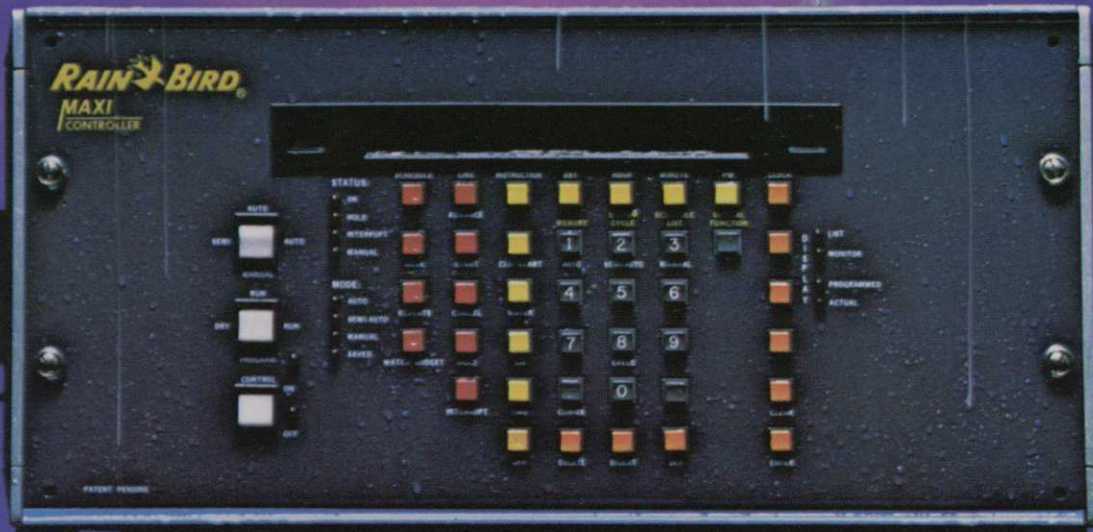


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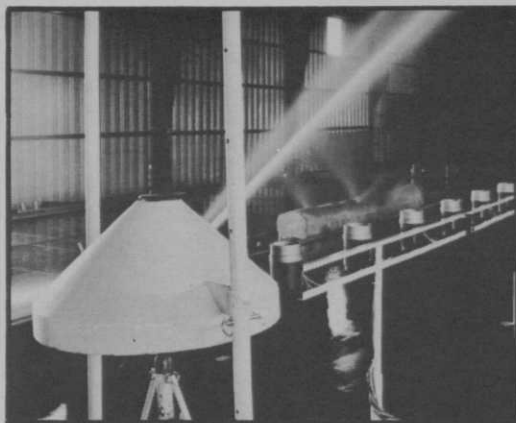
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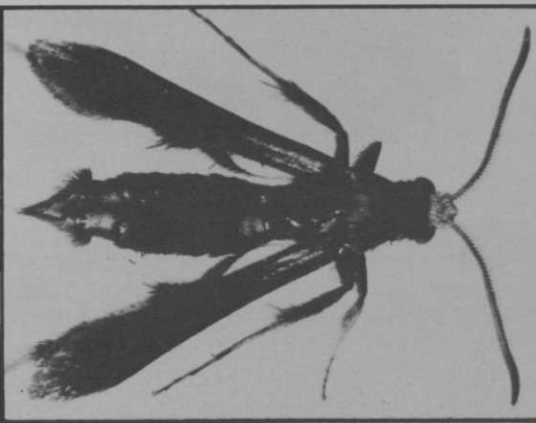
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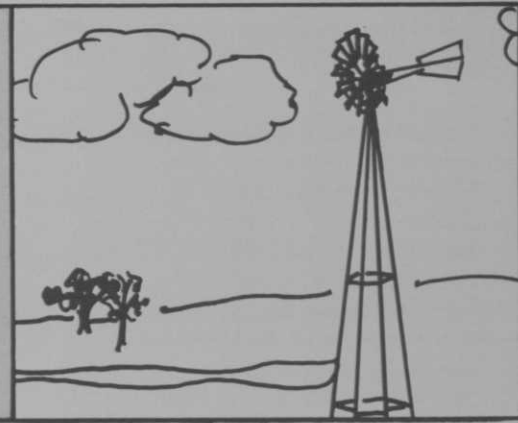




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# Golf Business / july

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**FRONT COVER:**

Our front cover is one of the Tree Pest Identification photos. I saw a Pin oak, 2-inch, listed for \$169.95 the other day!



