhangers, designed to explain treatment measures, are available from TUCO, manufacturers of Proxol insecticide, 7000 Portage Rd., Dept. 9510-190, Kalamazoo, MI, 49001.

slowly released. Thus, products can be made which range from extremely slow-release to relatively fast-release by altering the amount of urea and formaldehyde mixed.

The most common products, such as Blue Chip and Powder Blue, marketed by BFC Chemicals, Inc., Wilmington, Del., have urea-to-formaldehyde ratios of about 1.3:1. Recently, however, faster-releasing materials with urea-to-formaldehyde ratios as high as 1.9:1 have been tested, are being marketed, and look promising.

Ureaformaldehyde is basically an insoluble compound, with nitrogen being released through degradation of the fertilizer by soil microorganisms, Dr. Turner said. Thus, any factor affecting microbial activity, such as soil moisture, temperature, pH and aeration, also affects the rate of nitrogen releases from ureaformaldehyde. As conditions become less favorable for microbial activity, nitrogen will be released from ureaformaldehyde at a slower rate. Since environmental conditions which favor turfgrass are similar to those which favor microbial activity, nitrogen release from ureaformaldehyde should occur at rates similar to turfgrass requirements.

However, there are two exceptions. In early spring, when cooler soil temperatures exist, a lag time exists between initial turfgrass growth and the release of nitrogen from ureaformaldehyde due to microbial activity. Thus, early spring greening is substantially poorer when ureaformaldehyde is compared to sulfur-coated urea and especially IBDU. Also, during very warm weather, release of nitrogen can at times be greater than is needed for growth.

For the first two to four years of use, ureaformaldehyde is less-efficient than IBDU and sulfur-coated urea, Dr. Turner said.

Methylol ureas

These materials are short-chained ureaformaldehyde-type products that are soluble and are commonly about 25 to 30 percent nitrogen.

The theory behind the slow-release action of methylol urea is that when the short-chained polymers in solution (originally pH of 9.0 to 10.0) reach the soil, the decrease in pH causes longer-chained ureaformaldehyde polymers to form. These longer-chained polymers would take longer to be broken down by soil microorganisms, thus nitrogen release would be delayed. However, there is not as yet much data supporting this theory.

If this is true, soil pH should have a major influence on turfgrass response to methylol urea and could make the response somewhat unpredictable.

Although it has been hoped that methylol urea would act as a soluble slow-release nitrogen source, early results from research indicate that length of turfgrass response to methylol urea is very similar to soluble nitrogen source urea. However, it should be pointed out that response to urea

to page 24



insects are hiding picture?

