

# VEGETATION MANAGEMENT

By Roger Funk, Ph.D., Davey Tree Expert Co., Kent, Ohio

**Q:** Can you suggest some disease-free trees to be used in landscaping my property?

**A:** The following list of relatively disease-free plants can be used as a general guideline. I suggest that you contact your local extension specialist for further information concerning the adaptation of these plants in your geographic location. Also check availability at your local nurseries. (Ohio)

Common Name	Scientific Name
<i>Common Genera</i>	
Amur Corktree	<i>Phellodendron amurense</i>
Beech	<i>Fagus grandiflora</i> and <i>F. sylvatica</i>
Corktree	<i>Phellodendron</i> sp.
Cucumbertree	<i>Magnolia acuminata</i>
Dogwood	<i>Cornus officianalis</i> and <i>C. mas</i>
Ginkgo	<i>Ginkgo biloba</i>
Honeylocust, Thornless	<i>Gleditsia triacanthos inermis</i> sp.
Hophornbeam	<i>Ostrya virginiana</i>
Hornbeam	<i>Carpinus caroliniana</i>
Magnolia	<i>Magnolia</i> sp.
Sassafras	<i>Sassafras albidum</i>
Sorreltree or Sourwood	<i>Oxydendrum arboreum</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Tupelo	<i>Nyssa sylvatica</i>
<i>Unusual Genera</i>	
American Smoketree	<i>Cotinus americanus</i>
Dovetree	<i>Davidia involucrata</i>
Eucommia	<i>Eucommia ulmoides</i>
Franklinia	<i>Franklinia alatamaha</i>
Goldenchain	<i>Koelreuteria paniculata</i>
Goldenrain	<i>Laburnum anagyroides</i>
Kalopanax	<i>Kalopanax pictus</i>
Katsuratree	<i>Cercidiphyllum japonicum</i>
Kentucky Coffeetree	<i>Gymnocladus dioicus</i>
Laburnum	<i>Laburnum</i> sp.
Parrotia	<i>Parrotia persica</i>
Russianolive	<i>Elaeagnus angustifolia</i>
Smoketree, American	<i>Cotinus americanus</i>
Sophora	<i>Sophora japonica</i>
Stewartia	<i>Stewartia</i> sp.
Snowbell	<i>Styrax</i> sp.
Viburnum	<i>Viburnum</i> sp.
Yellowwood	<i>Celastrus lutea</i>
<i>Evergreens</i>	
Atlas Cedar	<i>Cedrus atlantica</i>
Baldcypress	<i>Taxodium distichum</i>
Cedar of Lebanon	<i>Cedrus libani</i>
Golden Larch	<i>seudolarix amabilis</i>
Larch	<i>Larix decidua</i> and <i>L. eurolepis</i>
Juniper	<i>Juniper</i> sp.
Umbrella Pine	<i>Sciadopitys verticillata</i>
Yews	<i>Taxus</i> sp.
<i>Hedge</i>	
Bayberry	<i>Myrica</i> sp.
Glossy Privet	<i>Ligustrum lucidum</i>
Buckthorn	<i>Rhamnus davurica</i> and <i>R. frangula</i>

**Q:** In recent years we have had greenbug aphid problems in lawns. I would appreciate receiving your comments concerning their biology and control. (Ohio)

**A:** The greenbug aphid, *Schizaphis graminum* (Rondani), is a small, green soft-bodied plant louse which sucks juices from grass leaves.

Turfgrass is damaged in several ways by the greenbug which feeds on phloem sap with its piercing-sucking mouth parts, seriously weakening the plant. A secretion of salivary phytotoxin is injected into the plant, resulting in yellow and orange spots on the foliage. It is thought the toxin moves within the plant and weakens the root system. Infested areas are somewhat circular, with grass turning yellow and dying, often in shaded areas of large trees, although the problem is also found in open, sunny areas. Turfgrass may be damaged so severely that replacement is necessary.

The greenbug female - they do not need to mate - lays eggs in September and, after hatching, the insect population can build up very quickly to as many as 5000 per square foot. The insect can be either winged or wingless. The winged form allows the aphid to migrate to other lawns.

Dursban, diazinon or malathion are usually effective, but resistance to Dursban has been demonstrated. Another organophosphate, Orthene, has a special need label in Ohio, Kansas and Indiana. Because of the demonstrated ability to develop resistance to organophosphate insecticides, greenbugs are best controlled by alternating with a carbamate insecticide.

