THE BULL SHEET, official publication of the MIDWEST ASSOCIATION OF GOLF COURSE SUPERINTENDENTS.

	1707 Doard of Direc	
President	Jim Evans (Debby) Turnberry C.C.	Home: 815-455-3994 Office: 815-459-8570
Vice-Pres.	Mike Nass (Jean) Cantigny Links	Home: 279-7063 Office: 668-5170
2nd Vice-Pres.	Alan Fierst Oak Park C.C.	Home: 456-7815 Office: 453-7525
Sect'yTreas.	David Meyer (Penny) Indian Lakes C.C.	Home: 820-1040 Office: 529-0200
Exec. Secretary	Penny Meyer (David)	Office: 820-8181
	MAGCS Mailing Addr P. O. Box 248, Eola, IL	
Board	Brian C. Chalifoux (Can Olympia Fields C.C.	rol) Home: 481-1778 Office: 748-0495
	David E. Louttit Innsbrook C.C.	Home: 219-663-3830 Office: 219-980-3107
	Ray Schmitz (Jan) Flossmoor C.C.	Home: 815-469-2773 Office: 798-2498
	Bruce Williams (Roxand Bob O'Link G.C.	e) Home: 680-1074 Office: 432-0088
	Dennis Wilson (Pat) Sunset Ridge C.C.	Home: 441-8387 Office: 446-5222
Pres. Emeritus	Dave Behrman (Chris) Deer Creek G.C.	Home: 748-5320 Office: 672-5887

1987 Board of Directors

Official Photographer Raymond Schmitz

ECKHOFF AWARD





We are not copyrighted and would like to share our articles with any who would like to use them, but please give the author and "The Bull Sheet" credit.

Editor — Fred D. Opperman, CGCS 1022 Shady Lane Glen Ellyn, IL 60137 Phone (312) 469-3444

Bull Sheet printed by Ever-Redi Printing, 5100 East Ave., Countryside, IL 60525.

The **Bull Sheet** is published once a month. All articles are required by the 10th of the month to make the next issue. Advertising is sold by the column inch, by the quarter page, half page, and by the full page. All artwork to be finished and in black and white. Circulation is over 500 issues per month.



President's Message

Spring is right around the corner. Hopefully, the mild winter and early, warm weather will not change to our typical cold, wet spring. All indications point to another early, warm, dry spring similar to 85 and 86. The turfgrass that I have seen this spring looks healthy and ready to break dormancy. Thankfully, we have avoided desiccation, crown hydration, or severe winter disease damage. Everyone was surprised at the early, summer-like weather conditions that occurred during the first weekend of March. The golfers were ready to play, however, course conditions certainly did not warrant heavy play. In many cases, the greens were wet, soft, and frozen below the grass surface. It is difficult to convince club officials and members to stay off the greens when the weather is near perfect for golf. The decision to open or close greens should be made only by the course superintendent. We are the ones that have to live with all decisions pertaining to the golf course.

As was announced in the March issue of the Bull Sheet, Pat Klein, superintendent at Hillcrest Country Club and M.A.G.C.S. member died on February 21 at the age of 27. Pat fought courageously for over two years against cancer. Surviving are his wife, Sue, and two children, ages four and two. A a young stage of life, Pat had proven to be a good family man, and a conscientious, dedicated superintendent that truly loved his work. On behalf of M.A.G.C.S., we express our deepest sympathy to family and friends who all feel a tremendous loss. To help with some of the financial burden the family will encounter, the Patrick E. Klein Fund has been established for those who wish to donate some money for a very worthy cause. For more information, look in this issue of the Bull Sheet, or call me, or Bruce Sering at the Glen View Club. Also, I'm happy to report the proceeds from the Annual Gin Tournament held March 23 will be donated to the Klein family.

