to the industry, and he does it in a humble and quiet way. His style is almost exactly like that of our own faculty. That may be one of the reasons why Dr. White has, for years, been so well liked and respected here.

Professors Kussow and Worf were busy, as they usually are at these conferences. Gayle opened the 1990 meeting and reported on the NOER CENTER. He followed with a report on his 1989 research work. On Tuesday afternoon he gave an excellent lecture on a subject staring us in the face — "Politics of Disease Control for the 1990s." Wayne

**Our speakers included Minnesota's Dr. Don White,**

**Russ Weisensel, and**

also reported on 1989 research on Tuesday morning, and he followed on Wednesday afternoon with a lecture on "Non-Conventional Turf Products." In a very scientific and analytical way, he focused on things to look for in a product offering unusual (and unrealistic) results — we've known these as "snake oils" for years. A staff person from the WDATCP was in the audience and amplified, from an enforcement perspective, Wayne's views.

Chuck Koval, fit and trim and tanned, hustled directly to Waukesha from Hawaii — literally. And he gave an outstanding presentation on two ever-increasing problems in golf turf management — earthworms and ants.

Russ Weisensel, Executive Director of the Wisconsin Agri-Business Council and of the Forestry/Rights-of-Way/Turf Coalition, spoke on the most timely topic of the times — AG29 — and its implication on the turfgrass business. He was involved in every hearing the WDATCP scheduled on implementation of the law. The result, to Russ' credit,


**Jim Latham,**

**Dick Hackett from the Milwaukee Brewers.**

is a set of rules the industry should be able to live with in coming seasons.

Whenever a group involving golf course superintendents meets, it's a good bet they've invited USGA Great Lakes Region Agronomist Jim Latham. And it's likely he's accepted, his busy schedule notwithstanding. Jim was on the WTA program this year and just like years before, his talk was excellent. Using some of the slides he's taken over the years, he spoke about developing consistent playing conditions on our golf courses.

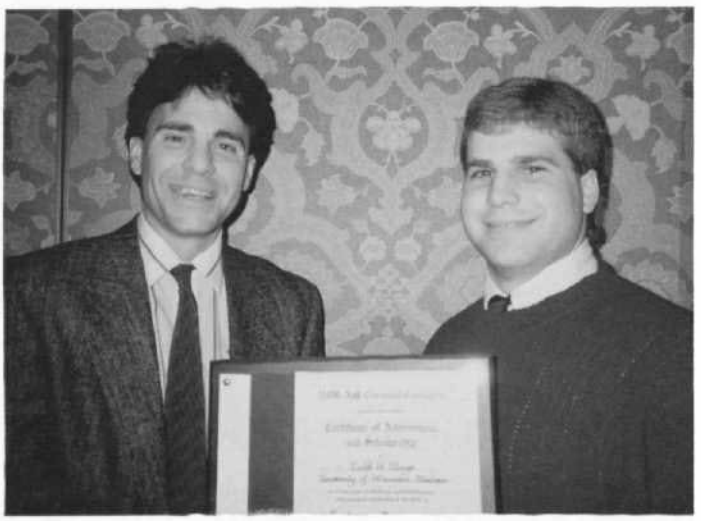
Since the WTA Winter Conference has a broad appeal, other speakers focused on problems of the lawn care business, sod production, parks, athletic fields and grounds

maintenance. There was, literally, something for everybody.

The importance of the trade show cannot be overstated. This is the time of year many final buying decisions for the 1990 season will be made. Convenient access to so many companies and products appeals to many. This year's trade show featured more tabletop displays than ever before.

One-half of a very distinguished head table!

Dr. Gayle Worf, barely visible from the back of the hall, opened Tuesday's session.



John Turner (left) presents Todd Monge the 1989 NOR-AM Scholarship plaque.

Wednesday's luncheon speaker didn't have to travel far to meet with the WTA. He was Dick Hackett, vice president of marketing for the Milwaukee Brewers Baseball Club. He shared all the latest news concerning the Brewers, from Robin Yount's salary to the prospects for a new stadium. Mr. Hackett also expressed an interest in the turfgrass industry, not only because the Brewers play on a grass field but also because he is a member of Westmoor Country Club!

The extensive planning and the hard work of the WTA Conference Committee paid handsome dividends. The 1990 meeting was educational, informative and enjoyable. It will be interesting to see what they do for an encore!

The other half! (Kurth, Roskopf, Zwirlein, Bell, Vogel and Payne)

Milorganite's Jim Spindler and the WGCSA's Rod Johnson.