**Q:** I have problems with sandburs in turf and ornamental plantings. I have used Balan and Dacthal with poor results. Timing has been prior to crabgrass germination. Suppliers continue to say that either should work. Can you help? (Minnesota)

**A:** Balan is not recommended for sandbur control, and only moderate control can be obtained with a very high rate of Dacthal, which explains the reasons for the poor results you experienced. Sandbur in turf can be controlled best by the use of postemergent herbicides such as AMA, DSMA or MSMA. Apply when weeds are small and actively growing. For best results the herbicides should cover the foliage adequately. Repeat applications may be necessary if regrowth occurs.

Depending upon the ornamentals involved, sandbur can be controlled with glyphosate (Roundup) sprayed onto the foliage or by direct application with a rope wick.

Send your questions or comments to: Vegetation Management c/o WEED TREES & TURF, 757 Third Avenue, New York, NY 10017. Leave at least two months for Roger Funk's response in this column.

# TAYLOR DUNN PULLS OUT REMAINS HIGHLY

Golf car sales in 1982 were a) great, b) flat, c) down, or d) all of the above? The most prudent choice would probably be "all of the above." A survey of the major golf car manufacturers by *Weeds Trees & Turf* showed once again that the fluctuating economy was the only common denominator factor affecting sales.

E-Z Go/Textron had a record year in 1982 and is predicting a record year for 1983. E-Z Go's Ron Patterson noted that golf cars are a good capital investment because they generate income. He added E-Z Go has the largest domestic network and spends the most money on research and development, two big factors contributing to the company's success. "We participate in the distribution so buyers know we are behind the vehicle they buy," said Patterson. Some other manufacturers noted that E-Z Go's expansion during the generally soft sales period of the last two years has made it even more difficult for them to compete. Patterson sees the economy starting to turn around with the recent downturn in interest rates and this is reflected in a more optimistic attitude in his customers.

The fluctuation in interest rates was the main topic on the minds of most manufacturers contacted by WTT. While some viewed the recent drop in rates as a foreshadowing of a better economic climate, others were not as confident and took a wait-and-see attitude. All agreed, however, that there was at least a three month lag before a change in interest rates affected sales.

The spare parts business at Melex, USA has increased tremendously and that signals Clem Sherrick that people are holding off new purchases and fixing up their old fleet. "Business has been soft since interest rates hit 20%," said Sherrick. "I'm optimistic that period is being phased out and a more fruitful economic period is being

## 1983 Turf Vehicle Guide

	Model	Engine	Payload	Price	Options
<b>Bajaj America, Inc.</b> 1237 Gadsen St. Columbia, SC 29201	Gopher	10 h.p. gasoline	700 lbs.	\$2695	
	TriStar Autoriksha			\$2895 \$3395	



<b>Cushman/OMC Lincoln</b> P.O. Box 82409 Lincoln, NE 68501	530 (3-wheel)	gasoline, 18 h.p.	1,500		dump box, flatbed, aerator, topdresser, sprayer, seeder, drag mat
	535 (4-wheel)	gasoline, 18 h.p.	1,500		same as 530
	531	18 h.p. gasoline	1,500		cab, doors, drag mat, power converter, stake pocket set
	533	gasoline	1,000		cab, doors, tool box, stake pocket set, tow hitch
	549	gasoline	250		spark arrestor, hour meter set, steering wheel set



<b>E-Z-Go/Textron</b> P.O. Box 388 Augusta, GA 30913 (404) 798-4311	GX-800	244 cc gasoline	800		
	GT-7	gasoline	1,500		



<b>Hahn Inc.</b> 1625 N. Garvin Evansville, IN 47711	Tournament	gasoline		\$6,600	greens reels, tee reels, verti-cutter, vibra-spiker grass catcher
	Spray-Pro	gasoline		\$5,750	sprayer, aerifier, utility truck bed



<b>Jacobsen/Textron</b> Racine, WI (414) 637-6711	UV-4	gasoline	1,500		
---------------------------------------------------------	------	----------	-------	--	--



<b>Smithco Inc.</b> 11 West Ave. Wayne, PA 19087	Red Rider	gasoline	1,000		larger cargo carrier
--------------------------------------------------------	-----------	----------	-------	--	----------------------