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MARKETING IDEA FILE

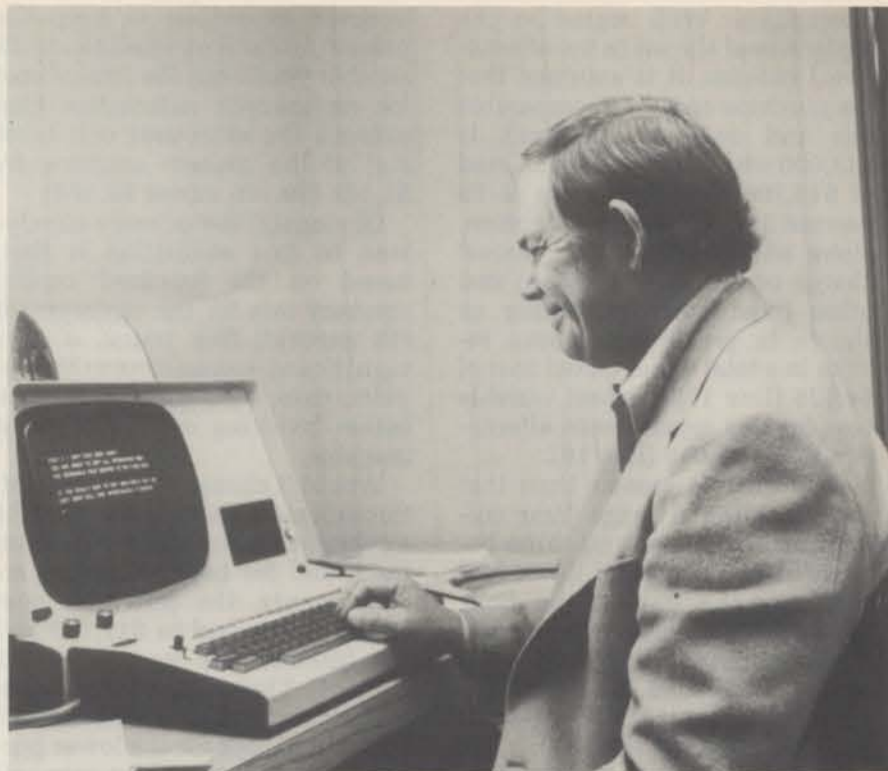
Marketing mailers available from PLCAA

The Professional Lawn Care Association of America (PLCAA), has printed its first generic industry-wide promotion piece to be used by its members as a marketing tool.

On linen-style, cream-colored paper 5½ inches wide and 3½ inches deep, the association has printed its "Code of Ethics" with the following introduction:

"The Code of Ethics is adopted by the PLCAA to promote and maintain high standards of public service and conduct in order that lawn care may justly be regarded as a profession; that the public may have increasing confidence in its integrity; and that the practice of lawn care may best serve the public interest."

The mailer is intended to be stuffed inside other company correspondence to promote the professionalism of PLCAA members. For information about PLCAA, contact: Jane Stecker, PLCAA, Suite 7171, 435 N. Michigan Ave., Chicago, IL 60611, 312-644-0828.



Frank Timmons at the controls of his computer, which has a current software capability of some 50 programs, among them: payroll, billing, and costing.

FLORIDA from page 15

In addition, there is a higher man-hour rate for a routing system than for a groundskeeping system. The Oylar Brothers say they are very conscientious of a strict budgeting for man-hours in any job estimate. "If we do happen to be overbudgeted for manhours, however, we can constantly be upgrading the property at a minimum of the cost," said Tom Oylar.

The on-site groundskeeping coupled with a supplementary routing system is the method that the Oylar Brothers have chosen. But they still hold that a maintenance business is unadaptable to traditional forms of marketing. It is one thing, they believe, to market a chemical lawn care service — an industry that depends upon a maximization of volume. But for the most part, maintenance is more labor intensive and carries more overhead per unit cost, carrying with it an unreasonable marketing potential.

Low attrition rate

Most of their growth state-wide, therefore, has been passive in the sense that the clients have provided the distribution. A client pleased with their services in one part of the state may contract for their services in another if he is, for instance, a developer. "The client is the common thread in terms of any maintenance marketing you attempt," said Oylar. "And regions throughout the state don't vary agronomically that much, so you don't really have to confront different technical problems."

Oylar Brothers have found that their client attrition rate has been lower than average in the last three years, as their network of client related jobs continues to grow. Much of it has been achieved through a tight accounting of man-hours and a commitment to a thorough understanding of the cost of doing business. "Everybody pays just about the same costs for material," said Tom Oylar. "The key is to cut down on your unapplied time and labor."

The company that is working very hard to do just that and with a rapid growth rate in the Delray

to page 22

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Choosing the right riding mower... We've cut the task in half. Because now the maker of the finest rotary mower joins the maker of the finest reel mower. So whether you choose the light-weight maneuverability of the Ransomes Motor 180 or the money-saving durability of the Ransomes Bob Cat Diesel, you get choice cuts everytime out. See your Ransomes Bob Cat distributor or call Ransomes, Inc., One Bob Cat Lane, Johnson Creek, WI 53038, (414) 699-2000.

RANSOMES
BOB-CAT

TOOLS TIPS TECHNIQUES from page 12

at the base of trees and shrubs. As they begin feeding, they are tiny white worms, about 1/16 of an inch long, with brown heads. They immediately begin tunneling through the bark to the trunk and root system. Mature larvae reach about one inch in length.

