

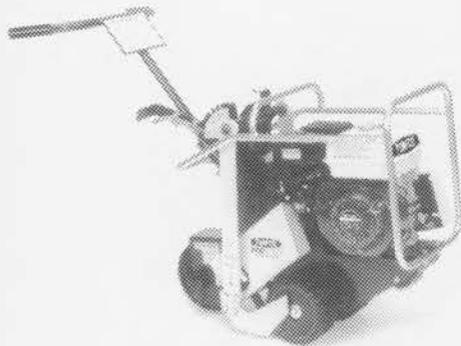
# A PATCH OF GREEN

SPRING ISSUE, 1998



# Work Savers BY

# TURFCO®



## Pro Lite SOD CUTTER

Cut circles in minutes  
Sculpt flower beds

**Model 85507**

- 5 hp B&S I/C engine
- 12" cutting width

# \$2549<sup>00</sup>

## Edge-R-Rite®



Edge sand traps — flower beds — tree rings  
Remove drainage problems in minutes  
4-blade options for all your needs

**Model 85302**

- 3 hp B&S I/C engine with traction kit

# \$1299<sup>00</sup>

# — WEINGARTZ —

*Michigan's Largest Lawn, Snow & Outdoor Power Equipment Dealer*

*Since 1945*

### Utica

46061 Van Dyke  
1/2 Mile North of M-59  
**810-731-7240**

**Best Price**

**Best Service**

**Best Selection**

### Farmington Hills

39050 Grand River  
East of Haggerty  
**810-471-3050**

**HOURS: Monday & Thursday 8:30-8:00 • T-W-F 8:30-5:30 • Saturday 9:00-4:00**



# A PATCH OF GREEN

Michigan & Border Cities Golf  
Course Superintendents  
Association

The Official Publication of the Michigan and Border  
Cities Golf Course Superintendents Association

**Officers President**

Paul Dushane

**Vice President**

Paul Kolbe  
Committee: GAM Seminar,  
Christmas Party, Co-Golf

**President Emeritus**

Jay Delcamp  
Committee: Ethics,  
By-Laws, Nominating

**Secretary/Treasurer**

Roy Szyndlar  
Committee: Finance,  
Welfare, Policy Book,  
Co-Hospitality Room

**Directors**

Tim Dorer, C.G.C.S.  
Committee: *POG* Editor,  
Member Relations

Ed Hock, Jr.  
Committee: Co-Special Olympics,  
Co-Golf Day, Co-Education

Mike Jones  
Committee: Membership,  
Co-Education, Co-Golf

Mark McKinley  
Committee: Co-Golf Day,  
Co-Hospitality Room,  
Historian

Rick Murphy, C.G.C.S.  
Committee: Awards,  
Picnic, Clothing

Jane St. John, C.G.C.S.  
Committee: Co-Special Olympics,  
Publicity, Industrial/Environmental  
Relations

Tom Mason  
Committee: GCSAA Liaison,  
GCSAA Voting Delegate

**Contact for  
MBCGCSA  
Information**

Kate Mason  
Executive Secretary

MBCGSA  
P.O. Box 173, Troy, MI 48099  
(810) 362-1108  
Fax (810) 362-1736

## Contents

5	On Par With The President
6	Welfare
7	In Memory of Roger Gill
8	Temperature Variation Maps
9	GAM-Greater Detroit G.C.S.A. Seminar
11	The View From M.S.U.
13	Growth Regulators and <i>Poa annua</i>
16	Dr. Rieke Receives G.C.S.A.A. Award
17	Planning Your Future
18	Membership Meeting
19	New Member Roster
23	The Cutting Edge
25	March Board Meeting
26	January Board Meeting
29	Classifieds
30	Calendars of Events

**Printed by:** Schaltenbrand Printing Company  
16315 Harper Avenue  
Detroit, MI 48224  
(313) 882-4343



**TURFGRASS SPECIALISTS**

***FREE NEXT DAY DELIVERY***

**BRIGHTON (800) 482-3130 FAX: (810) 632-5840**

**BRADLEY (800) 632-1998 FAX: (616) 792-0700**

# on par <sup>with</sup><sub>the</sub> president



Change(chanj) 1., make different; alter. 2., replace by another; substitute. 3., become different; pass from one condition or state to another. That's Webster's definition of the word and a simple explanation of events our association is proceeding through as of late. A new name, a proposed reaffiliation with G.C.S.A.A., resuming publishing responsibility for our *Patch of Green* magazine and a new Executive Committee of President, Vice President and Secretary Treasurer just to name a few.

An author once wrote..."it behooves us to adapt oneself to the times if one wants to enjoy continued good fortune." That is how I view the changes that our board has endeavored to achieve, as an adaptation to the evolving industry of golf course and environmental management in an effort to keep our association and each of its members as educated and informed of the evolution as possible.

Some of the goals that I have laid out to reach during my term as President are in response to what I view as age-old, nagging and persistent problems. These problems have causes that are difficult to define and describe, which make solutions even more difficult to theorize. For example:

- 1.) Increasing member involvement
- 2.) Increasing self improvement and self promotion
- 3.) Increasing job security

I believe that all three of these issues interact with each other and that working towards achievement of the first two increases the possibilities of the third. Some of my proposed ideas on solutions to the first problem include participation and classification standards for continued association membership, round table meetings that require verbal commitment from each person in attendance and the availability of both seminars and reading material pertinent to the second problem. If each of us works toward solving the involvement and participation problem, we will be simultaneously solving the self promotion and improvement problem. This, I propose, will eventually lead to increased job security, which I feel is a golf course superintendent's largest nemesis. So please, become involved at meetings, don't just show up and observe. Contribute your perspective and opinion; each of us can learn a great deal from our peers. This will allow us to strengthen our skills together for every superintendent's benefit. Together we can strive to be the best golf course superintendents we can be, and this should in turn increase the security we so much deserve in our jobs.



Paul Dushane

# WELFARE

by Roy Szyndlar

Remember how you felt when someone gave you a pat on the back for a job well done? Or how about the time you received a promotion or new job, or maybe you had an addition to your family? You were just busting at the seams to tell someone. Or, as happened the past year, you heard of the passing of a fellow superintendent but it was too late to respond the way you would have preferred. It felt good to be recognized for an accomplishment and comforting to know that family and friends care about you even when you are down.

We too, the members of MBCGCSA, are a family. We are a family of professionals tied together by the invisible threads of the turf industry. And as members of the same family, we also would like to give you that pat on the back or extend that helping hand. What better way to spread the word than through family members? But, in order for us to do this we need to hear from you. Whether it's something that impacts you directly or if you know of another member who has news to share. We as an association, as a family, need to do a better job of keeping in touch.

In this day and age of modern technology we can do a better and faster job of spreading the word. We will be better able to get the word out if everyone takes the time and makes the effort to pass along worthwhile information. The MBCGCSA does not rely on a singular method to spread the word. We will use the telephone, fax, or maybe the *Patch of Green* to spread the word. But all this technology is wasted if no one will take the time to use it. With that thought in mind, if you have news about a fellow member, whether it be a blessed event or a serious illness, we would like to know about it so that we may acknowledge it and inform our members.

You may call me at 313-246-1368 or call Kate at 610-362-1108.

## New Name For Michigan and Border Cities

By a 2/3 majority vote, the Name Change proposal was passed at the Salt River Meeting on March 11, 1996. By May 1, 1996, the official name of the association will be:

**Greater Detroit Golf Course  
Superintendents Association**

## POWER WASHING EQUIPMENT

Factory Authorized Sales & Regional Service  
Center For:

**Jenny®**

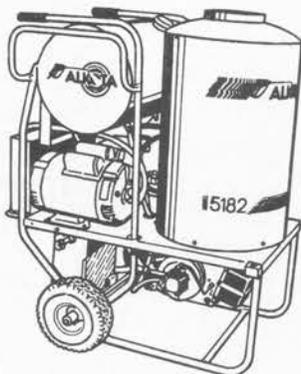


**ALKOTA**

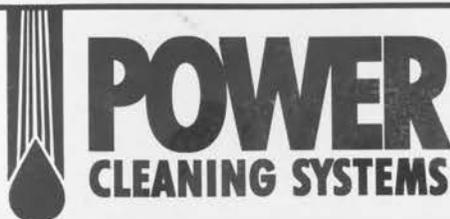
**HYDRO TEK**



Mi-T-M CORPORATION



Pumps &  
Accessories



**"Where The Professionals Buy"**  
**1-800-788-2503**

**PARTS / SERVICE FOR ALL BRANDS**

- Steam Cleaners • Hot Pressure Washers
- **ALL ELECTRIC** Pressure Washers: Steam / Hot
- Gas / Diesel Powered Hot Pressure Washers
- Waste Water Treatment Systems
- Over 5400 Parts **IN STOCK** • Catalog Available

**RENTALS • CHEMICALS • SALES**

5420 OAKMAN BLVD. • DEARBORN, MICHIGAN 48126  
**(313) 581-2543 • FAX (313) 581-1458**

# In Memory of Roger Gill

by Jim Timmerman

The Greater Detroit Golf Course Superintendents Association lost a friend and stalwart supporter with the passing of Roger Gill on November 14, 1996. He was the golf course superintendent at Pine Lake Country Club in Orchard Lake, Michigan. Roger was only 53 and died from complications of cancer. Roger, who worked in the turfgrass business for all of his adult life, got his start in golf course management in 1959 at Maple Lane Golf Course. He trained at Maple Lane under Clarence Wolfrom, Sr. for seven years. Roger then took the job as golf course superintendent at Royal Oak Golf Club in 1966 and remained there until 1972. In 1972 he became the superintendent at Pine Lake Country Club.



Roger, throughout his career, was a strong supporter and tireless worker for the golf course industry. During the early 1970's when the Michigan & Border Cities Golf Course Superintendents Association was just getting started in fund raising in support of turf research at Michigan State University, Roger gave of his time and talents above what was called for to ensure that the MBCGCSA fund raising efforts would be successful. I remember spending much time with Roger sorting raffle tickets at turf related outings, golf courses and the Home and Garden Show at Cobo Hall trying to raise money for turf research.

Roger also volunteered his time to work at "The Big Event" each October and this event was held at Pine Lake CC a number of years while Roger was superintendent.

Roger was a fine individual to work with as he was always upbeat and did not let the stress of being a superintendent get him down. His personality was a big factor in our fund raising efforts. Roger had a great sense of humor and he made the long hours of selling tickets fun, and this really helped some of the younger guys when they would get discouraged. Roger remained committed to those efforts until he was no longer able to work. He will be missed.

Roger was an excellent superintendent. We would sometimes have lunch together and visit each other's golf course to discuss the latest in turfgrass technology or the latest problems. I always came away from these meetings with some new ideas that Roger had come up with or new techniques to solve our mutual problems. I have played Pine Lake CC on a number of occasions and it was always in top shape.

