

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

1986 Board of Directors

| | | |
|------------------------|--|--|
| President | Dave Behrman (Chris) Deer Creek G.C. | Home: 748-5320 Office: 672-5887 |
| Vice-Pres. | Jim Evans (Debby) Turnberry C.C. | Home: 815-455-3994 Office: 815-459-8570 |
| 2nd Vice-Pres. | Mike Nass (Jean) Bryn Mawr C.C. | Home: 297-7063 Office: 677-4112 |
| Sect'y.-Treas. | David Meyer (Penny) Indian Lakes C.C. | Home: 820-1040 Office: 529-0200 |
| Exec. Secretary | Penny Meyer (Dave) | Office: 820-1040 |

MAGCS Mailing Address
P. O. Box 390, Bloomingdale, IL 60108

| | | |
|--------------|-------------------------|--------------------|
| Board | Dennis Wilson | Home: 441-8387 |
| | Sunset Ridge C.C. | Office: 446-5222 |
| | Alan Fierst | Home: 456-7815 |
| | Oak Park C.C. | Office: 453-7525 |
| | Ray Schmitz (Jan) | Home: 815-469-2773 |
| | Flossmoor C.C. | Office: 798-2498 |
| | Bruce Williams (Roxane) | Home: 680-1074 |
| | Bob O'Link G.C. | Office: 432-0088 |
| | Roger Stewart (Sue) | Home: 961-2803 |
| | Riverside Golf Club | Work: 447-1049 |



President's Message

As I end my term as President, I look back over a very interesting year.

Early on we took the final steps in becoming MAGCS, Inc., a decision well planned and executed by your Board of Directors. As the year progressed we unfortunately saw three experienced and motivated board members make career decisions that made it impossible to serve out their terms. However, thanks to the diligence of the remaining few along with sound advice from our past presidents, the association continued to progress. I would also like to thank Dennis Wilson and our president twice removed, Roger Stewart, who readily joined the Board of Directors to help in our time of need. Other highlights of the year included:

- Meeting attendance being at an all-time high.
- An invitation to participate in the Western Open.
- Continued support of scholarship and research.
- The employment relations committee being actively used by clubs seeking superintendents in the Chicago area.
- The continuation of quality educational opportunities for our membership.
- The nomination of Lenny Berg as a candidate for national office.

As an association we solidified projects set up by my predecessors and ventured into some new areas for the first time. For me it was a pleasure to be your representative at allied functions and to guide the association towards the future.

As always, we have excellent people who will carry on the traditions and strike out new paths. I wish the best of luck to the new board and would like to thank everyone who helped make this year so successful.

David R. Behrman, CGCS

ECKHOFF AWARD

For Excellence In Golf Journalism



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.

Refining Golf Course Maintenance Practices — Have We Gone Too Far?

Larry W. Gilhuly

“When against one’s will, one is highly pressured into making a hurried decision, the best answer is always no, because no is more easily changed to yes than yes is changed to no.”

Charles E. Nielson

Have you ever been in this situation? Does the request to have the greens 9’ to 9’6” on a continual basis sound familiar? If so, welcome to golf course maintenance in the 1980’s. With the advent of TV, golf played every week on nearly perfect golf courses peaked for the one week of the event. Regular membership players have become more demanding concerning maintenance practices that are sometimes questionable and, many times, detrimental to good growing conditions.

Have we gone too far in our golf course maintenance practices? Actually, there are two answers to this question. Yes, we have gone too far in some areas such as the great desire for “fast” greens on a year-round basis. In other areas we have not gone far enough, such as *Poa annua* control or *Poa annua* breeding and methods to reduce maintenance costs through breeding efforts.

GREENS

Undoubtedly, the main area of concern and emphasis in the maintenance operations must be on greens. The ultimate goal is to provide the best putting surfaces possible given the soil, turf type, manpower, irrigation system, etc. But, what does the word “best” mean? To some it may mean greens as fast as possible. To others the speed may be secondary to consistency and smoothness. Still others are completely satisfied with slower greens that are smooth and covered with grass. It is this area of putting green speed where pressure has been, and continues to be, applied.