The borer larvae return to the outer bark surface in about three weeks to pupate and emerge as noths. Some species may produce more than one generation per year.

Recommended insecticides for borer control vary with the type of plant to be treated. All such chemical materials should be sprayed or painted on trees or shrubs in accordance with label directions. Here are some examples:

- For dogwood borers, apply endosulfan or lindane to the trunk in early May, early June and early July.
- For lilac borers, apply Dursban, endosulfan or lindane on the bark, trunk, large branches and wounds at three-week intervals from early April to early June.
- For peachtree borers, apply lindane from mid-May through mid-July, wetting the trunk and ground thoroughly.
- For rhododendron borers, apply lindane on trunk and branches in early May and twice more at three-week intervals.

before year seven since changes can occur in the cost estimates for an additional year on the present machine as well as the replacement alternatives. Therefore, machinery replacement should be evaluated on an annual basis or some other time period that is appropriate for the business.

The procedure outline here provides a relatively simple process by which management can quickly

evaluate several alternatives.

This systematic procedure provides the manager with the essential information needed to make sound management decisions. Since it is the manager's responsibility to avoid financial mistakes, use of a "tool" of this kind will improve the quality of decisions in this important aspect of the operation. Don't let new paint fever get you into trouble!

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MACHINE COSTING from page 17

Alternative I.

This arrangement lowers the annual fixed cost (Line 11) to \$3,525 and, thus, total annual cost (Line 18) is \$8,570. The appropriate management decision if Alternative II is the case might be to replace rather than keep the present truck another year since the difference in annual cost is less than \$500 (\$8,570 minus \$8,078).

Other replacement alternatives could be evaluated with this procedure. An important point to remember, however, is that if the decision is to keep the present machine another year (year six in the illustration), the replacement evaluation should be made again

DATES

Southeastern Turfgrass Conference, April 12-13, Rural Development Center, Tifton, Ga. Contact: Dr. G. W. Burton, Coastal Plains Station, Tifton, Ga. 31793, (912) 386-3353.

Alabama Turfgrass Field Day, April 22, Turfgrass Research Unit, Auburn University, Auburn, Al. Contact: Kim M. Scheffer, Extension Hall, Auburn University, Auburn, Al. 36949, (205) 826-4985.

Southern California Turfgrass Council Turf and Landscape Institute, May 4-5, Anaheim Convention Center, Anaheim, Ca. Contact: Ed McNeill, Executive Secretary, 1000 Concha St., Altadena, Ca. 91001, (213) 798-1715.

Arizona Turfgrass Conference, May 6-7, University of Arizona Student Union, Tucson, Arizona. Contact: William R. Kneebone, Dept. of Plant Science, University of Arizona, Tucson, Az. 85721.

University of Florida Turf Field Day, May 18, Horticultural Science and Plant Pathology, Turf Research Field Lab, University of Florida, Gainesville, Florida. Contact: Dr. Ed Freeman, Plant Pathology, University of Florida, Gainesville, Fla. 32611. (904) 392-3631.

University of Massachusetts Cooperative Extension Service and Dept. of Plant and Soil Sciences Turf Field Day, June 23, South Deerfield experimental turf plots, South Deerfield, Mass. Contact: Dr. Joseph Troll, Plant and Soil Sciences, Stockbridge Hall, University of Massachusetts, Amherst, Mass. 01003, (413) 545-2353.

University of Idaho Turfgrass Field Day, July (date not set), Plant and Soil Science Farm, University of Idaho, Moscow, Idaho. Contact: Dr. R. D. Ensign, Dept. of Agricultural Science, University of Idaho, Moscow, Idaho 83843, (208) 885-6531.

University of Missouri Turfgrass Field Day, July (date not set), University South Farm, Columbia, Missouri. Contact: Dr. John Dunn, Dept. of Horticulture, 1-43 Agriculture Bldg., University of Missouri, Columbia, Mo. 65211, (314) 882-7511.

