Orthene approved for control of Ohio greenbug outbreak

Ohio lawn care businessmen have an effective new weapon against a troublesome lawn pest, thanks to a cooperative effort by the state's lawn care industry and the Ohio Agricultural Research and Development Center, Wooster.

The lawn pest is a tiny aphid known commonly as greenbug. The new chemical weapon is Orthene Tree and Ornamental Spray. It was cleared for us in the state in mid-September, when the Ohio Department of Agriculture granted a special local need label.

The clearance is good news for at least four Ohio cities where lawns have been especially hard hit by heavy infestations of the greenbug. These include Columbus, Cincinnati, Dayton

and Springfield.

The problem was diagnosed a few years back. An investigation was launched to find out why populations and damage have increased each year since 1970. Research and experiences of lawn care firms show that the insect has apparently developed resistance to the insecticides Dursban, Diazinon and malathion. This is probably the main reason for what appears to be a greenbug invasion.

A "crash" program was in-

Businessmen to raise prices in 1980 Those lawn care professionals recently contacted by LAWN CARE INDUSTRY predict a five to 20 percent increase in the cost

of their services in 1980. The businessmen attribute the imminent price increases to greater chemical, labor, and fuel costs.

Surprisingly, most of those contacted said they did not expect to lose a significant number of customers as a result of the increases. Rick Eldred, vice-president and general manager of A-Perm-O-Green Lawn, Ft. Worth, Texas, said, "I think the public will accept a price increase as long as it's not out of line.

They realize that almost everything is going up in price,' he added. "We've had a price increase every year we've been in business and we felt we've never lost any customers as a result of

Rick White, of Village Green Lawn Spraying, Ltd., Glen Ellyn, Ill., agrees. "I really think the customer expects to see an increase," he said. "They realize that everything is going up in price. I think they would be surprised if there wasn't an increase '

Few companies can be sure of what impact the 1980 price increases will have on their businesses, but Ron Zwiebel, president of Chem-Care Lawn Service of Alabama, Inc., Birmingham, Ala., is optimistic.

"We've already sent out 700

letters informing our customers of our price increase," he said, "and thus far only five have cancelled. That's less than one percent of our customers."

Gordon Ober, general manager of Davey Lawnscape, Kent, Ohio, said his company will increase prices five to 10 percent in 1980 because of a number of factors. "We don't have one cost that is going down," he said. "The three major elements that have really hit us are fertilizer, labor, and equipment costs.

'Marketing costs are also increasing," he added. "The same newspaper ad that we put in last year is going to cost us about 10 percent more this year.'

Ober also noted that the lawn care industry is at a disadvantage to other businesses, in terms of pricing. "One of the problems with our industry is we can only adjust our prices once a year, he said. "We're not like a grocery store owner who can increase his prices whenever his costs go up."

White, of Village Green, said his company expects to increase their prices by nine percent because of increased gas and labor costs. Surprisingly, material costs are not a significant problem for Village Green.

"Material costs have in-creased," he said, "but not considerably. As we grow we're getting better buying leverage so I can't say that the cost of materials is hurting us nearly as much as the increased cost of labor and

Dave Murphy, of Green Valley Co., Shawnee Mission, Kan., said his company expects to increase

Serving lawn maintenance and chemical lawn care professionals.

KENTUCKY CONFERENCE

Choice of nitrogen source critical for fall fertilization

Choice of nitrogen sources for fall fertilization is very critical because of the logistics problems the liquid chemical lawn care industry faces, ChemLawn Corp. regional agronomist Tom Rutherford told the audience at the Kentucky Turfgrass Conference in Owensboro recently.
"If you believe, and I think we

all do, that two fall fertilizations are necessary for cool-season grasses to get up and growing in

spring," the Atlanta-based Rutherford said, "then you often have to begin this fertilization in August, when the weather can be

The problems of choosing fertilizer sources for the hot August weather was covered by Rutherford as part of a discussions of liquid versus dry fertilization, sources of phosphorus and potassium for the lawn care industry, and some new sources of

Liquid versus dry. Rutherford said that there are no major differences in turfgrass response to liquid or dry fertilizers, if clippins are not removed.

BUSINESS

Source: 1979 LCI survey

Industry growth up 31% over last year

Lawn care businessmen said their gross receipts increased an average of 31 percent this year compared to last year's figures, in a survey conducted recently by LAWN CARE INDUSTRY. The median response was an increase of 20 percent.

When asked how their 1978 gross receipts compared with 1977 in the same survey, lawn care businessmen replied they

percent. The median response was an increase of 25 percent.

In a survey conducted last year by the magazine, the lawn care businessmen surveyed said they expected an average increase of 33.5 percent in gross receipts between 1978 and 1979, which is 2.5 percent over the actual figure obtained in this year's survey

According to LAWN CARE IN-DUSTRY market research manager Clarence Arnold, the results are based on a 47.4 percent response to 500 questionnaires mailed in July and tabulated in August and Septem-

experienced an increase of 41 How did your business' total gross receipts in 1978 compare with 1977?



QUICK STARTS

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Contract mowing to be discussed at Virginia conference

A special panel on contract mowing and a number of talks discussing chemical lawn care are set for the Virginia Turfgrass Conference Jan. 30-31 at Fort Magruder Inn in Colonial Williamsburg. Dr. James B. Beard of Texas A & M University, College Station, Texas, will be keynote speaker.

Merell Petet, owner of Petet's Lawn Service, Lorton, Va., and Cary Padgett of Garden Gate Landscape Co., Richmond, Va. will lead a panel dicussion of "Facing Reality in Contract Mowing". Dr. Beard will speak on altering turf maintenance concepts in response to decreasing resources of energy.

Other speakers include Dr. Charles Darrah, ChemLawn Corp., Columbus, Ohio, who will speak on separating fact from fiction in pesticide safety; Dr. Houston Couch, Virginia Polytechnic Institute and State University (VPI) on common sense use of fungicides in a lawn care program; VPI's Dr. Wayne Bingham on lawn weed control.

Also, Jerry Faulring, Hydro Lawn, Gaithersburg, Md. on professionalism in the lawn care industry; Roger Ratcliffe of the U.S. Dept. of Agriculture speaking on chinch bug and sod webworm control; Dr. Kirk Hurto of the University of Massachusetts, speaking on thatch decline; and Dan Moreland, assistant editor of LAWN CARE INDUSTRY, speaking on the future of the lawn care industry.

For further information, contact: John Shoulders, Dept. of Agronomy, 419 Smyth Hall, VPI, Blacksburg, VA 24061, 703-951-

PUBLICATIONS

Fertilizer handbook features world prices

Green Markets 1979 Fertilizer Price Handbook, from McGraw Hill Publications Co., provides access to price levels for 18 major fertilizer products in key U.S. and world markets.

The handbook includes weekly U.S. and world wholesale prices from January 1977 to June 1978; U.S. fertilizer production and consumption figures by type of finished product and raw material; and U.S. farm retail prices for key products from 1974-1979.

To order the handbook contact E. Ness, Green Markets, 457 National Press Building, Washington, D.C. 20045. Price per copy is \$112 in the U.S. and \$122 outside the U.S.

MEMOS

ChemLawn featured in Forbes: ChemLawn Corp. specifically and the lawn care industry in general were featured in the Sept. 17 issue of Forbes. The magazine has a special section called "The U-and-Comers" and featured the Columbus, Ohio-based company under a heading "A Green Machine: Spraying chemicals on suburban lawns is an easy business to get into, but careful ChemLawn has avoided the fly-by-night image and given the industry credibility.

The article points out that the company's 675,000 customers make it the market leader in the \$2 billion lawn care industry. The industry has been growing at a rate of 25 to 30 percent a year, Forbes reporter Sharon Reier said, and ChemLawn has grown even faster — from under \$10 million in sales in 1973 to \$64 million last year, or 45.6 percent compounded, to provably \$85 million in the fiscal year which ended last month.

Over the same period, earnings grew 42.7 percent and return on equity averaged 64 percent. The article notes that growth has not come free, saying that ChemLawn's balance sheet is highly leveraged.

The article says that late founder Richard L. Duke, who died two years ago of a heart attack at 48, took ChemLawn public in 1970 — but to a limited market — by issuing 30,000 shares of stock to customers and employes at \$5 a share. Each of those shares, after the equivalent of a 15-for-1 stock split, is now worth \$41 over the counter.

ChemLawn refused a takeover bid by ITT in 1971. Today, Merrill C. Berman, a New York private investor, now controls five percent of the company's 2.4 million shares outstanding. He is still buying, and believes ChemLawn is still a bargain at 41 — even though that is 30 times last year's earnings and 23 times the \$1.80 a share expected this year.

Why does Berman endorse this "outrageously" high multi-

ple? As he is quoted in the article:

There are 48 million private homes in the United States and Canada. That's a \$5 billion to \$6 billion market, which I think they can get 15 percent of." That's between \$750 million and \$900 million, if you don't have your calculator handy.

Households, 1995: The Census Bureau projects the number of households will increase by 28 percent to 41 percent over the 1978 total by 1995. That means the number of households would be between 97.2 million and 107.5 million. There were 75.9 million households (not single-family households, however) in the United States in 1978, according to the Census

Social Security wage base increase: The Social Security wage base will increase from \$22,900 to \$25,900 effective January 1. The rate remains at 6.13 percent. This means each employe earning \$25,900 will now pay \$1,587.67 a year. This amount is matched by the employer.

LAWN CARE INDUSTRY

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MEETING DATES

Scotts Professional Turf Institute Seminar, East Meadow, Long Island, N.Y., December 11. Contact: ProTurf Technical Representative, 513-800-543-0006.

Scotts Professional Turf Institute Seminar, Clark, N.J., December 12. Contact: ProTurf Technical Representative, 800-543-0006.

Oklahoma Turfgrass Research Foundation Annual Meeting, Lincoln Plaza, Oklahoma City, Okla., Dec. 6-8. Contact: Dr. R. V. Sturgeon, 115 Life Science East, Oklahoma State University, Stillwater, Okla. 74074.

Scotts Professional Turf Institute Seminar, Cleveland, Ohio, December 13. Gontact: ProTurf Technical Representative, 800-543-0006.

Illinois Turfgrass Conference, Ramada Inn Convention Center, Champaign, Ill., Dec. 18-20. Contact: Dr. John Street, 106D Horticulture Field Lab, University of Illinois, Champaign-Urbana, Ill. 61801, 217-333-2123.

Maryland Turfgrass '80, Baltimore Convention Center, Baltimore, Md., Jan. 7-9. Contact: Dr. David J. Wehner, Department of Agronomy, University of Maryland, College Park, Md. 20742, 301-454-3715.

Mississippi Turfgrass Short Courses, Mississippi State University Campus, Mississippi State, Miss., Jan. 7-11. Contact: Dr. Euel Coats, P.O. Drawer PG, Mississippi State, Miss. 39762.

New Hampshire Turf Conference, Sheraton-Wayfarer Motor Inn, Bedford, N.H., Jan. 10-11, Contact: John Roberts, Plant Science, Nesmith Hall, University of New Hampshire, Durham, N.H. 03824.

Nebraska Turf Conference, Nebraska Center, University of Nebraska, Lincoln, January 14-16. Contact: Dr. Robi C. Shearmar, 377 Plant Science Building, University of Nebraska, Lincoln, NE 68503, 402-472-1143.

50th Annual Michigan Turfgrass Conference, Kellogg Center, Michigan State University, East Lansing, January 15-16. Contact: Richard W. Chase, Cooperative Extension Service, Michigan State University, East Lansing, MI 48824.

Southern Weed Science Society Annual Meeting, Arlington Hotel, Hot Springs, Ark., Jan. 15-17. Contact: Jerry Weber, North Carolina State University, Weed and Science Center, 3123 Ligon St., Raleigh, N.C. 27607.

Southeastern Pennsylvania Turfgrass School & Trade Show, Westover County Club, Jeffersonville, Pa., January 15-16. Contact: William White, Philadelphia County Extension Office, 215-424-0650.

Mid-America Trade Show, O'Hare Exposition Center, Rosemont, Ill., Jan. 20-23. Contact: James Kelty, 4300-L Lincoln Ave., Rolling Meadows, Ill. 60008, 312-359-8160

Capital Area Ornamental School, York, Pa., January 22. Contact: Harold E. Stewart, 75 South Houcks Road, Suite 101, Harrisburg, PA 17109 or Tim Markovits, Court House, York, PA 17401.

Landscape Ontario Annual Congress, Sheraton Centre Hotel, Toronto, Ontario, Canada, Jan. 22-24. Contact: Robert Cheesman, Landscape Ontario, 103-3034 Palstan Road, Mississauga, Ontario, Canada L4Y 2Z6, 416-276-6177.

International Franchise Association 20th Annual Convention; Hotel Del Coronado, Coronado, Calif., Jan. 27-31. Contact: IFA Annual Convention Registration, 1025 Connecticut Ave., N.W., Suite 1005, Washington, D.C. 20036.

Western Pennsylvania Turf & Grounds Maintenance School & Trade Show, Howard Johnson's Motor Lodge, Monroeville, Pa., January 29-31. Contact: Philip Sellers, Allegheny County Extension Office, 412-355-4275.

Virginia Turfgrass Conference, Fort Magruder Inn, Williamsburg, Va., January 30-31. Contact: J. F. Shoulders, extension specialist, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061, 701-961-6000. Annual Turf & Landscape Conference, Tappan Zee Inn, Nyack, N.Y., Jan. 30. Contact: Frank Claps, 136 Laurel Ave., Larchmont, N.Y. 10538, 914-834-6846.

Associated Landscape Contractors of America Annual Meeting and Trade Exhibit, Town & Country Hotel, San Diego, Calif., Feb. 3-8. Contact: ALCA, 1750 Old Meadow Rd., McLean, Va. 22102, 703-821-8611

National Arborist Association Winter Meeting, Orlando Hyatt House, Orlando, Fla., Feb. 17-21. Contact Bob Felix, 3537 Stratford Road, Wantagh, N.Y. 11793, 516-221-3082.

Northern Virginia Professional Lawn Maintenance Seminar, Vienna Community Center, Vienna, Va., Feb. 19. Contact: Charles L. Hall, Jr., 3945 Chain Bridge Road, Fairfax, Va. 22030 or the Cooperative Extension Service, U.S. Department of Agriculture, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061.

Northwest Pest Control Conference on Integrated Pest Management, Spokane Sheraton Hotel, Spokane, Wash., Feb. 22-25. Contact: Christopher Senske, P.O. Box 6258, Kennewick, Wash. 99336, 509-783-5461.

First Agri-Turf Irrigation Exposition & Technical Conference, Galleria Plaza & Houston Oaks Hotels, Houston, Texas, February 24-27, Contact: The Irrigation Association, 13975 Connecticut Ave., Silver Spring, MD 20906, 301-871-8188.