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# Clippings

Brief bits of news from in and around the golf business.

The editorial in the **South Florida Green** this month is concerned with the golf course **mechanic problem**, citing General Motors as estimating the automobile mechanic shortage as 275,000 just for preventative maintenance and not repairs. Right now, the U.S. has one mechanic for every 275 cars. The editorial further states (and we agree) that we must look to the turf equipment manufacturers to help train golf course mechanics. **Jacobsen** is holding such a training session at **Lake City Community College** in Florida as this issue goes to press. We will have an extended news feature in the **August issue of Golf Business** covering the concept behind such schools.

**Dr. Richard W. Smiley**, Assistant Professor of Turfgrass Pathology at Cornell University, with research support from M.M. Craven, has tested 14 fungicides and one nematicide on Kentucky bluegrass through three seasons for their effect on thatch and pH. Dr. Smiley found that decomposition of sulfur-bearing fungicides contributed sufficient acidity to inhibit the decomposition of thatch and these acidification processes explain the magnitude of thatch accumulation in most instances. He also found that the direct toxicity towards the microflora with the nonsulfur-bearing fungicides also contributed to thatch. He found that Acti-dione RZ, Acti-dione TGF, Captan, Daconil 2787, and Dyrene showed minimal thatch accumulation and pH levels not significantly different from the check areas. Smiley reported that "The long-term

effects of these fungicides are far more important to the overall economy of management programs and to turfgrass quality than the short-term cost and fungitoxic-spectrum considerations." He stresses that costs to remove thatch and to neutralize soil acidity are very likely to exceed differences in costs of fungicides.

The **George S. May Memorial Trophy**, one of the largest and most valuable, is missing. The Western Golf Association has offered a \$1000 reward for information leading to its recovery. The trophy lists, on engraved plates at the bottom, all of the champions of the WGA, including the Western Open since 1899, the Western Amateur since 1899 and the Western Junior since 1914. It weighs 60 pounds, and is 44 inches tall. The present value is estimated at \$50,000.

If you're buying a used vehicle, you can find out if it was ever subject to a manufacturer's recall by calling the U.S. Transportation Department toll-free at 1-800/424-9393. The number operates from 7:45 a.m. to 4:15 p.m. Washington, D.C. time, Monday through Friday. Give them the vehicle's year, model and serial number.

The Cooperative Extension Service at Clemson University has issued a memorandum, after being notified by Rohm and Haas and the South Carolina Plant Pest Regulatory Service that **Kerb 50-W** is now classified as **restricted use**.

The **Ronald Fream Partnership**, a golf course architectural firm based in Santa Rosa, California, has received three major international design projects.

Fream and his colleagues will provide the design and construction supervision for the 18-hole **Pantani Mentiri Country Club**, being built by the oil-rich Sultanate of Brunei on the west coast of Borneo. The firm has recently completed working drawing for the 27-hole, **World Class Bukit Kiara Country Club** near Kuala Lumpur, Malaysia. They have also signed a contract with the Government of Trinidad in the West Indies to provide master planning, design services and construction management for a 27-hole golf course project to be located at **Chaguaramas**, ten miles from the capital of Port of Spain.

**Golf Magazine** has sent a check for \$25,000 to each of 100 professional women golfers who will compete in the **LPGA Championship** at the **Jack Nicklaus Golf Center**. The check is not negotiable unless the golfer breaks the 18- or 72-hole tournament record, or both, enroute to the championship. The winner could enjoy the richest payday in the history of women's golf, \$72,500.

**HMC/The Green Machine** is moving to a new manufacturing plant at 20710 Alameda in Long Beach, California. Part of a major expansion drive, the new plant will house all of the company's administrative offices, engineering, production and warehousing functions plus international division.

**LESCO Products Division** of **Lakeshore Equipment & Supply Co.** is sales agent for **CBS Blend Ryegrass**, east of the Rockies. **LESCO CBS Blend** contains **Citation, Birdie** and **Omega** perennial ryegrasses. **LESCO** has also been named marketing agent for **Pencross** and **Penn Eagle** bentgrasses for the state of Florida.