Roger was a member of the Michigan Turfgrass Foundation and the Founders Club. He was a member of the MBCGCSA for 27 years and served as a Director and Vice President.

Roger is survived by three children, Tom Gill, Tammie Weaver and Tracy Gill, and by his former wife, Gloria. He was preceded in death by his brother, Jerry Gill, who also was a superintendent for many years at Tam O'Shanter CC.

I came across this saying by President Theodore Roosevelt which I feel best describes the Roger Gill I knew and the way I believe he should be remembered. It is titled "*The Man Who Plays The Game*" and it goes like this: "The credit of life does not go to the critic who stands on the sidelines and points out where the strong stumble, but rather, the real credit in life goes to the man who is actually in the arena, whose face may get marred by sweat and dust, who knows great enthusiasm and great devotion and learns to spend himself in a worthy cause, who, at best if he wins, knows the thrill of high achievement and if he fails, at least fails while daring greatly, so that in life his place will never be with those very cold and timid souls who know neither victory nor defeat."

**DAVEY OFFERS  
EVERY TREE CARE  
SERVICE YOU'LL  
EVER NEED.**

You know that mature trees add challenge as well as beauty. You also know mature trees are impossible to replace. Davey knows how to help protect these valuable assets from decline, lightning, storm damage, insects and disease.

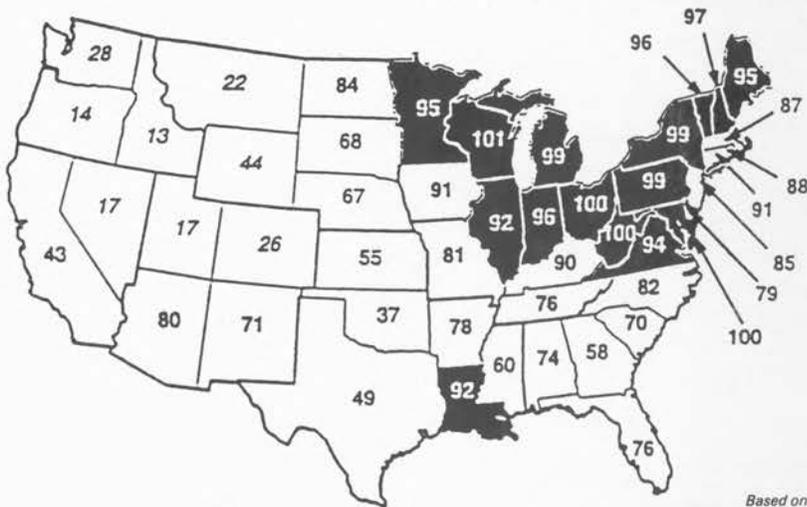
Davey professionals will inventory your trees, evaluate the condition of each one, and give you a report prioritizing treatments. Over time, expert care from Davey will actually reduce your tree maintenance costs.

Keep your most valuable assets standing tall with the leader in tree care since 1880. Call Davey today at (810) 689-2200 (in Troy) or (313) 459-8690 (in Canton Twp.)

**DAVEY**   
TREE AND LAWN BEAUTY

## HISTORICAL TEMPERATURE RANKINGS BY STATE

SUMMER (JUNE–AUGUST) 1995



### LEGEND

Among the ten coldest

Among the ten warmest

1 – 33: COLD

34 – 68: NEAR NORMAL

69 – 101: WARM

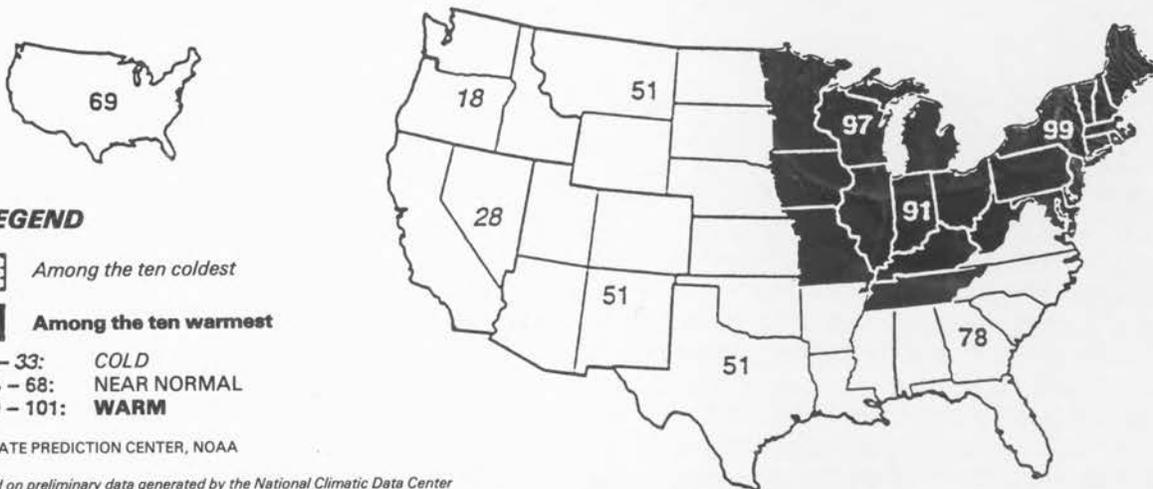
CLIMATE PREDICTION CENTER, NOAA

Based on preliminary data generated by the National Climatic Data Center

This chart depicts the ranking of the specific parameter, as measured during the period indicated, with respect to all other such periods on record since 1895.

## HISTORICAL TEMPERATURE RANKINGS BY REGION AND NATION

SUMMER (JUNE–AUGUST) 1995



### LEGEND

Among the ten coldest

Among the ten warmest

1 – 33: COLD

34 – 68: NEAR NORMAL

69 – 101: WARM

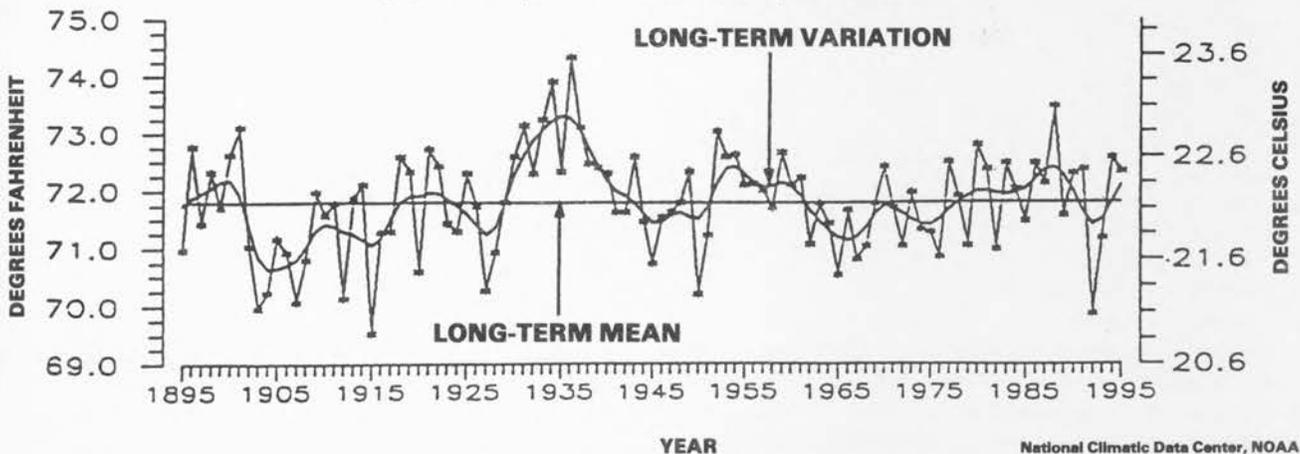
CLIMATE PREDICTION CENTER, NOAA

Based on preliminary data generated by the National Climatic Data Center

This chart depicts the ranking of the specific parameter, as measured during the period indicated, with respect to all other such periods on record since 1895.

## U.S. NATIONAL TEMPERATURE

SUMMER (JUNE–AUGUST) 1895–1995



National Climatic Data Center, NOAA

# GAM - Greater Detroit G.C.S.A. Green Seminar

by Paul Kolbe

The GAM - Greater Detroit G.C.S.A. Green Seminar was held at Detroit Golf Club on March 23, 1996. 155 people attended this seminar, which included general managers, green chairmen, owners and superintendents of their respective golf courses. Here are some highlights of topics covered:

Weird weather patterns of 1995 and the impact on golf courses were presented by Dr. Jeff Anderson and Dr. Paul Rieke. They summarized the variances of the high humidity and high rainfall in 1995 to the normal conditions that are expected in our region. Ted Woehrle mentioned that 1995 was the hottest and most humid summer since 1955.

Henry Carnaby from Bodman, Longley and Dahling law firm, gave advice on the do's and don'ts of hiring and firing. A few questions to be avoided, according to state and federal laws, during the hiring process are:

1) Age: It is illegal in Michigan to ask on the application age or date of birth. Employer may ask if an applicant is over 18-years old and may require verification prior to employment.

2) Associations, organizations or clubs: The list may reveal information regarding race, religion, sex or national origin and is unlikely to have a relationship to job requirements. Employers may ask applicants if they belong to professional or technical associations which may have a bearing on job requirement.

3) Marital status: No questions regarding marital status, children or child bearing plans may be asked.

Some questions which can be asked are on education, experiences, references, relatives or friends. Employers can ask if the applicant can meet job requirements; e.i. possession of driver's license, access to transportation, ability to work evenings or second shift or weekends, whether the employee can travel, etc. On conducting interviews; use a prepared set of questions and ask all candidates the same questions. Ask open-ended questions to provide the candidates the opportunity to talk about any and all relevant education or experiences. Avoid statements that might be construed by the candidate as a promise of job security or just-cause employment. The greatest mistake made in the termination of employees is attempting to proceed too quickly. Make sure you have been fair and kept documentation. Don't be a wimp—it should be conducted face to face and in private.

Ted Woehrle, of The Orchards Golf Club, talked about training your assistant to be the boss. He does a quarterly goal setting and evaluates his assistants to determine their progress and room for improvement. He showed slides on the history of the turfgrass profession and what he has seen during his 50 years of involvement.

Jim Houston, superintendent of West Shore Country Club, and Bruce Matthews III, architect from Design 3, discussed the process of bunker renovation. Jim took us through the steps he took from the sand selection,

membership approval and funding and finally the completed job. West Shore renovated over 40 bunkers with a price between \$2,000 and \$4,500 each. In designing the bunkers you must evaluate the impact on the entire hole and how it fits in with design of the rest of the holes. Communication, communication, is the key to a successful project.

Dr. Trey Rogers, of M.S.U. and Bob Vavrek Jr., an agronomist from the U.S.G.A. showed slides of highlights from the 1995 placement trainee visits and some winter damage respectively.

