



Upcoming Events

March 3-5 — Midwest Regional Turf Conference at Purdue University.

March 10 — MAGCS meeting at Nordic Hills G.C.
6:00 p.m. dinner

April 3 — CDGA Green Seminar — Butterfield C.C.

April 28 — MAGCS meeting at Olympia Fields C.C.

May 19 — Joint association meeting at Eagle Ridge C.C., Galena, IL. Call (815) 777-2444 to reserve lodging & golf for this special event

June — How about having this meeting at your place?

July — How about talking your best friend into having the meeting at his place?

August — We need a place for this meeting too!

September 8 — MAGCS meeting at Deer Creek G.C.

October 6 — MAGCS meeting at Wilmette C.C.

“Spring”

Great anticipation springs from Spring.
Seed Catalogs enter full swing.
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Kenneth R. Zanzig

For those of you who attended the Conference in San Francisco and failed to attend the GCSAA Prayer Breakfast, you really missed a dynamic speaker in not hearing what Mr. Norman Williams had to say. Somehow we need to get the Prayer Breakfast moved up to a better hour so we can get more people involved. Next year make an effort to attend.

Superintendent Position Open

Contact Mr. Jack Noorman, Green Chairman, Forest Hills C.C., 5135 Forest Hill Road, Rockford, IL 61111. Phone (815) 968-2241.

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Dear Friends,

Opportunities require my relocating out of the Chicago area. I have made many good friends in my 9 years tenure in the turf business and to you all, I wish continued success in being the finest Golf Course Superintendents in the game. Thank you for your support and friendship.

Sincerely, Gary Dorsch

The USGA-GCSAA Turfgrass Information File is available for anyone wishing to gain information through abstracts on subjects dealing with turfgrass research. By calling 517-353-7209 and talking to Mr. Peter Cookingham, you will be able to search the files for your particular subject. A fee of \$.50 (fifty cents) per abstract will be charged, not to exceed \$50 per subject. The file is continuing to have information added to it.

Turfgrass Information File is being developed for use by anyone. A future phone modem will be available to anyone wishing to directly hook up with the file information. The service is being provided by the USGA-GCSAA Turf Research Program.

Remember to call in for reservations for the Eagle Ridge C.C. golf tournament in May. They are only taking the first 200! Get out and support the Illinois Turfgrass Foundation. This editor feels that it should be mandatory to belong to the ITF to be a member of the MAGCS.

Barrington Hills Country Club is looking for an Assistant Superintendent. Call John Ebel at (312) 381-0140 for an interview.

The word on the street has it that our “Poet Laureate” Ken Zanzig is going to retire about April 1st of this year. He may retire from the golf course, but he better not retire from sending in a monthly poem!

Congratulations are in order for our good friend Andy Bertoni who received the GCSAA Distinguished Service Award in San Francisco.

March meeting is the 10th of the month and NOT the 18th of March and it will be held at Nordic Hills G.C. There will be bowling & swimming after 1 p.m. Cocktails will be at 5 p.m. and dinner at 6 p.m.

Bob Breen is a Grandpa!

Congratulations to Bob Jr. and his wife on the birth of their daughter Mary Francis on January 25th and who weighed in at 7 lb. 1 oz.

Spring Gin Classic

This year the annual Gin Classic will be held on Monday, March 24th at Hackney’s Restaurant in Wheeling at noon. Be sure to come and support this fun event for it supports a worthy cause every year.

Our prayers go out to the Leonard Berg family on the passing of his mother on February 7th, 1986.

Our New GCSAA Officers Elected at San Francisco
President: Riley L. Stottern, CGCS
Vice President: Donald E. Hearn, CGCS
Secretary-Treasurer: John A. Segui, CGCS
Immediate Past President: Eugene D. Baston, CGCS
Directors: Gerald L. Faubel, CGCS;
William R. Roberts, CGCS
Kenneth A. Sakai, CGCS
Stephan Cadanelli, CGCS
Dennis D. Lyon, CGCS

Golf Course Pond Construction

by Alan R. Frantik, Ass't. Supt.