**Dick Craig**, General Manager of the **Jack Nicklaus Sports Center** since earlier this year and Superintendent since 1971, is the first recipient of the combined **Golf Course Superintendents Association of America/Ladies Professional Golf Association Citation of Performance**. Craig was chosen for his expertise and performance in his profession, his cooperation with the **LPGA** and for the preparation of the golf course for **LPGA Championship** competition.

**Joseph R. Flaherty**, **CGCS**, is superintendent at **Baltusrol Golf**

**Club** in **Springfield, New Jersey**, site of the **1980 U.S. Open**. This is the sixth time the **Open** has been held there.

**George J. Raymond** has been promoted to product manager, responsible for the development and marketing of **Antor, Herban** and **Deltic** pest control products, at **Boots Hercules Agrochemicals Co.**

**B. Hayman Co. (Hawaii), Ltd.**, has appointed **Chuck Bell** as a representative with offices in the **Kailua-Kona** area. **B. Hayman Co.** is distributor for **Yamaha** golf cars, **Jacobsen, Smithco, Bunton, Standard Golf** and other turf maintenance products in **Hawaii** and the **Pacific Basin**.

**Don Andrews** has been honored by the **Upjohn Company** for outstanding achievement in sales for 1979. He is one of 11 sales representatives named as repeat winners to the company's **Agricultural Division Sales Academy**.

While it's early yet, it would be good to keep in mind that the **International Turfgrass Society's** fourth research conference will be held in **Canada**. Occurring **July 20-23, 1981**, at the **University of Guelph** in **Ontario**, the conference will be more available to **U.S. Superintendents' attendance**.

The **Penn State Turfgrass Field Days** will be held on **August 6-7** at the **Joseph Valentine Turfgrass Research Center** at the **Pennsylvania State University** in **University Park**. For information, contact: **Dr. Joseph Duich**, 21 **Tyson Building**, Department of **Agronomy**, **University Park, PA 16802**.

The **New York State Turfgrass Association's Annual Conference** will be held at the **Rochester War Memorial**, **November 11-13** this year. The **Genesee Plaza Holiday Inn** will be the host hotel. For information, contact: **Ann Reilly**, Executive Secretary, 210 **Cartwright Blvd.**, **Massapequa Park, NY 11762**, or phone: **516/541-9034** or **6902**.

The sixth annual **National Golf Foundation Daily Fee Workshop** will be held on **November 16-19** at the **Dunes Hotel and Country Club** in **Las Vegas, Nevada**. For information, contact: **National Golf Foundation**, 200 **Castlewood Dr.**, **North Palm Beach, FL 33408**, or phone: **305/844-2500**.



**MarCo., Inc. of Greer, South Carolina** will be handling the sales and marketing of the **Davis 500** golf car throughout most of the **U.S., Canada** and **Europe**. The newly organized firm is directed by former **Davis 500, Inc.** general manager **Douglas W. Berry** (left), **Sales Manager M.D. Brunk**, and **Administrative Manager Lee Chavis** (right).



# Funding the future

Professor H. B. Musser has made an investment in the future. He is the developer of Penncross Bentgrass, Pennlawn Fescue, author of the book *Turfgrass Management*, and a noted educator.

Professor H. B. Musser devoted his career to grass seed research. As a tribute to this outstanding Pennsylvania State University Turf Seed Agronomist, the Musser Foundation was formed.

The foundation's purpose is to assist graduate students in turf research through a fellowship program. This means students who have finished their undergraduate work and are going into turf research may receive financial assistance at this critical point in their careers. Only the interest earned from the H. B. Musser Fund will be used for fellowships, so the dollars you contribute keep on working in perpetuity.

If you or your company are involved in the sale or use of turfgrass or turfgrass-associated products or services, there's no better way to help yourself and the future of the turf industry than an annual contribution to the Musser Foundation.

Contributions may be made in the name of a loved one through the Memorial Fund, or to the Turfgrass Research Fellowship Fund.

"A fellowship involves an exceptional graduate student doing needed research, writing a thesis, adding to turfgrass literature and providing leadership for the future."

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# News

## Straw fungus may make alcohol

A fungus found growing on cow dung may help turn straw and corn stalks into alcohol fuel. Donald Wicklow, a microbiologist with the USDA's Science and Education Administration in Peoria, Illinois, said the fungus makes straw more digestible by breaking down the lignin which binds the cellulose fibers together. When the lignin cement covering is removed, the cellulose inside is exposed and becomes available for digestion. Then, the enzymes in fermenters can change the cellulose to glucose sugar.