Dr Joe Vargas ended the session with his talk on cool season turfgrass diseases. Removal of trees or fans around greens is essential in keeping air moving if you want to maintain bentgrass greens. Dr. Vargas discussed the use of biological control with the use of a natural occurring strain of *Pseudomonas auerofaciens* known as TX-1. An instrument called a BioJect has been developed that can apply the biological control bacteria through an irrigation system on a daily basis. Under field conditions last year it was very effective against foliar turf diseases like dollar spot, brown patch, Pythium blight, anthracnose, and crown-rotting Anthracnose. It is an exciting new technology which reinforces that Michigan remains the leading state in turfgrass research.

Dr Vargas was also given the 1996 Distinguished Service Award, presented by Jim Timmerman of Orchard Lake Country Club. Dr. Vargas' numerous accomplishments in turfgrass research and his continual support of the superintendent profession made him a very deserving recipient of this award!

Special thanks goes to the Detroit Golf Club staff and to Executive Secretary Brett Marshall and Peter Jackson of the GAM for supporting this annual seminar.



**IS IT TIME TO UP-GRADE YOUR IRRIGATION CONTROL SYSTEM ?**

THEN IT'S TIME TO TALK TO ...



**RAIN BIRD GOLF PRODUCTS**

LET US SHOW YOU HOW TO PUT THE CONTROL OF YOUR IRRIGATION SYSTEM IN THE PALM OF YOUR HAND

WITH : MAXI-LINK RADIO CONTROL SYSTEMS  
& THE FREEDOM HANDHELD RADIO

(FEATURING THE WINDOWS BASED OPERATING SYSTEM)

WIRE-LESS UP-GRADES ARE THE FAST, EASY AND EFFECTIVE WAY  
TO MAKE YOUR IRRIGATION SYSTEM AS EFFICIENT AS YOU ARE

**CALL YOUR VALLEY TURF IRRIGATION PROFESSIONAL TODAY**

**GRANDVILLE**

3721 28TH ST. SW.  
GRANDVILLE, MI 49418  
PH. (616) 523-2885  
FAX (616) 532-5553

**BRIGHTON**

11711 E. GRAND RIVER  
BRIGHTON, MI 48116  
PH. (810) 220-2040  
FAX (810) 220-2750

**MT. PLEASANT**

711 W. PICKARD  
MT. PLEASANT, MI 48858  
PH. (800) 334-7011  
FAX (517) 773-1880

# BUSH BROTHERS

## Asphalt Paving



**(810) 476-8254**

20788 Osmus Farmington Hills, MI 48336

# Oldani



**LANDSCAPE NURSERIES**  
i n c o r p o r a t e d

**EXPERIENCED GROWERS & INSTALLERS**  
of **SPECIMEN TREES & SHRUBS**

- ◆ Retail & Wholesale
- ◆ 92 Acre Irrigated Nursery Farm
- ◆ Large Landscape Nursery Stock
- ◆ Container Nursery
- ◆ Grafted Ornamental Specialists
- ◆ Container & Field Grown Perennials
- ◆ Dried Flowers

**810-688-2363 FAX 810-688-2973**  
2666 TOZER ROAD ◆ NORTH BRANCH

# PUT YOUR MONEY WHERE YOUR DOLLAR SPOT IS

WITH **CHIPCO® 26019**

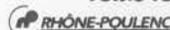
**RHONE-POULENC AG COMPANY**

**BOB DUGAN**

**P.O. Box 74398**

**Romulus, MI 48174-0398**

**Tel.(313) 782-0323 Fax (313) 782-6344**



Rhône-Poulenc Ag Company, 2 T.W. Alexander Drive, Research Triangle Park, NC 27709. For further product information, please call 1-800-334-9745. As with any crop protection chemical, always read and follow instructions on the label. CHIPCO is a registered trademark of Rhône-Poulenc. ©1995 Rhône-Poulenc Ag Company.

# The View From M.S.U.

## Tips From "The Hill" Legislative and Program Update

Gregory T. Lyman  
Turfgrass Environmental Education Specialist

As you are making the final approach and ready to embark on the 1996 golf season, I trust that the 1995 battle scars have healed. As you head to the starting gate, I want to pass a few tips to you from the regulatory scene and then alert you to a survey that I will be conducting this spring.

### FEDERAL WORKER PROTECTION STANDARD

There is an issue that is being played out on the national level that has the potential to affect golf course operations. It has to do with the federal Worker Protection Standard (WPS). This law was adopted a couple of years ago and was directed toward agricultural operations in four primary areas; farms, forests, greenhouses, and nurseries. It was designed to protect employees who handled pesticides or worked in areas where they were applied. The WPS provides training, posting, notification, and protective equipment requirements for "workers" and "handlers" of pesticides used in those four agricultural settings. One of the most notable requirements is the "Restricted Entry Interval" imposed on all pesticide products. You may have noticed WPS information on the labels of some of your products in the last couple of years. The minimum re-entry period for workers is 12 hours after application. When this law was written and enacted, golf course properties were never intended to be included within the scope of activity. The big rub arose when a group within the EPA decided that golf courses who operate a sod or tree nursery on site would be required to comply with the WPS. As a result of this interpretation, the GCSAA has been actively involved at the federal level to overturn this decision. From my perspective at the state level, this interpretation is misguided because we have already addressed most of the WPS intentions through state legislation and sod nurseries are such a small part of the operation that imposing another layer of requirements is overkill. I expect that the decision to impose the WPS on golf courses will be overturned or relaxed in the near future. The GCSAA and the Michigan Department of Agriculture (MDA) are actively seeking that outcome and I will keep you posted of any changes.

### SPILL REPORTING TIPS

There has been a new system for spill reporting created with cooperation between the MDA and the Department of Environmental Quality (DEQ). The "old" protocol was to call the Pollution Emergency Assistance System (PEAS) when a spill had occurred. This system was operated by the DNR

and was designed to assist any spill or event that could threaten environmental resources. The PEAS number is 1-800-292-4706. The new system does not replace the PEAS hotline, yet refines it by addressing spills that occur in the agricultural industries. The new number is 1-800-405-0101 and is operated by the MDA. The important impact from the refined system is that the MDA personnel responding to your call are familiar with agricultural products. Their intent is to assure that the spill is contained and secured from entering surface or groundwater. Once secured and the degree of the problem is understood, you will most likely be given authorization to land apply the spill and cleanup materials. Stay tuned for phone posters or other trinkets from the Michigan Turf Foundation that outline the new reporting system.

### REGULATION 637 TIPS

Next I wanted to pass along some helpful tips from Regulation 637 that stem from common questions or recent interpretations. The first item has to do with ready-to-use formulations (RTU) of pesticides. These products are packaged in a manner which requires no mixing and are ready to apply in their original container. A common example is a squirt bottle of Roundup®. Those operations that are not considered licensed pesticide application businesses do not need a certified or registered applicator to apply an RTU product. For example, any employee of a grounds maintenance or golf course operation could use the squirt bottle of Roundup® to spray the weeds in the cracks of the sidewalk. They would not need to be a certified or registered applicator. Lawn care operations however, are considered licensed businesses and all employees using pesticides need to have an applicator credential. Finally, a word on spot treatments. The definition for spot treatments in Regulation 637 is a treatment of not more than a two square foot area and no more than 20% of the total area. The message about spot treatments is that they do not require posting. For example, targeting a few dandelions in a fairway or applications around the base of a tree would be considered spot treatments and you are not required to post.

### GOLF TURF SURVEY HEADED YOUR WAY

I will be sending a survey to all golf course operations early this spring. The objective is to identify the major pests of golf courses, the pesticides and nutrients used, and the level of IPM use by Michigan golf turf professionals. The survey is sponsored by the MDA and was developed last fall in cooperation with each regional golf course superintendent association. It marks the first time this type of information has been collected in Michigan or the Midwest and I expect it to become a valuable resource for the industry in the future. Look for it near the end of April.

## What convenience!

**Unmatched broad spectrum weed control and a full turf feeding in one product**

Scotts ProTurf 32-4-3 Fertilizer Plus Dicot Weed Control III combines three active ingredients to wipe out 62 of the toughest weeds, while supplying a full feeding to your turf.

Ask your ProTurf Tech Rep for details.



**John Skalfe**  
Tel: 810/698-2358  
Mobile: 810/713-3222

# PIPE PROBLEMS? CALL US!

Let's Make A Deal!

**WE SPECIALIZE IN REPAIR PARTS**  
FOR THOSE OLD OR OBSOLETE PIPES AND FITTINGS  
NO LONGER AVAILABLE IN THE INDUSTRY

(810) 673-3300 EXT. 308

JEFF KOVICH

**S.L.C. WATER SERVICE PRODUCTS**

3059 DIXIE HWY, WATERFORD, MI

## MDA Regulation 637 IT'S THE LAW

We offer rinse/mixing, loading pads and safety equipment to meet every business need.

- Portable Pads
- Preformed Concrete Pad
- Chemical Storage Buildings
- Spill Recovery Supplies
- Safety Equipment

### Compliance Concepts

24800 N. Industrial Drive  
Farmington Hills, MI 48335  
**Phone: (810) 473-7050**  
**Fax: (810) 474-3228**

## BENHAM CHEMICAL

More than a distributor ...

- Professional Sales Staff
- Technical Assistance
- Problem Diagnosis
- Manufacturer Support

Your partner in professional turf management!

### BENHAM CHEMICAL CORP.

24800 N. INDUSTRIAL  
FARMINGTON HILLS  
MICHIGAN 48335  
(810) 474-7474

300 CASS AVE.  
SAGINAW  
MICHIGAN 48602  
(517) 793-8210

IN MICHIGAN (800) 482-6520

# Growth Regulators and *Poa annua*

by Thomas L. Watschke  
Pennsylvania State University

The use of growth regulators for various aspects of managing turf has increased greatly in the last 10 to 15 years. This increase has occurred as a result of an expanded number of product choices, research into potential uses, and an experience base of successes among practitioners.

## Early uses

The earliest uses (1960's) of plant growth regulators on turfgrasses were primarily for growth and seedhead reduction of amenity grasses, mostly along roadsides. Sites that were hazardous to mow, waste areas, and those that only required mowing because of tall seedheads were the principal targets for growth regulator use. Early products, such as maleic hydrazide, provided good growth and seedhead suppression, but often caused reduced root growth and foliar discoloration. These undesirable side effects were often considered acceptable as the turf usually recovered and the lower level of quality could be justified by the savings realized from the reductions in labor, equipment, and fuel for mowing. However, such undesirable side effects were not generally acceptable on most fine turf areas. It was not until the early and mid-seventies that growth regulator use on fine turf began to increase. New chemistry was being introduced (chlorflurenol and mefluidide) that was less harsh, from an injury standpoint, while still providing reasonably good growth and seedhead

suppression. These materials all provided growth suppression primarily through a reduction in cell division (mitotic inhibition). The reduction of cell division is the principal reason that such inhibitors can so effectively suppress seedhead production.