St. Charles Country Club, St. Charles, IL

Ponds on golf courses can serve many functions. One of the most important functions of today's golf course superintendent is water management. Golfer's demand optimal playing conditions throughout the season and one of the most important tools in providing these conditions is a supply of irrigation water that the superintendent can use at his discretion.

The pond can serve as a reservoir for storm water drainage. Compaction of the soil, shallow rooting of turf and trees and the denitrification of available nitrogen can result from large puddles of water standing in the fairways and rough. Mechanical damage done by mowing equipment and golf carts can further destroy the turfgrass stand. Having to close the course or sections of the course is inconvenient for the golfer and not profitable for the management, but after an extended period of precipitation, the superintendent may not have any alternatives. The construction of a pond in a perennial wetspot, assuming the soil characteristics allow for water retention and the economical aspects are justified, can alleviate the problems associated with flooded areas. With the world's useable water supply reaching a critical shortage point, any opportunity to retain storm water on the course is to the superintendent's advantage.

The third function of a golf course pond is to provide beauty and improve the playability of a golf hole or holes. Golfers enjoy the beauty and the challenge associated with water, and oftentimes, the most memorable shot of the day is the one that was hit over the lake.

The lake should be designed by a golf course architect, with the assistance of the superintendent. The architect will take into consideration the effect the lake will have on the golfer, as well as the effect of the lake on maintenance practices. The architect will design the lake so that the character of the golf course is not altered. All lakes should be designed so that the high handicap has a chance to clear it and as with any hazard on the golf course, it should be visible to the golfer and not create slow play.

The lake and the area affected by the lake construction should not create maintenance headaches for the superintendent. The superintendent should be consulted about existing tile lines that should be preserved during construction and his opinion is important concerning what should be done with the soil generated from the excavation. Steep banks and other hard to mow areas should be avoided or designed to require low maintenance. A recent trend in minimal maintenance practices is the incorporation of wild flower mixes into the landscape. A variety of mixes are available with assorted sizes, colors and textures. The superintendent should choose a mix suitable for the area to be seeded.

Knowing the sight and soil features that affect the proposed lake location are important in the planning, building and maintenance of a man-made lake. Soil permeability and the amount of runoff created by the watershed are the important factors. Soil permeability is the quality that enables the soil to transmit water downward. Any soil with the permeability of less than 1/2 inch per hour is suitable for lake construction. Clay and silty clay soils are soils with low permeability and will lose only 1 to 2 feet of water per year. Sand, gravel and sand-gravel

soils are unsuitable for pond construction and are only acceptable if the need for water retention justifies the cost of sealing the pond. A permeable soil can lose more than 4 feet of water per year. A soil survey map is a good reference for the initial planning, but soil core samples should be taken to insure water retention.

Not only does the lake have to be able to retain water, it has to have the capabilities to act as a reservoir for stormwater drainage. The extent of the storm and the distribution of rainfall during a rainstorm effect the rate of runoff. The area of the source of the runoff, known as the watershed, has to be determined. Hydraulic engineers should be consulted to make recommendations. They will determine the size of the inlet pipe, the type of overflow structures and the materials that can satisfy their specifications. All lakes should be designed and engineered with an overflow device, so that the water level in the lake does not exceed the lake's banks. Storage capabilities should be sufficient to store excess flows from 100-year storms of all intensities and durations.

The excavation of the lake should be done by an earthmoving contractor. Bulldozers and scrapers are the most common and efficient pieces of equipment to excavate a lake site, but logistics may require the use of large backhoes and semi trailers to dig and haul the soil generated. This soil can be used to build new tees, add on to existing tees or for the construction of berms. The perimeter of the lake should be deep enough so that the establishment and growth of aquatic weeds and algae is kept at a minimum.