PROGRAM: TURF

SUBJECT: Weed control

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PRODUCTS

Truck mounted turf spreader

The Simonsen turf model Special — Q spreader gives spreading accuracy from 60 to 650 pounds per acre for lawn care businessmen applying bulk fertilizer.

The metering and spreading mechanism are the same as on the full size farm field Simonsen fer-



tilizer spreaders. The hopper body is available in a number of sizes but the two ton model shown is recommended for most turf fertilization and chemical application uses. Stainless steel is used at critical corrosion points for a long life of accurate and even spreading.

Starting and stopping the spreading mechanism is controlled from the drivers seat.

Circle No. 230 on Reader Inquiry Card

New 500 gallon fiberglass sprayer

F. E. Myers Co. is announcing the introduction of their new 500 gallon Sprayer Series. These larger size, general duty type skid sprayers have the 500 gallon fiber-

glass tank, built-in baffle and splash proof mechanical lock down lid. A stainless steel paddle agitator, rust proof strainer and externally mounted sight gauge are also included. Frame is heavy duty steel channel with steel tank



supports and saddle to cradle and protect the tank.

There are three models of this new series offered at this time: No. 25-5E with 25 GPM/800 PSI pump and 23 horsepower gasoline engine; No. 10-5E with 10 GPM/500 PSI pump and seven horsepower

gasoline engine; 25-5PT with 25 GPM/800 PSI pump and PTO drive.

Circle No. 231 on Reader Inquiry Card

New mower goes four hrs. on two quarts

A new commercial lawn mower — the Solo Model 581 — has been introduced by Solo Incorporated for use by the professional lawn care businessman. This five horsepower lawnmower offers dependability and efficiency at a low noise level. The Solo two-cycle liquid cooled engine allows up to four hours cutting with a two quart fuel tank.

There is enough, plus power to spare, when cutting tall, tough grass and smooth running when trimming that well manicured professional lawn.

Extreme low profile, rear bagging attachment and recessed



wheels permit effective cutting close to fences, buildings, under shrubbery and overhangs where most mowers won't go. One knob adjusts all four wheels simultaneously to reach the desired cutting heights.

Since the engine and muffler are completely enclosed by the high impact, reinforced plastic cover housing and mower deck, the Solo 581 provides burn proof security for the operator and rust/corrosion proof longevity. The modern material used in the cover, deck, liquid cooled engine and the carefully designed filter/intake and muffler system result in the lawnmower's extremely low noise emission level of only 63 db (A).

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mowing next to buildings easy and allow trimming under overhanging obstacles.

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Rear discharge is safest for thrown objects and specified most often for roadside work. Side discharge mode includes a chute with breakaway design to prevent damage. A safety lid closes to stop discharge if the chute is detached.

Circle No. 233 on Reader Inquiry Card

New sprayable crabgrass control

A major development in the pre-emergence control of crabgrass has surfaced in the turf management industry in the form of Pel-Tech Benefin Concentrate 10, a concentrated sprayable pelletized benefin

product, created by The Andersons Lawn Fertilizer Division.

Pel-Tech, which evolved from more than three years of research and testing, is unique in that its active ingredient, benefin, an effective pre-emergence herbicide for the control of crabgrass, is mixed throughout each pellet.

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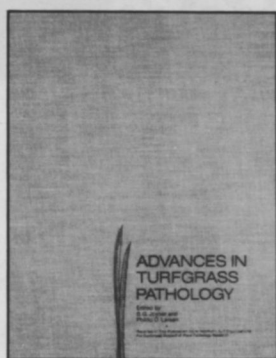
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FLORIDA from page 18

Beach region above Miami is Leisure Landscaping, whose Victor Nocera is vice-president, Ed Magi, pricing manager, and Ed Adamo general manager. With a full staff of 110 employees through the winter season, they must depend on labor efficiency and quality workmanship in order to succeed in the swiftly growing Florida maintenance market.

Originally begun by Nocera's great grandfather in Cleveland in 1917, Leisure Landscaping now boasts a staff of 18 irrigation specialists, 18 foremen, three area supervisors, and six middle managers. "The conditions are a lot easier to control down here than in the Midwest," said Nocera. "We know everything is going to grow here. Our job is to make sure it is maintained at the best quality."