The trade show is serious business.


This is what a trade show is supposed to look like during the educational sessions!

# CALCULATING SPRINKLER RUN TIME

*By Tom Emmerich*

As we enter the decade of the nineties, every magazine and television news program is either reminiscing about the eighties or speculating about events to come. One issue in the nineties that is certain to affect the turfgrass industry in the water-rich midwest is the efficient use of this valuable resource.

This issue has already become a realism to golf course superintendents who rely on surface water for their irrigation needs. The Wisconsin Department of Natural Resources has placed greater pumping restrictions on golf courses, diverting irrigation water from lakes, rivers and streams. These restrictions have taken the form of limits on the maximum gallons per minute that can be diverted, what months of the year the water can be taken and the total amount of pumping hours allowed. Worst of all, a low level benchmark is set, which when reached, all diversion of water must stop. Beginning this year the DNR is also assessing a water withdrawal fee based on the average daily usage in gallons during the maximum withdrawal month. These fees will range between $45.00 to $600.00 and are earmarked to fund programs that will enhance the conservation and protection of water resources in the State of Wisconsin.

This is the scenario for the Spring of 1990. What does the future hold? How about tighter restrictions governing the diversion of surface water? Pumping limits on high capacity private wells? Restricted use of municipal water for turf irrigation? Water withdrawal fees for high capacity wells similar to the current surface water program? All are possible. We must learn to be more efficient in our irrigation practices today in order to be prepared for the increased cost of tomorrow's water.

One way to irrigate more efficiently is to avoid setting the run time for your sprinkler heads for the hot and dry time of the season and then operating them this way in spring and fall. The overwatering that results wastes energy dollars and water. Run times should be based on the precipitation rate of the sprinkler, the time of year and varying weather conditions.

Though no one is better qualified to determine how much to water the greens, tees, and fairways than the person responsible for maintaining them, the following information will be useful in helping you tailor an irrigation system to your needs.

The optimum run time for a sprinkler head can be calculated using two mathematical formulas. The first formula is used to determine output of a sprinkler head in inches of precipitation per hour of run time. Thus it is called the *precipitation rate formula*. The second formula utilizes this precipitation rate along with the required amount of precipitation per week and the frequency of the watering cycle to determine the actual minutes of run time per cycle. This is the *station run time formula*.

First, let us deal with precipitation rates. To use the precipitation rate formulas, you must know the amount of water discharged by the sprinkler in gallons per minute, the distance between the sprinklers in feet and in what pattern they have been placed. This pattern is called the spacing. Spacing is typically square, triangular, or single row. The term "70 foot square" refers to sprinkler heads spaced 70 feet apart in a square pattern.

The precipitation rate formulas are:

**SQUARE SPACING**

$$\frac{96.3 \times \text{G.P.M.}}{\text{SPACING SQUARED}}$$

**TRIANGULAR SPACING**

$$\frac{96.3 \times \text{G.P.M.}}{\text{SPACING SQUARED} \times .866}$$

**IN LINE SPACING**

$$\frac{96.3 \times \text{G.P.M.}}{80\% \text{ OF SPRINKLER DIAMETER} \times \text{SPACING}}$$

Here are some examples to illustrate the use of these formulas.

### SQUARE SPACING
Typical Application - Greens

Sprinkler G.P.M. = 30
Spacing = 70 feet square

$$\text{Precipitation Rate} = \frac{96.3 \times 30}{70 \times 70} = \frac{2{,}889}{4{,}900} = .59 \text{ inches per hour}$$

### TRIANGULAR SPACING
Typical Application - Tees

Sprinkler G.P.M. = 30
Spacing = 70 feet triangular

$$\text{Precipitation Rate} = \frac{96.3 \times 30}{(70 \times 70) \times .866} = \frac{2{,}889}{4{,}243} = .69 \text{ inches per hour}$$

### IN LINE (Single Row)
Typical Application - Fairways

Sprinkler G.P.M. = 56
Sprinkler Radius = 90 feet
Spacing = 90 feet in line

$$\text{Precipitation Rate} = \frac{96.3 \times 56}{(180 \times .80) \times 90} = \frac{5{,}393}{12{,}960} = .42 \text{ inches per hour}$$

Now that we know the precipitation rate of the sprinkler, the actual minutes of run time can be determined. For this calculation, the Station Run Time Formula is used.