Although the superintendent should oversee all aspects of the lake project, including the planning, designing, engineering and construction of the lake, his primary concern is to reestablish the effected area for play. With the use of progressive turfgrass management practices, the hole should be ready for play just a few months after the construction has been completed.

A golf course pond can be an asset to any golf course layout and the benefits can be enjoyed by both the golfer and the superintendent. Careful planning and implementation of the plans is essential for a successful project.



An IRA gives you an immediate tax break

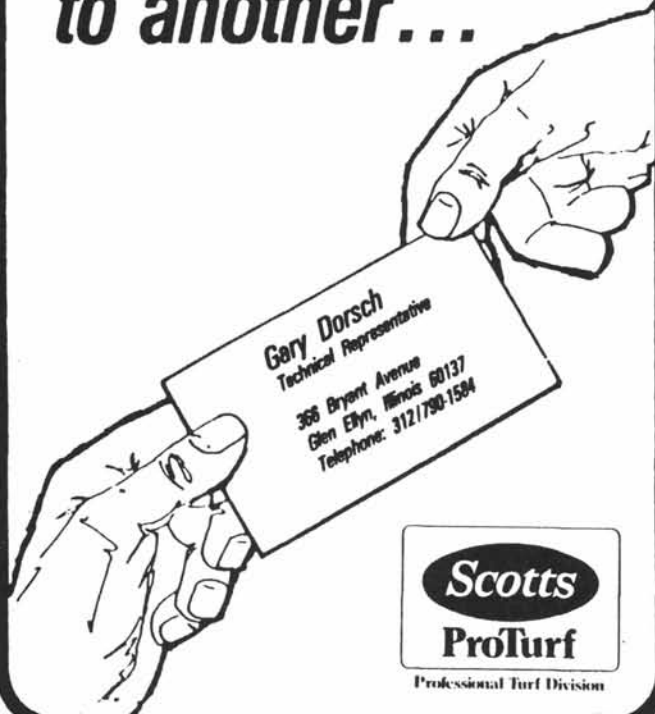

Besides saving for your retirement, there's another good reason not to let a year go by without making your IRA contribution. An IRA can give you an immediate tax break.

The amount, of course, depends on your income. Use the chart below to see how an IRA might benefit you when you file your 1985 tax return:

TAXABLE INCOME	INCOME TAX SAVINGS*		
	SINGLE \$2,000 CONTRIBUTION	MARRIED, ONE WORKING \$2,250 CONTRIBUTION	MARRIED, TWO WORKING \$4,000 CONTRIBUTION
\$ 18,000	\$ 460	\$ 388.00	\$ 668
\$ 25,000	\$ 542	\$ 495.00	\$ 880
\$ 35,000	\$ 680	\$ 630.00	\$1,117
\$ 45,000	\$ 833	\$ 743.00	\$1,320
\$ 60,000	\$ 960	\$ 855.00	\$1,520
\$ 75,000	\$ 960	\$ 945.00	\$1,680
\$100,000	\$1,000	\$1,012.50	\$1,800
\$130,000	\$1,000	\$1,102.50	\$1,960
\$175,000	\$1,000	\$1,125.00	\$2,000

*Based on 1985 tax rate tables

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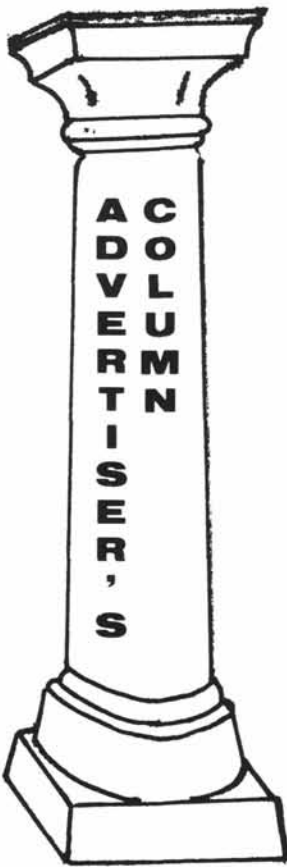
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The Grass Roots of Huber Ranch Sod Nursery, Inc.