The fungus is called *Cyathus stercoreus*. At the USDA northern regional research center, the fungus digested 45 percent of the lignin in wheat straw and exposed 21 percent of the cellulose. One of the USDA's goals at its Northern Agricultural Energy Center in Peoria is to produce fuel alcohol from cellulose in plant stems. A fungus with the ability to digest lignin, particularly lignin in grasses, may be the breakthrough superintendents need to process alcohol fuel from clippings.



## Excel sponsors optimistic day

In the photo above, two turf managers look over a piece of equipment at Optimistic Day, sponsored by Excel Industries, Inc., in Hesston, Kansas. Among the festivities were Excel plant tours, Hustler equipment demonstrations, a pig roast with all the trimmings, and a golf



## PGA tour, Walt Disney join forces for junior golf

Construction is underway at the Walt Disney World Golf Resort on a new kind of junior golf course, which sponsoring PGA Tour commissioner Dean Berman sees as a "breakthrough in bringing the game to a wider audience of young players."

Pictured above, the PGA Tour Wee Links Golf Course is a low-maintenance prototype, designed by Lakeland, Florida golf course architect Ron Garl. The 6-hole,

1525-yard layout on 25 wooded acres of the Magnolia Course, will open in late summer. It has two par-3 and three par-4 holes, as well as one par-5. Tees and greens are going to be covered with an artificial turf called 'Mod Sod.' The porous turf requires no maintenance, but can be top-dressed.

Sand traps are small and flat and water hazards are small and only 24 inches deep so that balls may

be easily retrieved.

Clubs, golfballs and instruction will be available as part of the \$2.00 greens fee. The PGA Tour is funding the \$200,000 project on land donated by Walt World. Its designers hope it will be a prototype for courses across the country, which may help establish a kind of 'little league' program for young golfers.

tournament at Hesston Golf Park. Besides golf course superintendents, the 350 attending included state officials, school board officials, media and Excel employees. It was the first such outing for Excel, and produced a "very good reaction" according to Mark Foree, Advertising and Promotion Manager.

## SAP disagrees with EPA's 2,4-D testing

The FIFRA Scientific Advisory Panel (SAP) thinks that EPA should resolve controversy between two existing studies before they require additional oncogenity studies. And then if additional tests are required, SAP feels that they should be limited. In commenting on the EPA's proposed multigeneration study to establish no observed effect levels (NOELs) for the acid form of 2,4-D in one species, SAP said: "The panel is of the opinion that an additional multigeneration study to establish NOELs for the acid form of 2,4-D in one species is not warranted." They went on to say that SAP felt the existing study

was adequate. The panel did agree with the proposed testing requirements for acute toxicity, mutagenicity, and dermal absorption.

## Public opposes Labor payment ban

More than 200 legislators, federal contractors, civil rights groups and clubs submitting comments to the Labor Department's Office of Federal Contract Compliance Programs (OFCCP) called the proposed ban of federal contractor payments to selective admissions organizations "unnecessary, illegal, and unworkable", according to the National Club Association.

A common point of controversy concerns the OFCCP approach requiring that the contractor determine if employment advantage has been incurred by an employee whose membership fee has been paid in a selective admissions organization. The Equal Employment Opportunity Commission (EEOC), which must approve the final regulations, has recommended instead that the