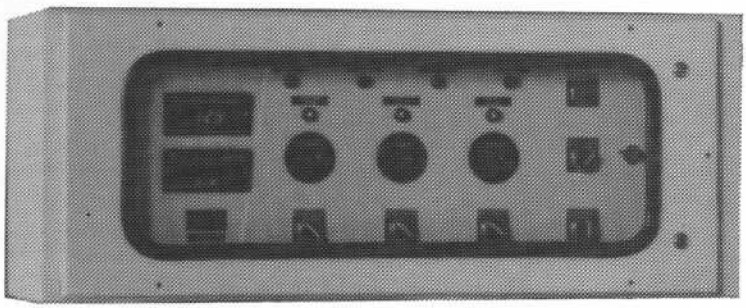
### STATION RUN TIME FORMULA

$$\text{Run Time in minutes per cycle} = \frac{\text{inches of precipitation required per week}}{\text{number of cycles per week} \times 60 \text{ minutes per hour}} \Big/ \text{precipitation rate of the sprinkler}$$

Let's calculate the sprinkler run times of our previous examples. For this exercise, the desired precipitation rates are 1.5 inches per week on the greens and tees and ¾ inch per week on the fairways. The system will be programmed with one cycle per day, 7 days per week.

*(Continued on page 15)*

# PUMP SMARTER, NOT HARDER.



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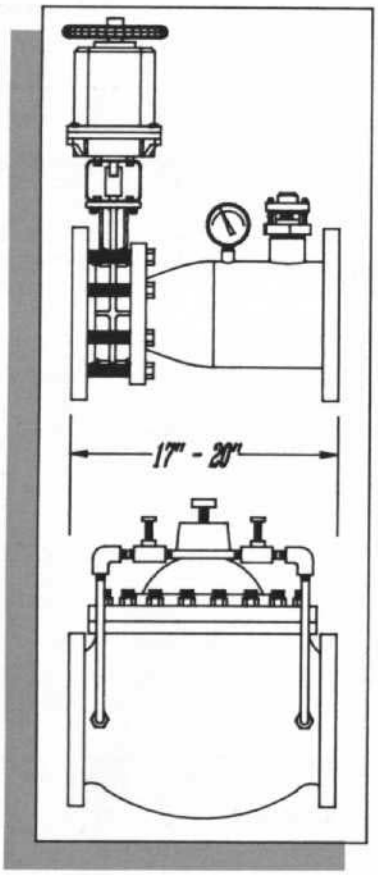


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(Continued from page 13)

**GREENS**

$$\frac{1.5}{7 \times 60} = \frac{.214 \times 60}{.59} = \frac{12.84}{.59} = 22 \text{ minutes per cycle}$$

**TEES**

$$\frac{1.5}{7 \times 60} = \frac{.214 \times 60}{.69} = \frac{12.84}{.69} = 19 \text{ minutes per cycle}$$

**FAIRWAYS**

$$\frac{0.75}{7 \times 60} = \frac{.110 \times 60}{.42} = \frac{6.43}{.42} = 16 \text{ minutes per cycle}$$

Now that we have this data, how do we put it to use? First, determine what your weekly precipitation requirements are for each month of the irrigation season, say April through October. Make a chart with the months across the top and the locations (tee, greens, fairways, etc.) down the side. Calculate sprinkler run times based on the weekly precipitation rates and fill in the chart. Use the chart to reset the station run time of the field satellites each month. See the schedule below.

A faster and simpler way to vary the sprinkler run time is to set the field satellite stations at the shortest run time required during the season. Then program the central controller for multiple starts to increase the total amount of irrigation. Be sure to program the start times far enough apart so that the current cycle is complete before the next one begins. This method of multiple start short cycle watering can also save water by eliminating runoff on tight soils.

Today, irrigation equipment manufacturers are providing our industry with computer operated control systems that automatically change the sprinkler run times on a daily basis. These systems measure the day's weather conditions and calculate the Evapotranspiration rate or Demand ET. This is the total amount of moisture lost through evaporation from the soil and transpiration from the turf. The system then looks at the precipitation rate of the sprinklers and sets their run time to provide the turf with the exact amount of moisture required to replace Demand ET.

Computer based ET driven irrigation control systems are one way to make the most efficient use of water and energy in turfgrass irrigation. For many whose budgets don't provide for these high tech control systems, calculating and using the proper run time for your sprinkler heads is the quickest way to irrigation efficiency.

