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

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President's Message by Bruce R. Williams, CGCS MAGCS President GCSAA Director

The upcoming year will be an extremely busy time for me as I have been chosen to serve as a Director of the Golf Course Superintendent's Association of America. It should prove to be an exciting and challenging year. I am eager to get involved in the planning and direction of GCSAA. I value the input of our MAGCS members and would appreciate you forwarding any comments or suggestions regarding GCSAA. It would be preferable if the comments are in a written form so that we have a formal record.

Election to the GCSAA Board of Directors does not come easy and it could have not been accomplished without the help of many people. My thanks to those individuals who put in a good word with their friends across the country. Special thanks to Len Berg, Mike Bavier, and Paul Voykin for their guidance and work behind the scenes. Al Fierst did a super job of preparing the compaign brochures, badge stickers, and banner. Penny and Dave Meyer outdid themselves with the best Hospitality Suite in Las Vegas. Thanks to the many commercial members of the MAGCS who provided the funds to sponsor our hospitality room. Keep their support in mind when making your purchases this year.

I am most grateful to our two voting delegates, Roger Stewart and Bob Maibusch, for their diligence in the pursuit of our goal. The job of a voting delegate is often taken for granted by many. It is a job in which you make many sacrifices on behalf of the MAGCS and GCSAA. Rog and Bob spent most of their time in Las Vegas working for the campaign. They met with other delegates, from morning until late at night, speaking on my behalf. They met a lot of new people and had a rewarding experience. Our positive results would not have been possible without them.

The year ahead will be a challenge. I look forward to working with GCSAA and I am excited about the programs we have prepared for the MAGCS. There is no better time to be involved in both associations as the membership wants to be a positive part of the advancement of our profession. Thanks again to all of you who have made this possible.

Am I Missing Something?

by Malcolm C. Shurtleff Extention Plant Pathologist University of IL at Urbana-Champaign

Perhaps you are? There is a wealth of printed information on turfgrass diseases and their control you may not be aware of. These are 18 Reports on Plant Diseases (RPD's) that cover the important diseases that attack golf greens, tees, fairways, and other turfgrass areas. These have been written in a popular to semitechnical style with the assistance of Hank Wilkinson, Randy Kane and Extension turf specialists in horticulture.

The RPD numbers, latest date written or revised, titles, and number of pages in each are given below:

RPD No. & Date

- Title
- 400 (3/89) Recommendations for the Control of Diseases of Turfgrasses (9 pages)
- 401 (4/86) Slime Molds in Turfgrasses (3 pages)
- 402 (5/90) Turgrass Disease Control (5 pages)
- 403 (9/87) Fairy Rings, Mushrooms, and Puffballs (6 pages)
- 404 (5/90) Snow Molds of Turfgrasses (5 pages)
- 405 (4/86) "Helminthosporium" Leaf, Crown, and Root Diseases of Turfgrasses (9 pages)
- 406 (4/86) Powdery Mildew of Turfgrasses (4 pages)
- 407 (4/86) Dollar Spot of Turfgrasses (5 pages)
- 408 (2/90) Summer Patch and Necrotic Ring Spot of Lawns and Fine Turfgrasses (7 pages)
- 409 (7/90) Leaf Smuts of Turfgrasses (7 pages)
- 410 (5/88) Pythium Blight of Turfgrasses (5 pages)
- 411 (5/86) Rhizoctonia Diseases of Turfgrasses (7 pages)
- 412 (6/87) Rusts of Turfgrasses (9 pages)
- 413 (5/86) Red Thread and Pink Patch of Turfgrasses (6 pages)
- 414 (10/87) Bacterial Wilt and Decline of Turfgrasses (3 pages)
- 415 (4/88) Yellow Tuft or Downy Mildew of Turfgrasses (4 pages)
- 416 (9/88) Anthracnose of Turfgrasses (4 pages)
- 417 (10/88) Minor Leaf Spot and Blight Diseases of Turfgrasses (8 pages)
- 1108 (4/86) Nematode Parasites of Turfgrasses (9 pages)

