



Editor
MIDWEST BREEZES

One of the presentations given at the G.C.S.A.A. Conference in St. Louis was of considerable interest to this editor. The talk given by **Dr. Jim Watson**, Vice President of the Toro Mfg. Co., was very important. I hope everyone present took plenty of notes and will reread them and not forget what he said, they are valuable. Don't brush them off as just ordinary talk, because in the future you may find yourself or your children without water. As **Dr. Watson** said, start to conserve on water now or you may end up being sorry.

Another part of the afternoon program was a talk given by **Roger Thomas** from the Jacobsen Mfg. Co., it pertained to over grooming the club grounds. This could save the club a considerable sum of money on labor, cost of gas, and oil, and unnecessary wear on the equipment. **Mr. Thomas** stated the cost of maintaining a golf course is increasing each year and this could be one way of holding down the rising cost. I am sure there are other remedies that could also be added. One way could be to give a project a second thought before starting.

I am sorry to inform you of the death of **George A. Davis**. Mr. Davis passed away the last week of February, 1980 in Hawaii. He was the founder of the George A. Davis Co. many years ago and was always a great booster for the golf course superintendent. **Mr. Davis** was a member of the M.A.G.C.S and the G.C.S.A.A. He will be missed by his many, many friends.

Now for some good news! Our good friend, **Bill Nadler**, President of Nadler Harley-Davidson Sales in Aurora, IL is back home and feeling fine after a stay in the hospital. Take it easy, Bill. We all want to continue to see you around our M.A.G.C.S. meetings. They would not be the same without you.

On Wednesday, February 7 **Mike Bavier** and **Paul Voykin** traveled to Kishwaukee College to give a presentation about, on the job experience and a preparation of a resume to Richard DeLano's 8 a.m. class. Mike and Paul were very impressed with Professor DeLano's work and the enthusiasm of the students. The unique solar energy greenhouse built by the students was particularly worthy of recognition.

The M.A.G.C.S. March 10th meeting held at Nordic Hills C.C. was a very successful and a most educational one. 87 members and guests enjoyed the afternoon of bowling and swimming, also some racquetball. A delicious dinner was served at 7 p.m., followed by an educational program presented by Mesomet Inc. on the amount of work that is required to determine what the weather will be in the near future. Very interesting.



Dr. Bill George

Dr. George from the University of IL explained to us what has taken place at the University after the resignation of Dr. Turgeon and Dr. Street. It appears everything is moving along very well. Keep your support moving in the U. of I. direction.

The M.A.G.C.S Monday, April 7 meeting will be held at Woodridge G.C. **Anthony Meyer**, Supt. will be our host. Golf will be available if the weather and conditions permit. See you there.

A new turf managers' handbook is now available to those of you who are interested in turfgrass and soils, and also many other operations. This is a recent book of over 400 pages. Written and edited by **Dr. William H. Daniels**, Turf Specialist and **Dr. R. P. Freeborg**, Professional Turf Technician from Purdue University, West Lafayette, IN.

Ray & Julia Gerber celebrated their fiftieth wedding anniversary on February 18, 1980. A lot of water has gone over the dam in that length of time, and it was good water. No contamination.

Ben Warren:

Mr. Ben Warren received an award for his many contributions to the turf grass and sod growers industries. Ben was honored at the Midwest Regional Turf Conference Banquet - Purdue University. This Banquet was held Tuesday, March 4, 1980.

Ben received a plaque to honor him as Mr. Turf in 1980. Ben's wife **Dorothy Warren** was present as he received this award. The plaque was inscribed, "Ben Warren A Grass Salute to Mr. Turf", **Midwest Regional Turf Foundation**.

Ben was also a speaker for 2 lectures during the Midwest Regional Turf Conference. The talks Ben presented were: Research and the Sod Industry, and Sodding America.

Dr. Bill Daniels:

Dr. Daniels received an award for his 30 years of outstanding service at Purdue University. **Dr. Daniels** received his award at the Midwest Regional Turf Conference Banquet, after he was roasted by some of his proteges. **Dr. Daniels** received a beautiful walnut bridge table and 4 matching chairs. The plaque honoring him was flush mounted in the center of the bridge table.