Irrigation emphasis

And the key to that quality at Leisure seems to be their emphasis on water management and irrigation maintenance. Nocera says that low water tables and incipient drought conditions may hamper southern Florida landscapes in the very near future. The Okachobee reservoir, for instance, is currently down to 10 feet this year from its usual 13, an indication of impending scarcity. And when servicing an account as valuable as the Boco West resort, the problem can become even more dramatic.

One practical solution to the problem that managers at Leisure would like to see instated, is an advancement in the state of the art in irrigation design. We would like to see a macro-development of quality irrigation systems," said Adamo. "If more systems were looped in such a way that if one pump were to burn out, another would kick in, it would provide us with insurance and save a lot of money as well."

Most labor intensive

Irrigation maintenance is currently Leisure Landscaping's most labor intensive maintenance service. On the upstream side of each pump (valve, intake, pump, and clock), they provide regular preventive maintenance checks. On the downstream sections (heads), a check is made once or more a month and a quality control check is run on every head after each cutting. "Our irrigation man submits his report on his quality control which we then audit," says Nocera.

With a staff that runs in excess of 140 during the peak seasons, Leisure is committed to the scientific evaluation of business costing. Currently in the process of establishing historical values for every aspect of their labor profile, Adamo says that they are "committed to the time-study method" or refined-experience method, of job costing. "It breaks down into cutting activities down into units of time-values," he said.

"I have a record of everything each man does on each job every day. Eventually we will have values for each service activity, and, for instance, establish all cutting systems together into one cutting value," said Adamo. By taking a unit hour as a factor of a man

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month, Leisure will be able to apply this value toward a scientific costing of each job. If, for example, a property takes 24 hours to cut, and the property is cut three times a month — or 72 hours each month — the applied labor rate is 0.45 man-months (72 hrs./160 hrs.). Multiplied by an established value, they can find what their direct costs will be.

Managers at Leisure Landscaping hope to improve their operating efficiency at least two-fold by establishing engineered values for their service programs. "Without them, you can only hope to run at about a 25 to 40 percent operating efficiency," said Adamo. "But in a situation where you have engineered standards, you can expect as much as 80 to 85 percent operating efficiency."

Leisure Landscaping is committed to the idea of steady growth and believes that without operating standards the maintenance industry will not be able to ride the burgeoning market rise in large condominium and homeowner association work in southern Florida. Currently at work on the vast Boca West community and resort, Nocera hopes to land other lucrative accounts, but is wary about working solely in very large accounts. "If you've got all your profits tied into one very big job, the loss of that job can undo the entire company. You have to maintain a smart balance between your large accounts and your smaller bread-and-butter accounts."

Committed to balance

One company committed to smart balances is Dora Landscaping in Apopka, Fla., run by Jim Oyler, a maintenance businessman committed to the idea of maintenance as the foundation of any landscaping job. In business since 1974, Oyler bills his company as a "quality, not a quantity" business. And in order to maintain that quality, Oyler believes that a company should be responsible to its employees, the lifeblood of any business enterprise.

For that reason, Oyler has instituted a system of profit-sharing at Dora Landscaping, in which profits accrue to employees at a marginally greater rate for each year of working service. The company profits are then reinvested. "As he grows in age between 21 and 31, an employe's responsibility is to his company," said Oyler. But when he has invested time in you, you must in turn invest in him."

Oyler has tied this philosophy into his pension program as well, which, he says, only works when a company is committed to aiding and retaining their employes. "The fallacy of the normal pension program is that it benefits the owner and the company principals, the ones who stay on the longest," he says. "The guy who only stays on three or four years is getting nothing out of it."

By keeping his overhead low, and his volume to about one million each year, Oyler says that his percentage of profits in the last two years have exceeded most industry standards. "I attribute it to our employes as much as I do to good management," he said.