I want to thank the membership of M.A.G.C.S., Inc. for the prompt remittance of their annual dues payments. We had over 95% of all dues paid before the March 1 deadline which has to be a record. This demonstrates a continued strong interest in support for the programs M.A.G.C.S. provides for it's members. Membership this year will probably reach the 500 mark for the first time, including almost 200 voting members, making us the third largest chapter association in the country. In voting strength, we are not far behind the Northern Ohio Chapter or the Florida Chapter. The Chicagoland area happens to be the golf center of the world containing the best maintained golf courses anywhere in the world. Eventually, we will constitute the largest and most active membershp of any chapter

PRESIDENT'S MESSAGE (cont'd from page 2)

association in the country. If you know a fellow superintendent, assistant superintendent, golf course employee or others interested in promoting the M.A.G.C.S., encourage them to join. We welcome any new members interested in becoming active members. We want people to attend our monthly meetings on a regular basis and have a positive influence on the association.

The publication you are reading right now, the **Bull Sheet**, has recently received the Eckhoff Award from the National Golf Foundation. This is the third year we have received an award from N.G.F. This year we won first place for excellence in golf journalism. Our congratulations to editor, Fred Opperman for the fine job he has done in editing, assembling, and improving the quality of the **Bull Sheet**. We would also like to thank the companies that advertise and purchase column space to help support the success of our monthly publication.

The first M.A.G.C.S., Inc. golf outing of 1987 will be held at Inverness Golf Club in Palatine on Thursday, April 23. The golf and arrangements committee have done a fine job of organizing the days activities and golf event. I personally would like to see more of our meetings scheduled during a week day other than Monday. Monday is definitely the busiest day of the work week for us. The course is closed, so we schedule special projects for Monday. Many times it is difficult to leave the course because of the heavy work load. Tuesday and Thursday are usually slower days that afford more time to get away from the golf course. Hopefully, the weather on the 23rd will be beautiful, and we will have an opportunity to golf and enjoy the comradeship of our friends and fellow superintendents.

James E. Evans

Bruce Williams Biography

Bruce R. Williams has been a superintendent for eight years — all at Bob O'Link Golf Club, where he served as assistant superintendent and moved up to replace his father, Bob, when he retired. Bruce has been a Director of the MAGCS for three years. He has served both as the Arrangements & Education Chairman in this time. On the National scale he has served two years on the GCSAA Education Committee and is presently serving on the Certification and Public Relations Committee. Bruce is a past President of the Chicagoland GCSA. Besides serving on various committees, he has found time to write many articles both for our newsletter and our national magazine. Bruce and Roxane have two children, Blake age 5 and Claire who is 1.

Earthworms — Friend or Foe? by Bruce R. Williams, CGCS

Bob O'Link Golf Club

Earthworms are present in most topsoils throughout the humid areas of the United States. They eat organic leaf litter and thatch. While there are 5 families and 1800 species of earthworms reported there are only a few genera which affect golf course turf. These include **Lumbricus terrestris**, **Allolobophora longa**, and **Allolobophora nocturna**. These species form permanent burrows (verticle) and do not burrow laterally unless food becomes scarce.

Over the years earthworms have been praised by turf managers for their role in thatch reduction. Many people think of them as nature's aerators. There is no question that the earthworm has had a positive impact on golf course turf. The only negative aspects reported, until recently, were the castings (feces) left behind on the finer maintained playing surfaces (greens & tees). It is not my intention to dispute the beneficial effects of earthworms.

In the 1980's we have seen great improvements in the playing conditions of fairways. Most noticeably there has been a reduction in the height of cut on bentgrass fairways. Triplex mowing has enabled us to reduce the height of cut from the 3/4- 1 inch range to the 1/2 - 5/8 inch range. It may only be coincidental but earthworm activity is much more noticeable under the reduced height of cut. The elimination of Bandane, Chlordane, and arsenicals in the late 1970's may also have contributed to increases in the earthworm population.

One acre can contain as many as 3,000,000 earthworms which weigh 1,800 pounds and can produce 25 tons of casts each year. In the Spring, when soil temperatures are in the 40-50 F range, earthworms are most active and it is not common to see as many as 20 casts per square foot. These casts are an attempt to clean out tunnels and are composed of soil and feces.

