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President's Message

I would like to thank the membership for its support in electing me President for the upcoming year. It is indeed my honor to have the opportunity to serve this association. During my eleven years as a member of MAGCS I have seen many changes. Some have been bad, but most have been positive and all have been made in an effort to keep our association moving forward. I have also had the chance, as a member of the board to listen to many suggestions made by my fellow members and I have tried to deal with each one in an appropriate manner. I encourage the membership to continue to voice its opinions and desires, for it is after all everyone's responsibility to help MAGCS grow. I feel confident that with the excellent board the members have elected, we will be able to move forward and reach our goals for the upcoming year.

As we enter our "off-season" I hope everyone will be able to take advantage of the many educational opportunities that are easily at your disposal. Coming up first is the annual NCTE on December 8, 9 and 10. There is a new location for this year's conference, at Pheasant Run Resort in St. Charles, Illinois. I know many of the vendors are glad to be out of Cook County where the unions still reign supreme and any member who has attended one of the GCSAA seminars at Pheasant Run will tell you it is an excellent facility. This year the Midwest Clinic is Thursday, December 10. Al Fierst has done an outstanding job of lining up the program for this year and I hope everyone will be able to attend.

Also a reminder that there again will be two MAGCS sponsored seminars at Pheasant Run on January 5 and 6th, 1988. This year's offerings are Effective Business Writing and Introduction to Soil Science. For further information please contact GCSAA or Pete Leuzinger.

Lastly, it's been said before but it bears repeating, I trust everyone will take some time off to enjoy their family and friends. Even though I personally was out of the turf growing business for a season, all of my friends kept me well advised as to what a strange and sometimes difficult season we were having. I'm sure everyone is glad it's over and I know by next March everyone will be anxious to start a new season.

Michael Nass, CGCS

Mapping Turfgrass Problem Areas

by Ray Schmitz, Flossmoor C.C.

Every Summer during periods of stress to the turfgrass due to heat, humidity, heavy play, etc. I think to myself — there must be a better way to approach this season. Suddenly I remembered what had been drilled into my head during my old military days. That is the old 6 P approach; prior planning prevents — poor performance. Using this principal I would like to share the way I prepare for the summer stressful season.

One day while waiting for my lunch at the clubhouse I began to doodle on a placemat in front of me which has a layout of the course. I marked all the areas on the golf course that needed extra watering and handed it to my waterman. The job was done to my greatest expectations. One problem solved.

This was so easy that I started to list some of the other turf related problems I was facing. Disease came to the top of my list and I realized that when I think of dollar spot I know right where to look, so I made a dollar spot map for places to check first. Pythium will show up first on the #7 and #8 tees at Flossmoor. So I charted another map. Brown patch has shown up first in 3 or 4 different places. This is listed separately on another placemat. On the subject of disease I have also made up a map of areas on the golf course that more fungicide or fungicides more often are needed due to the microclimate. I still buy and use the same amount of material but I feel I have more efficient use of what I apply.

Once you start breaking down your turf problems the lists become larger. Some other maps I have drawn up are areas of crabgrass that require pre and post emergent treatment, high traffic areas that need more frequent aerification. Another map is charted for areas of heavy Poa annua that gets overseeded with bent grass and treatment with the new Poa annua controls. Places where heavy leaves can be anticipated are marked for better leaf removal. Sand traps that do not drain properly are also marked to be pumped until the drainage problem is fixed.

A few hints for starting a mapping plan. Look at your golf course during its worse periods in order to draw up a more accurate map for particular problems. Also list individual problems on separate maps or the maps not only become confusing but overwhelming.

Approach your job during the stressful periods with this attitude; you may not be 100% successful but at least you had a plan for success. Usually this will prevent the — poor performance.

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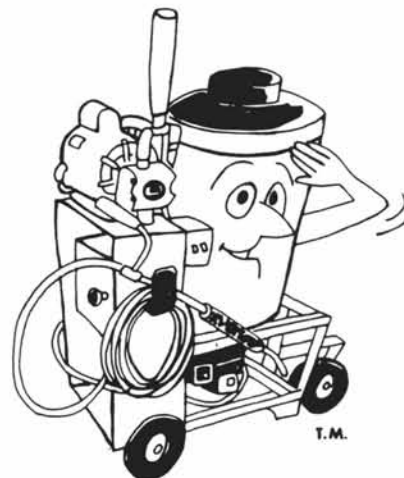
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Disease Notes from Summer '87

by R. T. Kane

U. of I./CDGA Turf Advisor

The prolonged heat and humidity we struggled through from late May until mid-August caused serious disease control problems on Chicago area golf courses (along with the rest of the upper midwest and northeast). Pythium blight, brown patch, dollar spot and **Poa** decline were frequently encountered and caused large-scale losses in some cases. Pythium blight occurred on golf courses where it had never before been observed, including along the north shore and into Wisconsin. Pythium outbreaks were observed that looked more like rampant dollar spot, with large areas affected. Severe dollar spot epidemics occurred that looked more like a Pythium attack. **Poa annua** held up pretty well for the most part, until the last week of July and first week of August. By then, the accumulated heat stress began to take its toll.