## Fine turf applications

### (*Poa annua*)

*Poa annua*, which establishes and perpetuates itself primarily through seed production, became an early target for application of the newer mitotic inhibitors. Initially it was thought, that by significantly suppressing seedheads, *Poa annua* would eventually become less competitive and the turfgrass population could be manipulated to increase the percentage of more desirable species, such as bluegrass or bentgrass. However, in time it became clear that the suppression of seedheads would not bring about an effective reduction in the *Poa annua* population of a turfgrass sward. Indeed, in many instances, the competitiveness and stress tolerance of the *Poa annua* that had been previously treated with growth regulators increased throughout the season. This phenomenon can result in a status quo, with regard to the distribution of grass population, or even to an increase in the amount of *Poa annua* in the stand. Therefore, the use of mitotic inhibitors has evolved to the point where many golf course superintendents who are managing predominately *Poa annua* turf apply such products (primarily mefluidide) to enhance the quality of *Poa annua*.

Some roadside applications continue to be made in various states and research for such use has continued, but most recent research emphasis using mitotic inhibitors has been focused on *Poa annua* management. For the most part, the application of mitotic inhibitors to *Poa annua* is for seedhead suppression to improve turf quality. Any increased tolerance to environmental stress that might be realized is usually considered to be a bonus in the overall scheme of things.

## Seedhead suppression

Successful seedhead suppression is the result of proper timing. Applications must be made after

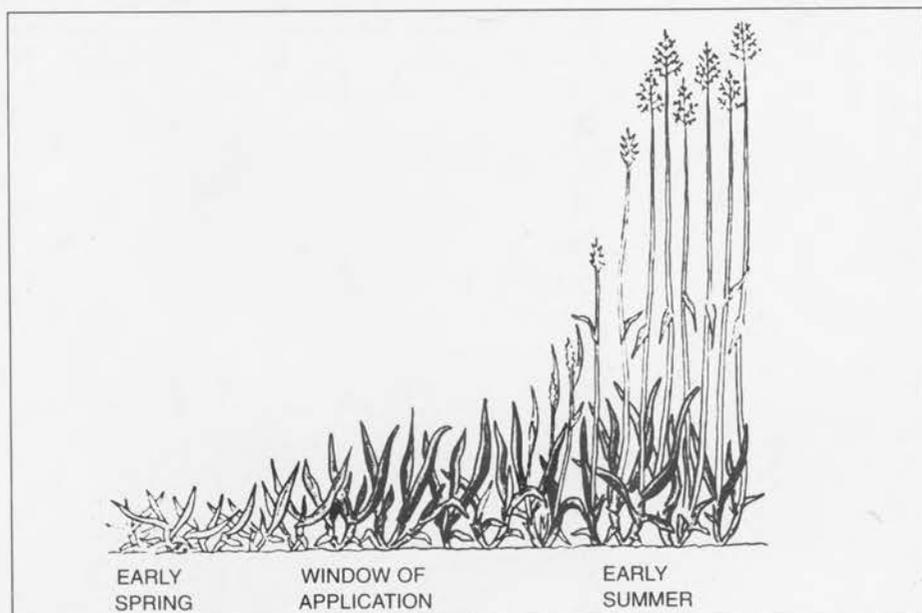


Figure 1. Timing of plant growth regulator applications.

complete "green-up" in the spring (usually after the third mowing) and before the majority of seedheads have emerged (Fig. 1). If applications are made before complete "green-up" there can be a delay, as new budshoot development will be suppressed. If application timing occurs after seedhead emergence has begun, poor overall suppression will result. Seedhead suppression should not be attempted if *Poa annua* is under any environmental stress as undesirable discoloration will usually occur. Application to *Poa annua* in fairways that contain some *Poa pratensis* L. (Kentucky bluegrass) can cause increased severity of any disease that might occur on the bluegrass (particularly leaf spot). If the rough is a Kentucky bluegrass/fine fescue (*Festuca* spp.) mixture, special care should be taken to avoid application to the rough, again because of the potential for worsened disease conditions. While it is highly unlikely that mitotic inhibitors predispose the turf to disease or decrease inherent resistance, the suppressed growth reduces the ability of treated turf to produce new leaves, which would be unaffected by the activity of any foliar pathogen. Properly calibrated spray equipment is critical for successful applications, and the use of foam marking systems to prevent skips and excessive overlap is recommended. When properly timed and applied, the level of seedhead suppression should equal or exceed 90% (Fig. 1).

Some golf course superintendents add wetting agents (product choice does not appear to make any significant difference) in an attempt to increase the activity of mefluidide at lower rates. The lower rate (6 oz. product/acre) plus the wetting agent at label rate can maintain a high level of seedhead suppression, but with less turf discoloration (although turf discoloration is very slight and short term when mefluidide is used alone at the label recommended rate). Seedhead suppression generally lasts approximately four weeks, after which time the turf exhibits a "rebound" effect (slightly stimulated growth and enhanced color). This effect occurs at the time when

untreated *Poa annua* has flowered and set seed, and is generally exhibiting decreased quality due to slowed growth and a slight loss of color (yellowing).

In recent years (late 80's and 90's) research emphasis with mitotic inhibitors has become more focused on seedhead suppression of *Poa annua* in putting greens. Again, the objective is to improve the quality of predominately *Poa annua* greens by reducing seedheads, and thus improving smoothness and ball roll. Although not currently on the use label of mefluidide, research has shown that a reasonably high level of seedhead suppression can be attained on close cut *Poa annua*. It appears that mefluidide applied at approximately 4 oz. product/acre tank mixed with 5 oz. of Ferromec® /1000 ft<sup>2</sup> can produce effective suppression without any undesirable side effects (Table 1). Although higher rates provide better suppression, undesirable discoloration can occur. At the time of this writing, it is uncertain as to whether application to greens will be submitted by the manufacturer for approval by the U.S. Environmental Protection Agency as a label amendment.

### Suppression via the limitation of gibberellin biosynthesis

In the 70's and early 80's, plant growth regulator chemistry expanded with the commercialization of compounds that suppressed growth primarily via the interruption of the plant's ability to synthesize gibberellin (GA). GA is necessary for the normal elongation of cells; therefore, any reduction in the normal synthesis of this substance in the plant results in suppressed growth (stunting or dwarfism). Cell division is not significantly affected; therefore, seedhead suppression is not as successfully accomplished by inhibiting GA as with the use of mitotic inhibitors. In fact, GA suppressors are used very successfully in small grains and rice production to enhance seed yield because of decreased lodging (the stalk of the seedhead grows shorter and thicker making it less susceptible to wind).

Table 1. Percentage of *Poa annua* seedheads compared to the untreated check from treatments of mefluidide alone and with Ferromec®.

Treatment	Formulation	Rate	Percent Suppressed	
			21	35 DAT
Mefluidide	2S	0.05 oz/m	63	53
Mefluidide	2S	0.1 oz/m	93	90
Mefluidide	2S	0.2 oz/m	98	95
Ferromec®	---	6 oz/m	0	0
Mefluidide + Ferromec®	2S	0.05 + 6 oz/m	37	27
Mefluidide + Ferromec®	2S	0.1 + 6 oz/m	85	75
Mefluidide + Ferromec®	2S	0.2 + 6 oz/m	92	85
Untreated Check	---	---	0	0

Consequently, the use of GA inhibitor growth regulators for the purpose of *Poa annua* seedhead suppression is largely unsuccessful. However, GA inhibitor compounds have been found to differentially suppress the growth of *Poa annua* compared to other cool season turf species (particularly *Agrostis* spp.).

## Stand conversion

Most research using GA inhibitors has targeted mixed *Poa annua*-creeping bentgrass (*Agrostis stolonifera*) stands on both golf course fairways and greens. Applications are intended to increase, over time, the percentage of creeping bentgrass over *Poa annua* without significant discoloration of the *Poa annua*. The rate of success appears to be a function of the percentage of creeping bentgrass present when treatment is initiated. There should be enough creeping bentgrass (at least 35%) in the stand to provide the plant species with a basis for conversion. If bentgrass is not present in sufficient quantity, serious consideration must be given to managing the *Poa annua* as the desired species. Otherwise, an aggressive bentgrass overseeding program must be initiated; possibly in combination with a total vegetation kill using glyphosate (Round Up®). Killing predominately *Poa annua* fairways with Round Up®, followed by bentgrass overseeding, will often result in a mixed *Poa annua* bentgrass stand that may only slightly favor bentgrass; however, this approach usually does provide enough of a bentgrass base for a conversion program to be initiated. Regardless of the starting point, it appears that perseverance is necessary as, while the conversion is steady, it is usually slow. Two applications per year, in the spring after seedhead production and in the fall just after *Poa annua* germination, can bring about a satisfactory conversion of a mixed *Poa annua*-creeping bentgrass stand in three to five years, depending on the amount of creeping bentgrass in the stand at the beginning. The spring application is timed to follow seedhead production because *Poa annua* becomes physiologically weakened due to the production of seed; coincidentally,

creeping bentgrass is entering a time of the year when it becomes vegetatively aggressive and it continues that way throughout the summer as compared to *Poa annua*. The fall application is positioned after *Poa annua* germination because seedling *Poa annua* is more sensitive to GA inhibitors than are the mature plants; this is in addition to the fact that *Poa annua* plants, regardless of age, become more competitive against creeping bentgrass in the fall.

The scenario for conversion from predominately *Poa annua* to predominately creeping bentgrass follows the same protocol whether it is on fairways or greens. However, since greens typically have more of the perennial type of annual bluegrass (*Poa annua* var. *reptans.*), conversion ultimately results in a mixed creeping bentgrass-perennial annual bluegrass turf. This is the result of stoloniferous species having a competitive advantage over non-stoloniferous species when the sward is treated with GA inhibiting compounds.

## Conclusion

Growth regulators, therefore, can be used to effectively enhance *Poa annua* as a turfgrass or, depending on the mechanism of action, can create significant problems for *Poa annua* with respect to its ability to compete with other species (particularly creeping bentgrass). The most important thing is to maintain consistency with respect to the direction chosen for growth regulator use.

**Dr. Thomas L. Watschke** is a Professor of Turfgrass Science at the Pennsylvania State University. He has degrees from Iowa State University, and Virginia Polytechnic Institute and State University. Dr. Watschke's principal areas of research activity are turfgrass weed control, growth regulation, and physiology, and micro-climate, as well as the effects of fertilizers on turfgrass growth and metabolism.

