

Possibilities for improved business in our industry are stronger than they have been in a couple of years. And that's quite an achievement . . . even with the roller-coaster summer the national economy has been having.

A month ago, the U.S. economy seemed to be bursting out of a recession like a swimmer coming up for air. Profits of major corporations were increasing, output of industry was up, more people were at work, retail sales were rising rapidly and personal income was increasing. Even prospects for slowing the rate of inflation were good. At the core of the recovery, output of American business came back stronger than normal in the 2nd and 3rd quarters and massive reduction of inventories was in full swing.

Through November, however, the situation became much less encouraging. Some big business areas were cutting back and the recovery was slowing considerably. Some experts feared an end to the recovery and possible entry into another recession. But, most economic observers still feel general business indicators continue to improve and probably still will be

improving through all of 1976, even though the recovery is slower than before.

Many commercial turfgrass managers believe 1976 will be a lot like the last few years in some respects: higher volume, higher prices and tougher problems. But, businessmen in the industry believe demand at facilities and demand for services will make 1976 a better year than most.

In most segments of the green industry the basic indicator — however far removed — is consumer optimism. While many observers rate consumer confidence in the economy less than strong . . . it is, at least, improved from a year ago. And to back it up, personal incomes are moving up well (an increase of 8.4 percent from June to September) and income from small businesses and from dividends and interest is increasing.

We recommend an optimistic approach to 1976 . . . a plan of action aimed at expansion and growth. If "know your costs" was the favorite phrase of 1975, then "plan your growth" is the slogan of 1976. It may be a year for rebuilding, but 1976 is a year for growth. DDM

Editorial

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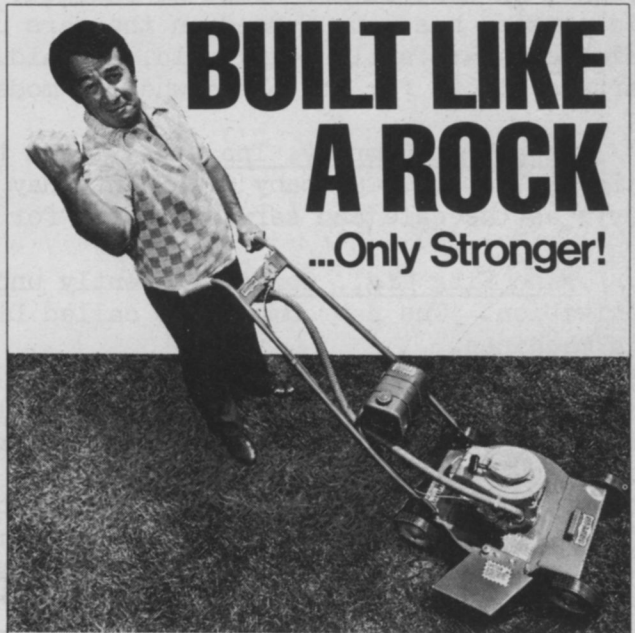
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Government News Business

Outboard Marine Corporation, parent of Cushman-Ryan turf care equipment reported preliminary net earnings of \$20 million for fiscal 1975. Sources claim the 1975 net earnings constitute a 20 percent increase from fiscal 1974.

Toro Company recently acquired the assets of Ohio Toro Company of Cleveland. Toro president, John T. McLaughlin, said the new acquisition will become part of Toro Sales Company, the subsidiary that manages company-owned distribution centers in other parts of the country. The purchase price was not disclosed.

Anti-dumping case against Melex, U.S.A., Inc., Raleigh, N. C., has been ruled upon by the federal International Trade Commission. An ITC spokesman said that some golf cars being imported into this country by the Polish manufacturer have been sold at "less than fair value" and have injured the American golf car industry. Clem W. Sharek, executive vice president of Melex, said his company had been notified that golf cars being imported into the country by his company would be assessed dumping duties. He said it may be the middle of next year before a decision is reached on what duties would be charged. Sharek is still importing golf cars and his company has put up bond on the cars until the case is finally settled. And the Melex cars are still being sold, he said. The published price of 1976 Melex golf cars is \$1,695 for its three-wheeled models and \$1,765 for its four-wheeled models.

B. Hayman Company, Inc., has moved to a new facility at 94-062 Leokane Street, Waipahu, Hawaii. Company president, Ray McMicklen, said the new facilities will serve as the sale and service outlet for Hawaii and the Pacific area.

Wind King Mfg., Company recently underwent a transfer of ownership and reorganization. The new company is called Digz-All, Inc., and produces a line of trenching machines.