Dora Landscaping's inventory includes the 50-inch Jacobsen

Turfcats, a machine he considers "the finest mower on the market," 60-inch Yazooos, 72-inch Excel Hustler, the 48-inch Bobcat walk-behinds, and the 20-inch Jacobsen. He runs four maintenance crews with the supervisor riding shotgun with the crew on a rotating basis. "The supervisor is the contact between the owner of the landscape and the company. When he rides with the crew, it gives more of a personal touch to the job. And it saves money as well."

An aggressive market

Saving money and cutting down unapplied costs is the theme voiced over and over by Florida landscape maintenance contractors. An aggressive market that demands aggressive approaches to business management, those companies have wrestled with a young industry and look to be coming out on top.



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MONEYWISE

Will bonus incentives work for you?

Incentive plans for salaried workers at small and mid-sized firms have become more sophisticated, a study conducted by the Illinois-based consulting firm Hewitt Associates concludes.

"Far more small companies are relying on valuable compensation than was the case 10 years ago," says Bill James, a partner at Hewitt, "and the idea of paying just a salary with no bonus is disappearing."

The most popular form of incentive award, according to the survey published in *INC.*, is a cash bonus, paid on an annual basis. Most of the firms base their bonuses on a percentage of the executive's salary; 63 percent of the companies have "target award" plans that tie the bonus to achievement of a specified level of performance.

Half of the small firms included at least 14 percent of their professional, managerial and administrative personnel in the annual incentive plans, the survey showed.

FERTILIZATION from page 17

applications on heavier soils is usually longer than expected — six to eight weeks.

IBDU

IBDU is marketed by Estech, Inc., Winter Haven, Fla. It is produced by reacting urea with isobutyraldehyde. Two basic materials are available based on fertilizer particle size, coarse (0.7-2.5mm) and fine (0.5-1.0mm). Coarse IBDU is 31 percent nitrogen with 27.9 percent total water-insoluble nitrogen, while fine is also 31 percent nitrogen, but with 26.3 percent water-insoluble nitrogen.

The reason for the slow-release characteristic of IBDU is its low water solubility. For nitrogen to be released, IBDU must be hydrolyzed (reacted with water) to form urea and isobutyraldehyde; however, since IBDU does have a low solubility, this process is slow.

The primary factors which affect the speed with which nitrogen from IBDU becomes available to the turfgrass plant, therefore, are the soil water content and the particle size of IBDU (due to the surface area with which water can react).

Any factor affecting soil water content, such as soil texture, drainage, irrigation and rainfall, will influence the rate at which nitrogen from IBDU becomes available for use by the turf. Release of nitrogen from IBDU in a sandy soil may be slower due to lower soil moisture content than on unmodified, heavier soils. This effect could be somewhat offset, however, by increased irrigation in sandier soils. Increased rainfall as well as irrigation will also result in increased release of nitrogen.

The importance of soil moisture to the release of nitrogen from IBDU can be both an advantage and a disadvantage, Dr. Turner said. When dry conditions prevail and the lawn is growing slowly with minimal nitrogen requirements, release of nitrogen from IBDU is also reduced.

When rainfall is heavy to excessive during the growing season, however, lawn growth is rapid and mowing is difficult to keep up with. This problem is compounded when IBDU is used because research has shown that nitrogen release is increased by the moisture and even more rapid growth is promoted. However, excessive growth during extremely wet periods may be a problem which occurs infrequently and one that many lawn care businessmen are willing to put up with if they are sold on the other IBDU attributes.

YELLOW PATCH from page 1

the *Rhizoctonia* pathogen. Brown patch disease is caused by *Rhizoctonia solani* and yellow patch is caused by *Rhizoctonia cerealis*. He said the reason for the misdiagnosis in the first place is the dependence on diagnosis of field symptoms alone. He said other tools have to be used in the diagnosis, such as considering the host, time of the year and identification of the pathogen.

Dr. Joyner explained that brown patch occurred when conditions were moist and temperatures were 75°F. to 85°F. The yellow patch disease occurs when conditions are moist, but when temperatures were in the range of 50°F. to 75°F.