Please return the  
form and your  
payment to:

**TurfGrass TRENDS,**  
1775 T Street, NW,  
Washington, D.C.  
20009-7124

ORDER

**TurfGrass TRENDS**

ORDER

Name \_\_\_\_\_

Title \_\_\_\_\_

**YES,**  
SEND THE  
**TurfGrass TRENDS**  
SUBSCRIPTION THAT I  
HAVE MARKED.

Business \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

PAYMENT ENCLOSED:  6 MONTHS @ \$96.00  1 YEAR @ \$180.00

# Dr. Rieke Receives G.C.S.A.A. Distinguished Service Award

by Paul Dushane

Dr. Paul Rieke of the Michigan State University Crop and Soil Sciences Department was awarded the G.C.S.A.A. Distinguished Service award at the opening session of this year's conference and show. In an effort to allow past students who are now superintendents in other areas of the country, as well as all of us from Michigan who attended the show, a chance to see Dr. Rieke, a reception was held for him at the ever popular Michigan Hospitality Room.

Everyone in attendance was able to personally congratulate Paul for receiving the award and thank him for his 32 years of research and commitment to our industry. With his wife Anne at his side the ever humble and gracious professor thanked all the superintendents for their support and for the "excellent working relationship we have between the industry and M.S.U.", which he attributed for receiving the award. A cake and punch were then served and a banner congratulating Paul was signed by

those in attendance, at his request.

Dr. Rieke's many achievements include Bachelors and Masters degrees in Agronomy from the University of Illinois and a Doctorate in Soil Science from Michigan State University. He has been a G.C.S.A.A. seminar instructor and conference speaker numerous times, a contributing author to the G.C.S.A.A Golf Course Management magazine, a turf specialist for the Cooperative Extension and was the first university researcher to serve on the United States Golf Association green section research committee. In research, Dr. Rieke and his students have contributed greatly to the understanding of cultivation and topdressing.

This information, as well as his many insights on turf management that he has shared with each of us, makes him more than deserving of this award. Once again, congratulations Dr. Rieke, and thanks so much for all of your very worthy efforts.



## We Drive The World To Work And Play.

You may know Club Car as the most prestigious name on the golf course. But our Carryall Utility Vehicles are powerful enough to take on the toughest jobs at any work site, any day of the week. So no matter how hard you work or play, count on Club Car for world-class performance and the power to drive you there.



**CLUB CAR, INC.**

MICHIGAN BRANCH

(800) 482-8830

# Planning Your Future: One Man's Perspective

by Jerry Comeau, Manager, St. Clair Shores C.C.

After 33 years in the golf course business, I've decided to retire, effective November, 1997.

Looking back, I realize that the business has been very good to me, and I have no regrets for having selected golf as my life's work.

In 1964, my brother Bob and I formed the original Wolverine Golf Club as a publicly-held corporation with a roster of 167 stockholders. In 1972, I left the company to become the Project Manager for the construction of the St. Clair Shores (Municipal) Country Club, which opened for play in 1975.

Prior to my involvement with Wolverine Golf Club, I worked as a stockbroker with the Wall Street firm of Bache and Company (later known as Prudential Bache), where I became acutely aware of the need for good long-range financial planning; consequently, when my retirement date arrives I believe I will have some relatively secure sources of income provided for by a lifetime of investing.

Last winter, my employer, the City of St. Clair Shores, arranged for a seminar for prospective pre-retirees. The seminar consisted of a four-session intensive lecture series conducted by a company called "Successful Money Management Seminars, Inc." This series of lectures stressed the necessity of sound retirement planning.

Recently, our Golf Course Superintendent, Tim Dorner, CGCS, asked me to write an article for *The Patch of Green*, regarding my feelings about my pending retirement, with particular emphasis on the financial aspects.

Drawing upon my early training as a stockbroker and my experiences in the golf business, I've come to realize that, as individuals, we are the only ones who are responsible for our own financial well-being. And the only way for most of us to gain financial security is through diligent planning and discipline. We should not be lulled into thinking that somehow the "government" will take care of us in our later years. Indeed, a recent poll of young Americans revealed that more young people believed in UFO's than believed that Social Security will be there for their retirement. However, those of us facing retirement in the next few years, will probably look to three (3) sources of income:

1. Company Pension Plan
2. Social Security
3. Savings, investments and post-retirement, (work-related) income.

(1) Although some of us are fortunate to be in a company pension plan, many others will find that, in lieu of a pension, prospective employers offer other employment incentives such as "deferred compensation" plans which allow individuals to **postpone** the payment of income taxes on a percentage of their regular incomes (often with the employer contributing matching amounts) so that income taxes are paid only when the funds are later withdrawn as retirement income.

(2) Regarding the second possible source of income, Social Security, there is much talk in Washington lately

about the possibility of permitting workers to opt out of the Social Security System into a **private** plan similar to one now in effect in the Republic of Chile. (Older workers would be protected under the current system.) This proposal is **seriously** being considered and we may see it adopted in our lifetime.

(3) The third potential source of a retiree's income is that which is generated from investment income - stocks, bonds, mutual funds, etc. Many retirees also add to this income stream by continuing to work into their retirement years. It is this **third** source of income which may someday wind up being many retirees' **sole** source of funds, and these are the funds over which we have the most control. In this third category, IRA's, Deferred Compensation Plans, and savings accounts are the money sources that all workers should be considering...These are the things you should be involved in now - regardless of your age. In the past, whenever we've hired new permanent personnel, I've always encouraged them to take full advantage of any available deferred compensation plans such as 401(K) plans and Individual Retirement Accounts (IRA's). Almost without fail, these new employees would say that they "cannot afford" to set money aside for the future. They were missing the point, because the truth is that they could not afford to not get involved in planning for their financial futures.

Frequently, employees would say that, after taking care of family expenses, they would have no money "left over" for investments. My response is this: **The amount of tax-deferred money you set aside on a regular basis is not nearly as important as the discipline you acquire when you seriously invest for your future.** I also urged them to **pay themselves** first, even before paying the other bills.

Another argument I heard is that employees didn't want to accept the **risks** inherent in investing. And my answer was that if they couldn't handle risk, then at least set the money aside in "risk-free" investments such as government bonds. (There are no totally risk-free investments; even if you stored cash under a mattress years ago, you would have lost because the money would be worth less now than it was originally due to inflation.)

So now, as I near retirement, I wonder if there will be "enough" to provide for future needs. But, who knows? All I know is that I've done my best to provide for an uncertain future.

And you should, too.

For those of you who live in the Detroit area, and are concerned about your financial future - as we all should be - I'd recommend that you tune to WXYT, 1270 AM radio, from noon until 3:00 p.m. every Saturday and Sunday, where Financial Planner Rick Bloom - who is also a practicing Attorney and Certified Public Accountant - discusses personal finances with callers in his radio audience.

Why? Because **you alone** are responsible for your financial security.



## **NJK Associates, Inc.**

### **Water Management Systems**

#### **Specialists in Irrigation and Dewatering Pump Stations**

- ♦ ***Prefabricated Pump Stations***

200 GPM To 2000 GPM Skid Mount Stations.  
Centrifugal, Vertical Turbine, VFD & Remote Monitor / Control Options Available.

- ♦ ***Application Engineered Pump Stations***

Engineered Pump Stations Unique To Your Site Location & Application Needs.  
Wetwells - Intake Systems - Structures - Electrical Services

- ♦ ***Retrofit of Existing Pump Stations***

Incorporation Of Existing Equipment Into Pump Station Design For Maximum Economical Benefit.

- ♦ ***24 Hour Emergency Pump Station Service***

Around The Clock Service On Any Type Of Pump Station.  
Temporary Pumping Equipment Rentals.  
Emergency Retrofits

5476 Dixie Highway, Waterford, MI. 48329

**Phone: (810) 623-2783**

**Fax: (810) 623-7688**

## **Membership Meeting**

*by Kate Mason*

The last MBCGCSA meeting attended by 73 participants was held at Salt River Golf Club, New Baltimore, Michigan. The perennially discussed name change was finally voted on and approved by the membership. The new name, Greater Detroit Golf Course Superintendent's Association received more votes than Southeastern Michigan Golf Course Superintendent's Association.

Our Guest speaker for the meeting was Dr. Doug Pullman, a Limnologist (Aquatic Ecologist) from Aquest company. Dr. Pullman discussed the problems attributed to Zebra Mussels and some of the benefits.

Zebra Mussels feed on suspended nutrients in the water, and as these nutrients are extracted from the water, the clarity of the water increases. With increased clarity it is easier to find that errant golf ball. However, weeds which could not survive in low light conditions previously, thrive, creating other problems.

Superintendents who irrigate from waters infested with Zebra Mussels worst fears are that their irrigation system will some day be clogged and incapacitated by mussel colonies. Dr Pullman believes that the mussels will, and have created some problems with clogging intake screens. If the screens aren't checked and cleaned as needed, potential pump cavitation and failure may result. But for the Zebra Mussels to survive inside a closed irrigation system they require a constant flow of water to bathe them with nutrients and wash away their toxic waste. Reports of shells clogging sprinkler heads and nozzles appears to be more of a nuisance than a critical problem.

After the educational meeting was completed we moved over to the bowling alley and bowled.

Thanks again to Jerry Mc Vety and the staff at Salt River Golf Club for their hospitality.

### **AMERICAN MARINE** SHORE CONTROL

**BRIDGES • DAMS • BOARDWALKS**

**SEAWALLS - Steel • Wood  
PVC C LOC  
Boulders**

**Complete Jobs or Products Only  
FREE QUOTES - (810) 887-7855**

# New Member Roster

## **BOKSA, OLIVER**

AFFILIATE  
B&L Turfgrass Supply  
20202 Westland #100  
Southfield, MI 48075  
H-(810) 308-5752  
O-(810) 353-4250

## **BURGESS, JEFF**

(CARRIE)  
CLASS B  
Weston Golf & Country Club  
50 St. Phillip's Rd.  
Weston, Ont. M9P 2N6  
H-(905) 846-0161  
O-(416) 241-5551  
FAX (416) 241-0239

## **COLLINS, JOHN**

(ERIN)  
AFFILIATE  
Boylan Sales, Inc.  
4354 E. Bristol Rd.  
Burton, MI 48519  
H-(313) 761-8587  
O-(810) 742-3700  
FAX(810) 742-0095

## **Deep Aerification Service**

**Floyd McKay Deep Drill**  
**Southern Green Deep Tine Soil Reliever**



**GREAT GREENS OF AMERICA INC.**

682 S. RENAUD • GROSSE POINTE WOODS, MI 48236

# **1-800-942-5650**

## **FLOWER, MATT**

CLASS C  
Fox Hills Country Club  
8768 N. Territorial  
Plymouth, MI 48170  
H-(810) 669-7261  
O-(313) 459 4560



## **FOSTER, JIM**

(SHERRY)  
CLASS A  
Lakes of Taylor G.C.  
25555 Northline Rd.  
Taylor, MI 48180  
H-(313) 283-4547  
O-(313) 946-1673  
FAX (313) 946-1673