Pennsylvania Turfgrass Conference, Hershey Motor Lodge & Convention Center, Hershey, Pa., Feb. 26-29. Contact: Arthur D. Wick, P.O. Box 362, Sewickley, Pa. 15143 or Christine E. King, Pennsylvania Turfgrass Council, 412 Blanchard Street, Bellefonte, Pa. 16823.

Northeastern Pennsylvania Turf School, Master Host Motel, Wilkes-Barre, Pa., March 4-5. Contact: Cy Chadwick, Court House Annex, 5 Water Street, Wilkes-Barre, PA 18702.

12th Annual Professional Turf and Plant Conference, Salisbury Restaurant, Eisenhower, Park, East Meadow, Long Island, N.Y., March 4. Contact; waldemar Solovieff, 63 Central Avenue, Amityville, N.Y. 11701.

National Lawn Care Business Conference and Trade Show Red Carpet Hotel, Milwaukee, Wis., March 16-19. Contact: Lawn Care Conference, Box 1936, Appleton, WI 54913, 141-733-2301.

Northcentral Pennsylvania Turfgrass School, Smethport Country Club, Smethport, Pa., March 18. Contact: C. E. Craver, McKean County Extension Office, 814-887-5571.

California Landscape Contractors Association 1980 Landscape Industry Show, Long Beach, Calif., April 3-4. Contact: California Landscape Contractors Association, 714-979-2522.

6th Annual Garden Industry of America Conference & Trade Show, Convention Center, Baltimore, Md., Sept. 12-14, 1980. Contact: GIA Conference & Trade Show, Box 1992, Minneapolis, Minn. 55440, 612-374-5200.

National Lawn & Garden Distributors Association Annual Convention, Century Plaza Hotel, Los Angeles, Calif., Sept. 16-19. Contact: Nancy S. Irving, executive director NLGDA, 1900 Arch St., Philadelphia, Pa. 19103.

Symposium on Turfgrass Insects, Holiday Inn, Columbus, Ohio, October 14-15. Contact: Dr. B.G. Joyner, Plant Diagnostic Labs, ChemLawn Corp., 6969 Worthington-Galena Road, Suite L, Worthington, Ohio 43085, 614-885-9588.



NEWSMAKERS

Dr. Robert M. Barry, operations manager for R.W. Collins, Inc.,, Indian Harbour Beach, Fla., has announced the following personnel assignments:

Dan McElroy has been named branch manager of the company's Punta Gorda, Fla. lawn care office; Steve Leker has been named branch manager of the company's Indian Harbour Beach lawn care office; Ed Bell has been named branch manager of the company's Daytona Beach, Fla. lawn care office.

Also, Robert Smith has been named assistant branch manager at the company's New Port Richey, Fla. lawn care office; Mark Flowers has been named turf specialist for the company's Atlanta lawn care office; and Vaughn Kerstetter has been named area pest control manager for the company's Florida east coast section.

Stephen Czarnecky is owner of Lawn Care based in Vallejo, Calif

Dr. Alfred J. Turgeon, associate professor of turfgrass science at the University of Illinois has been named professor and resident director of the Texas A & M Research and Extension Center, Dallas. The center has eight scientists, turf plots and plans are in the works to add a turf breeder soon, Dr. Turgeon said.



Turgeon



Eckert

Ann J. Eckert has been appointed office services supervisor for the **Jacobsen Division of Textron, Inc.**, Racine, Wis.

Bob York and Art Leffler are handling advertising for Ashland Chemical Co., Columbus, Ohio, replacing Bob Cook, who has left the firm.

F.F. Durbin is owner of F.F. Durbin Landscaping, Indianapolis.

Kenneth R. Schmalz is owner of **Schmalz Custom Landscaping**, Appleton, Wis.

Allan G. Duey is president of Jay-Lan, Inc., Sioux City, Iowa. The company is a liquid lawn care company. Marilyn R. Duey is secretary and Thomas Minard

is vice president.

Jim Walter is owner of Specialty Spraying, Inc., Latrobe, Pa. His chemical lawn care business involves both liquid and granular application.

Don Zerby is owner of **Zerby** Landscaping, Willoughby, Ohio.

Carole Reed Allaway has been named communications manager for Rain Bird Sprinkler Mfg. Corp., Glendora, Calif.

Earl Pinegar is owner of E.P.'s Lawn Service, Chesapeake, Va.

Dr. John Street, assistant professor and turfgrass extension specialist at the University of Illinois, has accepted a post as associate professor of turfgrass and turfgrass extension specialist at **Ohio State University.** His new post will be 75 percent extension and 25 percent teaching. He begins Feb. 1.





Street

Burton

The Agricultural Chemicals Division of **Diamond Shamrock Corp.**, Cleveland, has named Dr. Ralph P. Burton supervisor of product registrations. Lawrence E. Fey is sales manager for Excelawn Corp., Indianapolis.

Paul Sullivan is owner of Lawn Aid, Ltd., North Haven, Conn.

Kathy Allen is landscape manager for M.S. Management Assoc., Countryside, Ill. The company recently moved from Joliet, Ill. offices.

Stuart Crippen is owner of Best Lawn, Denver, Colo. The company handles both mowing/maintenance and granular application of fertilizers and pesticides.

John F. Shoulders, extension turf specialist at Virginia State Polytechnic Institute and State University, Blacksburg, will be retiring March 1 after 35 years with the college.

Dr. Thomas Turner has joined the turfgrass extension department at the University of Maryland. His post is 100 percent extension. He recently received his Ph.d. from Pennsylvania State University. William H. Link, director of landscaping for Century Development Corp., Houston, was elected president of the Professional Grounds Management Society at the organization's recent annual meeting.

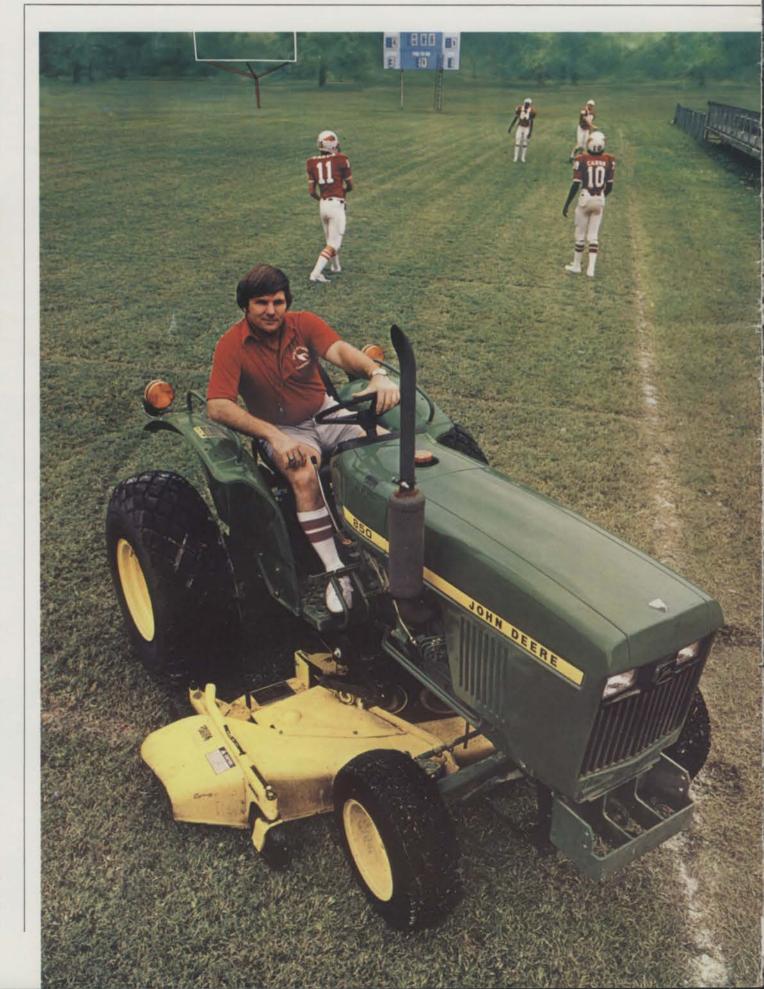




Davids

Rolsky

Board members of the organization include: Len Spencer, president of The Spencer Co., Houston; Clarence Davids, Sr., president of Clarence Davids & Sons, Blue Island, Ill.; and Mort Rolsky, Pro Care Landscapers, Indianapolis.



Economic indicators for 1879: What lawn care businessmen this

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CARE INDUSTRY

Lown care businessons predict industry grewth of 10% next year

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LAWN CARE INDUSTRY

9800 Detroit Ave. Cleveland, Ohio 44102

Lawn care companies no threat, garden supply retailers say

Lawn care companies are not a threat to a majority of garden supply retailers polled recently by Garden Supply Retailer magazine.

In an article prepared by the magazine's editor Richard W. Chamberlin, the retailers polled also said that the influence of lawn care companies should begin to wane in many areas over the next five years.

About half of the retailers quoted in the story said that there are no lawn care companies presently operating in their areas. The others said there was some activity, but that it wasn't seriously cutting into sales of fertilizers and chemicals. Some comments from the story follow:

"I don't consider them com-

petitors," said Denny McKeown, Natorp Garden Stores, Cincinnati. "For a while they had taken a share of the market, but in the last two years we've had an increase in sales of regular lawn food. Customers have become dissatisfied with the forced feeding method because it works three or five years, but then the lawn quality starts to decline. In addition, this service is getting expensive. We show our customers how they can care for their own lawns at much less expense.'

"There is very little of this type of service in upstate New York," said Dick Tate, Tate Equipment, Horseheads, N.Y. "Most of our customers are self-sufficient. A few firms have started but gone out of business. It seems this ser-

vice only appeals to the very busy or the very wealthy."

"We have some basic insect problems in Florida, especially the chinch bug," said Randy Knight, Poole & Fuller's, Winter Park, Fla. "These lawn care businesses will come in and spray and do some fertilizing. But most equipped to do it, so these services do cut into our business somewhat. But I'm not concerned."

"I don't feel that they've cut into my business, but they are doing business here so they must have," said Punky Foard, Valley View Farms Country Store,

One garden supply retailer set up a program to compete with lawn care businessmen in his area. He doesn't go out and do the servicing, but rather sets up the customer on a program of his own. Then he sells the merchandise. He keeps records so he knows just when the customer is due for an application. Then he delivers the product to the customer's garage.

people in Florida will put on supplemental fertilizer. We feel that we should provide good advice to our customers to help them grow beautiful lawns.

"That is a difficult task in this area and some people just aren't

Cockeysville, Md. "But on the surface it hasn't affected our sales at all so we haven't developed a plan to counteract this competition."

"I've seen their ads in the paper, said Bob Tuinstra, Fruit Basket Flowerland, Grand Rapids, Mich. "It has been tried in the Grand Rapids area in the past and failed. But I do think they can give us problems although none have surfaced thus far. I've always said if you can't beat them, join them. I did that with artificial flowers. When I added the silk flowers, it increased sales of live flowers as well. The same thing happened with artificial Christmas trees."

"This service is slacking off in popularity here," said Lloyd Franz, Franz Fruitmarket, Napoleon, Ohio. "Customers are complaining because they're feeding the grass too much nitrogen. After a couple of years this brings the roots to the surface and the grass dissipates.

"There are so many people in this business now that I'm concerned that there should be some regulations. Some of these firms are fly-by-night operations that come in for a few years, take the business, and then leave. The customer will always come back

to the reliable business. 'We have had a lawn care program ourselves and we send literature on it to our customers It's crabgrass control and fertilizer in the spring; broadleaf weed control in May and June; and a fall weed and feed program. We use granular-form walk-behind spreaders and we have a large crew taking care of our customers. When spraying you need experienced people, so we use our landscaping crews for that. One mistake and you've lost a customer."

"We have one of these businesses in Martinsburg," said Phil Ernst, of Woodbrier Nursery in that West Virginia town. "He has stimulated interest in good lawns so we don't mind him. Customers hear about this service and would like to have it but can't afford it. So they come to us and want to know how to get a better lawn. We advise them on what to put down and it has been advantageous to us.

"We also decided to set up a program ourselves. We won't go out and do the servicing, but we do set the customer up with a care program of his own. We sell him the merchandise, tell him how to apply it and when. We

"Iwish my quarterbacks were as durable as this John Deere Tractor." Coach Dan Spadoni, Dollarway High School, Pine Bluff, Ark.

Last season, Coach Spadoni had all four of his quarterbacks out at one time or another with injuries.

But his John Deere 850 Tractor never missed a day's work

"In the two years we've had it, we've used it to mow both of our football fields, the practice field and the grounds around the school;" says Coach Spadoni.

says Coach Spadoni.

"And we've never had any problems. Even opposing teams have told us ours is the best field they've played on."

after year. Yet being a diesel it gives the kind of fuel economy a school's budget really appreciates.

More than just a mower Another reason Coach

Which, of course, is why Coach Spadoni and School Superintendent James Matthews decided to buy a John Deere 'Little-Big' Tractor in the first place.

Not too big, not too small
They were looking for a tractor big enough to handle

*Maximum PTO horsepower at 2600 engine rpm (by official test, **Maximum PTO horsepower at 2400 engine rpm (by official test for the 950, factory observed for the 1050). a large-acreage mowing job. Yet small enough so it would be economical to buy and operate.

The 22-PTO-hp* John Deere 850 filled the bill on both counts.

Its compact, water-cooled, 3-cylinder diesel engine has the power and stamina to run a rotary mower day after day, year after year. Yet being a diesel, it gives the kind of fuel economy a school's budget really appreciates.

More than just a mower Another reason Coach Spadoni picked the John Deere 850 is its versatility.

It has a well-spaced 8-speed transmission that can match up to just about any job you want to do, plus a differential lock.

It has a Category I 3-point hitch, 540-rpmPTO and adjustable drawbar, plus more than 20 power-matched implement options. And it's available in a variety of different tire styles and sizes.

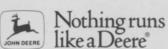
Built to last
Of course, like all John
Deere tractors, the 22-PTOhp 850 is built to last.

"You can actually feel how solid it is when you ride it," says Dan Spadoni.

And to prove it, we ask only that you test drive one yourself at your nearby John Deere dealer.

Try out the 850, the 27-PTO-hp 950 or the new 33-PTO-hp 1050 with turbocharged diesel engine.**

See for yourself why John Deere 'Little-Big' Tractors are a big winner with schools, parks and golf courses everywhere.



For more information, write John Deere, Dept. 63, Moline, Illinois 61265.



The little-big tractors from John Deere

MONEYWISE

Turning snow into cash

Snow removal is a business that can be expanded from just covering expenses and overhead to a profit center well worth a firm's time, according to panel members who discussed snow removal at a recent meeting of the Illinois Landscape Contractors Association.