Safe-T-Lawn, Inc., and Moody Sprinkler Co., Inc., signed a manufacturing and marketing agreement. Each company will retain its individual identity in relation to management, financing and most of the manufacturing. Safe-T-Lawn is strong in the plastics field and Moody is strong in the brass field. The companies feel the agreement will give both companies a formidable product line for all major markets.

A "memorandum of understanding" was recently signed by USDA Under Secretary J. Phil Campbell and EPA Deputy Administrator John R. Quarles, Jr. signifying federal participation in the imported fire ant control program. The agreement came as a result of recent technological advances in formulating the pesticide mirex, the principal chemical weapon used to destroy fire ants.

Bill passed by Senate which would allow interstate pipelines to purchase natural gas from unregulated intrastate market to alleviate shortages this winter. Bill also provides long term solution to gas shortages by deregulating "new" in-shore gas next spring and by phasing out regulation of "new" offshore gas over the next five years. Sources say outlook for House approval is uncertain. Probability is that House will approve emergency portion, but not long range portion.



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Note the control, maneuverability and stability. The key is front-wheel hydrostatic drive. Infinitely variable speeds plus instant forward-reverse are yours through a single lever in the up-front cockpit. There's also precise hydraulic control of up-front attachments. And with the high flotation turf tires there's unmatched sure-footedness. Available in either 19.8 or 23 hp.

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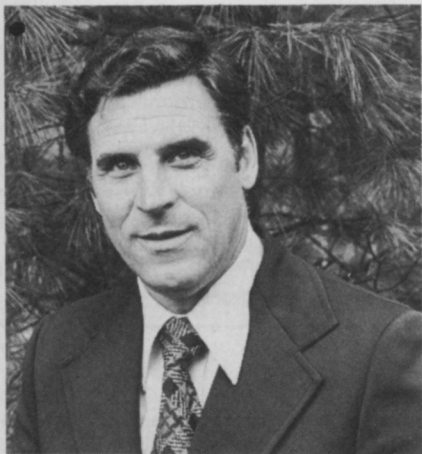
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A Chemical Resistant Grub . . . A New Control Approach

"JAPANESE BEETLE resistance to chlorinated hydrocarbons is a documented fact," says Dr. Richard Miller, Ohio State University extension entomologist.

"That's not to say that all Japanese beetle populations are showing resistance, but the incidence seems to be increasing. Controlling resistant populations means turf managers must switch to their only chemical alternative — organophosphate compounds," he explains.

That's precisely what Tom Buehner, Fox Chapel Country Club greens superintendent, Fox Chapel, Pa., did when the golf course had a severe infestation of Japanese beetle



Japanese beetle resistance to organophosphates hasn't occurred, but if they're applied indiscriminately, there's trouble ahead, predicts Dr. Richard L. Miller, extension entomologist, Ohio State University.

grubs a year ago. "We'd been using chlordane for so long that the grubs seemed to get fat on it," recalls Buehner. "We had to apply Diazinon to get good control."

Milky spore disease, a biological control method is another alternative to chlorinated hydrocarbons, reports John L. Hellman, University of Maryland, extension entomologist.

"Several years ago, Maryland had a statewide milky spore application program designed to control Japanese beetles. A dramatic decline in the population was attributable to the program," relates Hellman.

A combination of milky spore and organophosphates might be the best answer to controlling resistant Japanese beetle grubs, suggest Hellman.

"Organophosphates will give quick, short term control of the grubs and should be used only when grubs become too numerous. Milky spore, three to four years after application, can give long term control. They're much more compatible than chlordane or aldrin," explains Hellman.

Insecticides are generally not compatible with milky spore because they kill off the grubs necessary for spreading and multiplying the spores. "Insecticides are needed when counts exceed three Japanese beetle grubs per square foot," says Hellman.

When the situation demands using an insecticide, turf managers are cautioned not to use chlorinated

hydrocarbons. Instead use organophosphates in conjunction with milky spore, Hellman advises. "Organophosphates are active for a brief period compared to chlorinated hydrocarbons which can persist for three to four years. A few grubs are better than none when using milky spore disease," explains Hellman. "Short residual chemicals allow more flexibility in years when grub counts are naturally low.