Pythium blight was especially severe on fairways, where we generally find less intensive (if any) preventative fungicide programs. Low-end application rates and longer intervals were often utilized because of the expense involved in spraying 20-30 acres of fairways. I received several inquiries regarding possible resistance of **Pythium** species to fungicides (esp. Subdue), since preventative applications at recommended rates were providing little or no residual control (2-4 days or less). However, fungicide failures were more likely due to the exceptionally high disease pressure that occurred, in combination with low fungicide rates and longer spray intervals. One ounce of Subdue will not protect plants for 7-10 days under the conditions that prevailed this summer, nor will 2 oz. last 14-21 days. Reportedly, Banol and Tersan SP treatments experienced similar difficulties. In some cases, 4 or 5 days of disease suppression was the maximum observed. Pythium outbreaks that were not controlled by systemic preventative treatments usually required curative "spot sprays" with contact fungicides such as Koban. Some Pythium control failures were also related to heavy rainfalls (3+") after fungicide application. In such cases, the excessive water probably acted to dilute or wash away applied materials, as well as provided an environment highly conducive to disease development.

In order to avoid disease control problems resulting from fungicide resistance or loss of residual efficacy, superintendents must become more flexible in their disease management programs. For example, one should alternate Subdue treatments with another fungicide such as Banol or Alliette as an insurance policy for controlling Pythium. These products all have different modes of action, so alternate treatments should reduce the possibility of resistance. Secondly, application rates and intervals must be adjusted accordingly when Pythium conducive environments persist for long periods of time. Also, contact fungicides should be kept on hand for spot spraying localized outbreaks when they occur.

Rhizoctonia brown patch was also a frequent problem this summer, but was generally less damaging than Pythium. I received several reports of brown patch control failures, usually involving Bayleton or Rubigan. Bayleton is known to provide only marginal control of brown patch in some areas, whereas Rubigan is generally regarded as effective. I was unable to con-

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firm that Rhizotonia was definitely involved, but the symptoms were described as "classical brown patch". As with Pythium, unfavorable weather conditions and high disease pressure, combined with low application rates reduced the residual efficacy of these products.

Many highly effective fungicides are available for preventative and curative control of brown patch, including both contact and systemic products. If a systemic sterol inhibiting fungicide such as Bayleton or Rubigan provides inadequate control, switch to a product with a different mode of action (e.g. benzimidazoles, PCNB, iprodione). Dependence on a single fungicide for long term, broad spectrum disease control is a risky business in difficult years like 1987.

What about Anthracnose?

In the last two years, I have often been asked if anthracnose is really a disease — i.e. is the fungus a primary pathogen or a secondary invader? My answer has always been a qualified "yes, it is a pathogen, but..." The fungus, *Colletotrichum graminicola*, is a facultative parasite that normally colonizes weakened or heat stressed *Poa annua*, and sometimes bentgrass. However, in 1987 I found anthracnose causing serious problems on otherwise healthy *Poa annua* at putting green height, beginning in mid-April and continuing through August. In fact, I received more calls regarding diagnosis and control of anthracnose than for any other disease in 1987.

Two or three different types of disease scenarios appear to be associated with anthracnose on golf turf. A common occurrence around Chicagoland is leaf infections on stressed *Poa annua* in mid summer. Leaves of stressed plants turn shades of yellow to orange, and *C. graminicola* fruiting structures (acervuli) can be found on senescent leaves and sheaths. In this case the fungus is probably operating in an opportunistic, secondary mode. It is difficult to say how important the fungal infection is in contributing to the death of weakened plants.

A more serious situation develops when *C. graminicola* invades the stem base of *Poa*, just above the crown, and attacks juvenile and mature tissues, instead of senescent cells. Infected plants show similar leaf discoloration as before, but few, if any, leaf lesions and acervuli develop. This type of infection readily kills entire shoots of *Poa* and seems to be less related to high temperature or other stresses, although inadequate N and P fertility are contributing factors. Disease occurs in small, irregular spots ($\frac{1}{2}$ - 2" in diam.), which coalesce and turn dark orange to brown in terminal stages. Since the pathogen is primarily internal in the culm or crown area, field diagnosis is difficult (if not impossible) with a low magnification hand lens or field microscope.