In 1929, three brothers formed a trucking company with a silver cup contract to haul bread from Louisville to Chicago. What happened after that was a natural chain of events which led up to 1934 when Wm. C. Huber moved to Chicago to get that part of the Huber & Huber Motor Express operation straightened out before he moved back to Kentucky. In the following years, he said many times that he never could get it straightened out the way he wanted to though he had worked 7 days a week to accomplish it.

In the late forties, Huber & Huber Motor Express had grown to the 20th largest truckline in the country. In order to get away from the trucking business for a short time each week he purchased 1/2 of a farm in Schneider, Indiana at a public auction. Later

on that week he decided that he must have the other 1/2 of the farm in order to start toward his goal of a beautiful cattle farm. Through a great deal of bargaining and an extra \$100/acre he was able to put the 850 acre operation back together again. After much traveling and bartering he was able to put together the nucleus of a registered, white-faced, polled Hereford herd which was to achieve 2 National Champions within the next 6 years after his death in 1985, with the assistance of his son, Harold Huber, and an able manager.

By 1964, Harold had moved to Louisville to help with the complexities of Huber & Huber Motor Express which resulted in its sale that year. Since Harold and his family decided to stay in Kentucky after the truck line's sale, Wm. J. Huber decided to take over the farm after the cattle were sold if he could find its best possible use. With the help of Dr. Wm. H. Daniel of Purdue University, they determined that its best use would be a sod farm because of its level sandy loam mineral soil and its ample water supply. Leaving the trucking business allowed Bill to take over the operation and convert it slowly into a full fledged sod operation. The farm was Bill's father's dream and so in his honor, the new operation was called Huber Ranch Sod Nursery. The first turf was seeded in the fall of 1965. The first sales occurred in the spring of 1967 using Ryan sod cutters, and loading everything by hand.

While sod production was progressing, in order to meet cash flow, Bill put together a 500 head feedlot cattle operation and a thousand head hog finishing operation. As the sod operation grew, the cattle feeding seemed to be the first part of the operation that should go. In 1972, the feed lots came out and the silos came down. The hog operation was profitable and continued on until 1975, when the company turned to distribution of garden center supplies as the diversification end of the business.

In 1981, Huber Ranch Sod Nursery started growing creeping bent sod because the soil is ideal for use on greens. The soil's main features include: 75% black sand, 5 - 9% organic materials, and high porosity. It allows air and water to move freely through the soil after transplanting. It also allows water and fertilizer to move rapidly to the root zone to establish the sod quickly.

Since moving into the creeping bent sod market, Huber Ranch has taken on a complete line of complimentary items such as chemicals, grass seed, hydro mulch, greens covers, golf course equipment and mowers. Now, in its 20th year, the entire farm is in bluegrass sod production except the acreage in Penncross and Penneagle bent sod. The third generation, namely John and Jim Huber, insure that we are here to stay. Since the farm is in full production, the entire organization is concentrating on better and better service to its customers.

Systemic Fungicides and Plant Growth Regulation

by Randall T. Kane - CDGA Turf Advisor

In recent years, several systemic fungicides have been developed which control a wide range of turf diseases including the "new" patch diseases. Many of these compounds are toxic to fungi because they inhibit the enzymes involved in sterol biosynthesis - an important point that I will come back to later. Fungicides of particular interest to turf managers are Elanco's Rubigan and Mobay's Bayleton. These fungicides are active at relatively low application rates, are absorbed and translocated by plant roots, and have long term residual activity. Another interesting aspect of these products is their ability to cause visible changes in the color and growth habit of treated turfs. Growth effects observed in the field include dark green to blue green leaf coloration, increased stand densities, and reduced leaf growth. These responses are not observed consistently however, and many questions remain as to the factors controlling expression of growth regulating activity. (cont'd. page 18)