How many of us have had the comment, “Make the greens as fast as possible.” This request is many times made regardless of the negatives effects that occur for actual growing of the grass plant. In some cases, it can be done due to the mild climate and lack of play. For example, Cypress Point Golf Club in the Monterey Peninsula area has a mild climate with only 13,000 rounds of golf a year. Under these conditions they have gone from a speed of 7’4” to 8’2” in 1976 to an average of 9’6” to 10’ in 1986. The only problem with this information is that very few, if any, clubs have this small amount of play; yet, those who have played Cypress Point come back to their home club and want the same results. This is simply not realistic and should not be the goal of the superintendent or club.

SPEED AND THE USGA STIMPMETER

In 1976, a new tool called the USGA Speedstick (Stimpmeter) was used to determine a standard by which putting green speeds could be judged. In 1976, the average speed of putting greens was 6’6” across the nation. The slowest greens were found to be approximately 4’11”, while the fastest were approximately 8’6” in the western United States. It is interesting to go back and review some of the speeds at various clubs in the western United States. For example, in 1976 the average speed at Seattle Golf Club was 7’6”, Broadmoor Golf Club was 6’11” to 7’6”, Eugene Country Club was in the 7’ to 7’1” range, while Waverly Golf Club was 6’ to 7’, Pebble Beach 7’6”, Los Angeles Country Club 6’9” to 7’4” and Cypress Point Golf

Club 7’4” to 8’2”! By today’s standards, many of these greens would be unacceptable. Personally, I feel a speed of 7’6” to 8’6” will provide plenty of speed for regular membership play and if more speed is desired, simple double mowing should be adequate.

When one looks at these readings and compares them to greens found today in the West, it is easy to point the finger of blame at the Stimpmeter itself. This is true to some extent; however, the blame can be equally shared by overzealous club members, green committee members, professionals and superintendents alike that have gotten into speed wars with neighboring clubs to have the “fastest greens in town”. As a result, we have seen an increase in moss invasion, disease and weeds on putting surfaces that are being mowed lower and lower with less and less nitrogen. It is time that golf courses begin to return to more reasonable speeds and healthier turf.

METHODS TO INCREASE SPEED WITHOUT LOWERING MOWING HEIGHT

There are basic programs that have been discussed for several years in regard to increased putting green speed without lowering mowing heights. The standard method many superintendents have used recently is a light and frequent topdressing program. A recent study completed at the University of Nebraska by Dr. Robert Shearman indicates that ball roll was significantly greater on turf receiving light and frequent sand topdressing than on those receiving the traditional aerification and topdressing treatment. In addition to this finding, there are other interesting ramifications from the light and frequent topdressing program. Basically, disease increased with the light topdressing program and became less severe when surfactants were used.

MOWING HEIGHTS AND FREQUENCY

Have we gone too far in our desire for “tight” fairways? If you are a superintendent in Kentucky bluegrass country, many times the answer is yes. However, I have seen some outstanding Kentucky bluegrass courses in the state of Utah that are consistently mowed at $\frac{3}{4}$ inch and produce some of the best playing conditions for fairways I have viewed in the western United States.

The key to their operation, however, is the fairways are mowed at least five times a week. This goes back to the question of what does the membership want and how much are they willing to pay. Mowing Kentucky bluegrass at $\frac{3}{4}$ inch five times a week will certainly give extremely playable fairways without problems of *Poa annua* and bentgrass invasion into the turf. To desire lower mowing heights with less frequent mowing is counter productive to proper growing conditions for this turf species. In a case such as this, the superintendent must relay the information to the membership and have complete communication so they understand the side effects of mowing height with this type of turfgrass.

In regard to other cool season grasses, it agains depends upon what the membership desires. Basically, a mowing height on fairways of $\frac{1}{2}$ to $\frac{5}{8}$ inch will provide the best playing conditions for the entire membership. Mowing heights higher than this cut three times per week can many times result in “flyer” lies. This leads to the natural request of members to soften the greens as their downwind three wood, from a 1-inch cut fairway, using a Pinnacle golf ball, with Ping clubs will not hold the green. It is the responsibility of the player to stop the ball,

(cont’d. page 4)

(Have We Gone Too Far? cont'd.)

not the responsibility of the putting green! To help the player, the fairways should be kept below 3/4 inch if mowed three times per week.

What about those courses that have gone under 1/2 inch for fairway playing conditions? Provided the membership desires this type of playing condition and the club has adequate irrigation and mowing equipment, there is nothing wrong with this operation. A good example of this are the outstanding fairways being maintained by Mr. Bill Campbell at Sahalee Golf Club in Redmond. Superintendent Campbell is currently maintaining the fairways at 3/8 inch with outstanding definition between the fairway and the 1-1/2 inch rough. While this mowing height may be too short for most country clubs, it appears to have been very well accepted at Sahalee.