Control of anthracnose on *Poa* proved difficult, at best, in 1987. Contact fungicides such as Daconil 2787 and the systemic Bayleton (2 oz. rate) are among the products normally recommended for control of the leaf lesion phase. However, these products provided no relief from the stem base/flower leaf sheath infection that was frequently encountered in the summer of '87. The best control of this more serious type of anthracnose was gained by applying 2 oz. of a benzimidazole type systemic fungicide such as Tersan 1991 (benomyl), Fungo 50 (thiophanate methyl), and Cleary's 3336 (thiophanate ethyl).

In addition, light to moderate fertilizer applications (.1-.2 lb. soluble N) appeared to promote recovery.

Typically, anthracnose is restricted to *Poa annua*. Any bentgrass or other species in the stand will be unaffected, which gives us a clue as to the causes of the disease. However, in some cases, bentgrass is preferentially attacked by *C. graminicola*, leaving healthy *Poa* behind. This may actually be a different strain or biotype of *C. graminicola*, one that is pathogenic to bentgrass, but not *Poa*. Anthracnose on bent most frequently occurs in late summer or early fall, when cool, moist conditions prevail. It doesn't appear to be a serious problem at this time.

1988 Pesticide Training and Certification Clinics

March 8 — Glencoe — Chicago Botanic Garden, Lake-Cook Rd., east of I-94, 8:00 a.m., \$5.00 registration. Pre-registration required, call (312) 991-1160.

March 15 — Joliet — Holiday Inn, Larkin Ave. & I-80, 8:00 a.m., \$5.00 registration. Pre-registration required, call (815) 727-9296.

March 29 — Crystal Lake — Hob Nob II Restaurant, Junc. Rt. 14 & 31, 8:00 a.m., \$5.00 registration. Pre-registration required, call (815) 338-3737.

April 13 — Rockford — Clock Tower Hotel, I-90 & Bus. 20, 8:00 a.m., \$10.00 registration.

April 13 — Wheaton — DuPage Co. Fairgrounds, Manchester Rd., 8:00 a.m., \$5.00 registration.

April 19 — Glencoe — Chicago Botanic Garden, Lake-Cook Rd., east of I-94, 8:00 a.m. \$5.00 registration.

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March 30 — DuQuoin — DuQuoin State Fairgrounds, on Rt. 51, 8:00 a.m. - noon. All Tests Available.

June 2 — Wheaton — Dupage Co. Fairgrounds, Manchester Rd., 8:00 a.m. - noon. All Tests Available.

March 9 — Glencoe — Chicago Botanic Garden, Lake-Cook Rd. east of I-94, 8:00 a.m., \$5.00 registration. Pre-registration required, call (312) 991-1160.

March 16 — Joliet — Holiday Inn, Larkin Ave. & I-80, 8:00 a.m., \$5.00 registration. Pre-registration required, call (815) 727-9296.

April 14 — St. Charles — Kane Co. Extension Office, N. of Rte. 38 on Randall Rd., 8:00 a.m., \$5.00 registration. Pre-registration required, call (312) 584-6166.

April 20 — Glencoe — Chicago Botanic Garden, Lake-Cook Rd. east of I-94, 8:00 a.m., \$5.00 registration.

One-day Urban Clinics in northeastern Illinois (Glencoe, Joliet, St. Charles) are preceeded, on the day before by a General Standards Clinic listed above.

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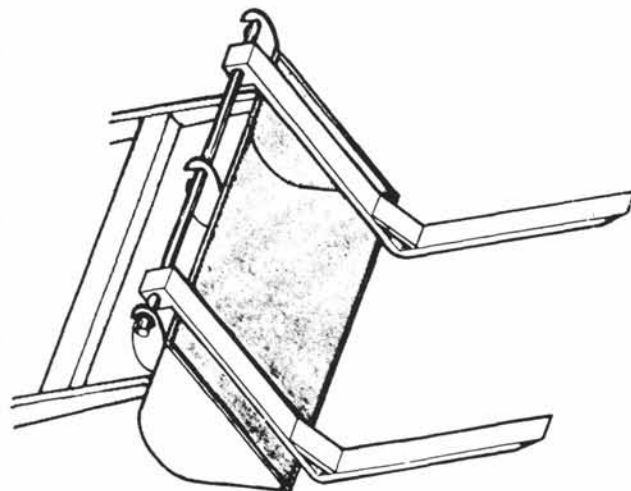
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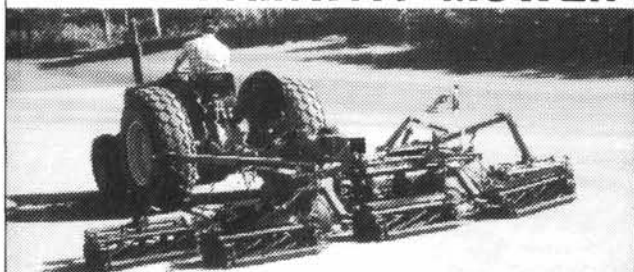
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Answers to the Fairway Mowing Questionnaire