*Editor's Note: Tom Emmerich is the Irrigation Division Sales Manager at Reinders Brothers, Inc. and a Certified Golf Course Irrigation Designer. He earned a business degree from UW-La Crosse and has been in the irrigation business for 20 years. Tom has previously contributed to "The Grass Roots".*

**IRRIGATION SCHEDULE FOR ABC GOLF COURSE**

| MONTH | April | May | June | July | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|
| Inches/Week | 0.50 | 0.75 | 1.25 | 1.50 | 1.50 | 1.00 | 0.75 |
| Sts./Wk. | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| **STATION RUN TIME IN MINUTES FOR:** | | | | | | | |
| Greens | 7 | 11 | 18 | 22 | 22 | 15 | 11 |
| Tees | 6 | 9 | 16 | 19 | 19 | 13 | 9 |
| Fairways | 10 | 15 | 26 | 31 | 31 | 20 | 15 |

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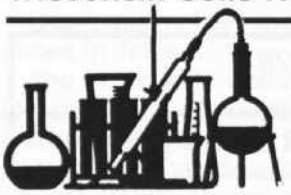

# Implications From Fertilizer Demonstrations

*By Dr. Wayne R. Kussow*
*Department of Soil Science*
*University of Wisconsin-Madison*

Observations from demonstrations cannot be interpreted as concisely as the results from replicated experiments. However, demonstrations are efficient means for screening large numbers of products and identifying materials that merit further testing or have potential for meeting specific needs. It is with this in mind that the observations from three turf fertilizer demonstrations carried out last season at the Yahara Hills Golf Course are being shared with you.

Two of the demonstrations are located in rough areas on fescue-dominated turf. One involves 16 fertilizers (15 in 1988) applied at a single annual N rate split among two, three or four applications per season. The other was installed in 1989 for the purpose of looking at turfgrass responses to Nitrazine and Nitrazine in combination with other SRN's.

Before reviewing the results from these two demonstrations, it is important to note that severe moisture stress was unintentionally allowed to develop during July on both sites and mowing frequency was less than ideal. Turfgrass color was not rated once the moisture deficit began to induce dormancy in the turfgrass.

**TABLE 1.**
**EFFECTS OF FERTILIZER AND NUMBER OF APPLICATIONS PER SEASON ON TURFGRASS COLOR RATINGS***

| Fertilizer | 2 Applications Ave. | 2 Applications 7.0 | 3 Applications Ave. | 3 Applications 7.0 | 4 Applications Ave. | 4 Applications 7.0 |
|---|---|---|---|---|---|---|
| | | % Time | | % Time | | % Time |
| Urea | 7.4 | 66 | 7.3 | 74 | 7.2 | 60 |
| Ammonium Sulfate | 7.4 | 66 | 7.3 | 64 | 7.2 | 46 |
| Lebanon SCU | 7.9 | 96 | 7.9 | 100 | 7.8 | 96 |
| Lebanon 18-5-9 | 7.2 | 60 | 7.2 | 74 | 7.1 | 56 |
| Brayton 18-5-9 | 7.2 | 72 | 7.4 | 74 | 7.4 | 76 |
| Brayton 30-4-8 | 7.6 | 81 | 7.4 | 80 | 7.6 | 86 |
| Scotts 32-3-10 | 7.4 | 91 | 7.6 | 85 | 7.4 | 91 |
| Scotts 34-3-7 | 7.4 | 86 | 7.7 | 90 | 7.6 | 91 |
| Nitroform 38-0-0 | 6.6 | 42 | 6.7 | 44 | 7.0 | 58 |
| Par Ex 31-0-0 | 7.0 | 36 | 7.2 | 58 | 7.2 | 68 |
| Par Ex 21-2-20 | 7.0 | 60 | 7.2 | 85 | 7.3 | 86 |
| Par Ex 24-4-12 | 7.0 | 62 | 7.0 | 64 | 7.1 | 71 |
| Milorganite 6-2-0 | 7.2 | 66 | 7.5 | 80 | 7.5 | 77 |
| Sustane 5-2-4 | 6.9 | 44 | 6.8 | 30 | 7.0 | 67 |
| Spring Valley 25-2-5 | 6.9 | 50 | 7.0 | 58 | 7.0 | 56 |
| Andersons 9-6-18 | 7.4 | 76 | 7.4 | 74 | 7.4 | 70 |
| AVERAGES | 7.2 | 66 | 7.3 | 71 | 7.3 | 72 |

* Scale of 1 to 9; 1 = brown, 9 = very dark green, and 7 = minimally acceptable color. Color ratings are averages for 21 readings taken in 1988 and 1989.