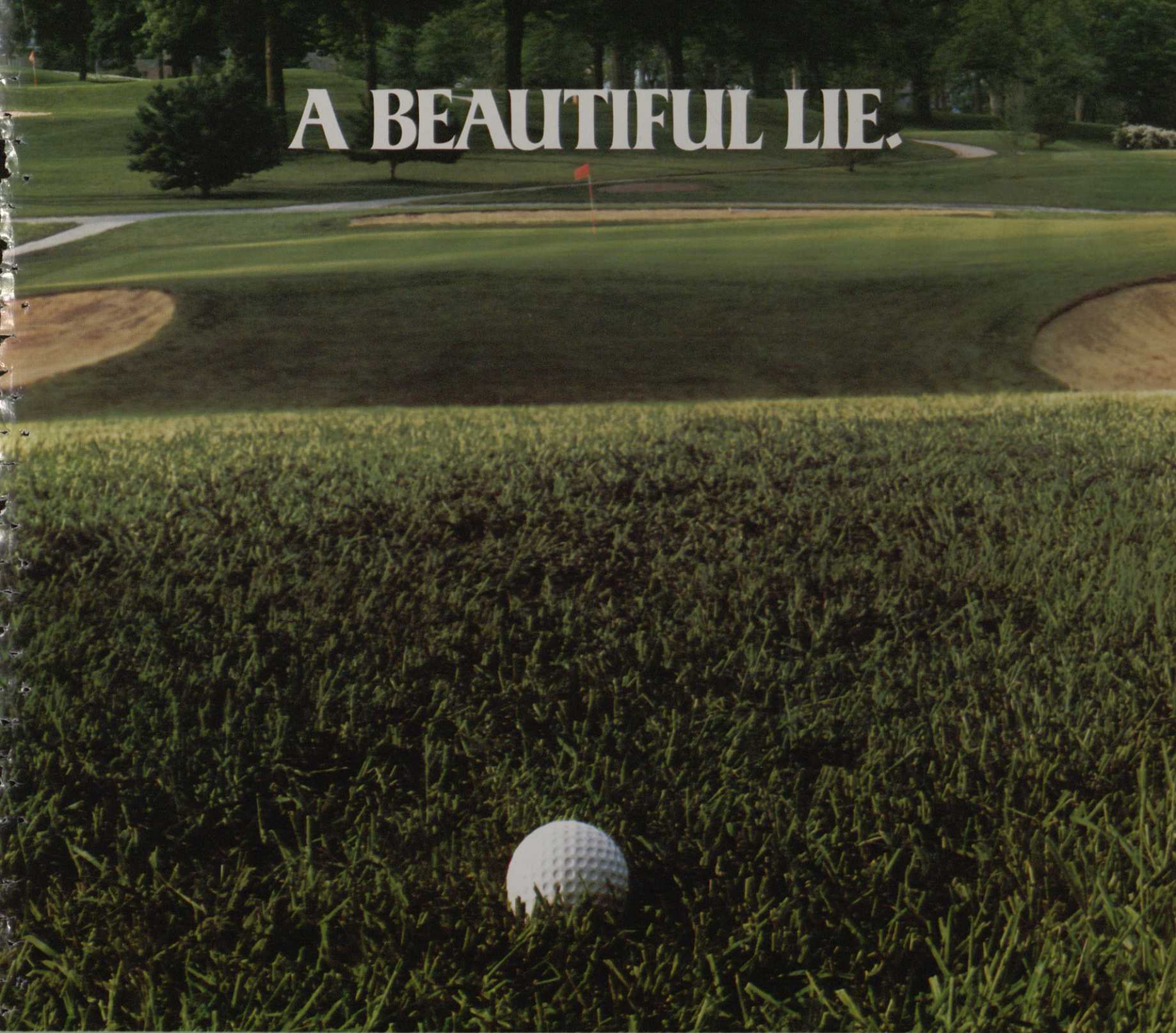
rules absolutely prohibit payments to selective admissions groups.

Civil rights groups have taken the EEOC posture. The Anti Defamation League of B'nai B'rith claims, "... the EEOC position, in contrast recognizes... that the intent of the contractor to confer an advantage by paying the membership fee for an employee in a social club which discriminates against other employees makes the act of payment discriminatory even if no advantage results."

Taking the opposing view, the Conference of Private Organizations, an association of national fraternal, service and civic groups, asserts, "Cases based on denial of equal employment opportunity have traditionally dealt with clear allegations of discrimination directly applied by the employer in the work area... OFCCP, however, would now have us leap from such unambiguous and unquestioned cases to make a tenuous connection between membership policies of third-party private organizations and employment discrimination by an employer toward unknown employees..."



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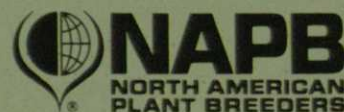
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# Acid Rain

## Is there danger to turf?

By Old Bill Lyons  
Lyons Den Golf Course  
Canal Fulton, Ohio

Recently an article appeared in a Toronto, Canada, newspaper claiming that acid rain has killed the fish in many of the lakes in NE Ontario. This article claimed that the acidity of the rain was caused by pollution from the burning of high sulphur coal. (Ohio coal is high sulphur.)