<b>Taylor-Dunn</b> 2114 W. Ball Rd. Anaheim, CA 92804	1248B	electric	3,800	\$4,065	cab, stake, sides, loading ramp
-------------------------------------------------------------	-------	----------	-------	---------	------------------------------------



# AS GOLF CAR MARKET COMPETITIVE

by THOMAS PACIELLO

## 1983 Golf Car Guide

	Model	Engine	Payload	Price	Options
Columbia Car Corp. 3110 International Ln. Madison, WI 53704 (608) 249-6300	D-3	250 cc gas	750 lbs.		suntop, windshield, steering wheel, cradle bag rack
	DX-4	250 cc gas	750 lbs.		same as D-3
	DE-3	electric	750 lbs.		same as D-3 and heavy duty batteries
	DEX-4	electric	750 lbs.		same as DE-3



Club Car, Inc. P.O. Box 4658 Augusta, GA 30907	DS	electric	750 lbs.	\$3,162	full line
	DS Villager	electric	1,000 lbs.	\$3,573	full line
	DS Carryall	electric	1,000 lbs.	\$3,575	full line



Elmco Cooksville, IL (309) 725-3533	11E	electric	850 lbs.		
-------------------------------------------	-----	----------	----------	--	--



E-Z-Go Textron Augusta, GA (404) 798-4311	X440	electric	500 lbs.		
	X444	electric	500 lbs.		
	GX440	gasoline	500 lbs.		
	GX444	gasoline	500 lbs.		
	444SE	electric	500 lbs.		



Melex USA	Turtle 112	electric		\$2,995	tow bar, sun top, windshield
	Turtle 212	electric		\$3,110	same as 112



Legend Eagle Vehicles 8181 Hoyle Ave. Dallas, TX 75227	EV3-01	electric	750 lbs.		
	EV4-01	electric	750 lbs.		



Yamaha Motor Corp. 6555 Katella Ave. Cypress, CA 90630	GI-A3	gasoline		\$3240	sun top, hup caps, sweater basket
	GI-E3	electric		\$2520	same as A3



phased in." At Melex the emphasis is on improving their cars' durability and ease of maintenance. The 1983 models will have few cosmetic changes.

At Bajaj America the favorite expression is "what recession?". Bajaj produces a low-priced, high-mileage turf vehicle, the Bajaj Gopher, that has been very successful since its introduction in mid-1982. "Our car has done real well and we expect an excellent year in 1983," said Bajaj's Dave Jones. Jones was one of the manufacturers who believed that it is premature to predict an upturn in the economy at this point. "Some businesses are expecting too much from the recent drop in rates," he added.

Steve Cullen at Elmco reported that his business was down about 10% in 1982, largely due to the slowdown in resort development. Elmco does not produce your standard golf car. The 11E is priced at \$4995 and L21E runs for \$5960. Both cars can be equipped with almost every imaginable option (and some that are not imaginable). Elmco's market is the exclusive resort complexes and the high cost of money severely curtailed construction in many Sunbelt areas, particularly Southern California and Florida. Cullen predicts Elmco sales should recover about 5% in 1983 but competition in the golf car market will continue to be fierce. "I think that golf car production on the whole will probably be down and that will make the battle for sales even more competitive, especially among the Big Four (Yamaha, E-Z Go, Columbia, and Club Car)," said Cullen.

One of the companies that has decided to back out of that fray is Taylor-Dunn. Taylor-Dunn will not manufacture any more golf cars after 1982. "Industrial vehicles were always our bread and butter so we decided to concentrate our resources on those and halt pro-

*Continued on page 53*



**E-Z-GO. MADE OF  
STEEL. AND THAT  
DOESN'T SCRATCH  
THE SURFACE.**



**E-Z-GO**

No one is exactly sure when the first piece of steel was refined. But since it happened, the world has never been the same.

**Steel. Good enough for the auto industry. Good enough for E-Z-Go.**

The design engineers at E-Z-GO sought to build a golf car that would last. So, they chose a metal that would last. They chose the same metal that is molded in the same precision as a \$45,000 car. Or durable

enough for a \$17.5 million XM-1 tank. Steel.

**Fiberglass is cheaper to fabricate than steel.**

Try bumping into something in a fiberglass car, and you'll know why they call it fiberglass. It cracks and shatters. It also fades in the sun. E-Z-GO steel cars won't crack, shatter or fade.