SUMMARY

The golf courses most affected by the new trends in intensive maintenance practices to improve playing conditions are not the high priced country clubs. Those courses that have moderate budgets (or less) with memberships who desire the "country club" look are most affected by these practices. Private clubs with high budgets that use walkers on greens, triplexes on fairways, aerify fairways with walking putting green aerifiers, utilize modern computer-based irrigation systems, purchase and maintain good equipment and have adequate manpower certainly raise the level of maintenance on their courses. It is when members of the "smaller" clubs visit these courses

and return to their home course that problems can sometimes occur. On those courses that can afford it, many of the maintenance practices being done today are not too far. On those that can't, these same maintenance practices are completely out of the question. It is up to the superintendent to get this point across, using any means available, that golf courses simply cannot be compared and no golf course is in "perfect" condition every day of the year.

In an excellent article written by Mr. James T. Snow, Director, Northeastern Green Section Region, titled "Who said, The grass is always greener ...", he makes two important points. First, no golf course is identical to any other. Second, no golf course will *always* be in excellent condition.

If many of today's players sit down and ponder these statements, fewer problems would result from the inevitable comparisons.

Credit: Northwest Turfgrass Conference 9/26/85

**North Central Turfgrass Exposition
O'Hare Exposition Center
Midwest GCSA Clinic**

Wednesday, December 10, 1986

- 9:30 a.m. - 10:00 a.m. Dr. Richard Hurley
V-P Lofts, Inc.
Seed for golf courses
- 10:00 a.m. - 10:30 a.m. Mike Matchen
Supt., Wilmette G.C.
Use of synthetic green covers
- 10:30 a.m. - 10:45 a.m. BREAK
- 10:45 a.m. - 11:15 a.m. Paul Boizelle, CGCS
Supt., Onwentsia Club
Teaching the children
- 11:15 a.m. - 11:45 a.m. John Gurke
Asst. Supt., Old Elm Club
Clubhouse landscaping
- NOON - 2:00 p.m. Exhibit Tradeshow Visitation
(Concession Lunch)
- 2:00 p.m. - 2:30 p.m. Dr. Randy Kane
CDGA/U. of I. Turfgrass Ext.
1986 Golf turf in review
- 2:30 p.m. - 3:00 p.m. Alan T. Fierst
Supt., Oak Park C.C.
Winterizing the golf course
- 3:00 p.m. - 3:30 p.m. Dave Mahoney
Supt., Naperville C.C.
Use of Embark in bentgrass conversion
- 3:30 p.m. - 3:45 p.m. BREAK
- 3:45 p.m. - 4:15 p.m. Leonard H. Berg, CGCS
Supt., Village Gr. of Woodridge
Staff productivity
- 4:15 p.m. - 4:45 p.m. Dr. Clark Throssell
Purdue University
Putting green speed



LESCO Greensmower

**designed by and for
today's turf professionals**

- 18 H.P. twin-cylinder Kohler Magnum engine for added power and long life.
- Hydraulic power steering for easy maneuverability
- Independent reel controls for multiple mowing patterns
- Reversible hydraulics to allow backlapping of individual cutting units while on machine
- Center post steering for added safety and ease in climbing on and off either side of machine
- Rocker foot pedal for raising and lowering cutting units
- Automatic starting and stopping of reels



Order Now.

**(800) 321-5325
NATIONWIDE**



**(800) 362-7413
IN OHIO**

LESCO, Inc. • 20005 Lake Road, Rocky River, Ohio 44116 • (216) 333-9250

Schroeder's Nursery, Inc.



Host of the I.L.C.A. Field Day — August 6, 1986

TREES • SHRUBS • EVERGREENS

RICHARD A. SCHROEDER
DON VIRGENS
CARL DRAVIS

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)



B. Haney & Sons, Inc.

COMPLETE TREE SERVICE

- TRIMMING • SPRAYING •
- SELECTIVE CUTTING •
- STUMP REMOVAL •
- WOOD CHIPS •

WE "CARE"
FOR YOUR TREES

(312) 678-7809

3344 Lincoln St., Franklin Park, IL 60131

McGinty

BROS., INC.