"As strange as this might seem, it's not good to totally eradicate a population. When that happens, the milky spore remains inactive until grubs are reintroduced into the soil. Because beetles are very mobile, they can reinfest turf in a short time. Then milky spore will again con-



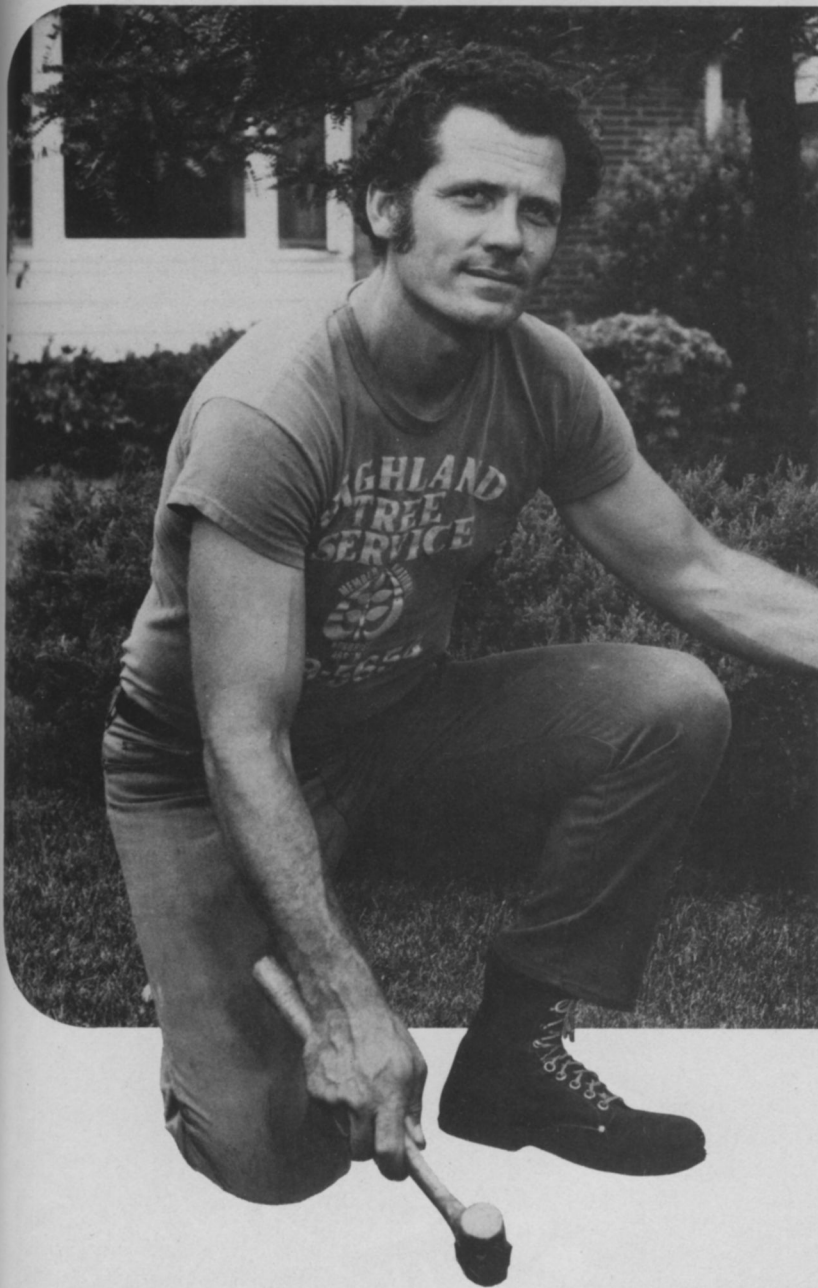
Organophosphates give fast and effective grub control and work very well with a milky spore program to give both long and short term Japanese beetle control, says John L. Hellman, extension entomologist, University of Maryland.

tinue to multiply," explains Hellman.

"Turf managers are very familiar with the properties, limitations and application techniques of chlorinated hydrocarbons," notes Miller. "But organophosphates have different characteristics that must be taken into consideration," he reports.

(continued)

**“When work
slacks off in
the fall, we
get busy with
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GRUB *(from page 14)*

"There's not a wide margin of error when using short residual organophosphates. Product labels have very specific directions regarding application and post-application procedures," explains Miller.

"Watering the treated area immediately after application is important for many insecticides, but even more so for organophosphates," says Miller. "If it's not watered in immediately, the compound will dry on the grass or get tied up in the thatch and not penetrate the soil deeply enough with sufficient toxicity to control the grubs."

Ultraviolet rays of sunlight will rapidly decompose most organophosphates if they are allowed to remain on the surface of the ground. That's another reason for watering in, he adds.

"Using short residual insecticides requires more management input on the part of turf managers," notes Hellman. "Timing of application to synchronize with the migration of grubs to the soil surface is critical, because organophosphates are effective for only three to four weeks.

To be certain that grubs will be contacted by insecticide, it's vital to inspect before application, says Hellman.

Miller and Hellman agree that turf managers should abandon high rate, preventative programs.

"One of the reasons resistance has developed against chlorinated hydrocarbons is because applications have been routinely scheduled," claims Hellman. "Instead, insecticides should be applied only when needed and then only apply as much as is required to get control.