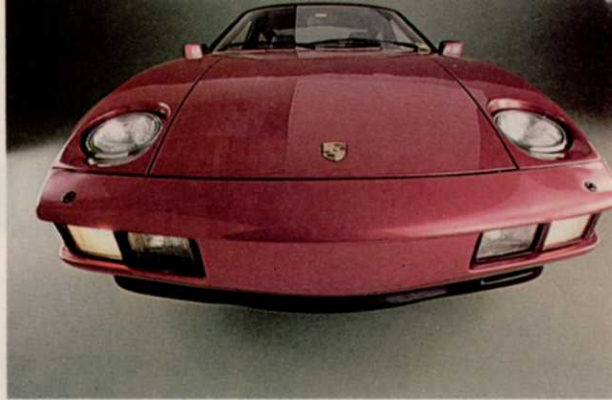
We could make a cheaper car. But we would have to use cheaper materials. And you would get a cheaper product. Almost half the golf cars in use today are E-Z-GO, and they last because we build them with steel.

**Rust-Resistant Galvanneal.**

We use a remarkable product called Galvanneal — a process by Bethlehem Steel that binds a rust-resistant zinc oxide with steel. The same process used by fine automakers. So your E-Z-GO won't rust out.

**Repair the part that needs repair, not the whole body.**

Steel is easy to build with. It shapes easily, and once it is shaped, keeps its form forever. Steel is easy to repair. In fact, it is cheaper to repair or replace steel than it is to repair or replace fiberglass. So steel really saves you money.



But the use of steel in E-Z-GO cars just exemplifies the depth of thought, research and dedication E-Z-GO puts inside each car.

When you're in an E-Z-GO, you're in an engineering masterpiece, designed to run for years with a minimum of maintenance.

**Found on the world's finest golf courses.**

You would expect to see a car as fine as E-Z-GO on the world's finest golf courses. Our car's design is carefully thought out. It's tested by seasoned experts, and ridden by golfers around the world. E-Z-GO is found at 70 of the world's top 100 country clubs in the United States. From the steel body, to the parts constructed in our own factory, E-Z-GO represents the state of the art in golf car engineering. No wonder you'll find the world's finest golf car, on the world finest golf courses.

**E-Z-GO**  
**TEXTRON**

P.O. Box 388, Marvin-Griffin Road  
Augusta, Georgia 30913-2699.



# THE UPS AND DOWNS OF GOLF CARS AS THE GAME GROWS

By National Golf Foundation, golf car division

The golf car today is not a just a matter of convenience. It also happens to be the biggest profit making item at most golf facilities throughout the country. How, why, and where this chain of events took place is a history lesson to the lasting effect of golf.

There are varying reports as to exactly when the first golf car drove onto the scene. Yet statistics show, during the 23 year period between 1931 and 1954, that the number of United States golf facilities declined from 5691 to 5076. Then in the 23 year period following, between 1955 and 1978, golf cars came into their own with golf facilities increasing in number from 5218 to 11,885. There is no question that the growth of golf holds a strong parallel to the largest period of growth for the golf car. With their availability and use, more and more golfers were able to play more rounds of golf!

Of course, first attempts at some type of golf cart or car came much before this surge of growth. Golfers since time began have thought of ways to make the course a little easier to cross. In the late twenties, oldsters at North Carolina's Biltmore Forest Country Club were using caddy-powered rickshaws to get in a round of golf. In England, there were cartoons depicting a type of "caddie car" with a boy pushing a trolley containing not only the golfer but a decanter of whiskey, a soda water siphon and two glasses—supposedly an example of the perfect way to face the course.

In 1930, a Curtis Willock was appointed Greens Committee Chairman at Annandale Golf Club in Pasadena, California. Willock had a wooden leg and was looking for ways to give more mobility to his

game. Gaining permission from the club to venture into the possibilities associated with using a vehicle for golf, Willock enlisted the help of Ben Delanty, then Manager of the Pasadena Power Department. Mr. Delanty, through a body shop in Pasadena, had a three wheel vehicle with an auto steering wheel made. Each rear wheel was driven by a motor powered by 12-volt batteries. There were two speeds, one in reverse, and a rack on the front for clubs. To Willock, this vehicle made his game. To the game, this vehicle was just the beginning of a new era in golf.