by the Editor

In the October issue I asked 22 questions on the use of light weight mowing equipment for fairways. I got 19 responses. I'm sure there are more than 19 golf courses using light weight mowers, but you have to work with what you get. Here are the responses to the questions:

1. What machines are you using? Toro PGM III - 6; Jac HF-5 - 5; Lesco 500 - 4; Toro 84 - 2; Toro 350 - 2; Jac Greens King - 2; Toro 450 - 1; Jac TF60 - 1.

2. How many machines are you using to mow fairways? 1 machine - 3 courses; 2 machines - 7 courses; 3 machines - 3 courses; 4 machines - 1 course; 5 machines - 2 courses; 6 machines - 3 courses.

3. Diesel or Gas Units? Diesel units = 7 Gas Units = 12

4. Number of cutting units the machine has? 3 units = 10; 5 units = 10 (some courses had a 3 gang unit and a 5 gang unit, thus at times the numbers do not always add up to 19)

5. Type of cutting unit: Floating Head = 16 Fixed Head = 4

6. Number of blades in the reel? 5 blades = 4; 6 blades = 2; 7 blades = 6; 8 blades = 3; 9 blades = 4; 10 blades = 2

7. Roller Type? Wiehle = 8; Full roller = 4; Swedged = 1

8. Do you weigh the cutting units? Yes = 6 courses No = 13 courses

9. Number of manhours to cut one acre of fairway? 15 min. = 4 courses; 30 min. = 4 courses; 45 min. = 2 courses; 1 hr. = 6 courses; 1 1/4 hr. = 1 course; 2 hrs. = 1 course (This question doesn't answer much since we don't know the machine or how many machines were used)

10. Number of acres of fairways you mow? 5 acres +/- = 1 course; 10 acres + = 2 courses; 15 acres + = 1 course; 20 acres + = 4 courses; 25 acres + = 4 courses; 30 acres + = 6 courses

11. How often does a fairway get cut per week? 2x = 2 courses; 3x = 8 courses; 4x = 4 courses; 5x = 1 course; daily = 1 course; every other day = 1 course

12. How many machines do you use when mowing fairways? This answer is almost the same as question 2 with the exception of two responses.

13. Are these machines used to also mow other areas? Yes at 9 courses, and No at 10 courses

14. What height of cut do you mow your fairways? 7/16 = 2 courses; 1/2 = 6 courses; 5/8 = 1 course; 9/16 = 6 courses; 3/4 = 1 course; 7/8 = 1 course; 1+ = 2 courses

15. Do you collect clippings? Yes at 11 courses, and No at 5 courses (who knows what the other 3 courses do???)

If yes, do you do it all the time? Yes at 6 courses and No at 5 courses

If no, when do you not? After fertilizing, when there are no seed heads, late September, October & November, when there is no dew

16. If you collect clippings — How do you dispose of them? Spread in roughs = 4; Haul to dumpster = 8 courses; haul to dump = 2

17. If you collect clippings, what equipment do you use to dispose of them? Cushman trucksters = 2; Trailers = 3; Vacuums = 3; Bags = 1

18. What is your cost of disposal? Weekly = NA Monthly = \$120 to \$1500.00. Average comes to \$641.00 per month
19. About how many hours per week does your mechanic need to service these units? 2+ hrs = 5 courses; 4+ hrs. = 5 courses; 8+ hrs. = 3 courses; 12+ hrs. = 3 courses; 15+ hrs. = 2 courses; 20+ hrs. = 1 course
20. How many extra cutting units/reels do you have as spares? 0 = 9 courses; 1 = course; 3 = 3 courses; 5 = 2 courses; 9 = 1 course
21. What were your start up costs to go to light weight mowing? The costs ranged from a low of \$4,000 to \$100,000.00! The average being \$45,357.00.
22. What machine would you change to today for mowing fairways if budget was no object? Lesco 500 = 6 courses; Toro PGM III = 4 courses; Toro 216 = 1 course; Jac HF5 = 1 course; Jac Greens King = 2 courses; 4 courses stated that they would not change from what they had; 2 courses said the ideal machine has not been made yet!
- 21.A. Asked why would you change. The answers are too long to enter all of them. What they pointed out are the following desires and wants in a light weight fairway mower: Diesel engine, lightweight, good traction, fixed heads, having verti-cuts units, power backlapping, better cut, mechanic friendly, manufactures don't listen to the superintendents — but they listen to Jack Nicklaus, quick height adjustment, heavy duty rollers, hydrostatic drive, low cost.