Governor James A. Rhodes wisely appointed Dr. Widenfaul, of the Ohio Research and Development Center, Agronomy Department to study and monitor rainfall to determine the acidity and other elements.

Acid Rain is not something new. Dr. Widenfaul tells the writer that the Swedish Ag. Dept. has kept records for 35 years. At OARDC he tests the rain water weekly (averaging).

In the agricultural areas where 30" or more of rain falls, 25 lbs. of lime (calcium and Magnesium) are lost per



1,000 sq. ft. annually (1,000 lbs per acre). The Ag. Dept. of our government had a program of supplying, at cost to the farmer, 2 tons per acre, of lime every 4 years for his crops. This neutralized the acid rain, and also took care of the elements lost to drainage and run-off.

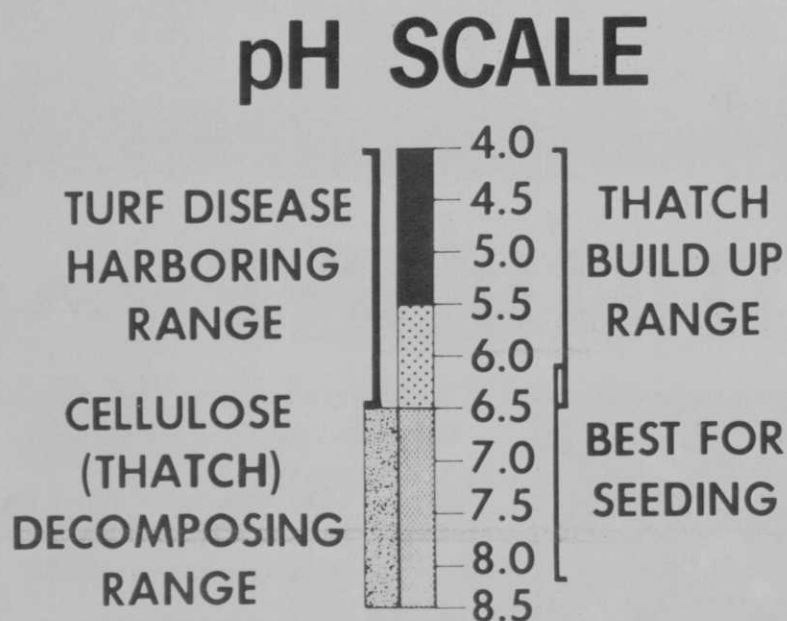
Testing every rain storm, for its acidity and the nitrogen content is new to the turf grass industry. At Lyons Den we are now making records of each rain cycle, (daily if necessary). We are looking at it from the effects that acid rain has on diseases of turf on the golf greens.

Note from the chart below, that as the turf becomes acid in thatch or soil the fungi population increases in proportion to the acidity. Also, thatch builds up faster at the lower pH ranges. (Thatch is the enemy of all fine turf.)

Correcting acidity in turf is only one step toward better disease control. Yet, it is basic. If the pH in both thatch and soil is pH 7.0 or above, then fungicides will have to be used to control diseases. As you can see from the chart, it might be well to apply lime to raise the pH level first and if this does not give control, then select the fungicide that one thinks will control the specific disease.