LAWN CARE

Weed, Insect, Disease Control;
Fertilizing, Core-aerifying, Slit Seeding

HYDROSEEDING

TREE CARE

Tree Spraying, Feeding,
Surgery, Trimming, Removal

PRAIRIE SEEDING

3524 LONG GROVE ROAD
LONG GROVE, ILLINOIS 60047 (312)438-5161

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



PROFESSIONAL PRODUCTS for PROFESSIONAL TURFGRASS MANAGERS.

We formulate our products to satisfy the regional nutritional requirements of your turf. Many of these mixes contain our exclusive nitrogen source, IBDU[®], or our exclusive mixture IBDU/SCU. We are now offering the best additives in our mixes: Ronstar[®], Dacthal[®], Balan[®], Dursban[®], Oftanol[®], and others.

Check with your local Par Ex Territory Manager or Par Ex Distributor.

par ex
PROFESSIONAL PRODUCTS

Territory Manager
Thomas E. Skinner
Keokuk, IA
319/524-8912

Turf Products Ltd.
West Chicago, IL
312/668-5537

Rowland's Equipment, Inc.
Barrington, IL
312/381-1084

RONSTAR[®] is a registered trademark of ROHME-POULENC, INC. DACTHAL[®] is a registered trademark of S.D.S. BIOTECH.
DURSBAN[®] is a registered trademark of DOW CHEMICAL, USA. *OFTANOL is a registered trademark of the Parent Company of Farben Fabriken-Bayer, GmbH, Leberkosen

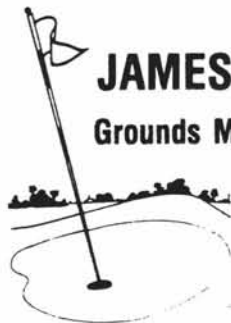
Complete Golf Course Construction



DEL KOELPER DARRELL KOELPER

(312) 259-5827
(312) 359-6427
(312) 537-1770 (SHOP)

ARLINGTON HEIGHTS, IL



JAMES R. BURDETT
Grounds Maintenance Supplies

Post Office Box 52
Lombard, Illinois 60148
(312) 620-5558
Car Phone 802-5656

Nels J. Johnson, Tree Experts, Inc.

SINCE 1930

Nels J. Johnson, Sr. - Karl G. Johnson
Nels J. Johnson, Jr. -
Complete, economical tree service for Private Estates,
Parks, Municipalities, Golf Courses, Cemeteries,
Schools, Industrial Areas.

All phases of Arboriculture, Diagnosing, Pruning, Treating,
Transplanting, Fertilization, Hydraulic and Mist Spraying,
Removals, Stump Routing, Municipal Forestry, Chemotherapy
for elms, and other trees.

• FULLY INSURED •

Graduate -- Licensed Arborists

MAIN OFFICE - 912 Pitner Avenue, Evanston, Illinois 60202
Phones: GREENleaf 5-1877 - GR 5-5255
Hinsdale, Illinois - FA 5-0970



GOLF COURSE ARCHITECTS

639 First Bank Drive, Palatine, Illinois 60067 (312) 358-8884

POA ANNUA FREE BENT GRASS SOD

Grown In Fumigated Soil
Free from Foreign Strains of Grass and Weeds



- PENNCROSS BENT SOD
- PENNEAGLE BENT SOD
- XL-100 BLEND SOD
- A FULL LINE OF
LANDSCAPE SUPPLIES
- DECORATIVE STONE
- LANDSCAPE TIMBERS

Illinois' largest sod grower

HE SOD
&
nursery, inc. 

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



**TIMBERLINE, D.B.A.
BILL BOYD**

We offer fast, dependable service — experienced in
expansion and renovation of tees and sand traps,
improvements of paths, excavating, dirt handling and
leveling.

Clubs TimberLine had the pleasure of working:

| | |
|-------------------------|---------------------------|
| Riverside Golf Club | Ruth Lake Country Club |
| Springbrook Golf Course | Downers Grove Golf Course |
| Hinsdale Country Club | Timber Trails Golf Course |
| Naperville Country Club | |

TimberLine • 1129 Jefferson • Downers Grove, IL
963-9088

TENNIS COURTS
Construction — Resurfacing

M-C Sport Systems, Inc.
Addison, IL

John Maniscalco

312/628-0500

WESTERN GOLF ASSOCIATION

EVANS SCHOLARS FOUNDATION



August 26, 1986

Midwest Association of Golf Course Superintendents, Inc.
Attn: Mr. David R. Behrman, President
Dear Creek Golf Club
26201 S. Western Avenue
Park Forest South, Illinois 60466

Dear Dave:

For the Official Family of Western Golf Association and its Evans Scholars Foundation, we convey appreciation for the very generous contribution which the Foundation received at the Western Open from the Midwest Association of Golf Course Superintendents, Inc.