The information presented in Tables 1 and 2 support the following generalizations:

1. Proper choice of SRN allows maintenance of acceptable turfgrass color 80% or more of the time with just two fertilizer applications per season. The fertilizers suitable for a twice per year fertilization program were: (1) Lebanon SCU 32-0-0; (2) Scotts 32-3-10; (3) Scotts 34-3-7; and (4) Brayton 30-4-8.
2. Increasing the number of fertilizer applications from two to three per season substantially increased turfgrass color achieved with Par Ex 21-2-20 and Milorganite. These, plus those cited above, were the most effective fertilizers in the three times per year fertilization program.
3. In the presence of summer moisture stresses, there was no advantage in increasing the number of fertilizer applications from three to four per season.
4. Spring residual response to nitrogen applied the previous fall depends on the source of N and whether applied in September or October. The five fertilizers that provided the best spring residual responses for the two fall application times were:

| **September Application** | **October Application** |
|---|---|
| Lebanon SCU | Milorganite |
| Scotts 34-3-7 | Par Ex 24-4-12 |
| Milorganite | Brayton 30-4-8 |
| Par Ex 31-0-0 | Lebanon SCU |
| Scotts 32-3-10 | Andersons 9-6-18 |

5. Summer rankings of the fertilizers are indicative of which fertilizers perform best during periods of moisture stress. For this period, the five highest ranked fertilizers were: (1) Lebanon SCU; (2) Brayton 18-5-9; (3) Scotts 34-3-7; (4) Brayton 30-4-8; and (5) Lebanon 18-5-9 = Andersons 9-6-18.
6. The five fertilizers producing the best turfgrass responses in early fall after recovery from summer drought were: (1) Lebanon SCU; (2) Scotts 34-3-7; (3) Brayton 30-4-8; (4) Lebanon 18-5-9; and (5) Scotts 32-3-10.
7. There was no evidence that full-season turfgrass responses to the fertilizers could be improved by applying different materials at different points in the season rather than using the same fertilizer throughout the season.

**TABLE 2.**
**FERTILIZER RANKINGS BASED ON CLIPPINGS ITROGEN CONTENT OF RED FESCUE-DOMINATED TURF**
**1988-89**

| Fertilizer | SPRING RESIDUAL Sept. Appl. | SPRING RESIDUAL Oct. Appl. | Summer | Fall |
|---|---|---|---|---|
| Urea | 7.0 | 6.5 | 10.0 | 6.4 |
| Ammonium Sulfate | 9.5 | 10.0 | 13.6 | 6.6 |
| Lebanon SCU | 1.0 | 3.0 | 3.8 | 2.5 |
| Lebanon 18-5-9 | 9.5 | 6.0 | 5.6 | 6.2 |
| Brayton 18-5-9 | 9.0 | 4.0 | 4.2 | 5.6 |
| Brayton 30-4-8 | 8.5 | 3.0 | 4.8 | 3.6 |
| Scotts 32-3-10 | 5.5 | 10.5 | 7.4 | 6.2 |
| Scotts 34-3-7 | 2.5 | 8.0 | 4.6 | 3.5 |
| Nitroform 38-0-0 | 10.5 | 12.0 | 6.8 | 12.6 |
| Par Ex 31-0-0 | 3.5 | 4.0 | 6.0 | 13.4 |
| Par Ex 21-2-20 | 6.0 | 5.0 | 10.0 | 9.5 |
| Par Ex 24-4-12 | 8.0 | 2.5 | 7.2 | 12.5 |
| Milorganite | 2.5 | 2.0 | 9.2 | 7.8 |
| Spring Valley 25-2-5 | 12.5 | 9.5 | 10.8 | 9.6 |
| Andersons 9-6-18 | 6.0 | 3.5 | 5.6 | 9.2 |

*(Continued on page 19)*

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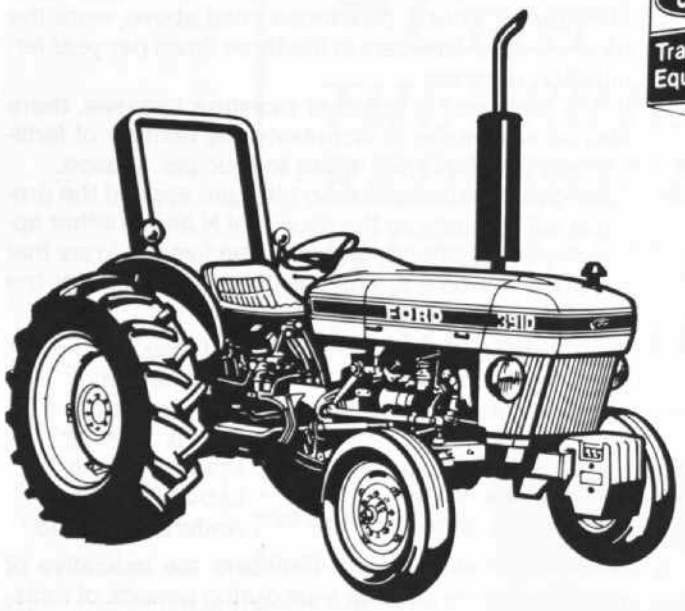