Growth was slow. After Willock's attempt at the first golf car,

---

## Growth of golf parallels growth period for the golf cart

---

the trend did not catch on until after the Second World War. Like Willock's the cars were built for golfers who had some sort of physical impairment and were not allowed on courses otherwise. Handicapped veterans in Palm Springs had specially built cars made for them in order to enjoy the game. In Kansas City, a Dr. R.A. Richardson took the basic design of a tricycle and invented a motorized cart in order to get in more rounds of golf despite a back ailment.

Meanwhile out in Long Beach, California, other men were experimenting with the invalid vehicle business too, never realizing where it might lead.

World War II brought on gas

rationing, but Merl Williams, then a tooling inspector at Douglas Aircraft Company in Long Beach, found a way to deal with the problem. He conceived the idea of building a small two-wheeled electric motorcycle with a single-wheeled trailer for his wife to get around town and do her shopping. During her shopping tours, many people stopped her to ask where she got her vehicle. As a result, Merl went to work building these vehicles in his garage and selling them to Long Beach residents. As his business grew, Merl had to leave his garage and join another man who had a small scooter sales business nearby—thus the Marketeer Company was born.

When the War was over, Merl and his wife decided to move home to Redlands, California. He and his partner separated, and in 1945 the Williams' brought *Marketeer Manufacturing Company to Redlands* (Merl's partner would continue to build electric vehicles under the name of Marketour until the early 1970's). They built electric invalid tricycles for the elderly and handicapped, and later branched out into industrial electric vehicles. During these years, Marketeer built special vehicles at the request of customers who needed a special design for a particular purpose.

One of their more "interesting" requests came in 1952 when a man asked Marketeer to build him a vehicle to ride around a golf course in. After a good laugh and of course filling the customer's order, Marketeer had built their first golf car and went on to become one of the largest manufacturers of golf cars in the world during the 50's and 60's. These first cars were three-wheeled with tiller steering and

*Continued on page 48*

# WE REACH THE PEOPLE YOU NEED TO REACH!

Place a classified ad in any of these HARCOURT BRACE JOVANOVIH PUBLICATIONS - and you know your ad dollar is wisely spent.

HBJ PUBLICATIONS does a better job of reaching those who count (*your potential customers*) than any other business publisher.

Magazine	Circulation	Magazine	Circulation
Beverage Industry	22,000	Industrial Education	46,594
Body Fashions/Intimate Apparel	10,162	LP/Gas	14,684
Candy & Snack Industry	3,500	Lawn Care Industry	12,310
Dairy Field	18,134	Neurology	13,069
Dental Laboratory Review	17,297	Paperboard Packaging	12,111
Dental Management	100,005	Paper Sales	12,592
Drug & Cosmetic Industry	9,929	Pest Control	14,684
Flooring	22,241	Professional Remodeling	36,627
Food & Drug Packaging	54,853	Quick Frozen Foods	20,785
Food Management	50,077	Rent All	11,139
Hearing Instruments	17,095	Roofing/Siding/Insulation	18,310
Home & Auto	22,228	Snack Food	9,138
Hotel & Motel Management	36,061	Toys Hobbies & Crafts	13,982
Housewares	12,863	Weeds Trees & Turf	43,041

Don't forget that classified advertising works just as effectively in locating employees as it does if you are looking for a position, have a line, machinery or a business to sell, are seeking representatives or wish to buy a specific item. Let it go to work for you!

## HBJ PUBLICATIONS - COUNT ON US TO REACH THOSE WHO COUNT!



**Harcourt Brace Jovanovich Publications**  
One East First Street  
Duluth, Minnesota 55802

Call Dawn Anderson at 218-727-8511

hand controlled speed and brake. They sat two passengers and there was room for golf clubs behind the seat.

While Marketeer was involved in the invalid car business, the Autoette Company also in Long Beach, was busy producing and converting the invalid cars into viable vehicles for golf. Though many of their sales were primarily to people in need of a car for health reasons, Autoette became very involved in redesigning the invalid

---

### Golf car revenues have helped hold down greens fees and dues to members

---

cars solely for golf and was one of the first companies to begin leasing small fleets.

In March of 1948, the first golf car to receive an official patent was the "Arthritis Special." Mr. R.J. Jackson, a Texas oilman, produced the particular model, which was displayed at courses throughout the United States. Comments ranged from ridiculous to wonderful, stupid to essential.

This was the beginning of serious entrants into the world of golf car manufacturing, yet acceptance of the car was still a major obstacle. The PGA and other groups were not so quick to take this "innovation" seriously and it was years before the golf car was readily accepted.