Earthworms, like canadian geese, pose no problem with their mere existence but rather by their byproducts. Casts are often so prevalent that fairways look as though they were recently aerated. This can have a negative effect on playability. The castings begin to take their tool on mowing equipment and can adversely affect reels and bedknives. Aesthetics are reduced on this fine turf.

The dilemma we face is whether the beneficial factors of earthworms outweigh the negative factors. This must be judged by the individual Golf Course Superintendent. There is no clearcut point of economic threshold. If you have a problem there is very little information regarding control and no materials labeled specifically for earthworm control.

While treating for other pests we have found that some chemicals will reduce the earthworm population. Benomyl seems to act as an irritant and sends earthworms deeper into the soil without killing them. The casts are eliminated with this material and we may still derive the beneficial effects. Turcam, Orthene, and carbaryl will reduce the population. The synthetic pyrethrins will bring earthworms to the surface for collection.

At present there aren't any noticeable side effects from the control of earthworms on fairways. Mechanical aeration has improved and may compensate. Thatch is being managed with clipping removal but we might need vertical mowing if a problem develops in the future.



--Save--"Mondays -- Golf Course Maintenance Day"

by Julius Albaugh, Westmoreland C.C.

The policy at many private clubs for a number of years has been to close the golf courses on Mondays to allow for maintenance of the golf courses. A few years ago this policy started to show signs of erosion when several private clubs opted to use a few Mondays a year for private outside parties. These parties have been a lucrative source of income for private clubs and golf course maintenance has been able to survive because the parties have been kept in moderation. A good policy to follow when scheduling special Monday events is to never book them on consecutive Mondays or on Mondays prior to Holidays or key mid-week golfing events.

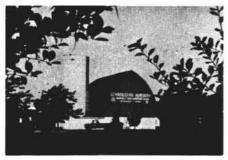
In recent years many private clubs have experienced a more active golfing membership. This increased golfing activity has resulted in delays in tee-off times and crowded golf course conditions. To relieve the crowded conditions some are suggesting that the golf courses be opened on Mondays for the memberships. This could have a serious effect on golf course maintenance and playing conditions that private club members have grown used to. Today also, we have the greatest demand in history for excellence in the playing conditions of the golf course. As play increases golf course maintenance is forced to play more emphasis on cultural practices in order to meet the demand. The need for one day a week set aside for golf course maintenance is greater than ever before.

Few of the golfing membership of a club realize the scope of golf course maintenance and how it effects the game of golf. For years Mondays have been Golf Course Maintenance Day and the cultural practice activities have taken place behind the scenes. Many have formed the opinion that golf course maintenance involves no more than mowing grass, raking a sand trap or changing the cup location on the green.

Cultural practices are timely tasks and most often require that an area be taken out of play for a time during the process. Aerification, vertical mowing and topdressing are the cultural practices which must be performed in order to meet the increased demand for excellence in playability. Cultural practices require ideal weather conditions, a beautiful sunny, drying day is the best — the same as a great day for golfing. A cloudy, damp day forces the postponement of cultural practice activities. Cultural practices are not one step operations.

Aerification, the term used for the cultivation of turfgrass areas requires a number of steps. First there is the coring, the removal of soil and turfgrass cores from the soil to the surface. Next, the cores must be allowed a time to dry. This is followed by the dispersion of the cores, the soil portion is broken up and worked into the turf as topdressing and the turfgrass portion is left of the surface. Dispersion is accomplished by multiple mowing, vertical mowing or dragging. Next is the clean up operation which is done by blowing, sweeping and picking up the debris. The final step is irrigation to revive the turfgrass plants from the mechanical abuse incurred during the process. Aerification is generally performed during the spring and/or fall and may be needed on tees, greens, fairaways and traffic areas. The amount of play, amount of play under wet conditions and type of soil all effect the amount of compaction and (continued page 6)

Schroeder's Nursery, Inc.