RPD 400 covers 10 disease-checking cultural practices in detail and what diseases are at least partially controlled by each practice. The chemicals suggested for control on bentgrasses and lawn-type grasses are given for each major disease. RPD 402 explains the relationships between turfgrasses, diseasecausing organisms (pathogens) and how they spread, and the air-soil environment that incites infection to take place and develop. It also discusses the three basic methods of control and the practices used in each method. The remaining RPD's cover individual diseases of groups of closely related diseases. Each RPD covers the cause of the disease, turfgrasses infected, weather conditions which allow the disease to occur, symptoms, the disease or life cycle of the pathogen (so you know when to attack it at its weakest point, and suggested control measures. Lists of resistant cultivars are given where available. Each disease is illustrated with black and white pictures and most RPD's have drawings of the pathogens as they would appear under a microscope. In general, we have kept the suggested fungicides and nematicides out of the RPD's because of the rapid changes taking place in the turfgrass chemical industry. Chemical controls for diseases, insects and weeds have been

updated and published annually in Illinois Cooperative Extension Circular 1076. In 1991 this circular is Chapter 13 in the *1991 Illinois Pest Control Handbook*. Copies of the handbook should be available at all county Extension offices. If you do not wish to purchase the handbook, which includes chemical recommendations for all types of crops, county Extension personnel will duplicate the pages you desire.

Each county office has single copies of the RPD's listed above and about 280 others covering diseases on a wide range of crops as well as woody and nonwoody ornamentals. Otherwise, the RPD's are available from the Department of Plant Pathology, N-533 Turner Hall, 1102 South Goodwin Avenue, Urbana, IL 61801. Just list the RPD's you want by number on a piece of paper. The cost is 50 cents each for four or less single copies, 25 cents for five copies or more. Make your check payable to the University of Illinois. Unfortunately, we have to charge for these publications as our budget has been cut by almost 30 percent. If you would like a complete listing of the available RPD's please indicate that with your note. There is no charge for the listing.

CDGA Green Seminar Drury Lane Theatre Oak Brook Terrace March 21, 1991

Who Should Attend: Everyone interested in quality turfgrass. Please inform fellow Board and committee members. Attendees need not be CDGA members.

Time and Place: Thursday, March 21, Drury Lane — Oak Brook Terrace. Registration and coffee at 8:30 A.M., meeting begins at 9:00 A.M., adjourns at 12:00 noon.

Reservations: Are a must to make proper arrangements with site hostess. Return the enclosed card today.

Registration Fee: \$45.00 for CDGA members; \$55.00 for nonmembers. Fee covers seminar, continental breakfast, cocktails and luncheon. Payable in advance, at the door, or you may have your club billed.

Topics & Speakers:

objectives.

★ Biology of Sand Rootzones. Dr. Clint Hodges, Professor of Horticulture, Iowa State University will discuss newly emerging problems associated with sand rootzones on putting greens.

★ Facing the Future — Superintendents in the 1990's. Mr. Bruce Williams, Superintendent of Bob O'Link GC will present some new ideas concerning management skills needed for state of the art management and environmental stewardship. ★ High Tech Management — New Products and Techniques. Mr. Roger Stewart, Superintendent, Stonebridge GC will give an overview of some of the new, high tech tools and techniques available for achieving today's management

★ The USGA and the Politics of Golf Course Management. Mr. Raymond B. Anderson, Chairman of the USGA Green Committee and a Past President of the CDGA, will summarize the USGA's new research funding initiatives concerning the environmental impact of golf courses.

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Challenges and Issues for 1991

by Dr. Randy Kane U of I CDGA Turf Advisor

Before we begin the new season, it is time to review some of the diseases and other turf problems I observed in 1990, as well as discuss other issues and challenges the golf course industry will face in 1991.

The prolonged cool, wet weather we endured in May of 1990 set the stage for serious outbreaks of take-all patch of bentgrass, caused by **Gaeumannomyces graminis**. This fungus is a soil borne root parasite that is favored by cool temps, wet soils, high pH, and in certain cases, sandy soils. In fact, the most serious cases of take-all patch were found on newly constructed (or rebuilt) greens and tees with sand rootzones. I also observed take-all patch on new bent fairways — either newly constructed or following Roundup renovation and overseeding.

The pathogen **Gaeumannomyces graminis** was once known as **Ophiobolus graminis**, and the disease was called "Ophiobolus patch". Since **G. graminis** also causes take-all of wheat and other cereals, the name take-all patch was adopted for the disease on bentgrass. You may recall that until recently Ophiobolus/take-all patch was found primarily in coastal areas of the US. However, over the last few years, take-all patch has been observed with increasing frequency in the midwest. Cool, wet springs such as 1990 will probably continue this trend.