## **Turf Chemicals Inc.**

1011 E. Main  
P.O. Box 451  
Owosso, Michigan 48867  
Phone: (517) 725-7145

- RUSS HANCOCK
- LOU BECKMAN
- FRED MILLER
- TED KASEL
- JAY SIDDOCK
- CHRIS FOCHTMAN

**FOR ALL OF YOUR FERTILIZER,  
CHEMICAL AND GRASS SEED NEEDS**

**EXPERIENCED, DEPENDABLE PEOPLE TO SERVE YOU**



# New Member Roster

## OSBURN Industries



**CUSTOM TOP DRESSING BLENDS  
CUSTOM CONSTRUCTION BLENDS**

*Trap Sand ----- Best 530 • Best 535*

Cart Path Stone & Slag • Pea Pebble • Parking Lot Stone

**Call for Details (313) 292-4140** (Ask for Tim)



**FOUTY, MIKE**  
STUDENT  
745 Burcham Drive  
E. Lansing, MI 48824  
H-(517) 333-0739  
FAX (517) 333-0739



**GENTNER, BRIAN**  
(SHELLY)  
CLASS C  
Stonycroft Hills Golf Club  
2021 Yacmuth Dr. #50  
Rochester Hills, MI 48307-4069  
H-(810) 852-0697  
O-(810) 647-3610

## Tee Time® Quality Turf Care Products



- **Greens Grade Fertilizers with Nutralene**
- **Fairway Fertilizers with Nutralene**
- **Quality Sulfur Coated Urea Fertilizers**
- **Combination Products**
- **Granular Insecticides**
- **Granular Fungicides**



**Distributed by :**

**TURFGRASS, INC.**  
P. O. Box 667  
28064 Pontiac Trail  
S. Lyon, MI 48178

Call Toll Free:  
1-800-521-8873 or  
(810) 437-1427  
(Call Collect)



**HOGG, ROB**  
(LYNN)  
CLASS A  
Lake Erie Metro Park Golf Course  
27099 Larkin  
Trenton, MI 48183  
H-(313) 667-7923  
O-(313) 379-5020  
FAX (313) 379-3317

# New Member Roster



**HUGGET, MARK**  
 AFFILIATE  
 Hugget Sod Farm, Inc.  
 4114 E. Marlette Rd.  
 Marlette, MI 48454  
 H-(517) 635-7482  
 O-(517) 635-7482  
 FAX (517) 635-7484

**KOBOLDT, RUDOLPH**  
 (SHAUN)  
 CLASS C  
 Cattails Golf Club  
 31195 Wellington Dr. #26204  
 Novi, MI 48377  
 H-(810) 960-0253  
 O-(810) 486-2695  
 FAX (810) 486-5479



## Commercial Turf Services

*Contract Aerification Includes:*

Soil Reliever Aerifier  
 Terra Topper Top Dresser  
 Terra Power Broom

***Schedule your appointment early!***

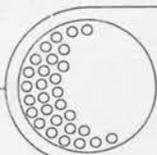
**1-800-231 LAWN (5296)**

**1-810-858-7700**

**FAX 1-810-338-0429**

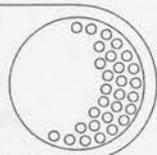


**LOUSIAS, MICHAEL**  
 CLASS C  
 ECI/Lakes of Taylor  
 24411 Calvin  
 Dearborn, MI 48124  
 H-(313) 359-0217  
 O-(313) 946-1673  
 FAX (313) 946-1673



## D&C DISTRIBUTORS, INC.

51000 Grand River, Wixom, MI 48393  
 810-349-7779 • 1-800-888-7779 • Fax 810-349-4670



**Michigan's Largest Stocking Dealer for R&R PRODUCTS**  
**YOUR ONE STOP SHOP FOR YOUR SUPPLY ITEMS:**  
**FLAGS - POLES - RAKES - CUPS - RICO MFG.**  
*Excellent Quality Personalized Tube Flags*

### WE ALSO HANDLE

AaB-SORBOIL EMULSIFIER	HOLE-IN-WHITE PAINT	PLASTIC SIGNS	TEE TOWELS
BAYCO SUPPLIES	HOSE • 3/4" & 1"	PLASTIC CHAIN	TIRE SEALANT
CLOVER LAPPING COMPOUND		RAIN SUITS	TIRE
DEDOES PARTS		RED MAX EQUIPMENT	TIRE CHANGERS
DRIVING RANGE EQUIPMENT	LEWIS LINE SUPPLIES	ROPE & STAKES	TRIMMER LINE & HEADS
EARTHWAY SPREADERS	LIFT RAMP/WORK TABLE	ROTARY BLADE GRINDERS	WHITE CEDAR FURNITURE
FAIRWAY MARKERS	MARFAX 00 LUBRICANT	ROTARY BLADES	WOODEN RAKES
FOX VALLEY MARKING PAINT	PAR AIDE SUPPLIES	SIMPLEX GRINDING EQUIPMENT	

**CALL US TOLL FREE - 800-888-7779**

**WE GUARANTEE WHAT WE SELL!**



**MYERS, DON**  
 (DIANA)  
 AFFILIATE  
 Great Greens of America  
 7864 Lakeview Blvd.  
 Clarkston, MI 48348  
 H-(810) 394-0947  
 O-(810) 995-2207

# New Member Roster



**O'LINN, TIMOTHY**  
CLASS C  
Cedar Glen Golf Club  
20306 Danbury Lane  
Harper Woods, MI 48225  
H-(313) 885-1442  
O-(810) 725-8156

**POLEY, TERRY L.**  
(AMY)  
CLASS B  
Pine Lake Country Club  
P.O. Box 240459  
Orchard Lake, MI 48524  
H-(810) 471-1253  
O-(810) 682-1322

**WAAGEN, KRISTIAN**  
(LISA)  
CLASS B  
Rattle Run Golf Course  
7163 St. Clair Hwy  
St. Clair, MI 48079  
O-(810) 329-4753

## KLEIN FERTILZERS, INC.

320 Garden Lane  
Fowlerville, MI 48836

*Fertilizer Specialists for 40 Years*

NEW



**NUTRIGANICS™**

The "Natural" Organic Fertilizer Choice  
for Turf and Ornamentals.

- ✘ Professional use granular weed and feed grades for lawn maintenance.
- ✘ Professional use specialty and slow release grades for golf courses, lawn maintenance and nurseries.
- ✘ Golf Club Green Brand: superior quality retail lawn fertilizers.
- ✘ Kleins special hydroseed fertilizers are far less abrasive on equipment.
- ✘ Custom Formulation for special needs, soil test recommendations and bids.
- ✘ Private label packaging for retailers.

*Wholesale Prices • Fast Delivery  
Large or Small Orders*

Phone Toll Free In Michigan

**1 (800) 642-3172**

or (517) 223-9148

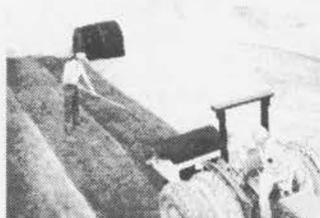


# HUGGETT SOD FARM, INC.

## ◆ TOP QUALITY SOD

- **PENNCROSS** or **PENNLINKS** or **PROVIDENCE BENT** (Grown on mason sand or loam soil).
- **SHADE MIX** (Bluegrass, Fescue mix for fairways & erosion control.) - Good on Sandy Soils or in Shade.
- **NUGGET + II** (Bluegrass Blend) - Grade A or Commercial Peat or Top Soil Base.

## SOIL FREE SOD AVAILABLE



**The Nifty  
Fifty  
Big Roll.**

- Less Labor
- Easy Laying
- Less Seams

**50  
Yds**

## ◆ BULK SPHAGNUM PEAT FOR GREENS MIX

## ◆ SHADE & ORNAMENTAL TREES

4114 East Marlette Rd. ♦ Marlette, MI 48453

**Ph: 800 - 432 - 2763**

**DELIVERY**  
Michigan - Ohio  
Indiana

## The Cutting Edge

by Doug Johanningsmeier

Cap screws or bolts are the "heart" of nearly all mechanical assemblies. The safety and performance of the equipment depends, therefore, on the strength and quality of the cap screws used. It is literally "held together" by these vital products.

The quality of any cap screw or bolt used must be known by the mechanic and can easily be identified by the head markings on the screw. These markings indicate the type of material used in their manufacture, according to standards established by S.A.E. (Society of Automotive Engineers and A.S.T.M. (American Society for Testing Materials).

Fasteners should be identified as...No lines or unmarked, 3 Lines, 4 Lines, 5 Lines, 6 Lines. No Lines or unmarked, are indeterminate quality, SAE grades 0-1-2 and made of low carbon steel with a tensile strength of 65,000 p.s.i. 3 Lines are common commercial quality automotive & AN bolts. SAE grade 5 are made of medium carbon steel and tempered, and have a tensile strength of 120,000 p.s.i. 4 Lines are medium commercial quality automotive & AN bolts. SAE grade 6, made of medium carbon steel, quenched and tempered, have a tensile strength 140,000 p.s.i. 6 Lines are the best commercial quality. N.A.S. and Aircraft screws S.A.E. grade 8, made from medium carbon alloy steel quenched and tempered, have a tensile strength of 150,000 p.s.i. Choose the correct bolt for the application. Check with the manufacturer when in doubt.

Thanks to Harold Berkal of C&J Fasteners, Inc. for his contribution to this article.



## TIRES FOR SOD AND SOIL.



WE SELL CARLISLE LAWN & GARDEN TIRES.  
**Tire Wholesalers Company, Inc.**

**CADILLAC  
WAREHOUSE**  
303 Hawthorne St.  
Cadillac, MI 49601  
(616) 775-6666

**TROY DISTRIBUTION  
CENTER**  
1783 E. 14 Mile  
Troy, MI 48083  
(810) 589-9910

**SOUTHFIELD  
WAREHOUSE**  
19240 W. 8 Mile  
Southfield, MI 48075  
(810) 354-9910

## 4 Ton Hydraulic Dump Cart



For information  
contact:

**Commercial Turf**  
PONTIAC

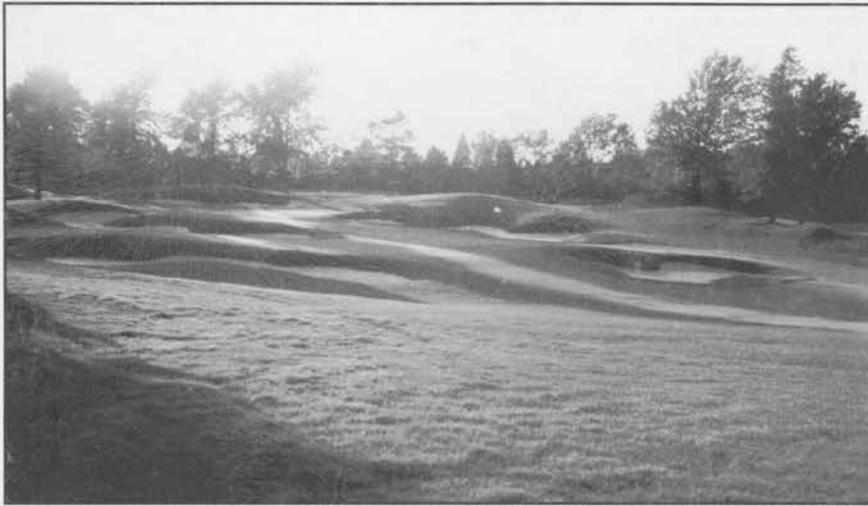
**(810) 858-7700**

OR

The Manufacturer  
**JWS Machinery**  
R #5 Strathroy  
Ontario N7G3H6  
(Just 40 miles  
east of Port Huron)

**Tel: (519) 245-3800**

- Buy outright
- Rent by the month
- Rent to purchase
- Financing available
- Models 3-11 tons
- Also Hi Lifts which elevate to dump into topdressers, etc.