TREES

EVERGREENS

RICHARD A. SCHROEDER DON VIRGENS CARL DRAVIS

SHRUBS

Specializing in Large Caliper Trees We offer complete installation

TELEPHONE: 312 - 546-9444

23379 W. Route 60 - Grayslake, Illinois 60030 Located on Route 60 between Rt. 12 (VOLO) & Rt. 83 (IVANHOE)



3344 Lincoln St., Franklin Park, IL 60131



PAR EX PROFESSIONAL PRODUCTS[®] with IBDU[®]...with IBDU/SCU[®]... with ADDITIVES.



RONSTAR® is a registered trademark of RHONE-POULENC, INC. DURSBAN® is a registered trademark of DOW CHEMICAL, USA



DACTHAL® is a registered trademark of S.D.S. BIOTECH ©OFTANOL is a registered trademark of the Parent Company of Farben Fabriken-Bayer, GmbH. Leberkosen

IRRIGATION **PROBLEMS SOLVED** SPECIALIZING IN PUMP HOUSE TROUBLESHOOTING CONTROL PANELS REPAIRED, REVAMPED OR REPLACED WITH STATE OF THE ART COMPONENTS PUMPS **CENTRIFUGAL & TURBINE** PACKING OR MECHANICAL SEALS VALVES PRESSURE REDUCING, CHECK VALVES GATE VALVES & PRESSURE RELIEF VALVES FOR FURTHER INFORMATION CONTACT: LYN-TECH SYSTEMS (312) 289-7579 ELECTRICAL, MECHANICAL AND PUMPING MACHINERY POA ANNUA FREE **BENT GRASS SOD Grown In Fumigated Soil** Free from Foreign Strains of Grass and Weeds PENNCROSS BENT SOD PENNEAGE BENT SOD -100 BLEND SOD FULL LINE OF LANDSCAPE SUPPLIES DECORATIVE STONE LANDSCAPE TIMBERS Illinois' largest sod grower

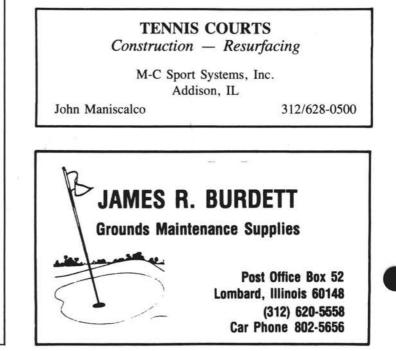
3900 West 167th Street, Markham, IL 60426 312-596-7200

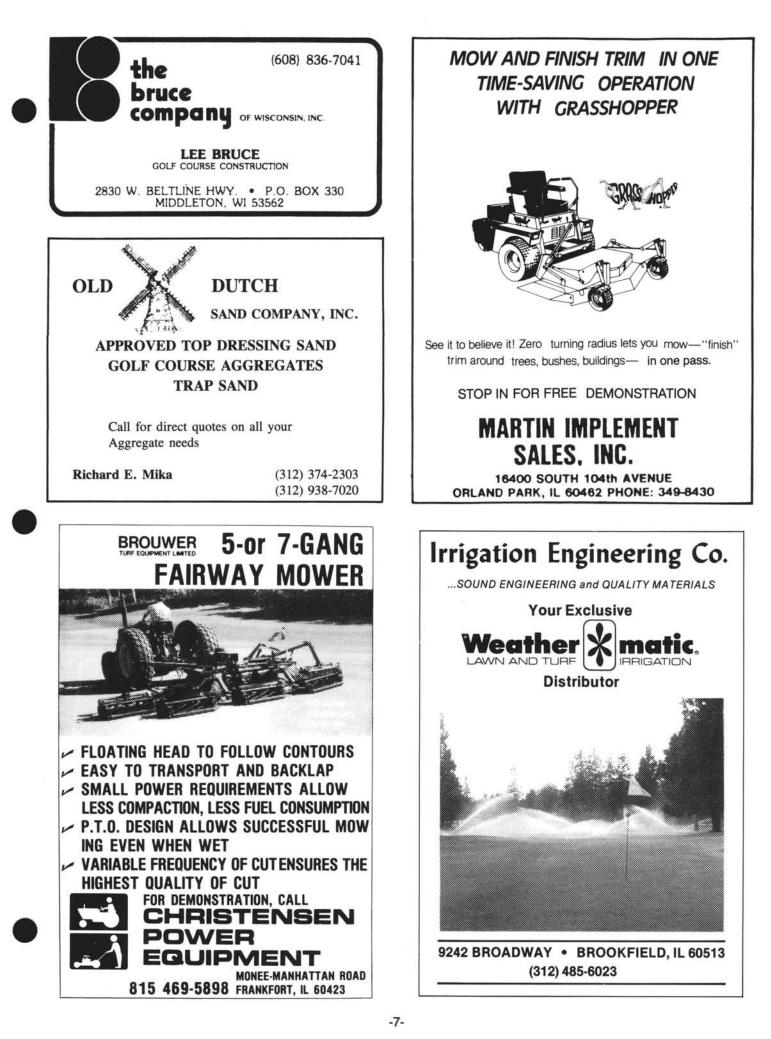
(Save - Mondays cont'd.)