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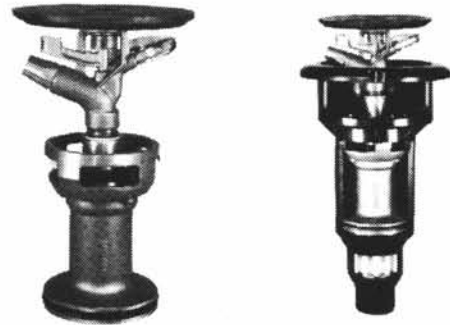
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1986 Turfgrass Seed Supply

As many turf managers know, the 1985 turfgrass seed harvest was poor. This harvest disaster is resulting in short supply of desirable turfgrass cultivars. Turf managers and golf course superintendents planning spring overseeding and/or establishment endeavors are encouraged to buy seed as early as possible this year, and plan for alternative cultivars if the first choice is unavailable. This report was compiled by interviewing major seed company representatives throughout the country and is an excerpt from the spring issue of the **Illinois Turfgrass Update**.

Legend

A = Near Surplus
 B = Adequate Supply
 C = Shortage or Sold Out
 Int. Seed = International Seed Co.
 Gar. Will. = Garfield Williamson Seed Co.

Kentucky Bluegrass

Adelphi, Adikes, C
 Admiral, Int. Seed, C
 America, Pickseed, C
 Aquila, Northrup King, C
 Banff, Pickseed, C
 Baron, Lofts, C
 Bensun, Warrens, C
 Birka, Burlingham, C
 Challenger, Turf Seed, C
 Classic, Peterson, C
 Columbia, Turf Seed, C
 Eclipse, Gar. Will., C
 Enmundi, Int. Seed, C
 Enoble, Int. Seed, C
 Fylking, Jacklin, C
 Georgetown, Lofts, C
 Glade, Jacklin, C
 Haga, Burlingham, C
 Merit, Full Circle, B
 Midnight, Turf Seed, C
 Monopoly, Peterson, C
 Mystic, Lofts, C
 Nassau, Lofts, B/C
 Nugget, Northrup King, B
 Parade, Northrup King, C
 Park, Northrup King, C
 Ram I, Lofts, C
 Rugby, Northrup King, C
 Scenic, Int. Seed, C
 Sydsport, Burlingham, C
 Touchdown, Pickseed, C
 Vantage, Int. Seed, C

Chewings Fescue

Agram, Pickseed, B
 Atlanta, Northrup King, A
 Checker, Int. Seed, B
 Highlight, Int. Seed, B
 Jamestown, Lofts, C
 Shadow, Turf Seed, B
 Victory, Pickseed, C

Hard Fescue

Aurora, Turf Seed, B
 Reliant, Lofts, B
 Scaldis, Northrup King, A
 Spartan, Pickseed, C
 Tournament, Pickseed, B
 Waldina, Turf Seed, B

Perennial Ryegrass

Agree, Lofts, B
 Allstar, Adikes, B/C
 Barry, Lofts, C
 Birdie II, Lofts, C
 Blazer, Pickseed, B
 Citation II, Turf Seed, C
 Cowboy, Lofts, C
 Delray, Northrup King, C
 Derby, Int. Seed, C
 Elka, Int. Seed, C
 Eton, Northrup King, B
 Fiesta, Pickseed, B
 Gator, Int. Seed, C
 Goalie, Northrup King, B
 Jazz, Pickseed, C
 Manhattan II, Turf Seed, B
 NK200, Northrup King, C
 Omega II, Turf Seed, C
 Palmer, Lofts, B
 Pennant, Burlingham, C
 Pennfine, Northrup King, A
 Prelude, Lofts, C
 Regal, Int. Seed, C
 Repell, Lofts, B
 Yorktown II, Lofts, B