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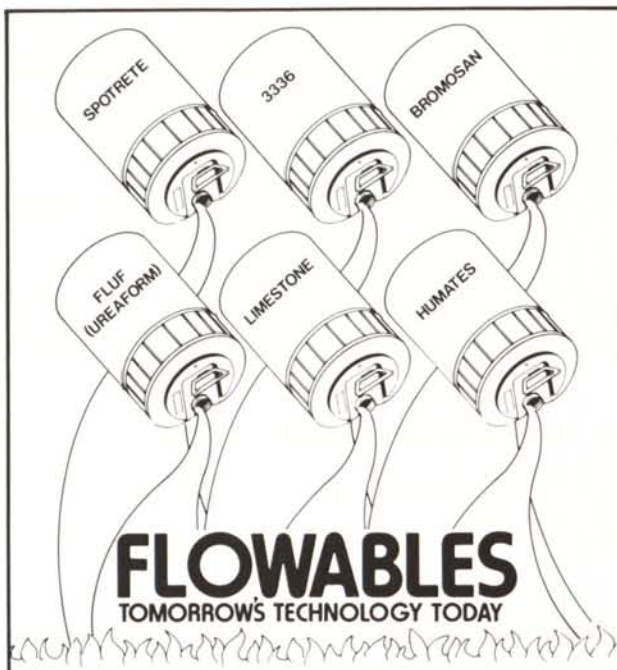
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HUMUS — BLACK SOIL

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A diagram showing six cylindrical containers of fertilizer components, each with a nozzle and a hose. The components are labeled: SPOTRETE, 3336, BROMOSAN, FLUF (UREA FORM), LIMESTONE, and HUMATES. The hoses from the containers converge towards the bottom of the diagram.

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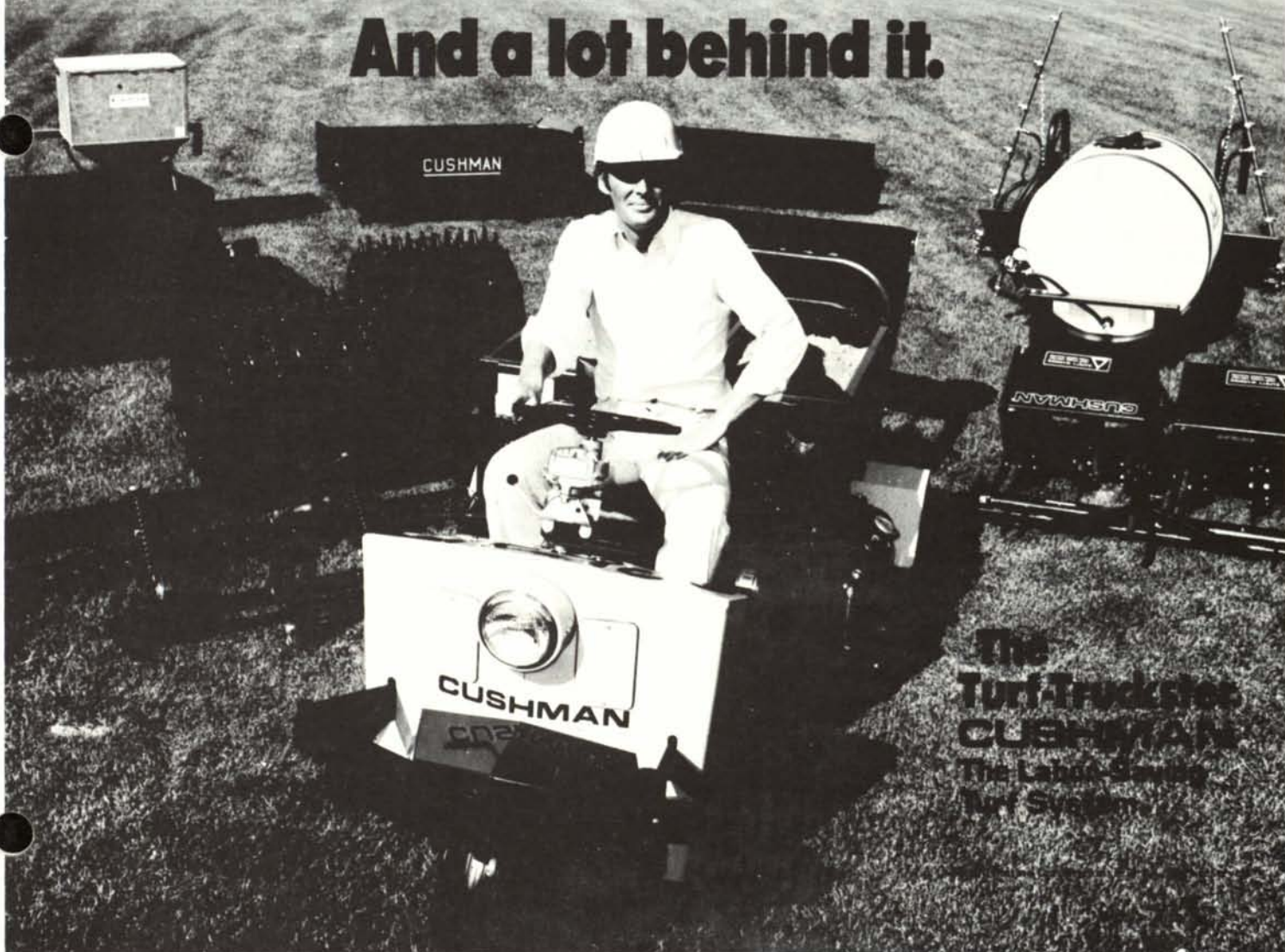
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WETTING AGENTS - THE PREVENTIVE APPLICATION APPROACH