Our receipt is enclosed.

As one organization devoted to golf, we are especially gratified by this donation from another organization equally devoted to the Game. You should know that this money never really leaves golf. It has been allocated to our general tuition fund. In the next two months the Foundation will pay more than \$1,000,000 from that fund to the various universities for first-semester tuition bills for our 850 Evans Scholars.

They include more than 270 from Illinois clubs alone.

It also was decided that \$100 of your donation be credited toward a membership in the Par Club of WGA for your organization. Thus it will be listed with other supporting associations in the next Par Club roster published in the Spring. You will receive a copy.

Please relay these thanks to the other officers and to the members of your association.

Sincerely,

Marshall
Marshall Dann
Executive Director

MD/bet
encl.

CC: Oscar Miles
Mrs. Dave Meyer



Golf, Illinois 60029 Telephone: 312/724-4000
MEMBER: GOLF COURSE SUPERINTENDENTS ASSOCIATION OF AMERICA

FOUNDER
CHARLES W. BARKER JR.
1888-1976
PRESIDENT
LAWTON BLUNT
1976-1986
VICE PRESIDENT
GEORGE W. BARKER
1986-1987
SECRETARY
MARK W. CLAY
1987-1988
TREASURER
FRANK J. GARDNER
1988-1989
EDUCATION
MICHAEL J. WILSON
1989-1990
HONORARY MEMBERS
JOHN W. TURNER
1986-1987
JOHN W. TURNER
1987-1988
JOHN W. TURNER
1988-1989
JOHN W. TURNER
1989-1990

PRECISION BLENDED TOP DRESSING

Custom blended to your specifications
by our modern equipment.

*Buy when you need -
Eliminate costly storage*

We sell an air-dried, uniform and
free flowing top dressing.

ASK THE MAN WHO HAS USED IT.

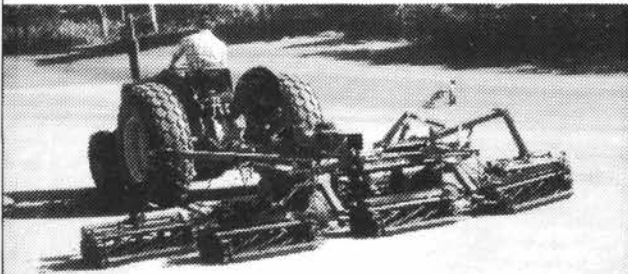
HUMUS - BLACK SOIL

HENRY FRENZER

Area Code 312
658-5303

620 Webster St.
Algonquin, IL
60102

BROUWER 5-or 7-GANG TURF EQUIPMENT LIMITED FAIRWAY MOWER



- ✓ FLOATING HEAD TO FOLLOW CONTOURS
- ✓ EASY TO TRANSPORT AND BACKLAP
- ✓ SMALL POWER REQUIREMENTS ALLOW LESS COMPACTION, LESS FUEL CONSUMPTION
- ✓ P.T.O. DESIGN ALLOWS SUCCESSFUL MOWING EVEN WHEN WET
- ✓ VARIABLE FREQUENCY OF CUTSURES THE HIGHEST QUALITY OF CUT



FOR DEMONSTRATION, CALL
**CHRISTENSEN
POWER
EQUIPMENT**

815 469-5898 MONEE-MANHATTAN ROAD
FRANKFORT, IL 60423

In Your Garden Yellowjackets Nests in Houses

by James A. Fizzell, Sr. Ext. Adviser
Horticulture

If you have "bees" going in and out of the wall of your house, you probably have yellowjackets, says James A. Fizzell, University of Illinois Horticulturist in Cook County.

Yellowjackets are elongate, about 1/2 inch long, and are black with yellow markings showing as stripes on the abdomen. These wasps construct large nests of paper underground, in wall voids, or in other protected places. The nests contain several horizontal combs and several thousand wasps. Nests die during the winter, and new ones are started each summer by fertilized females that overwinter in protected places.

The immature or larva wasps are fed insects and other bits of meat that the adults capture or scavenge from garbage cans, picnics, or any areas where food is left uncovered. The adults chew up and feed this partially digested food to the larvae.