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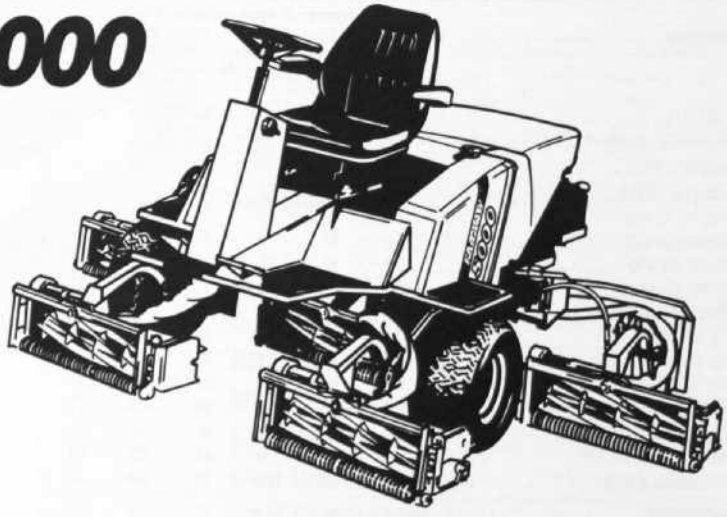

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(Continued from page 17)

Observations from the Nitrazine demonstration are tabulated in Table 3.

The purpose of applying SRN's with Nitrazine was to identify which combination or combinations produce the best turfgrass response. Nitrazine itself is a product pelleted from urea and powdered melamine. Melamine is a very slow release organic N compound. Virtually no N is released the first month after application. Some N release occurs the second month, but maximum N release does not happen until three months after application. The urea in Nitrazine is intended to provide quick turfgrass greenup and to satisfy N needs for the first month after application. The reason for applying Nitrazine with another SRN is to have adequate amounts of N available the second month after fertilizer application. Thereafter, microbial degradation of melamine is expected to supply turfgrass with adequate amounts of N for a period of two to three months. It is in this manner that appropriate Nitrazine-SRN combinations potentially become full-season fertilizers.

The objective of the Nitrazine demonstration in 1989 was to identify effective Nitrazine-SRN combinations. These combinations and the individual SRN's were applied in May, July and August at an anual rate of 4 lbN/1000 ft². Urea was also applied with Nitrazine to see what effect this would have on turfgrass color. As shown in Table 3, the urea induced rapid color development and, because of the three applications during the season, provided excellent color in September and October as well. However, combining Nitrazine with urea is not an advisable practice. Applications of this N source combination in July and August resulted in turfgrass burn.

**TABLE 3.**
**1989 TURFGRASS COLOR RATINGS***
**NITRAZINE DEMONSTRATION**

| FERTILIZER | MONTHLY COLOR RATINGS | | | | SEASON |
|---|---|---|---|---|---|
| TREATMENT | June | Aug. | Sept. | Oct. | Mean |
| Nitrazine | 7.7 | 6.4 | 7.4 | 7.6 | 7.3 |
| Nitrazine + Urea | 8.4 | 6.8 | 8.0 | 8.4 | 7.9 |
| Nitrazine + SCU | 7.2 | 6.8 | 7.2 | 6.8 | 7.0 |
| Nitrazine + UF | 7.1 | 6.8 | 7.5 | 7.0 | 7.1 |
| Nitrazine + IBDU | 7.1 | 8.1 | 8.8 | 7.9 | 8.0 |
| Nitrazine + Organic N | 7.0 | 6.6 | 7.6 | 7.1 | 7.1 |
| SCU (Lebanon 32-0-0) | 7.2 | 6.6 | 7.0 | 6.1 | 6.7 |
| UF (Nitroform 38-0-0) | 6.9 | 6.8 | 7.8 | 7.1 | 7.2 |
| IBDU (Par Ex 31-0-0 Fine) | 6.9 | 7.7 | 8.4 | 7.7 | 7.7 |
| Org. N (Sustane 5-2-4) | 7.3 | 6.8 | 8.1 | 7.6 | 7.4 |

* Scale 1 to 9; 1 = brown, 9 = very dark green, 7 = minimally acceptable color.