Wetting agents are nothing new and were probably in existence before I was even born. Today however, wetting agents are often times an overlooked management tool on quality turfgrass stands--especially in areas with poor underlying soil structure.

I'm sure you've all experienced seasons with infrequent precipitation and even in some cases actual severe drought conditions. Well, try as we may to use our irrigation systems to compensate for a lack of rain, we find that irrigation water can only supplement natural rainfall and not take place of it. Before too long, localized dry spots begin to appear and the rotation pattern of the sprinklers becomes highly evident.

When localized dry spots appear on our greens or tees, it would be a standard practice to:

1. Aerate each individual dry spot
2. Apply a wetting agent
3. Hand water

This is strictly a curative measure. However, through the scheduled application of wetting agents on a preventive basis (rather than curative) localized dry spots can be minimized.

Let us look for a moment at the function of wetting agents. Wetting agents are special chemicals that lower the tensions of water. They are in the class of surfactants.

Wetting agents change water, yet have no visible effect on the soil structure. However, since the wetting agent stays in the soil, the treated soil will accept water more rapidly, and excess water will drain freely, resulting in optimum growing conditions.

At Bob O'Link, I make a primary application on greens and tees in mid-May and then repeat the procedure in late June or early July. One and one half quarts of Aqua-Gro in 100 gallons of water (per 6,000 square foot green) has proven to give the best results. Such a high volume of water necessitates the use of a rose nozzle as the most efficient means of application. It is important to water the application in immediately and thoroughly. Experience shows that permitting wetting agent to remain on the turf blade will cause a yellowing, so it is important to water thoroughly after any application.

The preventive use of wetting agents on greens and tees provides a tremendously uniform distribution of moisture in the soil.

During the past two summers I have attempted to take my successful results with wetting agents on greens and tees another step further and incorporate preventive applications on 35 acres of fairways. Through trial and error, the following rates have provided optimum results.

The primary fairway application is made in mid-June and a second application follows in mid-July. A third application may be necessary in August but due to heavy precipitation last August, 2 applications proved to be sufficient. Two gallons of Aqua-gro in 200 gallons of water covering one acre at a ground speed of two miles per hour is the recommended rate. Through the use of test plots with varying volumes of water, different rates, and various brands of wetting agents as well as check plots, the following general observations should be noted:

1. Aqua-gro at the above mentioned rate was the most effective wetting agent.

2. Good results were shown in test plots with All-wet and Hydro-wet.

3. Wetting agents not watered in are potentially phytotoxic.

4. All wetting agents were applied alone and not in combination with any other pesticide.

In a comparison of wetting agent treated fairways and untreated check plots, the difference was like night and day. Treated fairways had the following qualities:

1. Dew is eliminated for a 6-7 day period following the application.

2. Localized dry spots in the wedge shaped areas adjacent to our single row irrigation system, required hand watering only once during the 1979 season. Prior years have shown 80-100 manhours to accomplish this task. Less hand watering means a lower labor cost and freedom to use your staff on other projects. Less hand watering means minimizing or eliminating interference to golfers. Less hand watering means conservation of water and power.

3. Fairways had fewer dry spots and also fewer wet spots.

4. Overall, soil moisture continuity was increased.

5. Soils were able to absorb moisture more rapidly during the heavy precipitation which we had during the month of August.

6. Less stress was evident on treated fairways and wilting was not severe.

7. Prior to fairway applications, it was often difficult for irrigation water to penetrate a one inch thatch layer unless fairways had been sliced or aerated in the Spring.

The fairway applications have proven as successful as the wetting agent program on my greens and tees. The approximate cost of materials for one application to 18 greens is \$150. 35 acres of fairways would be covered with \$700 worth of wetting agent. Given the afore mentioned results, I feel that this is a cost which is offset by a savings in water and manpower, providing a better playing surface.