Elimination of nests is best done at night when the yellowjackets are less active. Be sure to wear protective clothing so as little skin as possible is exposed to possible stings.

Fortunately, these nests can usually be killed by dusting into and around the wall opening with carbaryl (Sevin).

Do not seal the nest opening to the outside. If you do, the wasps will find another way out of the wall. Often this is into the house.



2 N 255 County Farm Rd. West Chicago, IL 60185
Phone: (312) 668-5537

PEERLESS FENCE CO.

3N381 Powis Rd.
West Chicago, IL

- Chain-Link Fencing
 - Wood Fencing
 - Special Gates
 - Driving Range Fencing
 - Tee Protection Fencing
 - Wood & Steel Guard-Rails
 - Golf Course Work Our Specialty
- 312/584-7710 Hal Laman

"Golf Course Work a Specialty"
LEMONT PAVING CO.
Lemont, IL 60439

Jim, Tracy, Ray Murphy 257-6701

WHOLESALE SUPPLIER for



LAKE COOK
FARM
SUPPLY

Landscapers • Nurserymen • Golf Courses

- Turf and Agricultural Chemicals
- Common and Elite Turf Grass Seed
- Union Fork Tools
- Peat Moss — Bark — Mulches
- Root Lowell Sprayers
- Shaws and F.S. Fertilizers

CUSTOM BLENDING OF BULK FERTILIZERS OUR SPECIALTY

*Pickup or Delivered from our Bulk Fertilizer Plant
Custom Fertilizer Spreading Available*

DISTRIBUTORS OF F.S. PETROLEUM PRODUCTS

GASOLINE • LUBE OIL • DIESEL FUEL



LAKE COOK FARM SUPPLY

PETROLEUM
DIVISION
101 E. MAIN ST.
LAKE ZURICH, IL 60047
540-0100

TURF
DIVISION
1214W NORTHWEST HWY.
PALATINE, IL 60067
991-4800

BULK FERTILIZER
PLANT
170 CEDAR AVE.
LAKE VILLA, IL 60046
356-9600

IF YOU WANT GOOD SERVICE JUST ASK FOR IT BY CALLING

COMPLETE PUMP SERVICE 832-1230

ALLIS CHALMERS
ARMSTRONG
AURORA
BELL & GOSSET
BURKS
CARVER
CHICAGO PUMP
CRANE DEMING
DAYTON DOWD
DOMESTIC
DUNHAM-BUSH
ECONOMY
FAIRBANKS MORSE
FEDERAL
GORMAN RUPP
HOFFMAN
HYDROMATIC
INDUSTRIAL STEAM
INGERSOL RAND
MARLOW
MYERS
NASH
PACO
PATTERSON
PEABODY FLOWAY
PEERLESS
ROTH
SKIDMORE
TACO
TRAMCO
WEIL
WEINMAN
WESTCO
WORTHINGTON
YEOMAN

VACUUM HEATING PUMPS
CONDENSATE PUMPS
BOILER FEED PUMPS
SUMP PUMPS
SEWAGE PUMPS
AIR CONDITIONING PUMPS
SWIMMING POOL PUMPS
FIRE PUMPS
FIRE PUMP PERFORMANCE TESTS
JOCKEY PUMPS
HOUSE PUMP SYSTEMS
IRRIGATION PUMPS
TURBINE PUMPS
CENTRIFUGAL PUMPS
CIRCULATORS

SALES AND SERVICE
FREE ESTIMATES!
24 HOUR EMERGENCY SERVICE
30 YEARS OF EXPERIENCE
COMPLETE MACHINE SHOP



COMPLETE PUMP SERVICE CO., INC.
421 S. ADDISON RD.
ADDISON, IL 60101

**OUR SUCCESS IS BASED ON
GOOD HONEST SERVICE**

GOLF COURSE IRRIGATION SALES CO.

Div. of Halloran & Yauch, Inc.
2040 Lehigh Ave., Glenview, IL 60025

**CUSTOM PUMP HOUSE
CONSTRUCTION & REMODELING!
IRRIGATION INSTALLATION
& REMODELING!
GOLF COURSE DRAINAGE SYSTEMS!**

Call Us For Your Golf
Course Irrigation Needs!