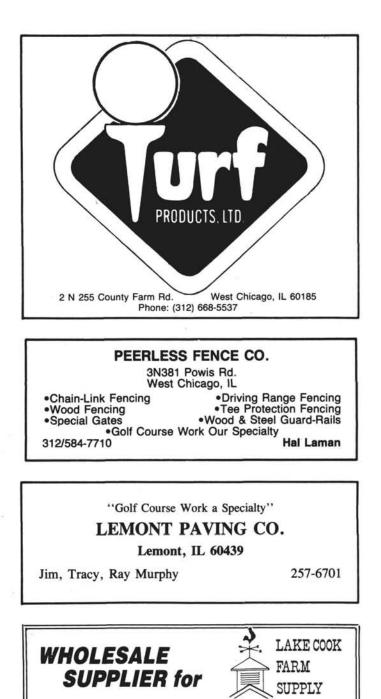
dictate the frequency of aerification. The scope of the area to be aerified is limited to what can be cleaned up in a 10 to 12 hour working day. If greens, tees and fairways are to be aerified, the process can take up to four Mondays.

Vertical mowing is a cultural practice performed to reduce the amount of thatch, remove grain from greens and to improve the playability of golfing turf. The practice of vertical mowing is coming more and more into the picture. A current trend is to use light-weight mowing equipment on fairways. While this practice is very beneficial in reducing soil compaction caused by mowing equipment and improving the appearance and playability, it can impose a problem - thatch development. Under certain growth conditions the lightweight cutting units are not heavy enough to maintain the desired cutting height and thus can produce a thatchy condition. To correct this, vertical mowing may be necessary. Vertical mowing pulls much debris from the turf and the process is just as time consuming as aerification. At present, vertical mowing of fairways is not a yearly task, but in the near future it is likely to become a yearly chore. Vertical mowing of greens is commonly practiced on two to four week intervals. Greens are often vertically mowed lightly in two directions and this is followed by a conventional mowing as a clean up operation. The time required to vertically mow 20 greens with modern equipment is around six hours.

Many golf courses have gone on a sand topdressing program on greens. Several have expanded the practice to tees. Once the sand topdresing program is started, one is committed to it for life. To stop the program would produce a sand layer in the greens which in a few years would stop air and water movement in the soil. This would produce a condition in which it would be very difficult to grow turf. The sand topdressing program requires a light topdressing every three weeks during the growing season. The time required to topdress 18 to 20 greens can take up to ten hours. There is the applying of the sand, a time for the sand to dry, the brushing of the sand into the turf and final clean up of the area. (continued page 8)

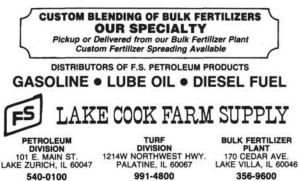






Landscapers • Nurserymen • Golf Courses • Turf and Agricultural Chemicals • Common and Elite Turf Grass Seed • Union Early Table

- Union Fork Tools
- Peat Moss Bark Mulches
- Root Lowell Sprayers
- Shaws and F.S. Fertilizers



(Save - Mondays cont'd.)