Symptoms of take-all patch include a yellow or brown, circular patch of 6-12" in diameter, sometimes sunken or with green grass in the center (frog eye). Most often, plants in a patch are weakened because of root damage, but do not totally die out. Patches often appear first in June or July when higher temperatures place infected plants under heat or water stress. In a few cases, I have seen symptoms appear first in autumn, for example during an Indian summer weather pattern. The severity of symptoms fluctuates through the season as temperatures, humidity, and rainfall patterns change.

At present, control of take-all patch is very difficult with fungicide applications. Studies are underway to identify products and timing to optimize control. Symptoms can often be suppressed by reducing stress on plants, increasing fertility, and lowering soil pH with acidifying fertilizers such as NH₄C1. The disease is too spotty in occurrence and fungicide efficacy is too low for me to recommend wide-spread, preventative applications on new bent seedings. If you are unfortunate and find take-all on your bentgrass, then curative fungicide treatments with Rubigan and related materials may prove helpful.

Other diseases associated with the cool, wet spring of '90 included Fusarium path (a.k.a. pink snow mold) and leaf spots. Both are quite common and easy to control. However, another disease that occurred last spring which caused some concern among area superintendents was yellow patch (cool weather brown patch) caused by **Rhizoctonia** species (not **R. solani**). Symptoms include yellowing of foliage (primarily **Poa annua**) in an expanding ring. Sometimes the ring itself is only 1-2 inches wide. Recovery in the center of the diseased area is usually quite rapid and the disease often disappears with the arrival of warmer weather in mid June. If it becomes necessary, fungicide control may be achieved with Chipco 26019 and probably also Prostar (EUP only).



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(Challenges for 1991 cont'd.)

Another serious problem that I have been observing in the District for the past few years is more related to management than to diseases, and is one that has serious political/public relations overtones. I am referring to the building, rebuilding, and subsequent management of putting greens. Many older clubs around Chicago have old soil mix greens with years of topdressings. Layering, drainage, and **Poa annua** contamination are major problems. Also, these greens often have contours or other design features (eg small size) that don't fit with today's management schemes or play patterns. So, after the requisite political maneuvers, the decision is made to rebuild. Unfortunately, that is only the beginning of the fun. Next, someone has to decide what kind of green(s) to build, how many to rebuild, who will design, who will build, etc., etc.

General consensus is that a "soilless" green is the way to go, although I know of several soil mix greens that have recently been completed. Green construction technique remains a controversial topic. Sand or 80:20 rootzone greens (including the USGA design) can resolve drainage and compaction problems, but these types of greens can have troubles too, especially if shortcuts are taken during construction. Difficulties on new sand greens can usually be traced to irrigation, drainage and/or fertility problems. Also, new greens **must not** be rushed into play until they are mature (members and green committee be damned, if necessary!). Greens with low plant density, immature foliage, and no organic cushion are often forced into normal playing conditions (low cutting height, etc.) and become thinned, weak, and subject to **Poa annua** invasion. I have seen this far too often. Just Say NO ...

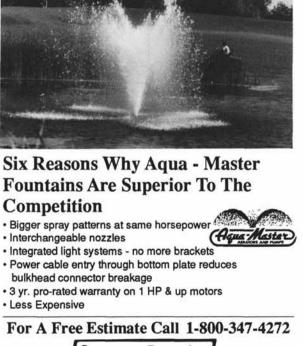
Finally, let's not forget we have other political and regulatory issues to address. Research over the next few years will attempt to further define the environmental impact of pesticides and fertilizers used on golf courses. Restrictions on pesticide availability and usage may be coming from the federal EPA or state and local agencies. We need to reduce our dependence on synthetic products for maintenance of fine turf by using IPM principles and naturally occurring organic products. At the same time, the public's perception of the inherent safety/toxicity of pesticides and the risk involved in their use needs to be improved. These issues have become emotionally charged and the situation can get blown out of proportion very quickly, as happened with Alar on apples.

Also, ground and surface water quality and possible contamination will be large issues in 1991. Presently, the IL Pollution Control Board is drafting the Proposed Groundwater Quality Standards as required by the IL Groundwater Protection Act which was passed in Springfield last year. If the final Standards are highly restrictive regarding pesticide and fertilizer contamination, the impact on agriculture (including turf management) in Illinois could be severe. Keep your ears open for more news on this front.