From the late 40's through the mid 50's, improvements on golf cars were made by trial and error. Since the need was not prevalent, research and development did not have the means to be supported and for the first several years almost all electric vehicles were built with little or no variation.

In 1955, advanced steps were taken. Twelve or fifteen manufacturers were now involved in the process. Clubs were more willing

to try a small fleet of cars, averaging 8-10 cars with many 2 and 4 car fleets, on their courses. The individual owner was no longer the only customer. Sales at this time ranged between 8,000 and 10,000 units annually. As the market began to grow, so did those interested in it. Bankers began to see a potential and offered leases to clubs and easy financing in order to try out this new movement.

Still, only one single golf car was manufactured under the PGA label during the first few years. This car was made by what was then known as the Victor Adding Machine Co. Popularity was growing, and with it manufacturing began to grow. It was a continuous in and out business. Some of the companies who came, went and stayed included Spartan Aircraft Co., Allis Chalmers, Sears Roebuck and Co., Westinghouse, AMF Par Pony, Wayne Golfmobile, Cushman, Caddy Car, Worthington Mardi Car, Turf Rider, Marketeer, Versal, Eshleman, Gross Givens, Westmont, Autoette, Atwood Terra Car, Westcoaster, Walker, Jato, Electric Caddy, and the list seems endless.

Even though companies came and went, the golf car maintained its climb to becoming a strong force in the game. More and more golf facilities were realizing what a strong profit maker the golf car could be for their club. Through the 1960's and 70's, sales continually and consistently increased.

In addition to the profit making factor, acceptance by the PGA also rested with the realization that the golf car was convenient—with proper utilization, they reduced playing time, thus more golfers could play. The golfer with limited time could now play a round of golf more quickly, and as was true in the beginning, people with health problems could more fully enjoy a round of golf. Adverse weather conditions could also be taken in stride when riding in a golf car. Every year, more and more people were learning to enjoy the game and the golf car helped bring this

impact about, keeping golf within reach of players from all walks of life. In 1957, 3,812,000 people averaged 17 rounds each. In 1980, 13,000,000 averaged 28 rounds each.

While convenience was a key factor, the fact that golf cars were and still are one of the most profitable entities at a golf facility was even more important. Without the golf car, many a golf course would either have to raise greens fees and dues tremendously or close down, and the number of privately owned daily fee courses would drastically decrease, as investors need return on capital too. Through this added income, golf facilities can afford more PGA professionals for teaching, better managers, lower greens fees and dues, and the opening of the facilities to more people. This perhaps is the most important point in the acceptance of golf cars.

What does the future have in store? The car itself is experiencing strides in efficiency just as the automotive industry. Electric and gas cars are lighter, more maintenance free and cost less per round to operate. Rider comfort and safety

---

### The first golf cars were designed for the handicapped

---

have been greatly improved. Cars for individuals now have stereo radios, drink coolers, as well as upgraded upholstery and paint jobs like deluxe Detroit automobiles. On the drawing boards are such innovations as solar powered golf cars.

Today, over 660,000 gas and electric cars are in operation and in 1981 golf car income was approximately \$1 1/4 billion.

When adding up the final score, the golf car has proven to be a winning factor in advancing the game of golf. Without it, that final drive would be a long one. **WTT**



# WE SAVE OUR DIESEL FROM DROWNING.

## WITH A BUILT-IN LIFE PRESERVER.

Toro stops at nothing to give you the kind of riding rotary mower you want most.

A mower that keeps you cutting. Gets the job done.

The latest example: our new Diesel powered Groundsmaster 72®. It offers you maximum productivity and reduced operating costs as well as remarkably low levels of noise and vibration.



injection pump. And soak you with costly repairs and downtime.

So we built in a Roosa-Master water separator that removes more than 95% of the water. You simply unscrew a plug and drain it out.

And we didn't stop there. We added other features that keep you cutting. Like a fuel primer pump, start assist glow plugs and a maintenance free battery.

Plus, other advantages you get with every Groundsmaster 72®, gas or Diesel. Such as hydrostatic drive and a Donaldson air cleaner.

Call your Toro distributor. He'll tell you all about Toro riding rotary mowers. Including the newest: our Groundsmaster 72® with Diesel engine.