The performance of cultural practices are not the only task for which a golf course maintenance day is needed. Many fertilizer and pesticide applications require "watering in" after the material has been applied. To omit the "watering in", in the case of fertilizer applications could result in a fertilizer burn to the turfgrass. Certain pesticides, especially those used for grub control lose their effectiveness in a few hours if not watered in immediately. For these reasons it is best to make the applications while the golf course is closed and water can be applied promptly.

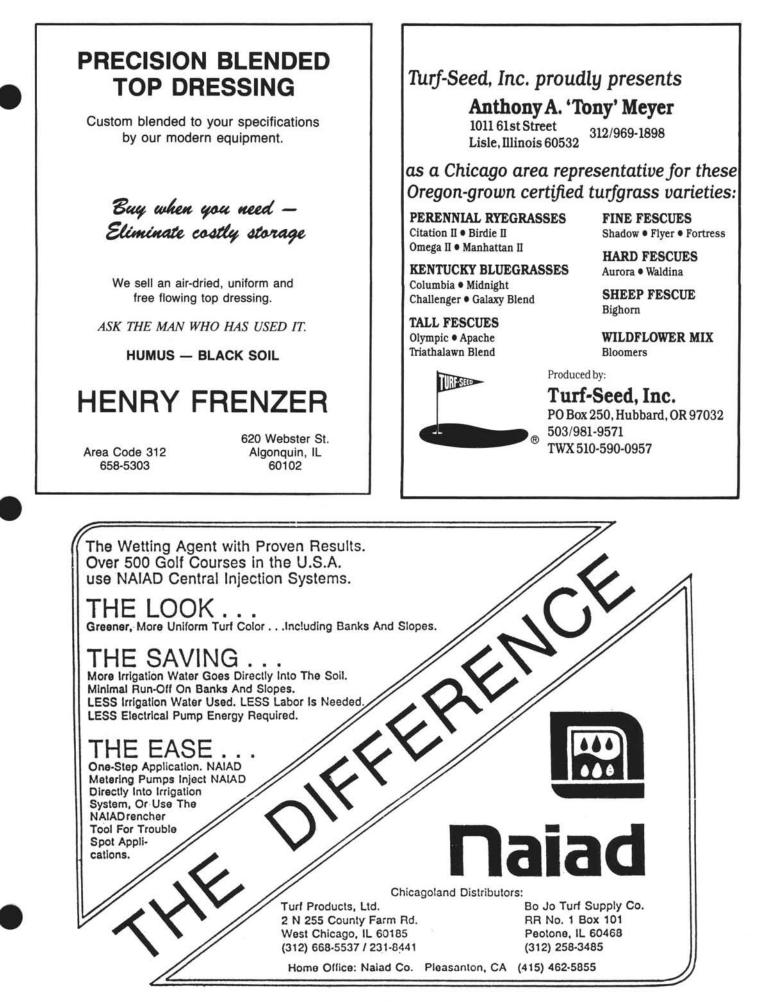
A golf course maintenance day is also used to replenish soil moisture lost during an extended dry period. A common practice is to irrigate just enough each night to allow the turf to survive through the next day. By doing this we assure dry playable conditions for the early morning golfers. After about a week of this practice we lose our desired soil moisture level and additional irrigation is needed. The added irrigation does produce wet areas and poor golfing conditions the next morning. By watering more on Sunday nights, and Mondays, time is allowed for the water to soak in before Tuesday mornings play.