Tall Fescue

Adventure, Warrens, B
 Apache, Turf Seed, B
 Brookston, Int. Seed, C
 Clemfine, Lofts, B
 Falcon, Burlingham, B
 Galway, Northrup King, B
 Hounddog, Int. Seed, C
 Jaguar, Gar. Will., B
 Maverick, Pickseed, C
 Mustang, Pickseed, B
 Olympic, Turf Seed, C
 Rebel, Lofts, B

Creeping Red Fescue

Dawson, Northrup King, A
 Ensylva, Int. Seed, B/C
 Fortress, Turf Seed, C
 Ruby, Northrup King, A

(cont'd. page 17)

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 Futura Plus, Pickseed, B
 Galaxy, Turf Seed, C
 Marvelgreen, Lofts, C
 Medalist, Northrup King, C
 Oregreen, Turf Seed, C
 Par 3, Lofts, C
 PhD, Int. Seed, C
 Showboat, Int. Seed, C

Creeping Bentgrass
 Emerald, Int. Seed, C
 Highland Colonial, Northrup
 King, B
 Penncross, Tee-2-Green, C
 Penneagle, Tee-2-Green, C
 Seaside, Northrup King, B

**John C. Fech, Asst. Horticulturist
 Turfgrass Ext., University of IL**

Foundation Announces National Family Golf Week Sweepstakes

NORTH PALM BEACH, Fla. — The week of July 4-11 will be designated "National Family Golf Week" as part of a major sweepstakes contest and an integrated media campaign to promote family golf, it was announced by NGF President and CEO David B. Hueber.

"We want golf to be America's game," Hueber continued, "and it's fitting that we choose this traditional national holiday period for the focal point of this promotional campaign. We will be encouraging parent-child events, and family golfing throughout 1986."

The Family Golf promotion is an integrated media campaign that will include network television and national print ads, culminating with a sweepstakes contest offering the following prizes:


- Grand Prize: A Pontiac 6000 STE
- First Prize: A week's vacation at Walt Disney World Golf Resort
- Second Prize: A set of golf clubs for each member of the family
- Third Prize: A golf bag for each member of the family
- Fourth Prize: Golf shoes for each member of the family
- Fifth Prize: 100 dozen golf balls, with a dozen balls going to 100 family winners.

To enter, golfers need only to fill out an entry form indicating their name, age and address, as well as the names and ages of those in their household who play golf or would like to play. Entry forms will be made available to golf shops across the country and other locations to be determined, and through advertisements placed in major golf publications. Golf Digest/Tennis Sports Marketing will be orchestrating the sweepstakes contest for the Foundation.

The "Family Golf" television campaign features the Jack Nicklaus family in two advertisements. These public service announcements, promoting golf as a family game, were created and directed by Jack Nicklaus Productions, Inc., and produced by PGA Tour Productions. The PGA Tour is contributing the television time during golf telecasts throughout the golf season.

"Family Golf will become a long-term promotional program for the Foundation," stated Hueber. "Our research indicates that three out of four golfers playing today were introduced to golf by family members or friends."

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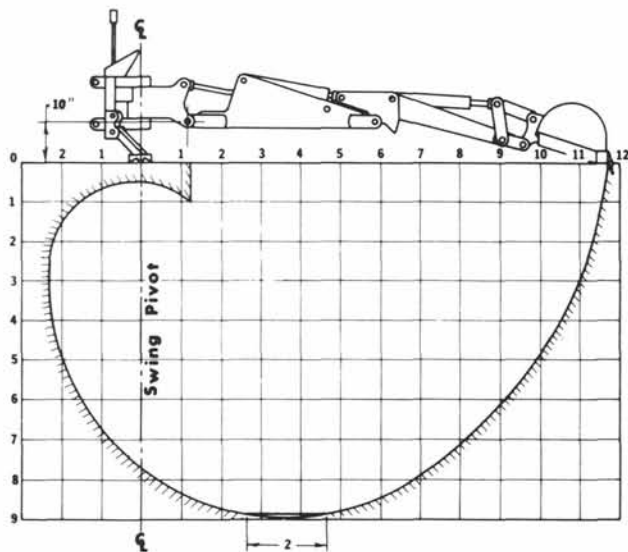
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(Systemic Fungicides and Plant Growth Regulation cont'd.)