Turfgrass color responses to the Nitrazine-SRN combinations (Table 3) suggest that SCU is not an appropriate material for combination with Nitrazine. In fact, the SCU alone performed very poorly on this site. The best Nitrazine-SRN combination was that of Nitrazine + IBDU. This combination was particularly effective in bringing about recovery of the turfgrass from the drought-induced dormancy that occurred in July.

Next season, Nitrazine alone and Nitrazine in combination with IBDU will be applied on a one time only basis at various N rates. Turfgrass color and tissue N contents will be determined bi-weekly to evaluate the full season performance of these various treatments.

**TABLE 4.**
**1989 TURFGRASS COLOR RATINGS**
**GOLF TEE FERTILIZER DEMONSTRATION**

| FERTILIZER | AVERAGE COLOR RATINGS | | | | | SEASON |
|---|---|---|---|---|---|---|
| | June | July | Aug. | Sept. | Oct. | MEAN |
| Nitrazine | 8.7 | 8.1 | 7.8 | 7.1 | 7.5 | 7.7 |
| Agriform | 8.5 | 8.3 | 8.0 | 7.6 | 7.1 | 7.8 |
| Nitroform UF | 7.5 | 7.9 | 8.2 | 7.4 | 7.1 | 7.6 |
| Johnson's SCU | 7.5 | 7.7 | 7.2 | 7.8 | 7.3 | 7.5 |
| Lebanon SCU | 7.5 | 7.7 | 7.4 | 7.8 | 7.5 | 7.6 |
| Par Ex 31-0-0 | 7.7 | 8.5 | 7.2 | 7.7 | 7.8 | 7.9 |
| Scott's 22-0-16 | 8.0 | 7.9 | 7.6 | 8.0 | 7.3 | 7.7 |
| Sta-Green 15-0-30 | 8.2 | 7.9 | 7.2 | 7.6 | 7.2 | 7.6 |
| Sta-Green 21-0-21 | 8.2 | 7.9 | 7.4 | 7.2 | 7.3 | 7.6 |
| Fine Milorganite | 8.0 | 8.1 | 8.2 | 7.8 | 7.5 | 7.8 |
| Sustane | 8.2 | 8.1 | 8.0 | 8.1 | 7.5 | 7.9 |
| Sta-Green 17-2-10 | 8.5 | 7.7 | 7.6 | 8.0 | 7.6 | 7.8 |
| Johnson's 18-3-12 | 8.7 | 7.7 | 8.0 | 8.2 | 7.5 | 7.9 |
| Scott's 32-3-10 | 8.5 | 7.8 | 7.6 | 8.2 | 7.5 | 7.9 |

The third fertilizer demonstration involved application of 14 different fertilizers on a poorly drained, *Poa annua* infested golf tee. Two of the fertilizers, Nitrazine and Agriform 34-0-7 were single season applications at the rates of 4 and 5 lbN/100 ft², respectively. All other fertilizers were applied three times during the season at a 4 lb. N rate.

Turfgrass color was rated ten times during the season. The ratings are summarized in Table 4. These ratings show that:

1. All of the fertilizers tested provided satisfactory turfgrass color throughout the season. Hence, performance of the single applications of Nitrazine and Agriform 34-0-7 was comparable to that observed with three applications of the 14 other fertilizers tested.
2. Not shown in the data is the fact that Nitrazine and Agriform caused some turfgrass discoloration (burn?) during the first two-to-three weeks after application.
3. Early season (June) responses resulted in excessively dark turfgrass colors when Nitrazine and Johnsons 18-3-12 were applied.
4. Late summer (August) responses to Johnson's SCU, Par Ex 31-0-0 and Sta-Green 15-0-30 were considerably less than those obtained with several of the other fertilizers tested.
5. Par Ex 31-0-0 excelled in the maintenance of late season (October) turfgrass color.
6. Some of the most stable color ratings throughout the season were achieved with the two organic sources, Milorganite and Sustane.

The Agriform 34-0-7 is a resin-coated fertilizer. It is the resin coating that controls release of nitrogen from the fertilizer granules. There is some talk in the fertilizer industry that resin-coated fertilizers are the slow release fertilizers of the future for turfgrass. Some go so far as to say that the days of sulfur-coated urea are numbered and that sulfur is destined to be replaced by resins. Thus, this material will certainly be included in next year's demonstration.