"Chemical insecticides are tools with time limitations," states Hellman. "The more of one insecticide that's used, the sooner it could become ineffective."

Japanese beetle resistance to organophosphates hasn't occurred, but it could, reports Miller. "If they're applied indiscriminately, and this has often been the case with chlorinated hydrocarbons, resistance is certain to develop. Should that occur, there's trouble ahead. We're not overly blessed with a multitude of chemical insecticides," concludes Miller. □



Short residual insecticides require more management expertise, says Miller. "Frequent inspections for grubs and other insects means getting down on your hands and knees to diagnose the problem correctly," he said.

"Our experience with your lawn seed, Game, was so unusual I felt that you would be interested in hearing about it.

An abandoned hospital site which had stood idle for 15 years was seeded on July 3. Our only preparation was to grade, install a sprinkling system, and water.

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Junk Yard Owner Salvages Image

Mike Nolan of Effingham, Illinois, believes in that old saying, "Beauty is in the eyes of the beholder", and he's doing his best to convince others. The sign in front of his auto salvage yard reads, "This is NOT a junk yard, this is my ROSE GARDEN."

Nolan, owner of the Y Yard, is especially interested in improving the poor image of the salvage business nationwide and it is his goal to make his salvage yard look like a "rose garden" to everyone. Recently, he surrounded the property with climbing rose bushes provided for beautification purposes by the state of Illinois. Nolan hopes these bushes will eventually grow into a high, thick wall to block his salvage autos from the view of passing motorists.

He appreciates the value of a weed-free salvage yard. Weeds and tall grasses are not only unsightly, but they also increase the threat of fire and provide a haven for rodents and snakes.

Mowing is time-consuming and it is almost impossible to mow around cars once they are placed in the yard. Seeking better methods of weed control, Nolan and other salvage yard owners have been successful with the use of herbicides around and under the cars.

"We need to keep weeds and grass under control," Nolan says. "I've been pleased with the results of 'Hyvar' X-L bromacil weed killer, applied at a rate of four gallons per acre. It is a water soluble liquid that is easy to spray."

In nearby Terre Haute, Indiana, Kenny Palmer, manager of the Big 4 Auto Wrecking Co., has discovered



This sign puts Mike Nolan's point across. He really believes his salvage operation is his "rose garden."



Vegetation surrounds autos in Big 4 yard prior to use of herbicide.

that "Hyvar" X-L and "Trysben" 200 work best for him.


"Trysben" 200 was applied to eliminate thick growth of vines and brambles. A surfactant was added at a rate of two quarts per 100 gallons of water to increase the contact activity of the herbicides on tall vegetation.

Palmer explains, "We put the 'Hyvar' X-L on heavy (seven gallons

per acre) because we wanted to get those weeds for sure."

Weed control at Big 4 is part of a continuous program to improve roadways and generally upgrade the appearance of the salvage yard. Palmer has nearly 3,000 cars on nine acres of a 17-acre tract. He can't afford to let the weeds and brambles get the best of him.

(continued on page 22)



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Wisconsin Turf Symposium

NEW DEAL FOR AN OLD COURSE



Some golf courses age beautifully and require little corrective surgery over the years to withstand the assaults of the modern game and equipment. But most need help through architectural change.

Over 150 golf course superintendents gathered last month in Milwaukee for the 10th annual Wisconsin Golf Turf Symposium which was organized to help superintendents at courses contemplating change soon. The mix of superintendents included some looking for nuts-and-bolts answers to questions that soon will be asked them as they get into a rebuilding program at their course; to some interested mostly in how programs are run at some of the bigger courses around the country. Many speakers were superintendents at these older, established clubs. The seminars touched off discussion both formally and informally, and most went away with something to help them at their own course when change is needed.

Golf course architect Robert Trent Jones started the three-day conference off with slides and his general philosophy of golf course design. The rest of the seminars dealt with getting a reconstruction program off the ground, the importance of involving the superintendent in course changes or construction, and the importance of an experienced golf course contractor working with a set of detailed specifications understood by all involved in the project.

Jack Allis, green committee chairman at the Country Club of Milwaukee, explained it is important to inform the members of what is going on with any changes in the course, and to communicate with them throughout the course of the job. National Golf Foundation consultant Fred Stewart also stressed this point because there are inevitably delays due to weather, financing, etc., and these delays can be a major irritation to club members.

Stewart and Jaames L. Holmes, president of The Green Makers, Bryan, Texas, said there are no short

Richard E. Valentine, superintendent at Merion Golf Club, Ardmore, Pa., reported on installation of a \$123,000 automatic irrigation system recently installed at his club with nine miles of pipe.