While at Cornell, Prof. Richard Smiley and I conducted studies under controlled conditions in the greenhouse to try to determine the nature and extent of the plant growth regulating activity of the sterol-inhibiting systemic fungicides. We also tested several plant growth regulators including Elanco's Cutless, which has a chemical structure similar to Rubigan. Chemicals were applied as soil drenches to 6-week-old Merion and Fylking Kentucky bluegrass seedlings. These plants were grown up from single seeds and selected for uniformity. We used relatively high application rates in this study (1-2 oz. a.i./1,000 ft.²) since higher rates are often required to control patch diseases and are correlated with growth effects in the field.

Our results indicated that the sterol-inhibiting fungicides did reduce leaf growth rates and caused darker green color of leaves. However, we did not measure an increased chlorophyll content (leaf weight basis) in many cases. In contrast to field observations, we found that tiller densities decreased at high application rates. In some instances the highest rates of Rubigan were phytotoxic. This toxicity was expressed as total inhibition of leaf growth and tiller formation, with rust colored lesions appearing on leaves.

The growth retardant Cutless had effects similar to the fungicides, except that it caused a significant increase in tillering. However, application rates for Cutless were 1/4 x those of Rubigan and Bayleton. Since Cutless and Rubigan are closely related compounds, the difference in application rate may have been the cause of the different effects on tillering, but this effect is more likely the result of chemical differences between the two compounds.

As I have alluded to, the compounds which have plant growth regulating activity inhibit sterol biosynthesis in fungi. In plants, synthesis of the growth promoting hormone gibberellin is controlled by the same types of enzymes that are involved in sterol biosynthesis. Presumably then, sterol inhibiting fungicides gain their plant growth regulating activity by inhibiting gibberellin synthesis in plants. In fact, we have shown in our studies that addition of gibberellin to Cutless treated plants reversed the growth inhibition. Several products other than those mentioned are known or believed to be sterol/gibberellin inhibitors. Experimental products under development by Ciga-Geigy (CGA 64250-"Banner") and ICI Americas (PP 333-paclobutrazol) may appear for use on turfgrasses in the future.

It is likely that the variable effects on plant growth seen in the field are due to differences in fungicide uptake and translocation (i.e., a dosage response). Under natural field conditions, the amount and length of exposure can be highly variable and depend on many factors such as temperature, rainfall, microbial activity, and, of course, application rate.

Chemical compounds such as Rubigan and Bayleton may act as fungicides, plant growth retardants, or even herbicides depending on the application rate and length of exposure. As always, read and follow label directions to avoid phytotoxicity problems.

(This article is a summary of research conducted by R. Kane and R.W. Smiley at Cornell University which was originally published in *Agronomy Journal* (Vol. 75, May - June, 1983, p. 469-473). Reprints of the journal article can be obtained from R. Kane at CDGA offices in Oak Brook.)



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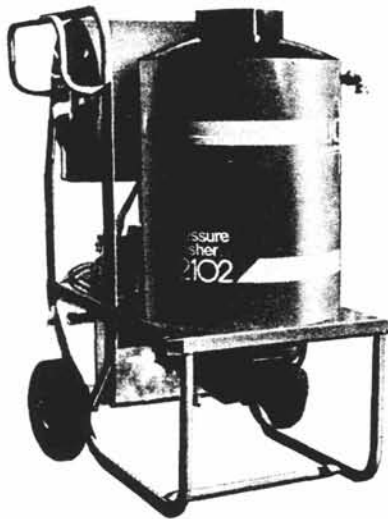
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