The panel's thoughts on drawing up a comprehensive contract, terms, being certain about requirements and schedul-

ing were printed in The Landscape Contractor.

"Last year, we thought we had the contract problem recalled John Schwarz Nursery and Garden Center. "Thanks to previous experience we knew better than to write a contract that stated 'we'll plow X lot for X dollars for the season.' However, no one in our firm planned a contract that foresaw the financial impact created by the amount of snow we handled last year. Like so many others, we were forced to run double shifts, pay double time, and take on new help at a ridiculous rate. Add manpower problems to equipment costs, downtime for repairs, obtaining parts, and you know we had problems. This year you can bet we are going to include all those variables in a contract.'

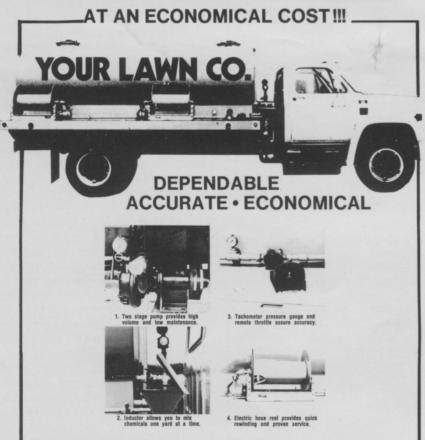
"Our bidding is usually done on a square-foot basis," says Jim Bussey of J.B. Design. "We have a basic idea of how much each job should take and we set a limit to the amount of snow per occurence and bill accordingly. Our breakdown runs from one to two inches, two to four inches, and four to six

inches of snow on the ground."

Terms. "One of the most important things to include in a snow removal contract," Schwarz said, "is exactly what is to be done and when you get paid." Many landscapers found that their clients created a slow payment situation because

they hadn't budgeted enough for snow removal. "Don't forget to write a timetable for payment into your contracts so you'll know when to expect payment. If you are in this business to correct a negative winter cash flow, payments arriving in August won't be much help," he said. "I've heard some excavation contractors require a start-up fee or what they call an autumn retainer fee. That's an idea to look

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- 1) A pumping system that can load or unload itself and other trucks.
 2) Remote throttle tachometer and pressure gauge for finite accuracy.
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chemicals on the job through an inductor

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into because it would give cash flow to those late fall weeks when there's not much else to do but get ready for winter. All start-up time would be billed for including snow plow hookup, attaching lights, hydraulic systems, and preventive maintenance.'

Our company is considering a retainer fee in the contract for storing a piece of equipment on the job site all winter,' said Don Nowotny of Theodore Brickman Co. "The clients would appreciate it as they realize our operators will be to their rescue faster and have the snow cleared away before the employes start arriving on the lot. Don't forget, many companies feel that not having a comprehensive snow removal plan will cost them money.

Be certain about requirements. According to Schwarz, the best way to determine a job's requirements is to lay plans

long before there are threats of snow.

"Make an appointment and sit down with your client and together agree on a site's requirements," he said. "Get the client to agree on what the conditions of the site have to be before the client expects your arrival.

One company bills according to the amount of snow, with breakdowns running from one to two inches, two to four and four to six.

"We use the one-inch of snow on the ground and more snow falling as our contractual starting point. Some clients are admittedly more fussy and expect to see dry pavement all winter," he said. "Be sure you understand the client's needs before each contract is written. Include what you are expected to do about blowing or drifting snow. Try to list what machines will be needed and whether or not the snow is to be hauled off the site.

'If the client wants the snow hauled off the site, you are going to need to plan on where you will haul the snow, and get permission," he said. "Subcontractors may be needed. You'd better have it in the contract who is to pay them, you or the client. Also, will your firm be responsible for tree and shrub damage on the site? You may discover a damage charge deducted from your invoices if you don't try to foresee every possible service problem.

Scheduling. Denny Church of D.L. Church Landscape Co., uses the '80 percent of capacity philosophy' as a rule of thumb

for scheduling men and equipment.

"This worked well last year," he said. "Don't contract yourself up to capacity or you will be asking for service problems. Good management dictates you hold back a reserve of men and equipment to cover breakdowns and illness problems."

"We make a map outline of each site," Bussey said. "Our written outline describes the best procedure for plowing each site. We include which section should be plowed first, the location of manhole covers, cracks in the pavement, and all the little characteristics of the site. One of these outlines is on file for each of our snow plow sites. Should a person become ill, another crew member can take his place with enough information about the site to avoid unnecessary trouble."



Also available with gas engine and mounting base.

For both Volume and **Pressure**

Use Hypro series 5200 Big Twin piston pumps.

Here's a rugged two-cylinder piston pump that will deliver up to 10 gpm at 400 psi (600 rpm) for tree spraying, area spraying, fogging, or termite pretreating.

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FEATURES:

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Suction & discharge ports tapped 3/4" NPT.



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Lease or buy?

by Ned Brinkman, manager, general sales, Turf Products, Jacobsen Division of Textron, Inc., Racine, Wis.

Faced with high interest rates, inflation, new regulations and cash flow requirements, the financing of new equipment has become a complex consideration for lawn care businessmen in recent years.

One obvious way to get that new machine on the job and generating income is simply to buy it through an outright cash purchase.

If ample cash is available, ownership may be the right decision. The machine may cost less, you'll be able to depreciate it, and benefit directly from any investment tax credit that is available.

New equipment purchased outright can actually cost just one-third of the list price for a business in the 48 percent tax bracket when depreciation and investment tax credit are properly figured.

For many lawn care businesses, buying is the right decision. But for many others, the best alternative is to lease that new machine.

Just as in buying, you get the machine right away when you lease. You have the machine but somebody else holds the title. You pay "rent" to the owner to cover his cost of financing the purchase, his expenses and a reasonable profit for his efforts and risks involved. When your lease is up, the other party still owns the equipment, not you, compared to a loan where the title is conveyed to you after your final payment. On the positive side, you can deduct all lease payments as a business expense. And usually you can acquire the machine for a reasonable sum at the end of the lease term.

While it is impossible for us to make a broad recommendation on whether to buy or lease, we can give you some general information to help you reach your decision. Since buying is usually a whole lot easier than leasing, we'll delve into the latter in more detail. A word of caution: Leasing can be complex so you'll want to have professional advice before committing to any arrangement.

True lease? The first item you'll want to be sure of is that the contract is a "true lease" under the federal Internal Revenue Code. A true lease lets you, the lessee, claim rental payments as tax deductions, while the lessor can claim the tax benefits of ownership, such as depreciation.

Another item to watch is the purchase option of the lease. The Internal Revenue Service (IRS) calls it a "purchase contract" rather than a lease if the purchase option is not stated at fair market value at expiration date, or if the lease is worded so the purchase option is automatic. Payments cannot be defined as "rent" or as a recurring business expense. If the lease says you buy the machine for salvage value at expiration date, the IRS people won't go along with it.

Net lease. Probably the most common lease to the lawn care

industry is called the "net lease". This means that rentals are payable net to the lessor and all costs in connection with the use of the equipment, insurance, taxes, maintenance, etc., are paid by the lessee, with all warranties, guarantees, special services, instruction, etc., passed on to you. The usual term for a net lease is three to five years.

Operating lease. This other common type of lease covers a comparatively short period of time such as one year. With it you use the machine for only a fraction of its productive life. The lessor often provides services and sometimes even personal property taxes.

A way out? Normally a lease is not cancelable for its initial term.

However, some lessors will provide for trading up, or buying out before the lease expires. Since these provisions can give you the flexibility similar to ownership,



Jacobsen's Ned Brinkman (right) at a student seminar earlier this year that was sponsored by the Racine, Wis.-based company.

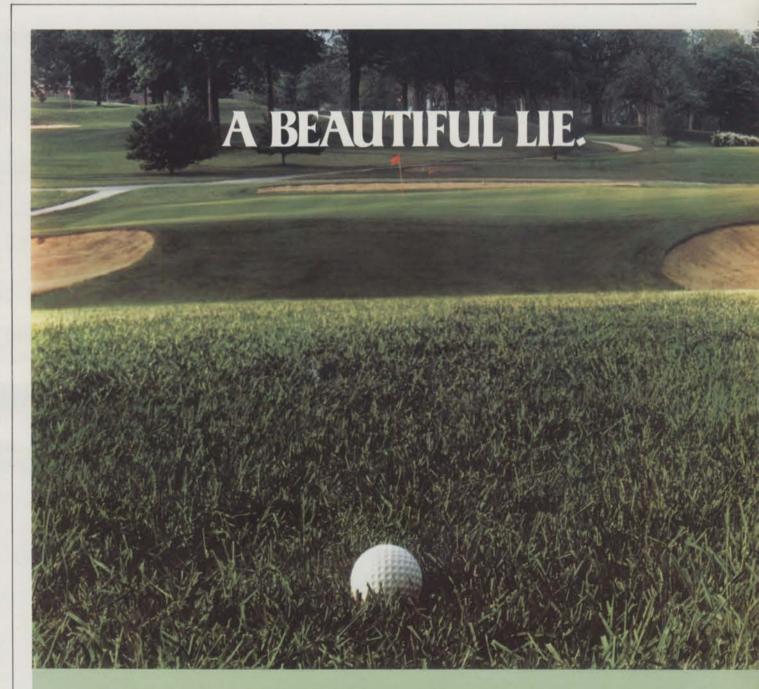
they should be carefully checked out, or bargained for.

Lease flexibility. A lease can be flexible in many other ways. For example, leasing companies responded to the investment tax credit by passing the credit on to the lessee to the extent allowable under IRS code.

Some leases take seasonality into consideration and skip payment during certain months. Sometimes payments can be deferred for up to six months even though the turf machine is being used, giving the lessee financial flexibility at the outset. Usually at the end of most leases you have the option to renew at a very attractive rate. And when the lease is up, you always have the option to get a new machine without having to worry about what to do with the old model.

Capital care. Even if the economy is stable and business is booming along, you'll still want to think twice about buying. It

to page 17



A BEAUTIFUL RYE.

There's no doubt about it. REGAL is the new turf-type perennial ryegrass that combines color, vigor and density for an elegant turf.

REGAL's dark green, fine-textured leaves look beautiful alone, or blend well with other turf-type ryegrasses. It has excellent tillering characteristics, and during periods of transition with bermudagrass, helps to maintain a lush, green, uniform turf.

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If you'd like more information on REGAL, contact North American Plant Breeders. P.O. Box 2955. Mission, Kansas. 66205 8-5256



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REGAL

the ryegrass that gives your course a beautiful edge.

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Cutworms damage Midwest lawns

Cutworms are characteristically a serious pest of golf course greens in the Midwest, and damage to Kentucky bluegrass lawns has usually been infrequent and usually not extensive.

However, in May of this year, large patches of dead grass were observed in many lawns throughout Illinois, according to Dr. John R. Street, assistant professor of turfgrass at the University of Illinois. Dr Street and Dr. Roscoe Randell, associate professor of entomology, studied the problem.

Upon close observation, the brown areas were found to be highly populated — 20 or more per square foot in some areas — with larva or caterpillars. The caterpillars were identified as the bronzed cutworm. Cutworm feeding was so prevalent that many lawn care companies included insecticide control of the cutworm as part of their regular program.

Cutworm description. The bronzed cutworm larva is a dark,



Bronze cutworm

bronzy brown color and striped from head to tail with five pale to yellowish lines. One stripe runs down the center of the black (dorsal) side and another runs transversely below structures called spiracles (external openings towards the base) on either side of the body.

In contrast, the black cutworm larva is pale grey to black, greasy appearing, without distinct stripes or markings. Small black spots do occur, however, in a uniform pattern across the upper (dorsal) surface of the body. These black spots develop from hair-bearing tubercules (small, knob-like protuberances) that are heavily pigmented with black. The mature larva are thick-bodied and one-and-one-half to two inches long. The larva usually curl up when at rest or

The adults of all cutworms are moths with dark brown to grey front wings, variously marked with darker or lighter spots and narrow bands, and lighter colored hind wings. The color markings of the front wings are key characteristics used to differentiate among cutworm species.

For example, the basal twothirds of front wing of the black cutworm is darker than the outer third; wheras, the central area of the front wing of the bronzed cutworm is usually darker and olive-tinted, compared to the inner and outer wing. The wingspan of the adult moth is about one-and-one-half inches. Feeding and damage. Cutworm larvae injure turfgrass plants by chewing the grass leaves off at or near the soil surface. The leaves may be severed from the crown leaving a stubble, or the crown may be injured as well. Where feeding is heavy, large areas of turf may develop a brown coloration.

Cutworm larvae feed most actively during the night. The larva usually hide in tunnels in the soil, just above the soil surface, or in the thatch during the day. The adult moth does not damage the turf in any way. The adults feed at night by sucking nectar from flowers, and often are attracted to lights.

Life cycle. The bronzed and black cutworms have distinctly different life cycles. The bronzed cutworm overwinters as partially grown larva and has only one generation each year.

The larvae begin feeding in the spring (March to May, depending upon location), pupate during the summer, and adult moths appear from early



Black cutworm adult

September to early October, with peak moth flights generally in mid-September. Greatest injury from bronzed cutworm larvae occurs during the spring.

In contrast, the black cutworm overwinters as a larva or pupa and has three or more generations each year in the Midwest. In the spring, adult moths emerge from pupal cells in the soil, mate, and shortly thereafter lay eggs. Larvae hatch from eggs



Abnormal pupa (left) and normal

in a week or less. The larval period lasts from 25 to 35 days and the entire life cycle from egg to adult requires 45 to 55 days. Where three generations are common, the first moth flights generally peak in mid-May, the second in mid-July, and the third in August or September.

in August or September.

Diagnosis for cutworm.

Cutworm larvae feed on turfgrass at night and usually hide in the thatch or soil during the day.



Six great gas-power-tough trimmers:



MODEL 1900 High-quality economy trimmer.

Here is famous Green Machine quality and performance built into a new, low-priced 14.9 cc gas-trimmer. Unlike many low-end gas trimmers, The Green Machine Model 1900 has plenty of power—so much power that it comes equipped with two heavy-gauge long-wearing .080 Green Line cutting strings.

Coupled with great engine performance is a simple but effective 2-string, manual-feed cutting head. A TFC™ automatic-feed head is available as an option, as well as a new flexible rubber blade for fast trimming of weeds. Other features of the 1900 include a flexible, enclosed drive shaft, light overall weight for ease of operation, multi-position molded handle.