Well there you have it. I hope there are some answers for you and I'm sure there are still a lot of unanswered questions. My thanks to the 19 courses who responded and helped make this report.

“GCS Christian Prayer Breakfast”

Mr Mike Adkins will be the guest speaker for the 9th Annual GCSAA Prayer Breakfast in Houston. The Prayer Breakfast will be held in the George Brown Convention Center at 8:00 A.M. on Sunday, February 7th, 1988. Coffee and rolls will be served at 7:30 P.M. Please note that the Prayer Breakfast has a new day and time this year. We hope that this schedule will make it easier for all to attend. Mike Adkins brings a new flavor to the Prayer Breakfast. He is a real down home person who has dedicated his life to the teaching of God's love. His personal humorous life story of “A Man Called Norman” is one of the most popular programs ever aired on Dr. James Dobson's “Focus on the Family” radio program, and has now been made into a video presentation. Mike is an accomplished recording artist as well as a world-wide speaker.

If you are one who thinks that a Prayer Breakfast might be boring or dull, you will be in for a surprise. Come and hear Mike and you will agree that God does have a sense of humor. Remember, everyone is welcome! Mike is especially good with young people, so bring them along. There is no charge for admission.

Golf Course Maintenance Industry Exceeds \$3 Billion

(JUPITER, Fla.) — According to the new 1987 edition of the *Golf Course Maintenance Report*, the estimated worth of the golf course maintenance industry in the U.S. today is \$3.54 billion. This figure includes the cost of labor, equipment and supplies needed to maintain the 1.2 million acres of land occupied by the nation's 12,384 golf facilities.

The 80-page report was co-produced by the National Golf Foundation (NGF) and the Golf Course Superintendents Association of America (GCSAA).

“The golf course superintendent is a vital element in the golf industry and plays a crucial role in maintaining the nation's golf courses so they are enjoyable for the 20.2 million U.S. golfers,” says NGF President and CEO David B. Hueber. “And the NGF is proud to have been part of this all-important study.”

The new report supercedes a much less comprehensive 25-page joint study report done in 1985. “We feel that this year's expanded report provides valuable information not available through any other source in the golf course and turf-grass industries,” says Donald E. Hearn, GCSAA President.

The 1987 report is broken out into nine geographic regions, and, by the public private facilities within those regions. It covers irrigation sources, expenses, labor hours and wages, golf car fleet size and maintenance costs, environmental conditions and professional responsibilities for each region.

The data was collected through a 10-page survey sent to more than 2,000 golf course superintendents throughout the U.S. in November 1986. The data is presented in a manner that allows the superintendents to make a comparative analysis of their operation to others within their region.

“To collect and analyze the differing operations of the superintendents throughout the country and then segment them by facility type is a service that not only directly benefits every superintendent but also, impacts everyone who enjoys the game,” Hueber says.

“Golf course superintendents and others involved in the maintenance of the nation's golf courses will find the information contained in this report to be useful in determining the factors that make their golf courses unique from others in their region,” says Hearn.

“Golf course superintendents were responsible for the purchase of over \$214 million in new equipment in 1986,” adds Hueber. “This report is an outstanding indication of the professionalism and dedication of the GCSAA and its members.”

A two-page summary of the *Golf Course Maintenance Report* is available from both the NGF and GCSAA at no charge. The complete report sells for \$90.

The NGF is golf's research and promotional organization. Founded in 1936, its membership includes more than 500 golf companies, national, state and local golf associations; golf course architects and builders; golf publications; and more than 3,000 golf courses across the United States.

Fall Dinner Dance Pictures



Toni & John Beraducci



Our Hosts — Sue & Roger Stewart



Christine & Rick Johnson



Rick & Lea Elyea



Deborah & Jim Evans



Debbie & Dave Nadler



*Oscar & Mardelle Miles
"Getting With It"*



Ed & Jan Fischer with Dudley Smith



Beverly & Verlyn Strellner