## LOOKING FOR A FRESH APPROACH?

TURF DRAIN INC. GREEN RECONSTRUCTION



**TURF  
DRAIN** RENOVIATION DIVISION  
**INC.**

Michigan (810) 471-6750

## Congratulations to:

**Tom and Linda Gill**  
(Spartan Distributors) on  
the birth of their daughter,  
**Livia**, born October 8,  
1995.

**John Cooney** of Gowanie  
Country Club on his  
recent marriage to **Jackie  
Threthewey**.

**Jay Delcamp** of Katki  
Cousins, Oakland  
University on his recent  
marriage to **Terry Smith**.

# The Search is Over

Spartan Distributors - One Stop for ALL Your Turf and Irrigation Equipment Needs

*Equipment - From tee to green and elsewhere, we have all the quality equipment you need to get fast, professional results.*

- Knowledgeable Parts Staff*
- Award Winning Service Technicians*

*Irrigation - Full line supplier of the number one name in golf course irrigation - TORO*

- Parts and Service*
- I.A. Certified Designers on Staff*
- Independent Consultant and Contractor Referrals*
- Fountain Aerators*
- Low Voltage Landscape Lighting*

*Ask Us  
About the  
Latest Golf  
Equipment!*

*For more information on our many products and services, call*

**800-822-2216**

Auburn Hills, MI • Sparta, MI

**Spartan**   
Distributors

**TORO**



# Board Meeting Salt River Golf Club Monday, March 11, 1996

## ■ Finance (Szyndlar)

Checking- \$2,331.21  
Savings - \$32,530.27  
Foundation- \$346.98

## ■ Finance Committee established.

Chairman: Sec/Treasurer  
Committee: Ex. Board, Ex. Sec. and a Director (Murphy).

Purpose: To enable the board to be more aware of practices and procedures regarding finances, producing a more knowledgeable committee and continuity from year to year.

## ■ Membership ( Jones)

Membership 384. Applications approved - 6

## ■ Editorial (Dorner)

Magazine - Good response from advertisers. Mailing date - mid April.  
Roster - Mailing date is Jan. 31. Board acknowledged fine job done.

## ■ Awards (Murphy)

John Walter Award - 1996 presentation to be made at Christmas Party.  
Distinguished Service (Delcamp) - Recipient being considered. Presentation will be made at GAM Seminar March 23.

## ■ Hospitality Room (McKinley)

Good turn out, especially for the reception for Dr. Rieke. Board acknowledged great job done by committee.

## ■ GAM Seminar (Kolbe)

Date: Saturday, March 23, 1996  
Site: Detroit G.C.

## ■ Education (Jones)

Topics discussed in round table format.  
Preregistration - Board approved continuation of policy to be reviewed again next year.  
Survey of membership - Survey committee established as sub-committee of Education. Survey to be developed.

## ■ Round Table Discussions

Board approved format be used at all general membership meetings, with a facilitator presenting topics for discussion. Time frame - For 1/2 hour and before speaker.

## ■ Member Relations (McKinley)

Referrals - Board voted to establish the following policy:  
#1 B.S. to recommend to the requesting club that the Superintendent's salary be 10-15% of the operating budget, when asked.

#2 If the Salary amount is \$35,000 or more it will be printed on the referral. If it is less than \$35,000 " negotiable" will be printed in the space for amount..

## ■ Golf Partners at Meetings

Board approved a twosome policy. To promote member relations, members will only be allowed to form a twosome. The committee will complete the foursome. Policy will be stated on entry form.

## ■ Membership Recruitment

Letter will be mailed out to vendors requesting their help in distributing applications to new area superintendents.

## ■ Special Olympics - 15th year

Date: Friday, May 17, 1996  
Site: Bald Mountain  
Committee has been formed and has had first meeting.

## ■ Golf Day

Date: October 7, 1996  
Sites: Bay Pointe, Forest Lake, Red Run, Tam O'Shanter

## ■ Relief Fund

Attorney still working on.

## ■ Name Change

Vote will be taken at Salt River, today. Delcamp in charge.

## ■ GCSAA Affiliation

Now, that the GCSAA requirements passed on the National level, a vote must be taken of MBC members. Dushane designated June Meeting as the site.

## ■ Classification Standards

Round table discussion to be planned regarding establishing requirements for members to retain their classification.

## ■ US Open (Jones)

A tent will be on the 4th hole at Oakland Hills, open to managers and supts. Reception will be held there for Steve Glossinger and staff sponsored by MBC.

**Board Meeting  
Maple Lane Golf Club  
Wednesday, January 24, 1996**

- **Finance (Szyndlar)**  
Checking - \$599.50  
Savings - \$41,245.27  
Foundation - \$346.98
- **Membership (Jones)**  
Membership totals 377. Six membership applications approved by board. Membership and Member Relations chairs to develop a package to be used in promoting membership.
- **Member Relations (McKinley)**  
To make new members and guests welcome at general membership meetings, greeters from the membership at large will be appointed for each meeting. Board members now be introduced at meetings and are asked to give updates on their committees at that time.
- **Editorial (Dorner)**  
Magazine - Rate Card has been developed. Have members committed to submit copy. First issue to go out in April. Roster is being printed. Mailing date still February 1.
- **Heritage and Relief Funds** are still in the attorney's hands.
- **Name Change (Dushane)**  
Board approved proposal be voted on at March meeting. Suggested name: Greater Detroit GCSA, Southeastern Michigan GCSA and write in. Absentee ballots included with flyer.
- **Referrals (McKinley and Jones)**  
Considering establishing salary level standards on referrals mailed out by MBC.

---

### **Vendor Liaison Appointment**

The MBCGCSA Board of Directors has decided to appoint an industry liaison. This liaison will represent the Affiliate member concerns regarding the association and will report directly to Board.

In 1996, John Skaife will fill this position. Contact John at 810-698-2358 with any issues or concerns you may have. This is your opportunity as non-voting members to have your issues addressed.

We feel this is an important step in maintaining positive vendor relations and hope you will take full advantage of this opportunity. Please feel free to call John with any concerns or questions.

### **New Golf Policy**

The Board of Directors, with recommendation from the Member Relations Committee, will institute a new policy this year.

"When making meeting reservations for golf this year, a 'twosome only' will be accepted, with the Golf Committee rounding out the foursome."

This is done so members can meet and socialize with people other than their "usual" foursome. We trust you'll all have a great time adding new names to your list of friends.

## **COMMERCIAL FRONT MOWERS**



## **EASY DOES IT**

When it comes to mowing, the easier the better. And it doesn't get much better than a New Holland commercial front mower. Forward and reverse operation is simple thanks to the two-pedal hydrostatic drive. And rear-wheel hydrostatic steering makes turning a breeze. Just flip up the mower deck for simple, fast blade servicing and easy maintenance.

Stop in today and test drive a commercial front mower from New Holland.

### **Munn Ford Tractor**

3700 Lapeer Road  
Auburn Hills, Michigan 48326  
(810) 373-5000  
Fax: (810) 373-4445



**NEW HOLLAND**

# Thanks To You Who Supported The 1996 Hospitality Room And Made It Another Success Story!

Amturf Seeds  
Arthur Hills and Associates  
Blue Chip Enterprises  
C.J. Colein & Associates  
Caverly Contractors  
Club Car  
Commercial Pump  
Commercial Turf Equipment L.L.C.  
D&C Distributors  
D.G. Irrigation  
Great Greens of America  
Green and Grow  
Lebanon Chemical Corp.  
Lesco Inc.  
Marc Dutton Irrigation  
Matthews & Associates

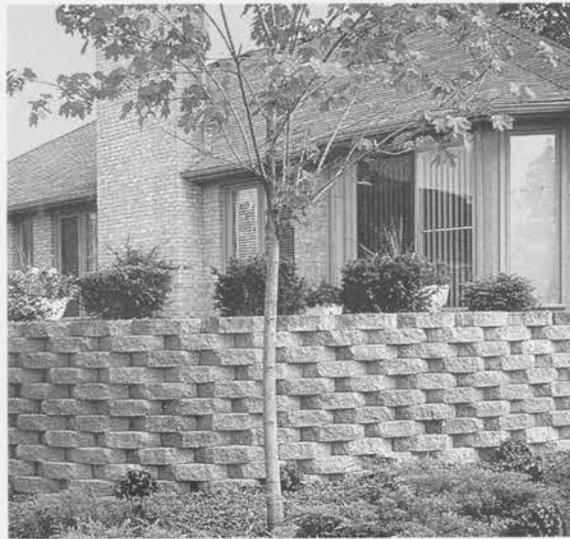
McGuire Sales Co.  
Osburn Industries Inc.  
Spartan Distributors  
Thesier Equipment Co.  
Turf Drain Inc.  
Turfgass, Inc.  
United Horticultural Supply  
Valley Turf Inc.  
W.F. Miller Co.  
Windsor Factory Supply  
Western Michigan GCSA  
Mid Michigan Turf Assn.  
Northern Turf Managers Assn.  
Michigan and Border Cities GCSA

And Members who made door donations

## THIS IS THE SMITH'S POOL DECK...



## THIS IS THE SMITH'S RETAINING WALL...



## THIS IS HOW THE SMITHS DID IT... 474-3211

Fendt Builder's Supply has the pavers (many colors and shapes) and Keystone self-locking retaining wall systems that can make your home a showplace. Call for the name of a dealer near you. The Symetry paver and the Keystone retaining walls are distributed exclusively through Fendt Dealers.



*The natural beauty of stone*

**Fendt Builder's Supply, Inc.**

22005 Gill Road • Farmington Hills, MI 48335 • 810-474-3211  
3285 West Liberty • Ann Arbor, MI 48103 • 313-663-4277



**THE GOLF IRRIGATION COMPANY**

## Now There's A Third Option...

### Backed Up With 30 Years of Experience.

In the past, golf course superintendents generally got two bids when replacing an irrigation system. But now there's a new option. Legacy, with three decades of experience. Legacy has brought together the world leader in gear-drive technology and the leader in control systems and valves. This combined track record is unsurpassed for quality products and experience.