SPECIFICATIONS:

Engine Type: Inverted 2 Cycle Air Cooled Cylinder
Type: Single Alum. Alloy Chrome Plated Displacement:
14.9 cc Bore & Stroke mm 27 x 26 Compression Ratio:
6.2.1 Max H.P. (H.P/RPM) 65/6500 Carburetor: Butterly
Type All Position Ignition: Contact Point Type Clutch
Housing: Direct Coupled Lubrication (Fuel Mixture) 20 to 1
Fuel Capacity: (4L) 4201 Shaft: Flex Type
Reduction: None Cutting Head (Std): 5 Dia.
Cutting Swath: 17 in Weight (with cutting head) 10 lbs

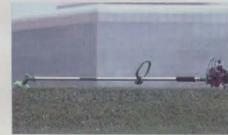


MODEL 2000 Loaded with Power.

This model is equipped with the popular 22.5 cc Green Machine engine. There's power to spare for the toughest string trimming operations. Standard equipment includes the reliable, manual-feed head. You can also use it with the optional TFC™ Tap-For-Cord head. A light tap on the ground automatically releases fresh cutting string. The Model 2000 can also be used with the new fixed-line head (.105 line). Other features include an all-position diaphragm-type carburetor with positive fuel shut-off. Power is transmitted through a rugged, enclosed flexible drive-shaft. As with the 1900, the mid-handle is easily adjustable to the operators height and can be quickly reversed when the unit is used for edging. It's a beautifully built unit, ideal for those that want additional power and efficiency.

SPECIFICATIONS:

Engine Type: Upright 2-Cycle Air Cooled Cylinder Type: Single Alum, Alloy Chrome Piated Displacement: 22.5 Bore & Stroke mm: 32 x 28 Compression Ratio: 6.5.1 Max H.P. (H.P.RPM) 12/6500 Carburetor: Slide Type Ail Position Ignition: Contact Point Type Clutch Housing: Direct Coupled Lubrication (Fuel Mixture) 20 to Fuel Capacity: (61), 640t Muffler: Spark Arrestor Shaft: Flex Type Reduction: None Cutting Head (Std) 5° Dia Cutting Swath: 18 in. Weight (with cutting head): 11 lbs (5kg)



MODEL 2500
A great string trimmer—and more.

Powered by the proven 22.5 cc engine, here is a string trimmer-that's more than a string trimmer. Model 2500 comes equipped with a new Universal TFC" head for fast, efficient grass and weed trimming. Just switch to one of the optional quick-change metal blades and you've got a great brush cutter or tree pruner. The performance of this unit in tough brush and pruning operations has to be seen to be fully appreciated. The brush blade lets you cut through heavy brush and vines up to 36 inch in diameter The saw blade, used with a combination chopping/sawing action can slice easily through branches up to three inches in diameter. It is equipped with a straight solidsteel shaft with spiral-bevel gears. Four optional heads are available for this unit-see chart on back page.

SPECIFICATIONS:

Engine Type: Upright 2-Cycle Air Cooled Cylinder
Type: Single Alum, Alioy Chrome Plated Displacement:
22.5 Bore & Stroke mm: 32 x 28 Compression Ratio:
6.5.1 Max H.P. (H.P/RPM) 1.2/8500 Carburetor: Slide
Type All Position Ignition: Contact Point Type Clutch
Housing: Direct Coupled Lubrication (Fuel Mixture) 20 to 1
Fuel Capacity: (6.1) 64Q1 Mutfler: Spark Arrestor Shaft:
Solid type 8mm Reduction: 1.26 Gear Drive Cutting Head
(Std) 5* Dia Universal TFC Cutting Swath: 18 in Weight (with
cutting head): 13 lbs (5.9kg)

* Blades and blade guards shown in top photo are optional items

* Fuel mixture ratios shown in specifications are with conventional 2-cycle oils. For convenience and long engine life we recommend ONE-MIX", the great new multi-ratio oil

LAWN SEED MIXTURES

Fine fescues good for cool sites

with moderate shade

Fine fescues are most important as components of lawn seed mixtures for cool sites with moderate shade, according to Robert C. O'Knefski, New York state exten-

"Blending or mixing several fescues together to make use of the best qualities of each would be recommended," he said. "If a lawn is to be planted entirely of fine fescues, about four pounds of seed are needed for each 1,000 square feet."

He said that most fine fescues currently in use for home lawns are strains of red fescue. Fine or red fescue strains are good grasses for dry soil in sun or shade. They make a tough, dark green sod. The grass leaves are wiry and hard to cut with a dull mower.

They turn brown naturally during hot, dry periods, but recover quickly during cool, moist periods.

"Fescues are not successful in wet locations or poorly drained soils," O'Knefski wrote in the bulletin of the New York State Turfgrass Association. "Most types will not tolerate excessive watering, fertilization or close mowing, less than one-and-onehalf inches.'

Fine fescues may be classified into four major groups - chewings, creeping, spreading and hard fescues. Chewings, creeping and spreading fescues are commonly referred to as red fescues. Groups differ in appearance, growth habit and adaptation. Varieties have been developed in each group and new improved varieties are in various stages of development.

He said chewings fescues are fine-leaved, low-growing with very little spreading because it lacks rhizomes.

Creeping fescues are fineleaved with a slight undergroup spreading habit due to presence of small rhizomes.

Spreading fescues have wider leaves similar to some Kentucky bluegrasses, longer spreading rhizomes and do not produce as dense a turf as the chewings and

creeping types. Hard fescues are fine-leaved, low-growing and non-spreading. They have a slower vertical growth, better disease resistance and better adaptation to shade and poor soil than chewings

In tests for disease tolerance to dollar spot on Long Island, he said the following varieties did well: Biljart hard, Scaldis hard, Highlight chewings, Jamestown chewings, Banner chewings and Pennlawn spreading.

In tests for disease tolerance to Helminthosporium in Michigan, he said the following varieties did well: Biljart, Jamestown, Banner and Dawson creeping.

In tests for disease tolerance to Helminthosporium at Cornell University, he said the following varieties did well: Scaldis, Highlight, Banner, Dawson, Koket chewings, Boreal spreading and Wintergreen chewings.

O'Knefski recently moved to new offices in Plainview, N.Y.

ing feeding. The turfgrass area should be wet prior to treating, if an adequate amount of water will not be used during spraying.

Irrigation should be withheld from the turfgrass area for 72 hours following application to allow adequate time for the insects to contact the insecticide. If rain occurs shortly after application, it may be necessary to repeat the treatment. Granular applications are best applied to dry foliage and watered in lightly to move the insecticide off the granule.

CORROSIVES

Detection requires careful exam-

ination of thatch and soil in the

brown patches, as well as the ad-

Pellets of green excrement (frass) located in the surface

thatch or soil indicate that cut-

worm larvae or other caterpillars have been feeding. A good

method of flushing out larvae is

to slowly apply a solution of

pyrethrin containing one tables-

poon of one to two percent

pyrethrin in one gallon of water

to a test area of one square yard.

the larvae and brings most of

them to the surface.

The pyrethrin solution irritates

Control. Both granular and li-

quid insecticides are available

for cutworm control. Liquid in-

secticides should be applied in a

sufficient volume of water (five

to 10 gallons per 1,000 square

feet) to thoroughly wet the

leaves, stem and thatch. The cut-

worm larvae are killed by con-

tacting the insecticide directly or

by taking in the insecticide dur-

jacent living turf.

Report discusses pumping herbicides

The use of bronze rotary gear pumps for spraying of herbicides is described in a field application report by Oberdorfer Pump. Co., Syracuse, N.Y.

available. The turf manuals are available for \$10, and the identification manuals are available for \$4.50 by writing: O.M. Scott & Sons, Marysville, OH 43040, 513-644-0011, etx. 2481.

Discussed are pump speeds,

For a copy of the report, con-

tact: Norman O'Brien, vice pres-

ident, Oberdorfer Pumps, 6130 Thompson Rd., Syracuse, NY

Scott's turf manuals

Scott's Professional Turf In-

stitute has a limited supply of the

widely used Professional Turf

Manuals and weed and grass

identification manuals now

are now available

type of packing and other equip-

ment adapted for applications in

on-site spraying.

13221.

TRAINING

"STANDARD OF THE INDUSTRY" Commercial-quality TFC™ Tap-For-Cord head equipped with Green Line extra long-life nylon string. (Model 3000SS, as well as 2500, 4000, and 4500, also accept metal blades for brush cutting and tree pruning.) **DEL 3000SS MODEL 4000**

This Green Machine has set the standard for commercial-quality trimmers. Thousands are in use by professional gardeners, grounds maintenace crews, and large-acreage owners. The 3000SS has been made even better with a new, more powerful engine and solid-state ignition. Like the 2500, these units can also be used for brush cutting and tree pruning, using the accessory metal blades. Model 3000SS comes equipped with the commercial quality TFC™ Tap-For-Cord string trimmer head—the first automatic-feed head built for the professional. Other heads available include the ultra-simple, 2-string (.105) manual head designed specifically for rentalyard and other special uses. Quality features include: solid, heat-treated drive-shaft and spiral-bevel gears; anti-vibration clutch housing with dual bearings; larger, quieter muffler and air cleaner; larger gas tank.

SPECIFICATIONS:

SPECIFICATIONS:
Engine Type: Upright 2-Cycle Air Cooled Cylinder
Type: Single Alum Alloy Chrome Plated Displacement:
24.1 Bore & Stroke mm: 32 × 30 Compression Ratio:
65.1 Max H.P. (H.P/RPM): 1.3/6500 Carburetor: Slide
Type All Postion Ignition: Solid-State-Transistor Type Clutch
Housing: Anti-Vibration Lubrication (Fuel Mixture): 25 to 1
Fuel Capacity: (7L) 74Qt Muffler: Spark Arrestor Shaft:
Solid type 8mm Reduction: 1.26 Gear Drue Cutting Head
(Std): 6" Dia. TFC Cutting Swath: 18 in: Weight (with
cutting head): 15 lbs (6.8kg)

pacs from The Green Machine. No guess, no mess!



This is the high powered Green Machine designed specifically for specialized, day-after-day trimming of grass, weeds. and brush. A harness with hip-pad and wide handle bars provides maximum operator efficiency for such demanding operations as highway road-side maintenance. The 37.4 cc easy-starting engine has power to spare to operate the commercial TFC™ head with .105 cutting string. Other heavy-duty features include larger drive shaft and larger spiral-bevel gears. With accessory blades, the swiveling center shaft of the 4000 makes it ideal for hillside brush cutting and pruning of low-hanging tree branches.

SPECIFICATIONS:

Engine Type: Inverted 2-Cycle Air Cooled Cylinder
Type: Single Alum. Alloy Chrome Plated Displacement:
37.4 Bore & Stroke mm: 38 x 33 Compression Ratio:
9.1.1 Max H.P. (H.P/RPM): 2.7/7500 Carburetor: Slide
Type Float Ignition: Contact Point Type Clutch Housing:
Direct Coupled With Swivel Lubrication (Fuel Mixture):
20 to 1 Fuel Capacity: (1.1.1.) 1.170, Muffler: Spark Arrest
Shaft: Solid 10mm Reduction: 1.26 Gear Drive Cutting
Head (Std): 6* Dia. TFC Cutting Swath: 20 in Weight
(with cutting head): 21 lbs (9.5kg)



Modern forestry practice demands fast, efficient tree and brush clearing. Here is the tool for the job. Using a combination chopping-sawing action, saplings up to 4 inches in diameter can be felled in a single stroke. One man equipped with the 4500 becomes a formidable system of forestry maintenance. This unit is specially-designed to withstand the continuous side-shock impact imposed by this type of work. Extra anti-vibration features as well as an exceptionally heavy-duty shaft are included. The special handle guards help protect the operator. The 4500 comes equipped with brush blade, saw blade and blade guard. The commercial quality TFC™ Tap-For-Cord head is available as an option.

SPECIFICATIONS:
Engine Type: Inverted 2-Cycle Air Cooled Cylinder
Type: Single Alum Alloy Chrome Pitated Displacement:
37:4 Bore & Stroke mm: 38 x 33 Compression Ratio:
9:1:1 Max H.P. (H.P/RPM): 2:7/7500 Carburetor: Slide
Type Float Ignition: Contact Point Type Clutch Housing:
Direct Coupled With Swivel Lubrication (Fuel Mixture): 20 to 1 Fuel Capacity: (1.1L) 1.17Ct. Muffler: Spark Arrestor Shaft: Solid 12mm Reduction: 1.26 Gear Drive Cutting Head (Std): Blades Weight (with cutting blade): 22 lbs (10kg):

Contact your distributor or write today! he Green Machine®

VEGETATION MANAGEMENT

Bare ground weed control backbone of Memphis lawn company's business

If you are still tackling vegetation management with a nonchemical program (cutting, hacking or swearing) maybe you should consider some alternate approaches to weed and brush problems. Southern Spray Co., for example, has implemented several new ideas in vegetation management.

Southern Spray is headquartered in Memphis and covers the mid-South. Since opening its doors in the early '70's, founder-owner-president Keith Throckmorton notes that various factors have changed concepts in vegetation manage-

•New chemicals

Increased labor costs

Preventive treatments

 Prescription programs Throckmorton also notes that the image of the custom applicator is changing, for the bet-

'Applicators who skimped on rates, used the wrong chemicals or got off-site injury gave the entire industry a bad reputation," he says, "but we're overcoming

The need for weed and brush control may not be greater, but problem awareness is better today, he adds. Most of Southern Spray's business comes from small customers who don't have the time, equipment, manpower or knowledge to solve weed and brush problems chemically. Increased labor costs eliminated many mechanical programs, while licensing eliminated many part-time operators who dabbled in vegetation management.

"When we started out, most of our work was brush control with Ammate in drainage ditches, but that's a much smaller segment of the total business today. The fastest-growing segment is in

residential lawn care," he said. Throckmorton says that bare ground weed control has become the backbone of the business. February-March applications of Hyvar X with retreatment at reduced rates the following year is a basic program in many areas.

"The trend in vegetation management has gone to bare ground versus dead weeds," he said. "You try to avoid the twofoot dead weed. That's not only unsightly, but also a fire hazard. Our objective is to get it bare and keep it bare, so we've gone to new programs to prevent the problem instead of waiting until we've got the problem.

"Once we've got it under control, the cost of retreatment goes down in subsequent years because then we can use reduced rates, and that's attractive to our customers," he said.

Prescription programs. spend more time today analyzing



Even with four spray crews, Keith Throckmorton, owner of Southern Spray Co., handles some of the work. He also doubles as mechanic and occasional salesman.

the problem and selecting the best material instead of trying to use one material for every type of application and time of year job. Brush control used to be just summer foliage treatments," he

Throckmorton says he's found it necessary to keep evaluating new materials and concepts in vegetation management because his problems are constantly changing.

"For example," he says, "a few years ago, Johnsongrass was our number one weed problem, but in areas where we've treated, we see very little of it anymore. We can control Johnsongrass, but we're seeing a lot more vines."