But we didn't stop there. We knew that water in fuel can literally drown a Diesel. Destroy its injectors and



**THE NEW TORO DIESEL**  
It's our Groundsmaster 72®  
now available with Diesel engine.

**TORO®**

**THE PROFESSIONALS  
THAT KEEP YOU CUTTING.**

"Toro" is an exclusive trademark of The Toro Company.  
8111 Lyndale Ave. So., Minneapolis, Minnesota 55420.

Circle No. 116 on Reader Inquiry Card

NOVEMBER 1982/WEEDS TREES & TURF 49

# WT&T EVENTS

The current issue of **WEEDS TREES & TURF** carries meeting dates beginning with the following month. To insure that your event is included, please forward it, 90 days in advance, to: **WEEDS TREES & TURF Events**, 757 Third Ave., New York, NY 10017.

**Professional Lawn Care Association of America** 3rd Annual Convention and Trade Show, Indiana Convention Exposition Center, Indianapolis, **Nov. 16-18**. Contact Jane Stecker, 435 N. Michigan Ave., Suite 1717, Chicago, IL 60611. (312) 644-0828.

**Professional Grounds Management Society** National Conference, Vacation Village Hotel, San Diego, CA, **Nov. 14-18**. Contact Michael Silberhorn, 7 Church Lane, Pikesville, MD 21208. (301) 653-2742.

Eighth Annual **Professional Landscape Management School**, Indiana State University-Evansville, **Nov. 16-**

**17**. Contact Allen Boger, Purdue Extension Agent, Room 202, City-County Bldg., Evansville, IN 47708.

**Metropolitan Shade Tree Conference**, Arlington Knights of Columbus Hall, Arlington, VA, **Nov. 18**. Contact Bruce Whiton, Virginia Cooperative Extension Service, 901 Wythe St., Alexandria, VA 22314. (703) 838-4333.

**American Society of Landscape Architects** Annual Meeting, Hilton Hawaiian Village, Honolulu, HI, **Nov. 20-23**. Contact ASLA, 1733 Connecticut Ave., NW, Washington, D.C. 20009. (202) 466-7730.

**New Jersey Turfgrass Expo**, Resorts International, Atlantic City, NJ, **Dec. 6-9**. Contact Dr. Henry Indyk, Soils and Crops Dept., Cook College, Rutgers University, PO Box 231, New Brunswick, NJ 08903. (201) 932-9453.

**Ohio Turfgrass Foundation Con-**

**ference** and show, Hyatt Regency, Columbus, OH, **Dec. 7-9**. Contact John Street, OTF, 1927 Neil Ave., Columbus, OH 43210. (614) 422-2592.

**Texas Turfgrass Association** Conference and Show, Amfac Hotel, Dallas-Fort Worth Airport, **Dec. 6-8**. Contact Dr. Bill Knoop, TAMU Center, 17360 Coit Rd., Dallas, TX 75252.

**Western Pennsylvania Turf and Grounds Maintenance** School and Trade Show, Pittsburgh Marriott Hotel/Expo Mart, Monroeville, **Dec. 7-9**. Contact Christine King, 412 Blanchard St., Bellefonte, PA 16823. (814) 355-8010.

**21st Annual North Carolina Turfgrass Conference**, Pinehurst Hotel, Southern Pines, NC, **Jan. 4-6**. Contact L.T. Lucas, 3409 Gardner Hall, NCSU, Raleigh, NC 27650. (919) 737-2751.



don't spend a fortune on  
spraying equipment  
check with **SOLO** first

With the **Trac 419/32**, SOLO provides you with a modern low volume high concentrate mistblower, self-contained, mounted on a frame with 32 gallon formula tank and with its light-weight of only 130 lbs. empty, it is ready to fit any carrier, from pickup truck to garden tractor or trailer.

Or . . . build a system of your choice with SOLO'S **Trac 419**, using any tank or frame.

Or . . . modernize an old pump/air blast spray rig with SOLO'S **Trac 419**.

The SOLO 419's come with their own powerful 12½ hp engines, prepiped and can treat a 40 ft. swath, 20 ft. high . . . or up to 50 ft. in any direction with optional **TELEBLAST** nozzle. ULV application possible.

Also available with skid mounted 55 gallon tank.

Send for free brochure or ask your dealer for **SOLO Trac 419**.

SOLO INCORPORATED, 5100 Chestnut Avenue, P.O. Box 5030 - Newport News, VA 23605-0030.  
Canada: Box 464, Burlington, Ont. L7R3Y3



Circle No. 115 on Reader Inquiry Card