Other symptoms of brown patch are: circular patches 18 to 30 inches in diameter that can become larger as they move together; yellow-green ("apple green") to brown color; "frog-eyes" — a circular patch with a recovered area in the middle; leaf lesions; and recovery occurs.

Symptoms of yellow patch are: circular patches eight to 18 inches in diameter; yellow to brown color; possible "frog-eyes;" leaf lesions; crowns are killed and there is no recovery. Dr. Joyner also said that in the initial stages of yellow patch, a small area—about three to four inches in diameter — has reddening tips.

He said brown patch can generally be controlled by changing watering patterns and use of fungicides, but that there is not yet a known control for yellow patch.

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NEWSMAKERS

Roger Pirie, vice-president of the Agricultural Division of **Germain's, Inc.**, a century old seed firm headquartered at Los Angeles, announced the appointment of Mike Sommer as turf consultant for California, Arizona, Mexico, and Hawaii.



Sommer



Laine

The Agricultural Chemicals Division of **Diamond Shamrock Corporation** has announced that

Terry A. Laine has been appointed as a sales representative in its Midwest region and that William C. Odle has been named as a senior technical field representative.

Mr. Jerry L. Higdon, president of **Hawkeye Chemical Company**, Clinton, Ia., has announced the appointment of Mr. J. M. (Mike) Scribner to the position of marketing assistant, specialty, fertilizers. Based in the company's headquarters, Scribner will supervise national marketing of Hawkeye's liquid "low burn" nitrogen fertilizers for the lawn care industry and foliar application to special crops.

Tracy Moreland is branch manager and Tim Hosmer is production manager at **Landscape Design & Construction**, Dallas, Tx.



Moreland



Hosmer

Richard Cywinski has been appointed Western Regional sales manager for **Teledyne Wisconsin Motor**, it was announced by vice president — marketing, Robert L. Hergert.

In his new position, Cywinski will be responsible for sales to original equipment manufacturers and district distributors management in the western United States and Canada.

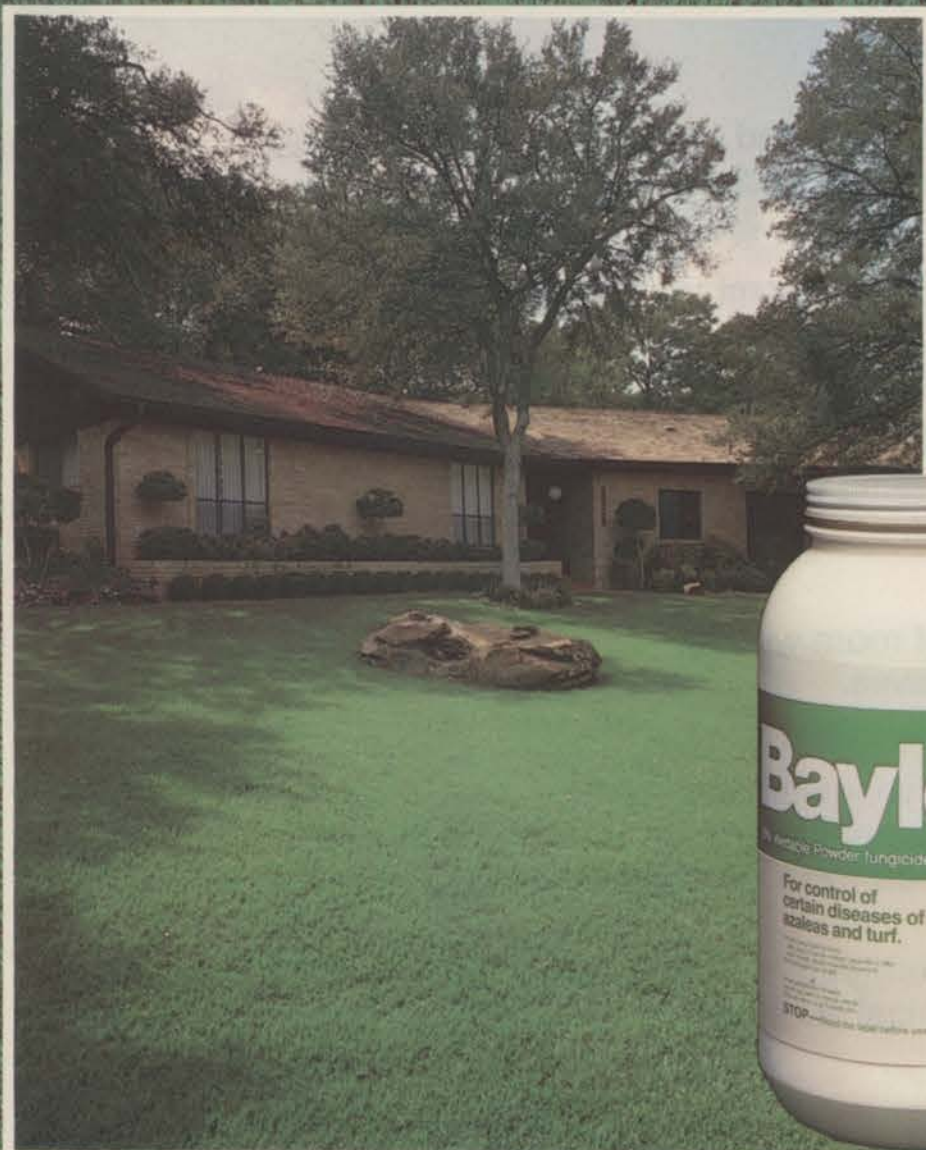
Richard G. Rathejens was recently awarded the professional designation of certified professional agronomist, according to Martin D. Openshaw, director of the **American Registry of Certified Professionals in Agronomy, Crops and Soils**.