He says he typically experiments with new chemicals for several years before using anything new on a commercial basis, and one new material he's evaluated and is now using in prescription programs is Krenite.

He says: "We're looking for Krenite to fit into programs to clean up various hardwood species that escape applications with other herbicides, especially in drainage ditches and along right-of-ways."

Krenite is a growth regulant. Applied in fall, most susceptible brush species go through for a normal fall defoliation, but fail to refoliate the following year. Applications also minimize "brownout". In addition, this new material is non-volatile (doesn't pose a drift hazard) and is safe to use around farm crops or near water.

Throckmorton says these characteristics make it especially useful on utility right-of-ways that are inaccessible with ground equipment but can be reached with aerial sprays, work he can and does subcontract.

The biggest mistake in vegetation management is waiting too long to bring a problem under control, he notes. "Runaway brush and weeds are not only more difficult to handle," he said, "but also more expensive."



Circle 117 on free information card

Lawn talks on tap at Maryland conference

Discussions on computers for the lawn care industry and about fertilizer regulations in Maryland will headline a special lawn care session to be held during Maryland Turfgrass '80 set for Jan. 7-9 at the Baltimore Convention Center.

Speakers on the fertilizer panel are Maryland state chemist David Clark, Frank Stevens of Pro-Lawn-Plus, Inc., Baltimore, and ChemLawn Corp. regional agronomist Philip Catron, based in Westminster, Md.

There will also be many other talks of interest to lawn care businessmen, including one on Fusarium roseum by Dr. Richard Smiley of Cornell University, and one on turf renovation by Dr. John R. Hall III of Virginia Polytechnic Institute and State University.

For further information, contact: Dr. David Wehner, Agronomy Department, University of Maryland, College Park, MD 20742, 301-454-3717.

SAN DIEGO

Workshops highlight **ALCA** convention

The 1980 ALCA Annual Meeting and Trade Exhibit will feature a wide-ranging series of specialty and management workshops, in addition to an outstanding keynote session and extensive trade exhibit.

The convention, sponsored by the Associated Landscape Contractors of America, will be held Feb. 3-8 at the Town & Country Hotel, San Diego, Calif.

The convention will feature 11 separate workshops, covering numerous technical specialties, as well as several business topics. There will be technical sessions on: lawn care, landscape maintenance, chemicals, design/build contracting, interior landscaping, erosion control/revegetation and a unique "back to basics" session on basic contracting.

For further information, contact: John Shaw, executive director, ALCA, 1750 Old Meadow Rd., McLean, VA 22102, 703-821-8611.

BUSINESS

Outboard Marine cuts dividend in half, fiscal net fell 36%

Even though "significant" sales gain were achieved by its lawn mower and turf vehicle divisions, Outboard Marine Corp., Waukegan, Ill., halved its quarterly dividend and said it expects to report fiscal 1979 earnings about 36 percent below the year-earlier level.

The quarterly dividend was cut to 17 cents from 35 cents, payable Nov. 30 to stock of record Nov. 16.

The reduction, Charles D.

Strang, president, said, was made because "disappointing" results for fiscal 1979 and the "economic conditions forecast for next year's selling season which indicate considerable uncertainties in projecting demand for domestic outboard motors." Sales were projected at \$741 million against \$703.8 million the year before.

IRRIGATION

Irrigation conference meets in Houston

The First Agri-Turf Irrigation Exposition and Technical Conference will be held Feb. 24-27 at the Galleria Plaza and Houston Oaks hotels, Houston. The event is being sponsored by The Irrigation Association.

More than 100 exhibit booths have already been sold to a wide and diverse cross-section of the irrigation industry. Exhibitors include: L.R. Nelson Corp., Peoria, Ill.; Rain Bird Sprinkler Mfg. Corp., Glendora, Calif.; Raindrip, Inc., Panorama City, Calif.; Royal Coach Sprinklers, Inc., Fresno, Calif.; The Toro Co.'s Irrigation Div., Riverside, Calif.; Vermeer Mfg. Co., Pella, Iowa;

and Weather-matic Div., Telsco Industries, Dallas.

There will be breakout sessions for turf/landscape, including maintenance sessions. For further information, contact: The Irrigation Association, 13975 Connecticut Ave., Silver Spring, MD 20906, 301-871-8188.

HERBICIDES

New Betasan turf formulation registered

Stauffer Chemical Co., Westport, Conn., has been granted a federal label for Betasan 7-G selective herbicide, a new formulation, for pre-emergence control of weeds in turf, ornamentals and groundcovers.

The new formulation is a seven percent granule of Betasan recommended for use on home lawns, parks and golf courses, ornamental plants and groundcovers. It controls crabgrass, annual bluegrass, redroot pigweed, sbarnyardgrass, lambsquarters, goosegrass, sheperdspurse and deadnettle.

The formulation is recommended for application anytime from fall through early spring. To control crabgrass, apply six pounds of Betasan 7-G uniformly per 2,500 square feet. For annual bluegrass, goosegrass and other annual weeds, apply 10 pounds per 2,500 square feet.

For further information, contact Stauffer Chemical Co., Agricultural Chemical Division, Westport, Conn. 06880.

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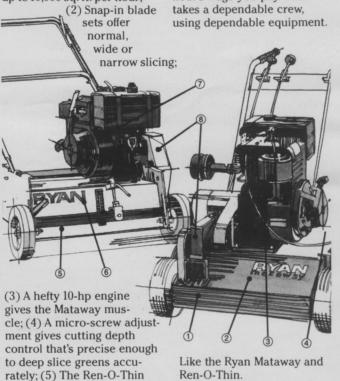
More than 600 professional turf and landscape workers attended the recent Ohio Turf and Landscape

Day in Wooster. Here entomologist David Nielson showed damage and explained how to control bronze

Landscape workers listen as Nielson explains how to identify bronze birch borer damage.



Extension agent Fred Buscher explains that pruning shrubs requires the right tools and proper techniques



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Lawn care in the 80's

Industry suppliers predict widespread use of smaller tanks, closed-system spray units, and improved seed varieties, along with greater emphasis on the mowing/maintenance market

by Bob Earley Editor/Associate Publisher

In the 1980's, liquid chemical lawn care companies will use smaller trucks and there will be more attention paid to the precise metering of fluids. More closed-system application units with injection systems will be manufactured and used by the lawn care industry.

In landscape maintenance, there will be more emphasis on contract care as opposed to in-house maintenance.

Lawn care companies will be looking to increase their gross by going back to their customer list and offering more services, especially services like tree and ornamental work, disease control, and overseeding. Those companies that do offer seeding will be using more proprietary varieties of turfgrass seed.

There do not seem to be any major new products coming on the market, although many in the industry feel that the interest in the new slow-release liquid fertilizers will continue, and that more lawn care businessmen will move to use these types

The industry has not yet peaked and will continue to grow, but not at the growth rate experienced by the lawn care industry in the 1970's. As the industry grows, and raw materials costs increase, look for the gloves to come off and price competition to get tough in some areas with a high saturation of lawn care companies trying to add the same homeowners to their customer list.

- These are some of the thoughts suppliers to the lawn care industry have as to what the industry can expect for the 1980's. One major point these suppliers brought out in discussions with LAWN CARE INDUSTRY is that they see an increase in "financial problems" of undercapitalized lawn care companies, and that "slow pay" customers will not be tolerated in the 1980's.

As one major supplier said: "I'm sure some suppliers of equipment, fertilizers and chemicals have experienced these problems already — as we have — and if situations such as this continue, the supplier's attitude toward the market is going to be a little different than it has been in the past, we are going to be a little more difficult to deal with."

ficult to deal with."

Smaller trucks. "I think we can look forward to more closed-system-type setups for lawn spray trucks, and more towards injection systems," Skip Strong of Strong Enterprises, Inc., Miami, Fla., told LAWN CARE INDUSTRY. Bill Wanner, president of pump manufacturer Wanner Engineering, Inc., Minneapolis, agrees.

"The industry is going to have to get into more precise metering of fluids," Wanner said, "and the way they do that is going to be a big question. This is something we are definitely working on." The reason manufacturers see the move towards more precise metering methods and closed systems is because of the increasing influence of government regulations on the lawn care industry.

Spray equipment manufacturers also say that they feel there will more of a trend towards smaller pieces of equipment. Instead of 1,200 and 1,500 gallon units, there will be more use of 600 and 800 gallon units. The big reason here is fuel efficiency.

"There will be a move from two-ton trucks to one-ton trucks," one manufacturer said. "You are hauling one-half the weight, and it can save anywhere from a mile to three miles per gallon of gas." Smaller trucks will also help on maneuverability, getting in and out of areas.

As the industry grows and raw materials costs increase, look for the gloves to come off and price competition to get tough in some areas with a high saturation of lawn care companies...

Although at least one company is working on a system that can inject powdered fertilizers into a spray operation, an executive for that company said "we are working on it, we're trying to decide whether to market it or not. But it might be too late for us, because I think more and more companies are going to be going to the liquids. You are going to see more of this, because the materials are going to be much easier to work with, because they don't require special pumps. and they don't require super agitation that you need now with powdered materials."

One manufacturer says that many spray units on the market right now are "obsolete" compared to what is going to be available in the future.

"A lot of companies have gotten into the business of building units, but each one is copying the other, everybody is coming out with the same thing," he said. "I don't think the spray equipment available has kept up with the needs and demands of the industry. It's time to move ahead, and there is a need for some standardization in the industry.. Everybody wants different tanks, different pumps and different agitation systems."

Auxiliary, PTO or electronics? Some spray equipment manufacturers are looking at developing an electric system to drive spray equipment. They say that using auxiliary engines make too much noise, and that a lot of lawn care businessmen don't know how to maintain them properly. The problem with PTO drive is the wear and tear on the truck engine and maintenance problems.

"With electric drive of pumping and agitation systems, there is absolutely no noise and you can go into a neighborhood and start spraying at six in the morning, one manufacturer said.

"Inflation is really hurting the cost of the units," Strong said. "A year-and-a-half ago my average unit was selling for \$7,000, and now the same unit is up to \$9,000. This is another reason some companies are going back to smaller units.

Commercial-quality mowers. "The increasing cost of labor is killing the landscape maintenance industry, and we feel there is going to be more emphasis on labor-saving mowing equipment," said Dave Welfelt of Excel Industries, Inc., Hesston, Kans.

He also feels that "for the people using mowing equipment on a day-to-day, week-after-week basis, there is a lot of interest and a real market for equipment that hangs in there. We see a lot of smaller companies coming up from the bottom with lighter, consumer-oriented types of equipment. I guess we feel the market is buying some of this type of equipment on an experimental basis, but the real market is for commercial-quality equipment."

Manufacturers feel that the lawn care industry is going to have to be much more conscious of energy costs across-the-board.

"This affects the industry in many ways," one mowing executive says. "How much water we use, how much fertilizer goes on the turf, mowing frequency, whether to pick up clippings or not. All of these factors are going to have to be considered very strongly."

Manufacturers look for increased expertise in use of pest control chemicals because of the inavailability of some chemicals previously available to the lawn care industry, and because of restrictions on some chemicals still available. "It's a sure bet that restrictions on chemicals are not going to get any less than they are now," one manufacturer said, "and it will be up to the lawn care businessman to do all he can to increase his knowledge of handling pesticides and controlling pests in the turf and landscape situation."

Add-on business. Manufacturers feel that the lawn care industry in the 1980's

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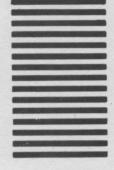
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will see lawn care businessmen looking to increase business not always by adding more customers, but often by offering increased services to their present customers.

"I don't know how many lawn care businessmen are doing seeding now, but I think they are probably going to be asked to do more of it," says seed executive Bob Peterson of E.F. Burlingham & Sons, Forest Grove, Ore.

"The homeowner is basically lazy," Peterson says, "and they really don't even know that much about seed. I think that is why in the past many have gone to sodding, which is more expensive. But I think if people are offered the services of someone to come in and seed their lawn, and that someone in their estimation is professional and offers a professional program, I think they are going to buy the service."

Marie Pompei, of the agronomy and research department at Lofts Pedigreed Seed, Inc., Bound Brook, N.J. agrees and says: "From my own observations, I think the lawn care industry as a whole is getting more educated as to how many different varieties there are, and there will be more use of the newer, improved varieties.

"The industry is still relatively new, and the longer a lawn businessman is in it, the more he is going to learn, and he will become more aware of what is available and what will work best for him in any given lawn situation."

Peterson said: "Hopefully, they are going to be using more proprietary varieties as an industry. We do quite a bit of indirect business with the industry. I would anticipate that that segment of our industry is going to become more dominant in the 80's. I would imagine that a lawn care businessman with a good program and using recommended improved varieties for any given area would be able to do a hell of a selling ich to the homeowner."

selling job to the homeowner."

Ed Dotson, manager of commercial sales for the ProTurf Division of O.M. Scott & Sons, Marysville, Ohio says that in his company's dealings with the lawn care industry, he is seeing more and more companies offering increased services to existing customers.

"We are getting more and more questions all of the time from the industry asking for answers to problems with ornamentals and trees and landscape plantings," Dotson told LAWN CARE INDUSTRY. "But the thing that might hold people back here is that this type of business is so labor-intensive. That is one of the pressing problems the industry is going to have to face - qualified help. There are only so many people out there that are good, competent, take-charge types. Businesses are only as good as their people, and that I think is one of the reasons ChemLawn has been so successful. They have been able to get a number of good people, and with their structure and growth have been able to keep them. I think the good people ChemLawn has will continue their growth into the 80's.'

Lawn care saturation? One manufacturer who sells to the lawn care industry says: "We see growth and tremendous interest in the business. The thing we worry about is possible saturation in some areas where the industry has grown very fast."

Another manufacturer says: "With the competition growing in some areas, and the increasing cost of raw materials, you are definitely going to have price competition."

Scott's Dotson agrees: "We're hearing of pricing getting rough in some areas, and it probably will continue. This situation can happen easily when you have very rapid growth. We see tremendous growth, but at the same time think the industry should have a little caution."

Slow pay. The caution Dotson may be talking about is echoed by another supplier when he says:

"Too many of these guys are undercapitalized, and it hurts them. Slow pay could become a very thorny problem in the 1980's for the lawn care industry. And it all ties in with capital. With the increased competition, increased expectation levels of customers, increased raw material costs, inflation and a whole host of other reasons, anybody trying to get into the lawn care business without any money behind them is going to be in big trouble. What might have seemed easy in the '70's is going to be a lot more difficult in the '80's."

Excel's Welfelt is a little more optimistic, particularly for the landscape mowing/maintenance business.