# SPECIAL INTERESTS HIDE BEHIND THE ENVIRONMENTALIST'S FLAG

*By Rob Schultz*

CUNA Mutual Insurance Society is one of Madison's finest places to work. CUNA takes care of its employees and its community with special activities and projects. The health of its employees and community is a huge concern at CUNA.

Oh, CUNA also likes to make money. Lots of it. It does pretty well, thank you.

Since CUNA takes care of its employees and the community and also likes to make money, lots of it, a light bulb went off in the heads of its executives a few years ago.

CUNA owns a golf course called Pleasant View just outside the Madison city limits. It's a public facility, an OK layout in a wonderful, hilly setting that CUNA had ignored and leased to two businessmen. For years, the golf course lost money. CUNA execs just shrugged.

But now they had a great idea for the site. They unveiled plans to rip up the entire site and, with the land it owned adjacent to the course, build a new Jack Nicklaus course around a beautiful housing development.

It was a colossal idea. It was good for CUNA, good for golf, good for the community. Not only would CUNA benefit financially, but Madison and nearby Middleton would also stand to prosper from golfers flocking to the site to play one of the greatest golf course architect's only state project.

So why does this project stand no chance in hell of getting built?

Environmentalists. They have declared war on CUNA and their wonderful project because of concerns of groundwater, green belts and aquifers. They have made CUNA look like the bad guy even though they have not discussed the project or their environmental concerns with the CUNA executives.

It's doubtful if such a meeting will ever take place. You see, there are many in the Madison community who stand behind the environmentalist's flag but have other, deep-seated reasons for not wanting the project to succeed.

They don't like change. They don't like prosperity. They like everything as is in their own little safe world.

I had the chance to have a conversation with Ken Wade, the environmentalist who is leading the crusade against the CUNA project. Wade is the chairman of the town where the new golf course property would be constructed. Prior to calling him, I did some research and found that he lives in the country and detests urban sprawl. "And his idea of urban sprawl is two homes within one mile of each other," said the mayor of Middleton.

Not surprisingly, the residents of Wade's town, who stand to have their property values skyrocket after the CUNA project is completed, are trying to get a recall vote to oust him from office.

When I finally reached Wade, he filled my ears with facts about groundwater, aquifers and green belts and how the CUNA project would destroy all three. Then this self-serving, neophyte politician started attacking me. "What do you know about the environment," he bellowed. "Why is a sportswriter doing this story?"

My retort? "What do you know about golf courses?" I asked.

There was silence.

But so what. This is a story that Madison's liberal politicians love. They immediately sided with the environmentalists without ever finding out the facts from both sides. Even my very liberal newspaper, *The Capital Times,* sided with Wade and pulled me from the story without discussing it with me. They wanted their slant and they knew they wouldn't get that from me.

My paper has ignored my pleas that this is more than an environmental issue. One of our columnists who is leading the crusade against the CUNA project knows about as much about the environment as Jimmy the Groundhog. His real, deep-seated reason for crushing the project is his desire to keep Pleasant View as is; a cheap place to play golf. He knows a Nicklaus course will charge golfers at least $50 to play 18 holes.

Once again, we have another hater of development and prosperity standing behind the environmental flag.

This whole scenario reminds me of the death of Oshkosh, the community where I was born and raised. At the turn of the century Oshkosh was booming. But by the 1950s and '60s, the rest of the state — especially the rest of the Fox Cities — caught up. Cities like Appleton and Green Bay had suddenly become as, if nor more popular than Oshkosh.

City officials had to do something to keep up with the competition. But they did all the wrong things. The city officials with the most clout were born and raised in Oshkosh. They liked it just the way it was when they grew up. They resisted change. So when developers came to town with their new business ideas, Oshkosh city officials turned them away. So the developers went to Fond du Lac, Appleton and Green Bay and those cities continued to prosper and pass by Oshkosh.

Not long ago, the tunnel-visioned Oshkosh city officials suddenly wondered what was wrong. The downtown sat quiet, gutted and disgusting. The busiest business was a Burger King.

Now they have finally realized their mistake. With help from the Experimental Aircraft Association — the city's godsend — they have invited businesses to come to town. Oshkosh is just now beginning to shake out of its slump.

Politicians from Madison and its surrounding communities are in the same frame of mind as Oshkosh's politicians 25 years ago. Soon, Madison, too, will be wondering why all these wonderful business opportunities passed them by. But it should wonder why it let all those opportunities pass them by.

Narrow-minded city officials who listen to these half-crazed environmentalists know nothing about the golf boom that has taken the world by storm recently. They don't have the mind to call Kohler, Sheboygan and Stevens Point and learn what major golf course de-