#### Century - Your Link to Legacy

Whether you're replacing just one head, an entire system or planning a new course, call a Century golf professional. With more than 30 years of experience and an impressive list of satisfied customers, Century can show you the advantages of a third option. With Legacy.

**800-347-4272**

***CENTURY RAIN AID***

Legacy Now Available from Century Rain Aid in These Major Markets  
Florida, Georgia, Michigan, Northern Illinois, Northern Indiana,  
North Carolina, South Carolina, Wisconsin, Ontario



**THE GOLF IRRIGATION COMPANY**

# TURFGRASS INC.



*Serving you better with . . .*

Technical information  
Free timely delivery

*. . .Quality products*

<i>Fertilizers</i>	The Andersons, Lebanon, Sustane, Country Club, Nitroform, Nutralene, Peters, Scotts, Turfgrass Custom Blend
<i>Chemicals</i>	Ciba-Geigy, W.A. Cleary, Chipco, Roots, Daconil, Bayer, NAIAD, Monsanto, Dow-Elanco, Agrevo, Riverdale, PanaSea', Miller, Micro Mix, No-Mix, Consyst, Systec, 1998, Dimension, Sand-Aid, Dissolve, Roundup Pro
<i>Seeds</i>	Seed Research Grass Seed, Bloomcoat Wildflower Seed, Zajac Confidence Seed
<i>Spreaders &amp; Sprayers</i>	Cyclone, Spyker, Wheely, Chem-Pro D.B. Smith
<i>Golf Supplies</i>	Par Aide, Standard, Fore-Par, United Stockmen, Fox Valley, Master of the Links, Southern Golf Products
<i>Environmental Equipment</i>	Plia Pads, Haz-Store Storage Buildings
<i>Safety Equipment</i>	Full Line of Safety Equipment Including Mine Safety Equipment
<i>Soil Management</i>	Grid System, TerraFlow, TerraBond, TerraCover
<i>Markers</i>	Richway, Blazon
<i>Recycled Plastic</i>	Hammer's Recycled Plastics

**1-810-437-1427**

Office

**1-800-521-8873**

(Michigan Only)

**Keith Richards**  
**Dan Johanningsmeier**  
**Gene Johanningsmeier**  
**Doug Johanningsmeier**  
**Richard Locke**  
**Robert McNab**  
**Darold Howard**  
**Todd Griebe, Gen. Mgr.**

## Classifieds...

To place your Classified Ad contact *A Patch of Green* at (810) 362-1108, or fax your ad to (810) 362-1736, or mail your ad to P.O. Box 173, Troy, MI 48099. Payment must accompany ad! Charge: \$.85 per word. Minimum: \$25.00. Additional charge: borders, bold lettering or special setup.

Jacobsen fairway 7-gang, excellent shape \$3,500. Brouwer 7-gang PTO drive pull-type \$1,200. Brillion 8 ft. sure stand seeder 3-pt. hitch \$1,500. New Lawn Sod Farm (313) 481-0033.

**For Sale:** 4-blade Roseman Hi-cut (5-gang) and 6-blade Roseman Roller Drive (7-gang). Call (313) 944-3015.

**Wanted:** Jacobsen reel mower, 5-,7- or 9-gang in good to excellent shape. Fax or phone information & price. Huggett Sod Farm phone (517) 635-7482, fax (517) 635-7484.

**For Sale:** Smithco riding green roller. 3 seasons old, 100 hours, works well. \$3,500 or best offer. (616) 526-3073. Please leave message.

# Now.

**The Best Fairway Fertilizer Available  
For June Through September Feeding**

Start using Country Club homogeneous fertilizers, or give up the fight against uneven feeding. Each homogeneous granule contains the nitrogen, phosphorous, potash, and secondary and trace elements that turf requires. The efficient mix of water-soluble and insoluble nitrogen produces steady green-up while providing extended feeding. Call your local Lebanon distributor or 1-800-233-0628 for information.



BENHAM CHEMICAL	(810) 474-7474
RANDY ROGERS	(810) 673-7146
TURFGRASS, INC.	(810) 437-1427

## MBCGCSA 1996 Calendar

April 22	Joint w/Ontario GCSA	Beach Grove G & CC
May 17	Special Olympics Fund Raiser	Bald Mountain
June 10	Association Championship	Lochmoor Club
July 8 or 9	Joint w/Western MI GCSA	Polo Fields
August	Dinner Meeting	TBD
September	TBD	TBD
October 22	Annual Meeting	Maple Lane GC
November	GCSAA Seminar Topic: Preventative Maintenance of Turf Equipment	TBD
December	Superintendents Only	Birmingham CC
December 6	Xmas Party	Cherry Creek GC

• • • • •

## Western Michigan GCSA 1996 Calendar

April 29	Kalamazoo C.C.
May 21	Grand Haven Golf Club
June 11	Thoroughbred Golf Club
July 8 or 9	Polo Fields (Joint Meeting MBCGCSA)
Sept. 30	Gull Lake

• • • • •

## Northern Michigan Turf Managers Association 1996 Meeting Schedule

May 9th	Marquette Trails, Big Star Lake, Baldwin
June 3rd	Hidden Valley's Loon GC, Gaylord (MTF Fundraiser)
July 16	Alpena Golf Club, Alpena
August 13th	The Rose Golf Club, Leroy (25th Anniversary of NMTMA)
September 18	Treetops Rick Smith "Signature", Gaylord (MTF Fundraiser)
October	Boyne Highlands, Harbor Springs NMTMA Annual Meeting & Tuck Tate Championship

## Mid-Michigan Turf Association 1996 Schedule

May 14 (Tuesday)	Hunters Ridge
June 5 (Wednesday)	Verona Hills, Bad Axe
July 17 (Wednesday)	Goodrich CC, Goodrich
August 27 (Tuesday)	I.M.A. Brookwood, Burton
September	No Meeting
October 7 (Monday)	Fall Fund Raiser Warwick Hills, Grand Blanc
October 22 (Tuesday)	Annual Meeting - TBA
December 14 (Saturday)	Christmas Party Frankenmuth



### MICHIGAN AND BORDER CITIES GOLF COURSE SUPERINTENDENTS ASSOCIATION

P.O. BOX 173 • TROY, MICHIGAN 48099 • TEL (810) 362-1108 • FAX (810) 362-1736

#### APPLICATION FOR MEMBERSHIP

I hereby apply for membership in the Michigan & Border Cities Golf Course Superintendents Association, which is an affiliate Chapter of the Golf Course Superintendents Association of America.

Name:	Spouse:	
Home Address:		
City:	State:	Zip:
Business/Club:		
Business Address:		
City:	State:	Zip:
Mailing Address: (Check One)	<input type="checkbox"/> Home	<input type="checkbox"/> Business
Home Phone:	Office Phone:	Fax:
Are you a GCSAA member?:	Are you a CGCS (Certified Supt.)?:	

#### PRESENT POSITION

Title of Current Position:
Starting Date of Current Position:

#### PAST POSITIONS HELD

From/To	Title	Place of Employment	City/State

Each application must be signed (attested) by two members (SUPERINTENDENTS) of MBCGCSA, who certify as to the reliability of the applicant's information as stated above.

Attestor:	Date:
Attestor:	Date:

If accepted, I hereby certify that I will observe the constitution and by-laws of the Michigan and Border Cities Golf Course Superintendents Association and the Code of Ethics of the Golf Course Superintendents Association of America.

Signature of Applicant:	Date:
-------------------------	-------

Do not include a check with this application.

#### FOR MBCGCSA USE ONLY

Date Application Rec'd:	Date Approved:
Amt. Due:	Date Paid:
Class:	Membership No.:
Signature (Membership Chairman):	

## TEE-TO-GREEN QUALITY FROM JOHN DEERE



### 2653/2653A

Hydraulic reel drive, exceptional climbing ability, and 26- or 30-inch cutting units let you mow where others can't.



### GATOR VEHICLES\*

Your best choice for utility hauling with 4- and 6-wheel low-ground-pressure models available.



### 3215/3235

Both deliver ground-hugging fairway performance with five John Deere-manufactured 22-inch cutting units.



### 3365

Five 30-inch cutting units combine to deliver a quality cut over wide areas—from fairways to roughs.

### 1200A

New design features more power, more comfort, more attachments, and less noise.



### 1800

True utility performance with your choice of sprayer, spreader, and cargo box configurations.

### 220

This new walk-behind features an operator-presence safety system, new engine, and 11-bladed reel.



### 2243

Gas and diesel models both feature 18-hp engines and John Deere cutting units, for exceptional quality of cut.

For the name of your nearest distributor, or more information, call 800-537-8233. Or write John Deere, Dept. 956, P.O. Box 2795, Research Triangle Park, NC 27709-2795.



NEW, USED,  
PARTS, SERVICE  
PICK-UP & DELIVERY  
(800) 870-9791

# Thesier

## Equipment Co.

28342 PONTIAC TRAIL  
SOUTH LYON, MI 48178



MON. - FRI. - 8 a.m. to 6 p.m.  
THURS. - 8 a.m. to 7 p.m.  
SAT. - 9 a.m. to 3 p.m.  
(800) 870-9791



**Now, the most important pin on any green isn't the one with the flag.**



Imagine switching from 11-blade reels for greens to 7-blade reels for tees in about 30 seconds – without tools. Jacobsen's new Greens King™ V, with its patented FlashAttach™ system, lets you. Of course, you can also switch to verticut reels, spikers or even Jacobsen's own QuickRoll™ greens rolling system. The FlashAttach system saves time while increasing productivity. And it's just one of many innovative improvements.



Together, they offer a new level of operator comfort, plus easier operation and maintenance. Ask your Jacobsen distributor for a Greens King V demonstration today.



The new Greens King V. Pull a pin. Change a reel.

THE PROFESSIONAL'S CHOICE ON TURF.

**JACOBSEN  
TEXTRON**

Jacobsen Division of Textron, Inc.

**W.F. MILLER CO.**

TURF & INDUSTRIAL EQUIPMENT  
25125 TRANS-X, P.O. BOX 605, NOVI, MI 48376-0605  
(810) 349-4100 • Fax: (810) 349-0406

A PATCH OF GREEN

P.O. Box 173  
Troy, MI 48099  
USA

The Official Publication of the  
Michigan and Border Cities Golf  
Course Superintendents Association

\*\*\*\*\*5-DIGIT 48824  
PETE COOKINGHAM 15  
MSU  
MSU MAIN LIBRARY/W212  
E LANSING MI 48824

BULK RATE  
U.S. POSTAGE  
PAID  
PONTIAC  
MAILING SVC