"I don't think the lawn care industry has hit its peak yet, I don't see that at all. The green industry as a whole still has a good bright future to it. The growth may not be as great as it has been in the last few years, but I sure don't see it dropping any."

Welfelt and others say they are seeing a tremendous interest on the part of the government in going to contract-type grounds care. "We feel like this is going to be a greater trend in the next few years," one mowing manufacturer said.

They also said there is going to be more of a trend to contract mowing/maintenance as opposed to in-house maintenance. "We are gearing up our efforts towards trying to get to the contract people because of that kind of movement," Welfelt told LAWN CARE INDUSTRY.

Contract care vs. in-house. Owners of industrial grounds and apartment/condominium complexes are seeing that they can get the job done cheaper and with more expertise by going to a lawn care businessman who is a professional, the manufacturers say, and this trend will continue into the 1980's.

"We go into a large industrial park," Welfelt says, "and they may have one to two guys in charge of taking care of the grounds. They've got some belly-flung mowers and they try to water a little bit and throw a little fertilizer on the turf. There is a world of difference between that and having a professional landscape contractor that does everything — fertilization at the right times, a schedule of irrigation and mowing, taking care of all of the landscape materials — I know I would be looking for a guy like that..

"As I said, I think there's a bright future for the lawn care industry," he said. "We are not going to see the growth maybe that we've been used to in the mid- to late-70's, but things are sure going to continue to grow, no way do I look for a drop-off."

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Circle 120 on free information card

The January issue of LAWN CARE INDUSTRY will feature a listing of the country's 'million-dollar' lawn care companies.



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TOOLS, TIPS & TECHNIQUES

Ten tractor preventative maintenance tips

Here are 10 tractor preventative maintenance tips from Paul Kultgen, service manager for Simplicity Mfg. Co., Port Washington, Wis.:

(1) Change lubricating oil every 15 hours when temperature exceeds 70 degrees F. As temperatures of the ambient air and of the tractor's engine rise under continuous operation, the oil breaks down, losing its viscosity.

(2) Clean the air filter every second day or 16 hours. Dirt is constantly being sucked into the filter. Under continuous operation, this dirt build-up can cause engine failure.

(3) Clean the engine shroud every 16 hours. The shroud, which protects the flywheel, becomes thickly coated with dust and grass particles. If not properly cleaned, air circulation is restricted causing excessive engine heat and possible engine failure.

(4) Under tough conditions, the transmission oil must be

checked every eight hours. Heavy use causes oil to dissipate, so make sure it's kept at an adequate level. Also, make sure to check the floor for any oil leaks.

(5) Don't use winter gas in warm weather. Winter gas boils at 100 degrees F., summer gas boils at 135 degrees F. Using winter gas in warm weather can cause vapor lock.

(6) Here's another lubricating must. Grease fittings should be lubricated every 16 hours when equipment is used heavily. Again, constant the at breaks down the oil's viscosity.

(7) Check and tighten (or adjust) all fittings and hardware

(8) Check all seals for oil leaks every day. Seals are located on the transmission axle and engine crankshaft. Oil pressure naturally accelerates the migration outward at the seals. And, if a leak should occur, you'll either have to repair the seal yourself or take it to an authorized dealer.

(9) Once a week, make sure to check your battery's post for an accumulation of dirt and corrosion. Crusted posts can cause a short, premature discharge or even a fire. A wire brush and baking soda and water work the best for cleaning. And, when working around the battery, always be careful not to touch metal tools between the posts.

(10) Every 50 hours, check the sparkplugs for cleanliness and strength. Properly maintained sparkplugs allow your

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Compliance kit helps franchisors conform to new FTC rule

A "compliance kit" to help prospective and existing franchisors conform to the Federal Trade Commission's (FTC) new franchising rule has been published by the International Franchise Association (IFA).

The kit features a comprehensive overview of the FTC rule and the various state disclosure requirements, along with explanatory analyses, comparisons, and checklists prepared by IFA's legal staff.

The new rule requires every franchisor to reveal pertinent financial, legal, and operational information to prospective franchise buyers.

Packaged in a three-ring binder, the kit includes ten sec-

- FTC rule and guides
- Analysis of FTC guides prepared by IFA's Washington
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- A checklist of compliance considerations to follow plus a chart of all state franchise laws
- A "Who's Who" list of FTC officials with phone numbers
- A bibliography of franchise compliance publications
- Advisory opinions issued through September 1979

Those who purchase the kit will continue to receive, at no extra charge, a copy of all significant advisory opinions issued by the FTC through 1980. The kit sells for \$40 to IFA members and \$80 to non-members. For further information contact the International Franchise Association, 1025 Connecticut Ave., N.W., Suite 1005, Washington, D.C. 20036.

amended FIFRA.

Columbus, 43210.

itiated in July to test alternative

insecticides. The OARDC

cooperated with lawn care firms

in Columbus and Dayton who ap-

plied the materials under test on

would rather mix the material in their service tankers. The choice here becomes mono-ammonium phosphate (MAP). It is a dry product that can be added to a tank mix from bags. It has an analysis of 12-62-0, and is a great deal

infested home lawns. The more expensive than Poly-N.

Slippery beds, spills. "We are Orthene Tree and Ornamental Spray proved effective in all frequently asked the question of cases, and data was assembled why not use phosphoric acid, and submitted to Chevron because it is so inexpensive," he Chemical Co., which is headsaid. "I guess it boils down to the quartered in San Francisco. The fact that the beds of the trucks results of this joint effort was the get very slippery, and issuance of the special local need phosphoric acid is also more apt label under Section 24C of to inflict a little pain if a spill does occur." The product is available com-

For a source of potassium, potassium chloride (with an analysis of 0-0-62) is less expensive, but has a higher burn potential than potassium sulfate (with 18 percent sulfur).

August applications. For the hot weather of August a dry nitrogen source of fertilizer would reduce burn potential. Other choices would be use of slowrelease fertilizer, or no fertilizer at all, but this would obviously create dissatisfaction in customers, he said. Or a "good slug of soluble urea" could be applied, but would burn the turf, or the nitrogen rate could be lowered. Both of these methods would be unacceptable.

"For slow-release sources, you have old standbys like ureaformaldehyde, which is a mixable fertilizer, but requires agitation," he said. "There is IBDU, which is water-dependent for breakdown, but it is a dry product that we cannot use in our tanks. There is also sulfur-coated urea, which is temperaturedependent and water-dependent for breakdown, but it is also a dry product that can't be used in our tanks.

"So we are limited to ureaformaldehyde, which is a poor choice at this time of the year because it requires microbial breakdown, and since the weather will be cooling at that time of the year, microbial breakdown will be lessened," he said. "Each of these three sources has a water-insoluble fraction, which is to say that if you dump it in water, a certain fraction will be insoluble and will require bacterial or microbial action in the soil to release the nitrogen.

"MO-nitrogen" Rutherford said there is a newer source of nitrogen, which he calls "MOnitrogen" which is short for

methylol urea. "This is a liquid source, and it does not contain water-insoluble nitrogen," he said, but it does have certain properties which enable us to solve the problem of

August fertilization.'

He discussed the characteristics of an ideal fertilizer for the early fall period. First, it should release over an eight-to-10-week period, because "you want to do a good job for the turf and get paid for it, not be providing nutrients for two years from

Second, the nitrogen fertilizer

The new label clears Orthene for use on turfgrass at the rate of one pound of active ingredient per acre. The product is a 75 percent sprayable powder, and this works out to one-half ounce per 1,000 square feet of lawn. This should be mixed in one to four gallons of water per 1,000 square feet and sprayed on the lawn when greenbugs or greenbug damage first appear. The lawn should not be mowed for at least

24 hours following application.

mercially at turf supply outlets

throughout the state. Information

can be obtained from state exten-

sion entomologist Dr. Richard

Miller, Dept. of Entomology,

Ohio State University,

"There's still not much known about the aphid on perennial bluegrass,' Dr. Harry D. Niemczyk of OARDC told LAWN CARE INDUSTRY. "More research is planned to study the biology and control of the greenbug. Watch is being kept for other outbreaks of the insect some greenbug damage showed up this summer in Toledo and Youngstown. Damage from greenbugs could occur anytime from July to killing frost.'

NITROGEN from page 1

"When clippings are removed and the liquid fertilizers we apply are dry on the leaf blade. there is a significant loss in response," he said. "In one regard, you may consider this the Achilles heel of our industry. It is not a big problem but it does sometimes occur."

He said there are advantages to applying either liquid or dry fertilizers. Liquid weed control is by far better, so the advantages of applying a fertilizer/herbicide combination in liquid form has an advantage.

On the other hand, there is less burn potential in hot weather conditions when a dry fertilizer is applied. Cost is also a factor.

"When you mix liquid fertilizers, a savings is realized and you can also tailor your treatments according to soil test results in a particular area," he

Fertilizer sources. "There are various phosphorus materials, but the one we often end up using is a product with a trade name of Poly-N, which is frequently used by lawn care companies which has an analysis of 10-34-0, and it is a liquid.

He said that many lawn service companies will start out doing business in an area, and not want to invest the capital money to put in a liquid installation, but

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should green the turf fully without overstimulating it and making it susceptible to disease. Third, it should not have any burn potential.



ChemLawn's Rutherford

Rutherford showed slides and ChemLawn test results which showed MO-nitrogen meeting his requirements for and "ideal"

fertilizer, although he pointed out that it does have shortcomings

He said the Mo-nitrogen does not have long-lasting, slowrelease properties. It is a liquid fertilizer with an analysis of 30-0-0. It also has surfactant properties.

"Some of us in the industry believe that because of these surfactant properties, when we apply the fertilizer with a herbicide, the herbicide sticks to the leaf blade much longer and we get better weed control," he said.

He also said that the MOnitrogen is very pH-dependent, and in a situation where the pH of the tank mix is too low, it can turn into a "jello-like" substance, which is very difficult to remove from a tank.

He said that Ashland Chemical Co. and Georgia-Pacific Corp. both manufacture this type of nitrogen. He said that Allied Chemical Corp. also had manufactured some of the product, but was not producing it at present.

LINCOLN

Expanded lawn talks at Nebraska meeting

A comparison of the granular and liquid approaches to the lawn care industry is one of the topics set at the Nebraska Turfgrass Conference Jan. 14-16 in Lincoln.

Page Mays of Barefoot Grass Lawn Service, Columbus, and Gary Custis, regional agronomist for ChemLawn Corp., based in St. Louis, will handle the liquid/dry discussion.

Other speakers include: Dr. Donald Pfleiderer, Lebanon Chemical Corp., Danville, Ill., speaking on fertilization with respect to tissue and soil analysis; Dr. Robert Shearman of the University of Nebraska speaking on the role of micronutrients in a fertilization program; Paul Jacqueman, of O.M. Scott & Sons, Marysville, Ohio, speaking on the role and some problems in dealing with preemergence herbicides.

Also: Ron Giffen, Lakeshore Equipment & Supply Co., Elyria, Ohio, will speak on diversifying your lawn care business; Larry Vetter, Northrup King Co., Minneapolis, will speak on renovating and overseeding; and Bob Earley, editor and associate publisher of LAWN CARE IN-DUSTRY, will give a look at the lawn care industry in the 1980's.

For further information, contact: Dr. Robert Shearman, 377 Plant Science Building, University of Nebraska, Lincoln, NE 68503, 402-472-1143.

TRAINING

Educational films available from IFA

That's Business, a series of educational films for use in franchise training programs, is available from the International Franchise Association (IFA). The series of six films helps franchisees learn to deal with the six most common financial problems in business: record keeping, balance sheets, accounts receivable, cash flow management, profit forecasting, and growth financing.

Each film runs about 30 minutes and is accompanied by a participant study guide and detailed instructor's manual. The instructor's guide contains a complete description of how to effectively present the program. Participant study guides are also optionally available for each

The films are available in 16mm or 3/4-inch videocassettes. The complete program (six films with leader's guides) costs \$2,295 for the 16mm films and \$2,040 for the videocassettes. Videocassettes are \$400 individually and the 16mm films are \$450 each.

The films can also be rented at a cost of \$510/three days for the complete program and \$85/three days for one film. A 15 percent service charge is added to all overall costs for non-IFA members. For further information contact the IFA, 1025 Connecticut Ave., N.W., Washington, D.C. 20036 or call (202) 659-0790.

HERBICIDES

Monsanto to increase Roundup production

Monsanto Co., St. Louis, said it will build a multimillion-dollar unit at its Fayetteville, N.C. plant site for the production of Roundup herbicide.

The chemical concern said the plant, expected to be in operation by 1981's fourth quarter, will boost production capacity for the herbicide by about 50 percent.

The company declined to provide either capacity figures for Roundup or the cost of the Fayetteville unit, except to say that it represents a larger investment than the previously announced \$23 million Roundup unit being built in Antwerp, Belgium.

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COST CUTTINGS



John Beheyt of Eastside Spraying Service, Kirkland, Wash., has designed a special set-up for the room where his route men work when in the office. Beheyt has taken two rooms, cut a hole in the wall in the middle and installed a circular table with a revolving "lazy susan" tray which holds reference information like price lists and technical information. Each man's desk is placed on the circumference of the reference table.



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RETAILERS from page 5

keep records so that we know just when he is due for an application. Then we'll deliver the product to his garage and make sure the spreader is properly calibrated."

"Last year was the first one in Minneapolis that this competition made a dent in our sale of bagged lawn fertilizer," said Paul Bachman, of Bachman's. "It's hard to judge just where this competition is coming from because the discount stores are footballing Scotts. So we'd be selling less bagged fertilizer anyway.

"I think there is room for the lawn care services. They may cut into our business to some extent but we simply won't get into this business ourselves. We have enough trucks now to worry about. We wouldn't want to tie up more trucks over the winter.

"To counter the threat these services may pose, we will give our employes more training in lawn and turf care. If a customer is wavering between hiring the

"I think there is room for the lawn care services. They may cut into our business, but we simply won't get into this business ourselves.'

service or doing it himself, he can talk to our sales people and be steered into what we have to offer. We must make sure the lawn care products are prominently displayed and that our people know all they should about the products and application. I'd say the lawn care service business will plateau in a few years.'

"These businesses are very prevalent in the Denver area, sais Steve Driftmaier, Wilmore's Nursery, Wheat Ridge, Colo. "They are competitors in that people who hire them won't come into a garden center to buy fertilizer or chemicals. But we've found that the advice they provide is not always accurate. So we give our sales people proper training so they will provide ac-curate advice. Plus I think the price these people charge is too high."

"I just don't know how strong they are," said Palmer Siegel, Lyndale Garden Center, Minneapolis. "I see their ads and hear conversation and maybe they are gaining strength. I guess the only way to compete with them is to provide good service and competitive prices.'