In the past most emphasis was placed on the pH of soil only, where as

*Continues on page 10*

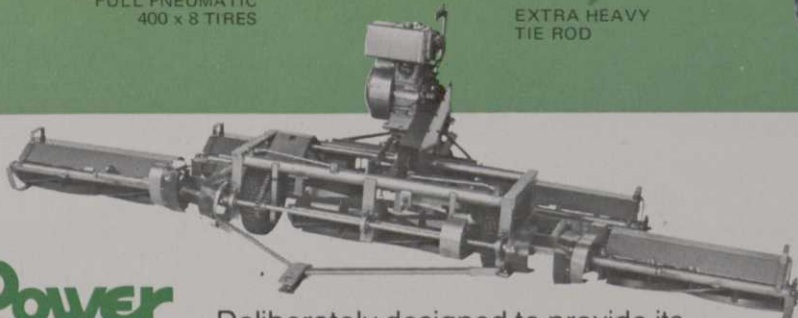
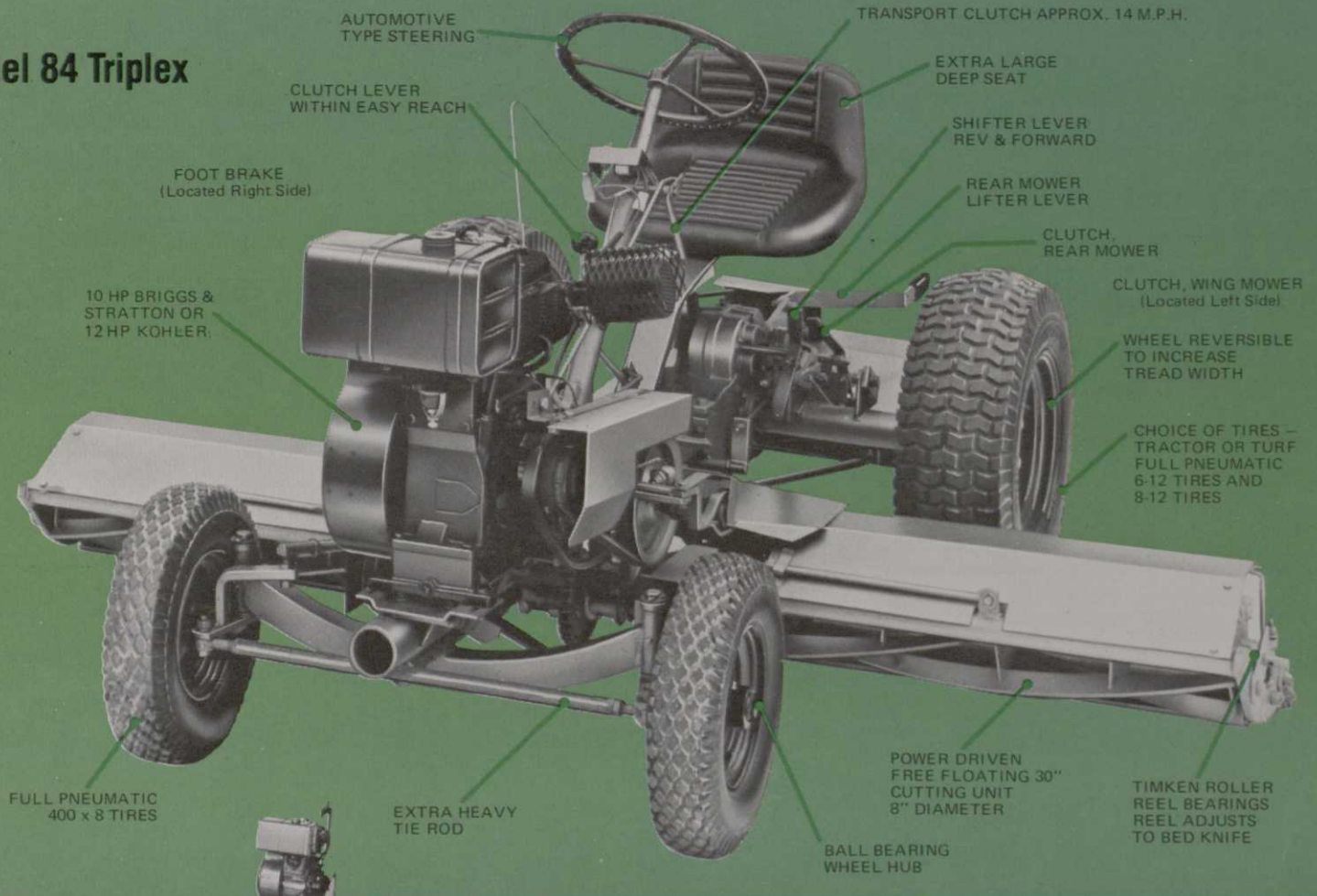


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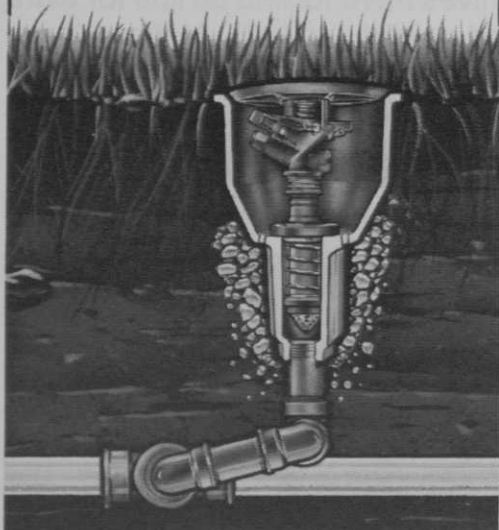
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### Acid rain from page 8

the disease problem was in the thatch which could have a low pH while the soil pH is neutral or above; such as with some high sand content greens.