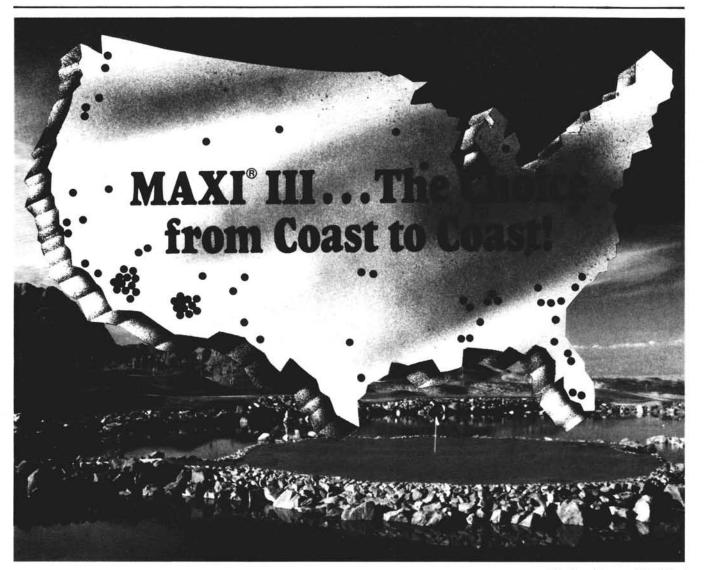
Golf course maintenance while there are golfers on the golf course is not the most efficient operation. Out of common courtesy to not interfere with the individuals playing golf, much time is wasted setting idle while the golfer plays his or her ball. Our productivity is limited. When maintenance time is lost to the weather or there is a mid-week tournament to prepare for, Monday is the only day available to catch up on maintenance operations.

On Mondays a golf course maintenance staff strives to perform most all maintenance which could interfere with the game of golf. Whether it be a noisy operation such as removal of a tree near a tee or green, or the preparation of a flower bed near a tee for the convenience of the golfers the jobs are handled on Monday. Cross-cut mowing of fairways are scheduled for Monday because of the added time involved and working around play would even make it longer. Part of our maintenance goal is to provide the most pleasant golfing conditions and sometimes to do this there are jobs to do best when no one is around.

While many clubs do allow club employees, caddies and a few outside guests to play on Mondays, there is not always the most ideal golfing conditions provided. These golfers play on "what you see is what you get" basis! If a green is being topdressed, they putt through the sand or skip the hole. If a fairway is being aerified and grounds crew members are working on the hole, the hole is skipped. If a sprinkler is operating, they play around it. They are well aware that maintenance comes first. They play under a condition we would not want to subject a dues paying member to.

Few of the golfing membership of a club to realize the scope of golf course maintenance. Many golf course superintendents have answered the telephone on a Monday to the surprise of a club member, who will often state, "What are you doing at the club on your day off?" They felt that because the club was closed, all club employees had the day off. Golf course maintenance is much more complicated than operating a lawn mower. The behind the scenes preventative and corrective maintenance practices that take place on Mondays never enter their minds. Should "Mondays — Golf Course Maintenance Day" be lost, many are in for a big surprise, the behind the scenes work will be brought out into the open.





Golf's Premier Irrigation Control System

Stadium Course, PGA West

Repeatedly the choice of the world's leading architects and superintendents, MAXI® III from Rain Bird is recognized as golf course

irrigation's most exciting and versatile computerized control system.

Sophisticated. Reliable. Powerful. MAXI® III offers state-of-the-art irrigation technology. An IBM computer, too. Not to mention the ability to handle a wide range of important functions. Lighting—security—and a host of other necessary operations.

Legends in the making—the great golf courses of tomorrow are being built today. And MAXI® III is there!



Controllers. Rotors. 50 years of golf course irrigation experience.

Rain Bird — the choice from coast to coast

Century Rain Aid



Illinois: 341 Lively Blvd., Elk Grove Village, IL 60007...... 312-640-6660 Indiana:

51772-2 Cassopolis Street, RTE #19, Elkhart, IN 46514.219-262-2270

Indiana, Iowa, Wisconsin TOLL FREE number... 800/323-2352