"Most people in California are do-it-your-selfers," said Paul Uenaka, Springdale Nursery Garden Center, San Jose, Calif. "We have some specialized problems, but the customers will contact landscaping people."

"It's more of a hassle to get a pest control license in California than it's worth," said Ron Marciel, Western Gardens, Hayward, Calif. "It's difficult to get the dollar amounts from homeowners and with the average size home tract we have it makes it impossible for such a service to pay here."

LEASE OR BUY?

may be your best bet unless you can use the capital in some productive way in the future. If this is the case, you'll conserve capital for that time by leasing now. It could help pay for a new building, or meet unexpected expenses.

from page 17

You could, of course, bank finance part of the purchase. It is a good idea because the cost will be less in total dollars. But take care. The savings must be weighed against the effect higher bank loan payments can have on cash flow. These kind of calculations should be made before any decision is reached.

Inflation. Inflation has always been a friend to leasing. When inflation continues, you pay less for the machine today and use today's dollars to make future payments. The same thing seems to be true of bank financing excepting the value of depreciation deductions which cover a longer period of time.

Planning ahead. Advanced and accurate cost projections are the rule for successful businesses. Leasing, like bank financing, makes machine costs easy to forecast and account for. You'll know just how long you'll have the equipment and what you'll pay for its use during that period. With other costs figured in, you can compare this to expected

Budget limitations. Businesses must operate within budget limitations. So what happens if you find you need a new Turfcat rotary mower right now? Leasing can be an easier way to acquire it, with rental payments treated as an operating expense. If your budget is particularly tight, deferred or skip payments can ease the immediate cash flow problem.

Similar to buying. Leasing is very much like buying in many respects. First you decide on the turf equipment you want, exactly what options and special

features you need, and what warranties, guarantees, delivery and services are available. Then you negotiate price.

When price and other terms have been worked out, you negotiate with the leasing company to determine length of lease, payments, other charges and optional considerations.

Once the lease meets with your approval (equipment, terms, etc., are detailed) and is signed, the leasing company buys the machine. Only when the machine is delivered to you does the lease go into effect.

Obviously, leasing is a unique method of acquiring lawn care equipment. It can be an attractive, or at least on-balance, alternative for many operations. But buying outright or bank financing have much to recommend,

So how do you decide? Your best bet is to consult with the experts who know the details of your operation.

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Automatic irrigation cuts cost for New Mexico VA hospital

Rampant inflation and soaring energy costs have made many institutions wary of incurring major expenditures for grounds beautification. Consequently, high-ticket items like landscape packages and automatic irrigation systems are often treated as luxuries, as any lawn care businessman involved in selling, installing and maintaining irrigation systems can tell you at the drop of a hat.

That is why the purchase of a major automatic irrigation system for the Veteran's Administration Hospital in Albuquerque, N.M. required indepth costs analyses before the green light to go ahead was given to Site Development Co., also based in Albuquerque, to install an automatic irrigation system. John In-

man, president of Site Development, said it took five months to complete the \$161,000 project.

"We've been able to save money across the board," says Jim Thomas, grounds supervisor for the 19-building, 450-bed hospital complex nestled on 85 acres of New Mexico soil. Some of his comments might be useful to a lawn care businessman on his next irrigation sale.

"We have an irrigation system that will quite literally pay for itself in just five or six years in energy, water and labor savings," he said.
"We used to water our 34 acres

"We used to water our 34 acres under lawn cover with an unwieldy hand-move irrigation system," Thomas said. "The operation of that bulky system was a full-time job for my eight-



Nearly 1,000 sprinklers were utilized in the irrigation system installed on the 85-acre VA hospital complex in Albuquerque, N.M. Some of the facts and figures on how money was saved by installing an automatic irrigation system might be useful to a lawn care businessman on his next irrigation sale.

man crew during our watering season from early spring to late fall. And the exposed pipes and hoses were hazardous to our patients, many of whom are blind or in wheelchairs."

Thomas said that outmoded watering technique required almost 15 million gallons of water per month to complete with pumps running 10 hours a day. "That 15-million-gallon figure amazingly was cut to seven million gallons per month with the automatic system," he said. "And we reduced the irrigation staff from eight men full-time to one man part-time."

full-time to one man part-time."
Furthermore, Thomas indicated that those maintenance staffers were then free to perform many of the other tasks assigned to his department; tasks that had gone undone or were performed in a catch-as-catch-

can basis before.

"My grounds department is responsible for all jobs to be done outside of the buildings," Thomas said, "That means everything from moving furniture and files, to collecting and hauling garbage, to laying out and grading new roadways. Frankly, our irrigation system really saved the day by giving us more man-hours to meet our expanded duties."

Water for the irrigation system is provided by a 1,000-foot well located on the property and is brought up through a 24-inch casing. This water is then pumped up into the hospital's 100-foot, 300,000-gallon-capacity water tower. Water falling from the tower creates the 47 pounds of

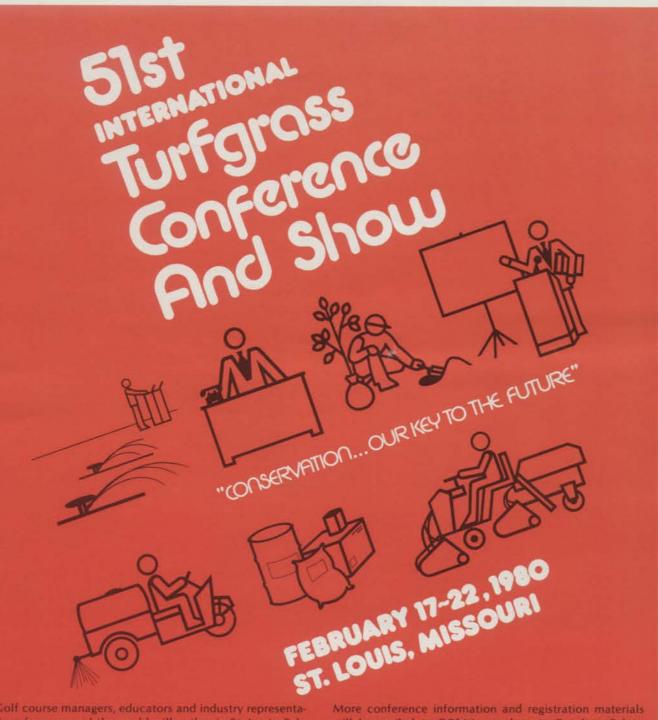


Grounds supervisor Jim Thomas adjusts one of his irrigation system's timers. Total cost of the irrigation system was \$161,000.

pressure needed to drive the system. Additionally, the Hospital is tied into the city water supply for emergency needs only.

Controllers for the project include five Rain Bird RC-11A's and two RC-12A's. Nearly 1,000 Rain Bird Model 27A and 41A sprinkler heads were utilized as was 9.25 miles of PVC pipe, ranging from one-inch to four-inch diameters.

The new system is divided into seven timer locations, the largest of these an area about two acres in size. Each section is watered in 15-minute irrigation cycles every other night, running from mid-March until November 10 in order to augment the eight inches of annual rainfall in Albuquerque. That schedule compares to



Golf course managers, educators and industry representatives from around the world will gather in St. Louis, Feb. 17-22, for the 51st International Turfgrass Conference and Show. Join them for this once-a-year opportunity to learn about the latest developments in turfgrass management, services and equipment.

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four hours of irrigation per cycle with the old method to properly water the same sections.

Thanks to the efficiency of the system, virtually all watering can be completed in the early morning hours before traffic flows onto the grounds. And the automatic system is much more accurate, keeping major thoroughfares and walkways

dry.
"We've compared records of water and electricity usage now with records we have from several years back." Thomas said. "The savings are considerable, even though electricity prices have skyrocketed since those days. For one thing, pumps are no longer required to run during peak hours of energy usage, significantly reducing energy expenditures.

What special problems had to be overcome in the application of an automatic irrigation system for an institution like a VA hospital in the Southwest?

One must keep in mind that this institution is a busy hospital. Roadways had to be kept free of construction vehicles all during the installation of the system because of ambulance traffic. Special consideration was also paid to the many blind and wheelchair-bound patients residing at the hospital, keeping sidewalks unobstructed for patient traffic.

"Because the lawns and garden areas are popular places for patients and their families to gather during the daylight hours," said Paul Clendenin, president of the local irrigation equipment distributor and a codesigner of the hospital sprinkler system, "we had to be sure the system could fulfill watering requirements in the evening hours when everyone was in-

Thomas said that the hospital has an estimated one-million dollar inventory of mature trees, including elms, cottonwoods, pines and other more exotic

"We had to plan the irrigation system with these trees, some 40 years or older, already on the premises," he said. "There are

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more flower beds on the grounds than before the system was installed, too, because the new system allows greater freedom in selecting plantings. And grounds personnel now have the time to tend these areas.'

Soil composition ranges from heavy clays with a low degree of absorbency to areas of decomposed granite that allow moisture to percolate very easily. A simple adjustment of the timing clock compensates for these variances in soil make-up, however. Less water is applied to the clay areas than to locations with looser soil composition by means of adjusting the clock to allow a shorter watering cycle.

Learning the ins and outs of the irrigation system was eased thanks to a one-day instruction course provided by the local distributor. "But maintenance requirements are minimal, Thomas said. "A week of cleaning heads, setting timers and other duties is all that is necessary to get the system up and running after idle months.

INSECTICIDES

April application controls chinchbugs through July, August

The period during July and August is the single most critical time for damage from chinchbug and bluegrass billbug in the North, according to Dr. Harry Niemczyk of the Ohio Agricultural Research and Development Center, Wooster.

"At this time, moisture stress is common and the feeding activity of these two pests is highest," he told lawn care businessmen at last year's Ohio Turfgrass Conference. "The coincidence of these stress factors in July and August is believed to be responsible for the majority of insectrelated damage to northern turfgrasses.'



OARDC's Niemczyk

Dr. Niemczyk conducted a study that showed excellent control of chinchbug and chinchbug damage was attained with a single mid-April application of an insecticide. Reinfestation of treated lawns occurred in late August, but only when adjacent infested lawns were not treated.

"Though reinfested lawns were retreated," Dr. Niemczyk said, "we think natural mortality in the population by the entomophagus fungus Bovaria s.p. coupled with normally abundant rainfall and fall fertilization, probably would have resulted in no visible damage to the turf during September and October." The fungus he speaks of occurs naturally in rainy periods.

Fifteen home lawns in the city of Wooster and two turf areas on the OARDC campus were selected for treatment. There were also untreated controls. Generally, the criteria for selection included evidence of damage from or the presence of chinchbug or bluegrass billbug populations.

"The early June treatment time in the tests was selected to fit the time when homeowners and lawn care firms usually make their first insecticide application," he said. "The mid-July treatment was selected as the latest time first applications are made. The mid-April application date was selected to test our theory that the impact of early treatment on overwintered chinchbug adults would result in reduced damage from these

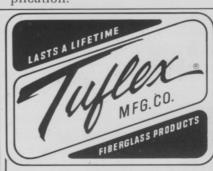
pests in July and August."

Dr. Niemczyk told LAWN CARE INDUSTRY last month:

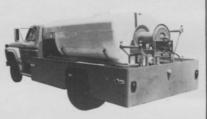
'The lawn care businessman has to analyze his own situation. If he has a history of billbug problems on his lawns, the April application makes sense because he kills the adult billbugs, and then they can't lay eggs. Since there is only one generation, he has solved that problem.

"If he also has a chinchbug problem, he knocks off the generation that does the most damage. However, he would get about the same control with a June application too, in place of the mid-April treatment.

"But for the lawn care businessman with operators treating 500 to 600 lawns, the last lawns might not get treated until mid-July. These last lawns will show significant damage, and it will also be more apparent in the fall. He simply has a better chance at getting a greener lawn for his customer with the earlier application."



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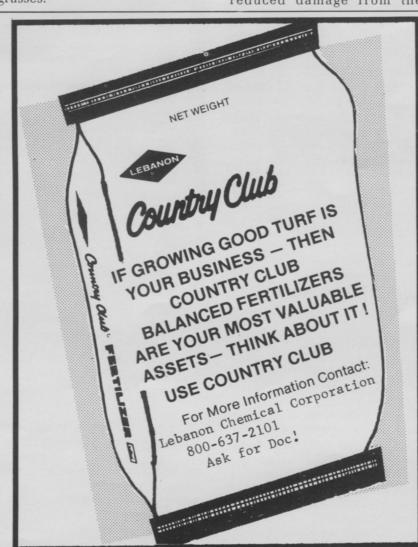
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PRODUCTS



Tractor rotary cutter

An economy-priced rotary cutter made for use on tractors as low as 12 horsepower is available from the FMC Corp., Agricultural Machinery Division. Standard equipment on the Sidewinder SX-42 includes a safety shield on the PTO drive line and a three-point hitch for easy hook-up

Circle 204 on free information card

Lawn sprayers require no chemical mixing

Yardmate Manufacturing Company's line of lawn care sprayers require no mixing of chemicals by the operator. The sprayers are merely attached to the homeowner's water supply. Three models are available: Model YM-31 which sprays one pesticide, Model YM-32 which sprays one or two pesticides simultaneously, and Model YM-33 which is capable of spraying three pesticides at one time. The 15-pound sprayers are shipped complete and ready to use.

Circle 202 on free information card

Valves and sprinklers featured in catalog

A 116-page catalog from Johns-Manville Buckner contains complete data on all of the company's controllers, valves, lawn sprays, rotary and pop-up sprinklers, prevention devices, and quick-coupling valves. A selection guide is also included, along with a complete list of distributors.

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Vacuum picks up twigs and grass clippings

Turf Blazer Vac, from Howard Price Turf Equipment, Inc., enables the user to mow and vacuum turf in one operation. The vacuum picks up grass clippings, leaves, twigs, and litter and deposits them in a 13-bushel capacity container. The debris

can be dumped from the operator's seat.

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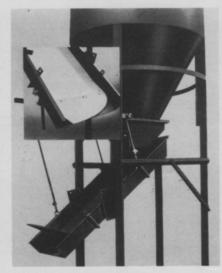
High-wheel mowers

Pro Inc.'s line of high-wheel mowers feature rugged steel construction, removable mulcher plates, beltdriven blades, and permanently lubricated, double-sealed ball bearings. The 14-inch, flotation-type rear wheels stabilize the mowing unit and makes handling easier and safer on all types of terrain.

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Vari-Cone spreader

The Vari-Cone spreader, from Vibranetics, Inc., employs a contoured, adjustable dam to spread a continuously flowing stream of solids to several times its normal



width, allowing it to flow down a chute evenly without segregation or degradation. The spreader can accept dry or semi-dry solids from any direction and can accomodate widely varying flow rates and particle sizes without suffering a loss of efficiency, according to the manufacturer.