Robert Zimmerman and David McComb Receive NOR-AM Scholarships John Turner, sales representative for NOR-AM Chemical Com-

John Turner, sales representative for NOR-AM Chemical Company, presented two \$500.00 scholarships to Senior Robert Zimmerman and David McComb from Purdue University. Both students were recognized at the Midwest Regional Turf Conference held in Indianapolis on January 22, 1991. The annual scholarship assists turfgrass students in meeting their educational needs and their professed interest in turfgrass management.





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Birth of a Video

by Jerry Mach Lake Bluff Golf Club

I suppose it started 3 years ago when over 50% of my crew did not return. This meant that on many occasions I could not send a new man with an experienced man, and this alone can take a year off of your life. Instead of (in the Spring) just one machine in a sand trap, creek or pond, the multiplier of calamities was increased by 6!

As in all Springs, finishing up last year's "Project", cleanup of your course and the inference of golfers summertime expectations in the second week of April. I fell behind and could not provide individual training until well into May. It was at this point that I realized a Video, with even just the basic jobs, could have helped a lot.

Some men can do, and yet can not teach or didn't care to explain the finer points of greens cutting or trap raking, for example, and I realized a video could.

Another thing we have all noticed is that until a man conquers the fear of the machine or the fear of doing a bad job, it is very hard to explain those "Finer Points". This is where the video could have great merit. Play it before he starts the job and then play it again a week or two later where the atmosphere is free of the pressure of the actual job. Made sense to me, but the following year I had only 1 new man to break in and I procrastinated that I just could not make the time and did not have the expertise with a camcorder to achieve my goal. Fortunately, a Professional Videoman liked my idea and volunteered to come to the golf course at 5:30 a.m. to set up, and shoot the different jobs as they were being done.

Three days of shooting, seven days in editing, ten days of dubbing in English and three days to dub in Spanish, produced two 30 minute tapes. They cover cup changing, greens cutting, trap raking and golf cart maintenance in what I consider a generic approach.

Two private clubs and two public course Supers have rated it "8" or excellent on it's content (all have ordered the Spanish version) and I am pricing it at \$39.95 (plus \$4.00 shipping and handling) or \$80.00 for both (free shipping and handling).

Since my wife, daughter and son have all contributed to this endeavor, I have named our group MACH IV Productions, P. O. Box 543, Wauconda, Illinois 60084.



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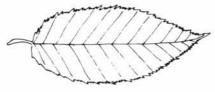
Leaves, Limbs, Needles & Boughs

by Fred D. Opperman

Carpinus Caroliniana (kar-pi'nus ka-ro-lin-i-a'na) -American Hornbeam or Ironwood.

This is a tree that one will find naturally in the forests of Illinois. It is a tree that you should include in your tree inventory. Hornbeam or Ironwood fits perfectly among the oak, hickory groves that you see on many of the golf courses and parks. It is a small tree reaching a height of only 20-30' at maturity and a slow grower.

Leaves: Alternate, simple, 21/2 to 5" long, 1 to 2" wide, ovate-oblong, taper pointed, rounded or heart-shaped, sharply and double serrate, glabrous, except pilose veins beneath. Leaf color is dark green in summer changing to yellow orange and scarlet in the fall.



Bud: Imbricate, small 1/12 to 1/6" long, 12, 4 ranked scales, narrowly ovate to oblong, pointed, reddish-brown-black. Often downy on edges, frequently with woolly patch of down on tip.



Bark: Smooth, thin, dark bluish gray, close fitting, sinewy, fluted with smooth, rounded longitudinal ridges; wood heavy and hard.

Culture: Somewhat difficult to transplant, so oversize the ball and move in the spring. Performs best in deep, rich, moist, slightly acid soils although will grow in drier sites. Does well in heavy shade and is often found as an understory plant in the forests. This tree is best in naturalized sites.

> Credit: "Manual of Woody Landscape Plants" by Michael A. Dirr

"Fore"

While March winds blow Winter's sting away, We hope Spring weather comes 'o stay. Our Season begins with Spring's invitation,

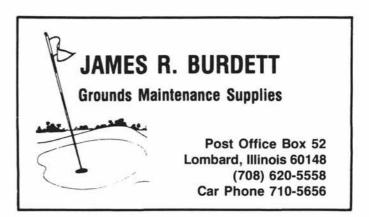
In time to end Our Winter vacation. We're ready to welcome the very first sign,

That says, "Let's go - it's that time."

Each March, Nature designs a New Season, When all breaks loose, with good reason,

To awaken the Golf Course, We adore, And once again, hear that Voice call "FORE". Kenneth R. Zanzig







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