Dr. James Boyce, former Research Director of turf grasses for all of Canada, thinks we have opened a new line of thinking in connection with why we have so many summer time turfgrass diseases.

Dr. Patricia Sanders, Pathologist, Penn State University, was excited to learn of what we are doing with acid rain versus disease.

One golf superintendent whom I do not wish to name has a secret. His is one of America's greatest courses. Not having given acid rain a thought until we talked, he normally applies 10 lbs. of superfine dolomite lime, (raw rock powdered) per 1,000 sq. ft. to his fairways, FOUR times a year.

Dr. Fred V. Grau, retired director from USGA Green Section, has preached 1 lb. of hydrated lime plus 2 lbs. of urea formaldehyde fertilizer per 1,000 sq. ft. on golf greens for many years. Was he counteracting acid rain?

The late Paul Truckenbrod, Sunnysbrook Golf, Kent, Ohio, taught us to dust hydrated lime on golf greens late in the evening, before fungicides were available, to counteract or control as best we could the humid-weather diseases of turf.

The late Colin Smith, Shaker Heights Country Club may not have known about acid rain 40 years ago, but he knew that something was happening so he had John Spodnik, now grounds manager for Westfield properties, Westfield, Ohio, put on 25 lbs. of superfine Dolomite Lime per 1,000 sq. ft. to the greens every spring. (Always great greens.)

From this you can see that lime is the only thing we have to counteract acidity in the thatch layer of turf. It might be caused partially by acid rain. We are studying it.

When the rain was 3.8 pH recently, we had an outbreak of a disease we had never seen before. It hit only one strain of grass in the greens. Now we record daily the pH of the water we know as guttated water (dew) on the greens. These are at a low enough range to harbor or incubate diseases.

In the Lyons Agricultural & Soil Test Kit we include the Purdue University method (3 reagents) with color charts to test the rain (can also be used to test thatch and soil).

As a cross check we have added

Squibbs Nitrazine paper that has a wide range, 4.0 up to 8.5 pH. A cross check if you please.

The more Tender-Loving Care we gave our No. 3 fairway in 1977, the less grass we grew and the more fungi we had eating away the turf. Here we developed the Purdue Method of testing thatch. The pH of the thatch was 4.5 pH. That layer was, like many home lawns 2" deep. By applying 100 lbs. of superfine lime per 1,000 sq. ft. plus aerifying, plus 10 lbs. of 15-15-15 fertilizer per 1,000 sq. ft., aerified four times, only 1 lb. of Manhattan rye grass seed, this fairway got well, the thatch oxidized and we have had a decent fairway for the past three seasons. This is the only way to economically eliminate thatch.

We are developing some new programs at Lyons Den that are too early to talk about. Perhaps our studies of 1980 will be available for 1981. Would a spray lime system be practical to counteract acid rain? We shall try.

### Suggested Technique for Testing Rain Water

In the Lyons Agricultural Soil and Plant tissue Test Kit: Use the 3 - spot plate

1. Fill each with rain water. (Keep spots clean.)
2. To each spot add 1 drop of each of the 3 reagents.
3. Use the special in the center spot, use No. 1 on the left and No. 2 on right.
4. Stir with a clean plastic stir and do not use the same one on each spot. Contamination.
5. Compare the colors on the chart.

### Testing Dew (Guttated Water)

1. Dampen the Whatman filter paper but keep fingers off the area to be tested.
2. Apply just 1 drop of each of the 3 reagents
3. Compare colors.

The use of Squibb's Nitrazine paper is another quick test. A roll of this is available at most drug stores, costing approximately \$7.50. Wet about a 1" strip in either rain water or guttated water (dew). A color chart is on the side of roll. We use this as a cross check. Finally, we suggest that all chemicals be renewed annually.