Tru Green Corporation has announced the promotion of Dave Slott as branch manager, Battle Creek, Mich. Prior to this appointment, Dave had served the company in various sales and operational capacities primarily in the Kalamazoo and Grand Rapids markets.

Gregory Richards, vice president of **Hydro Lawn**, Gaithersburg, Md., says the company has expanded to six branch offices now and has the following promotions to announce: Jim Andersen to branch manager, Philadelphia, Pa.; Jeff Ayers to branch manager, Harrisburg, Pa.; Don Ziegler to assistant branch manager, Columbia, Md.; Ron Wolf to customer service manager, Columbia, Md.; Dan Felice to customer service manager, Rockville, Md.; Damian Varga to quality control manager, Rockville, Md.; Jeff Cunningham to customer service manager, Springfield, Va.; Keith Peterman to quality control manager, Springfield, Va.; Mark Ely to customer service manager, Seat Pleasant, Md.; and Mike Herman to quality control manager, Seat Pleasant.

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MEMOS



Are there recessionary benefits?

The general recession which is forcing many lawn care businesses to taper their price increases this year may have some indirect benefits just the same. Aside from the collapse of competitors, it forces many lawn care businesses to scrutinize their overhead and unapplied labor costs. A lower break-even point can keep a

company in the black even though business may be slow. *The Wall Street Journal* reports that this year, in fact, efforts to drive down the break even point are unusually severe even for a recession, because many companies think the recovery may be weak and brief.

It may also drive up the quality of performance required to sell a job as more and more consumers are shopping for the best possible job at the lowest possible price. Some lawn care businessmen report that they are seeing many more customers who have obviously contracted a lawn care service before. And those companies relying on maximizing their volume without adequate attention to job quality may just have to bite the bullet.

Benefits may accrue to lawn businesses as the government gets hit by the slump as well. One maintenance contractor in California said that during the course of his contract work for public agencies, his costs were averaging 27 percent less than the amount the public work was budgeted for originally. With that kind of

difference public agencies can't afford not to contract work out to lawn care businesses. The county of Los Angeles alone is prepared to put \$4.5 million out to bid to maintenance contractors.

If the lawn care industry can suffer through the current recession by toning up its quality and toning down its unapplied labor costs, it will be well prepared for the upturn when it does come.

Paul Shocloshey



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