Gircle 201 on free information card.

Lawn and garden edging

Four models of lawn and garden edging are available from Custom Plastics, Inc. Model IND-20 industrial grade edging is extra heavy duty with a large hollow bead top. The edging also features two large ridges for in ground holding and extra thick wall construction. Other models include the VE-20, SP-20, and LGE-20.

Circle 216 on free information card

Cheminjector pumps

Cheminjector pumps, from Hydroflo Corp., work with any irrigation system to provide uniform distribution of chemicals into irrigation water. All critical working parts are enclosed by a stainless steel cover to provide maximum protection from the elements, yet ready access to the stroke length adjuster. Further, various plunger diameters are available for lower capacities or higher pressure operation.

Circle 217 on free information card

MARKETING IDEA FILE

Welcome to Cleveland Stadium Liqui-Lawn-7 Competitors-0

As Dandy Don, Howard, and Frank broke away for a commercial message just before halftime of the Cleveland Browns' 27-7 Monday night victory over the Dallas Cowboys, more than 80,000 fans in Cleveland Stadium were also exposed to a commercial advertisement; but in a very different form.

An animated advertisement graphically communicating the virtues of Liqui-Lawn, a pre-mixed, ready-to-use liquid fertilizer, danced across the face of the stadium's million-dollar scoreboard as many in the crowd looked on. Liqui-Lawn, manufactured by Heritage House Products Corp., Warrensville Heights, Ohio, is designed for the consumer market as an alternative to purchasing a lawn spray service.

"Liqui-Lawn is a complete fertilizer which is used by hooking a garden hose right into the special applicator we have that screws on to the top of the bottle," Carl Fazio, Jr., executive vice-president of Heritage House Products Corp., said. "Is all you do is turn on your water and the nozzle automatically mixes the right amount of water and liquid fertilizer. It's cheaper than having a spray service do your lawn."

Although Liqui-Lawn is in direct competition with spray operations many in the lawn care industry could learn from Heritage House Products' creative advertising philosophy. Fazio said the Cleveland Stadium scoreboard is an effective advertising tool when used in conjunction with other forms of advertising. "I've been very pleased with the response we've received from advertising at the stadium," he said. "Lots of people have mentioned that they've seen our ads on the scoreboard."

Surprisingly, the cost of advertising on the scoreboard is not prohibitive. A spokesman for the Cleveland Stadium Advertising Department said four or five different packages are available. "The most popular package consists of 200 spots (two during every Browns and Indians game) for \$7,000, or \$35 a spot," he said. The Browns play nine home games per year and the Indians play 81 home games per year. Other packages include:

• One spot per game for both Browns and Indians games \$4,-

• Two spots during every Indians game \$5,200.

One spot during every Indians game \$3,000.
Two spots during every Browns game \$2,500.

• One spot during every Browns game \$1,500.

The first four hours of computer work in developing the animation for the ad is also provided at no charge, according to the Advertising Department spokesman.

Fazio said advertising at sporting events is generally more expensive than traditional advertising, but in the long run it pays off. "I think you have to understand the value of being associated with professional sports or otherwise you wouldn't make the buy," he said.



Seven-foot stake body for mini-trucks

A seven-foot stake body especially designed for mini-trucks is available from Midwest Body, Inc. Called Profitmaker, the stake body is available in either steel or wood slat models. Both models feature a one-piece side with rear tracks that swing open for ease of loading and unloading. Optional equipment includes rear light panel and bumper assembly.



BUSINESS REPLY MAIL

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LAWN CARE INDUSTRY

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Please enter my introductory subscription to LAWN CARE INDUSTRY for just \$10 (12 monthly issues). I understand that if LAWN CARE INDUSTRY doesn't meet my expectations I can cancel and receive prompt refund. ☐ Bill company ☐ Bill me ☐ Payment enclosed Name Firm Business Address City_____State____Zip___ Signature _____ Date Type of Business (check one) □ Chemical lawn care & mow-☐ Lawn mowing and other mainteing/maintenance services nance services ☐ Chemical lawn care only Other (specify)

CLASSIFIED

FOR SALE

BE YOUR OWN BOSS! For sale in midwest: Chemical Lawn Care company with established accounts and equipment. For more information please write to Box 16, Lawn Care, Box 6951, Cleveland, Ohio 44101.

REMARKABLY PROFITABLE lawn spraying business. Suburban north Jersey. 700 selected accounts. Details: Alfred Lockwood, 239 Brookvalley Rd., Towaco, N.J. 07082.

FOR SALE: Very profitable lawn spraying company serving Chicago and suburbs. One of the largest such firms in the area and offers both liquid and dry application. Write: Box 14, Lawn Care Industry, Box 6951, Cleveland, Ohio 44101.

MISCELLANEOUS

KELWAY SOIL pH TESTER, used by professionals everywhere. Direct reading, longlasting, portable, lightweight, no power source. Model HB-2 reads moisture too. Available through local distributors or contact Kel Instruments Co., Inc., Dept. L, P.O. Box 1869, Clifton, N.J. 07015. 201 471-3954.

USED EQUIPMENT

FOR SALE: 10-1977 Chevy one-ton trucks, 750 gal. spray tanks, R & M 3L4 pump, electric hose reels, spray hose, ready to spray. Phone 513 845-0631.

FOR SALE: 1978 Chevy, 1 ton, 13,000 miles. 575 epoxy line tank, 10-10 bean pump-PTO-electric reel & hose. Excellent condition. \$10,500. 317 297-3314.

FOR SALE: 5-800 gallon Tuflex spray tanks, 2 years old in excellent condition. 513 761-4100.

HELP WANTED

SELL LAWNSPRAY DEALERSHIPS — Join one of America's oldest and fastest growing natural and organic lawnspray companies as a company-trained representative earning top commissions. Degree and agronomic experience preferred, but not absolutely necessary. Unlimited potential and free training for the right candidates across the U.S. Send resume in confidence, or call Tom Hughes, V. P. Marketing, Agro-Chem, Inc., 11150 W. Addison, Franklin Park, Illinois 60131, 312 455-6900.

NATIONALLY KNOWN LAWN CARE service needs foreman to supervise in the servicing of over 2,-200 accounts. We need a take charge person capable of over seeing our entire service department. Unlimited opportunities for the right person. Supervisory experience is necessary. Knowledge of the lawn business is not a requirement. Lawn Doctor, Box 198, Morrisville, PA 19067

CHEMICAL LAWN CARE company needs working foreman with at least three years experience in turf management including supervision, sales, customer and employee relations. Must have mechanical background. 214 690-1900. Lawn Doctor, P.O. Box 30121, Dallas, TX 75230.

BAREFOOT GRASS Lawn Service of Denver, Colorado will be accepting applications for Lawn Technicians in December. Positions will be available, beginning February 1st, 1980. Send resume by January 5th, 1980 to: 2045 S. Valentia St. No.18, Denver, Colorado 80231.

WANT A CHALLENGE? Full responsibility for customer service. Must know lawn problems. Previous customer contact necessary. Some sales background. We are the fastest growing dry granular applicator. Full benefits year round. Top salary to

right person - Northeast Ohio. Resume - Chimo Enterprises, P.O. Box 09209, Cleveland, 44109.

ESTABLISHED SERVICE corporation is looking for experienced individuals who have knowledge of Technical Turf/Shrub Management. We have openings in some of the wealthiest counties in the nation. Must have sales ability and some business background. The right applicants will assume directorship of an established region. Salary commensurate with experience. Excellent benefits, Send resume to or call Tech-Turf, Inc., 42 Main Street, Madison, New Jersey 07940. 201 822-0742.

CHEMICAL LAWN CARE COM-PANY looking for manager. Must have experience in management and in the lawn care industry. Also must have sales ability. Company located in mid-Atlantic states; has approximately 1,000 accounts and expecting to expand. Excellent salary and fringe benefit package for the right person. Send complete resume including experience, education, references and salary requirements to: Box 15, Lawn Care Industry, Box 6951, Cleveland, Ohio 44101.

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How Roundup helped Jim Siegfried renovate this fairway in days, without closing it for one minute.



Take a good look at this goodoking fairway.

Last fall, Jim Siegfried found a way to clean it up, without tearing it up—at the height of his club's busy season. With Roundup" herbicide by Monsanto.

Jim is the Greens Superintendent at Losantiville Country Club, Cincinnati, where bermudagrass had become a serious problem on the 18th fairway. To control it, Jim applied Roundup once—while the weeds were still actively growing—right at the start of the Labor Day weekend.

"That's really 'prime time' here,"
Jim told us. "But after we applied
Roundup, we kept the fairway in play
the whole weekend, and after. The
members played right over it, with no
problem."

Since Roundup has no residual soil activity, and won't wash or leach out of treated areas to injure desirable plants, Jim simply took normal precautions against spray drift—and didn't worry about damaging desirable vegetation along the fairway.

Even better, he was able to reseed right into the dying bermudagrass only 7 days after applying Roundup without loss of playing time or inconvenience to the membership.

Reinfestation won't be a big problem for Jim, either. He knows that Roundup destroyed the rhizomes of the treated weeds, helping prevent their regrowth.

Jim thinks he'll use Roundup again this year—and apparently some club members hope so, too. "As soon as they saw how good this fairway looks, some of the members started asking when I'm going to do the same for =10, where we have some more bermuda. I'll probably tackle that with Roundup this fall."

If controlling many tough emerged weeds and grasses is a problem for you, see your local Monsanto representative or chemical dealer soon for your supply of Roundup.

Roundup, It worked for Jim-Siegfried. It can work for you.

Circle 109 on free information card



There's never been a herbicide like this before.

BEHIND THIS ISSUE



Throughout the 12 months I have been associated with the lawn care industry I have consistently been impressed with the high degree of professionalism exhibited by its members.

As you may or may not know, during my first year at the Harvest Publishing Company I have split my duties as assistant editor between LAWN CARE INDUSTRY and PEST CONTROL magazine. Thus, I have had the opportunity to observe and compare these two closely-related service industries

One would logically expect the better established pest control industry to be far ahead of the youthful lawn care industry in terms of professionalism. Surprisingly, the lawn care industry fares very well when compared not only to the pest control industry, but to all service-related industries.

In its short 20-year history lawn care has not only developed rapidly in terms of size, but also in terms of professionalism. This can possibly be attributed to the fact that the lawn care industry has been afforded the opportunity to learn from the mistakes of allied members of the green industry, thereby "sidestepping" some of the problems inevitably experienced by businesses forced to "go it alone."

The industry's concerted effort to develop worthwhile educational programs and seminars is yet another factor. I recently attended one of these educational programs, the popular Maintenance Symposium, sponsored by the Associated Landscape Contractors of America (ALCA).

While attending the ALCA symposium in Milwaukee I was again impressed with the lawn care businessman's desire to obtain practical knowledge and put that knowledge to work in the field. I expect to encounter that same type of enthusiasm when I attend the Ohio Turfgrass Conference in Cincinnati, Dec. 4-6 and at the Virginia Turfgrass Conference in Williamsburg, Jan. 30-31.

It would be foolish to assume that the lawn care industry is without members who lack professionalism, but overall lawn care businessmen score well in their desire to promote a professional image.

Das Moreland

TO THOSE WHO THINK IT TAKES A FORTUNE TO MAKE BIG MONEY IN LAWNCARE.

ANNOUNCING THE LOW-INVESTMENT, NO-FEE, NO-ROYALTY, NO-ADD-ON PROFIT PROGRAM FROM AGRO-CHEM.

For as little as \$5000, you can become part of the fastest growing field in the great outdoors. As an independent dealer of Agro-Chem, a leader in lawncare products and training.

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As manufacturers, we ship directly to you from our modern plant in Franklin Park, Illinois.

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And best of all, you remain your own boss. Free to grow with the rising demand in your own area.

WE HELP YOU ALL THE WAY.

We'll teach you the very latest in organic, scientific lawncare. And we'll supply you with super-effective sales tools.

Newspaper ads. Radio commercials. Brochures, door-sellers, publicity and advertising.

You supply the desire to make big money in this growing field.

A UNIQUE, ORGANIC LAWNCARE PRODUCT LINE SUPERIOR TO OTHERS.

Agro-Chem lawn nutrients are totally organic. Natural.

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INFLATION from page 1

the cost of its service by 10 to 20 percent.

Eldred, of A-Perm-O-Green, cites skyrocketing fuel prices as the key factor in his company's six to 10 percent increase in prices for 1980. "Driving a threeton truck is not getting any cheaper these days," he said.

Chem-Care's Zwiebel said his company will increase its prices about 25 cents per 1,000 square feet in 1980 (a five to seven percent increase). "We've found out that chemical costs went up 11 to 12 percent last year, gasoline costs increased 30 percent, and equipment went up 15 percent," he said. "So we felt very pleased that we could handle a five percent price increase and still stay in the ballgame."

However, not everybody in the industry plans price increases for 1980. Erv Denig, president of Lawn & Turf Landscaping, Inc., Ft. Wayne, Ind., was the only lawn care businessman contacted by LAWN CARE INDUSTRY who did not plan a price increase. The reason? "We increased our prices about 10 percent last year," he said, "and I didn't feel we could raise our prices again and remain competitive."

It appears that almost across the board the industry will have to increase prices in 1980. However, most lawn care businessmen agree that they will not be able to increase prices enough to absorb 100 percent of increased operating costs. Ober, of Davey Lawnscape, said, the industry "couldn't bear" lawn care businessmen passing on 100 percent of their increased operating costs to the customer. "So it forces us to increase our efficiency and our productivity, while maintaining a quality service," he said. "You don't want to start cutting materials or cutting back on service calls or you will lose your customers for non price-related reasons.'

Therefore, the key to success for the lawn care professional in 1980 appears to be increased prices, along with an increase in productivity.



Lescosan, the name you remember for crabgrass control. LESCO Sulfur-Coated Fertilizer, the name to remember for greener lawns.

Ron Giffen, Vice President of National Sales

I've told you about our Lescosan (Betasan*), the best selling preemergence crabgrass control on the market. You've proven its effectiveness. I'm here to tell you now that Lakeshore Equipment & Supply produces an equally effective line of sulfur-coated fertilizers.

LESCO Sulfur-Coated Urea and 100% Sulfur-Coated Fertilizers provide the perfect ingredients for denser, greener lawns. The sulfur coating, applied to the fertilizer components, provides controlled release of nutrients for prompt and sustained feeding for safe, efficient and economical fertilization of lawns in all areas of the country.

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Call Lakeshore today and ask about Lescosan, Sulfur-Coated Fertilizers and our other turfgrass supplies. Ask for Barb — she'll have one of our lawn service specialists give you the full story and work out a complete program tailored to meet your specific needs.

* (Betasan — registered TM of the Stauffer Chemical Company.)

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