(312) 729-1625

Preemergency and Postemergency Activity of Cutless® and Rubigan® on the Germination and Development of Annual Bluegrass and Creeping Bentgrass

J. E. Haley and T. W. Fermanian

INTRODUCTION

Annual bluegrass (*Poa annua*) is often the major component of golf course turf. It competes well with creeping bentgrass (*Agrostis palustris*) when irrigation is frequent, nitrogen levels are high and mowing heights are low. Even when mowing heights are 0.25 inches or less, annual bluegrass is able to produce large amounts of seed. Annual bluegrass is often considered an undesirable golf turf. It is susceptible to winter damage and is difficult to maintain as a quality turf during stressful summer months. The purpose of this study is to evaluate the effects of Cutless® (EI-500) and Rubigan® on the growth rate of annual bluegrass and creeping bentgrass before and soon after seedling emergence.

MATERIALS AND METHODS

Seeds of both species, *Poa annua* and *Agrostis palustris* cv. 'Penneagle' were sown in dry sterilized unmodified Kirkland silt loam soil. *P. annua* was seeded at 2 lb/1000 sq ft (.178 gram/6 inch standard pot). *A. palustris* cv. Penneagle was sown at 1 lb/1000 sq ft (.089 grams/6 inch standard pot). Germination of *P. annua* was at least 88% and germination of *A. palustris* cv. Penneagle was at least 72%. Seed was applied by hand to the soil surface and lightly "raked" into the soil. Seed was planted no deeper than .25 inch.

Preemergency and postemergence treatments consist of Cutless® at 0.5, 0.75, 1.0 and 2.0 lb ai/A and Rubigan® at 2.5 lb ai/A. An untreated control was also included as a treatment. Preemergency treatments were applied December 5, 1984 to seeded, dry soil. After application, pots were placed on a mist bench. By December 10, both species had started to germinate. Postemergence control treatments were applied December 21, 1984. All turf at least 1 inch in height at the time of application. After treatment, the pots were returned to the mist bench until December 24, 1984. At this time they were removed from the mist and watered as needed.

All herbicides were applied in a pesticide spray chamber using a spray volume of 25 gpa at ½ the treatment rate in each of two applications. This gave a total spray volume of 50 gpa for each desired rate. The nozzle tip used was a Teejet 8002E with a 30 inch swath. Pots were aligned in the chamber so that they were treated with only the center 6 inches of the spray pattern. The nozzle traveled at the speed of 1.0 mph. The pressure at the nozzle tip was 20 psi. This gives a rate of 0.12 gpm (233 ml/30 sec.).

RESULTS AND DISCUSSION

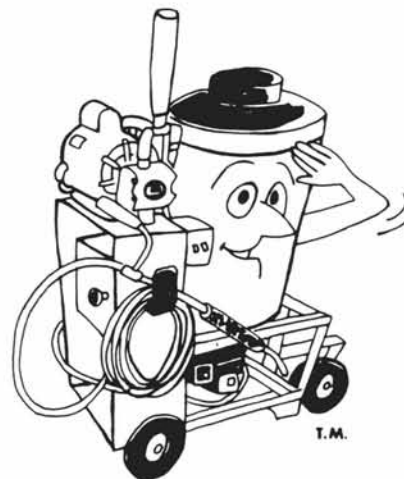
Evaluations were made 6 weeks following treatment (Table 1 through Table 4). Measurements were made on January 16, 1985 for the preemergency applications and February 1, 1985 for the postemergence applications.

Phytotoxicity (or crop injury) was a visual rating made on a 1 through 9 scale where 9 represents no visible injury and 1 represents complete necrosis. Most injury to both species oc-

(cont'd. page 11)

Hotsy®

The Hot Water Cleaner For Heavy Duty Jobs



© 1976
THE HOTSY CORPORATION

Hotsy will save you time and money:

Dirt can cripple equipment performance. Hotsy removes industrial grime faster and more economically than steam cleaners can.

Hand-cleaning is a tedious time-waster. Hotsy saves employee time and reduces down time on heavy machinery.

Clean Equipment Runs Better Longer
Let us Clean Something Dirty For You

● CALL FOR A FREE DEMONSTRATION ●

Hotsy of Chicago, Inc.

SALES/SERVICE/RENTALS

90 Models • 200 to 15,000 PSI

893-0777

**25 SOUTH PARK STREET
ROSELLE, ILLINOIS**



Stadium Course, PGA West

Golf's Premier Irrigation Control System

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



RAIN BIRD®

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**