Each year the golf course superintendent sweats out that period from June to September known to try men's souls, bring on ulcers, and cause sleepless nights. During this stress period we carry on a day to day battle in an effort to provide pleasurable playing conditions for our memberships. In these modern times of turfgrass management, any loss of turf on our greens and tees is intolerable and a loss of fairway turf is undesirable. More and more the trend in the Chicago area has shown that players who once compared golf courses by their fast and true greens, are now using the condition of fairways as criteria for judgement. With this increased demand for fairway perfection, loss of turf on our fairways, even though minimal, is no longer tolerable.

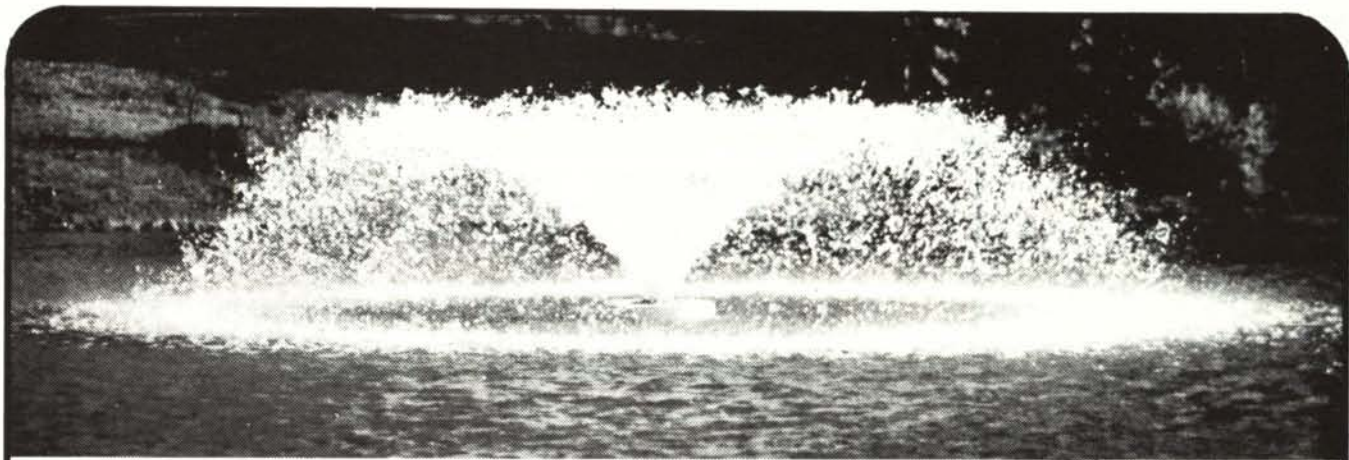
With the incorporation of wetting agents into my fairway management program, maintenance of summer time Poa annua has certainly become more enjoyable. I'm thankful for something that has made my job a little bit easier.

Bruce Williams
Supt., Bob O'Link G.C.

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Oliver Wendell Holmes



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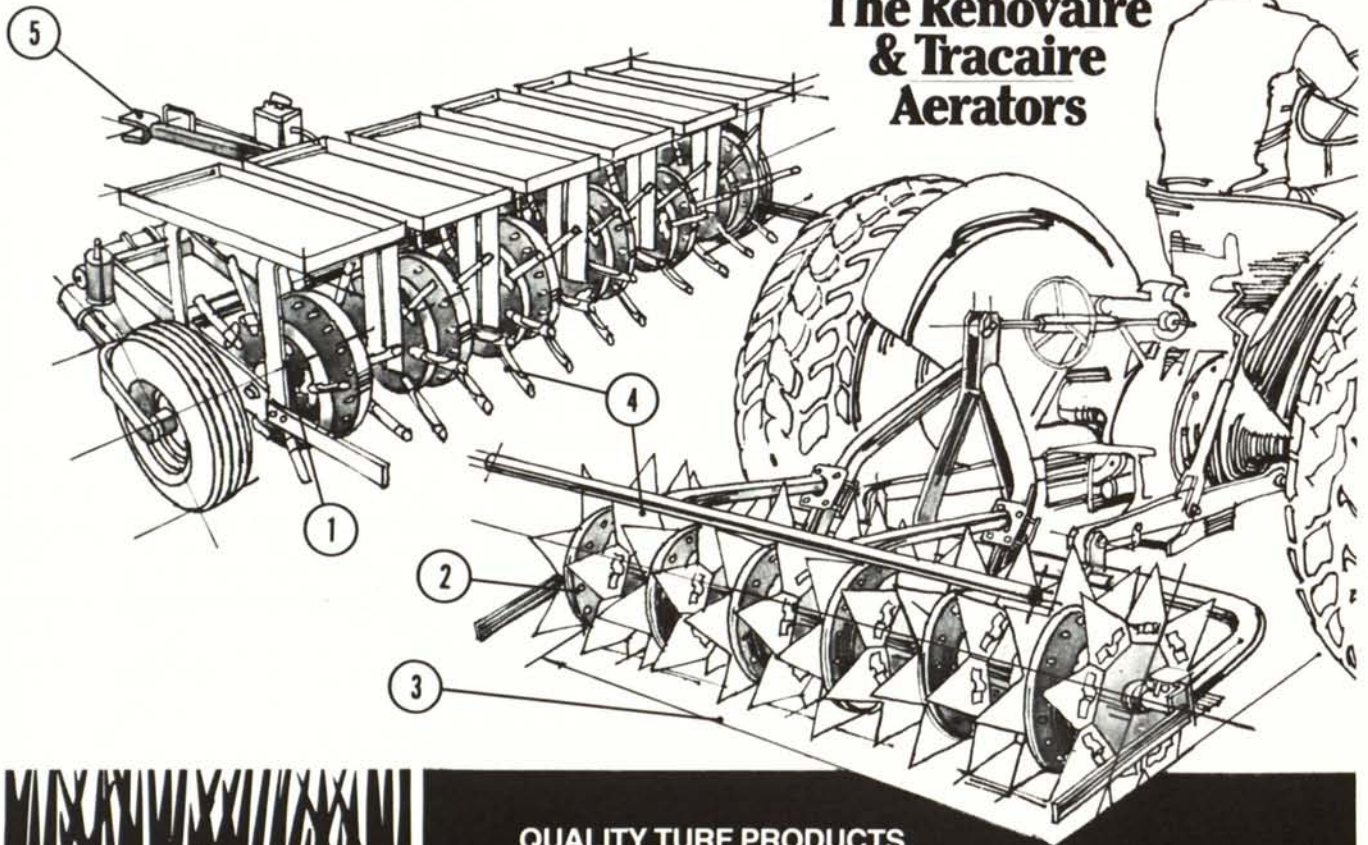
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HOW TO REPAIR BALL MARKS

The Trouble With Ball Marks

The ball landed with a thud. The green was soft, and as the ball bounced forward it left a deep little crater in the turf, exposing brown earth at the back and grass blades pushed together at the front.

Ignoring the little crater, the golfer walked up to his ball, cleaned it, holed his putt and glowed with self-satisfaction.

Some hours later, after the exposed earth in the ball mark had dried out, another golfer found the damaged area in his line of putt. He attempted repairs, but the result was not very satisfactory. An unflattened bit of turf twisted his putt off line.

Next morning an inexperienced greenkeeper mowed the putting surface without repairing ball marks. The result was a putting surface pocked-marked, untrue and covered with bare spots where the mower scalped the grass from the turf.

What Happens

What actually happens when a ball mark is not promptly and properly repaired?

1. Soil is exposed, and so the area immediately surrounding the ball dries up faster than it would if the ball marks were repaired; and thus a blemish is left on the green.

2. There is a chance that the raised turf caused by the ball will dry quickly and may die out.

3. The open soil invites weed invasion, such as crabgrass, silver crabgrass, POA ANNUA, dandelion, plantain, or Pearlwort ... seed of which could be brought in on the shoes of golfers, caddies or workers or on mowing equipment.

4. The improperly repaired or neglected ball marks leaves a bumpy spot in the green. If not corrected before cutting the next day, then the spot is scalped by the mower and the bruise mark remains for several days. This is especially noticeable in the Northeast during the summer season.

William H. Bengueyfield, Western Director of the Green Section, says:

From an agronomic viewpoint, a ball mark bruises the grass plant and severely damages or destroys the meristem or growing plant. This means that turf recovery must take place from the perimeter of the damaged area, and this takes considerable time. Rapid drying of the damaged area is a major factor in delaying recovery. Some soil compaction also results from the ball's impact."

How to Make Repairs

There is a correct way to repair a ball mark and, simply stated, it is to stretch the turf back over the bruised area, then loosen the soil beneath so that the bruised turf is able to root again.

To loosen the soil, some sharp-pointed instrument is required, such as a golf tee. The instrument must be sharp enough to penetrate the soil easily, and strong enough to cut through soil laterally at a depth of one inch or less.

In stretching the turf back over the ball mark area, try not to tear it loose. After the soil is loosened, the bruised and stretched turf must be firmed or pressed down to make contact with the soil again; otherwise, it may dry and die.

If a divot is taken when the ball hits the green and skids, the divot must be carefully stretched and replaced.

United States Golf Association