years ago, when we got hit with a bad case of summer patch and our two worst greens began fail; I was real tense. I tried what I could, but it seemed that nothing was working. One day I was having my morning coffee in the back room of the proshop and overheard some conversation between an assistant pro and a member of my green committee. I became so enraged at the backstabbing that all I remember hearing was "if Tony knew what he was doing, we wouldn't be having these problems."

Nicholas noticed that Tony was actually reliving this experience and could see the veins beginning to protrude from Tony's neck. These were not times to interrupt, so Nicholas remained engaged.

Tony continued. "I went to the shop and after I threw out three letters of resignation, I put together a proposal for rebuilding those greens that have been a maintenance nightmare for the last 10 years. Then I left, went home and spent the day at a tea party with my daughter, Sophia, in her treehouse. That night Clelia and I had dinner at the Moroccan place in town, sat on the floor, ate

with our fingers, went home, and well, you know the rest."

Nicholas was amazed that Tony could just walk away from the golf course on a day when, for his job, he most likely needed to be seen. "What happened to the proposal?" asked Nicholas.

"They decided to spend \$3.5 million on the clubhouse that year", Tony responded matter of factly, "and they felt that \$75,000 to 100,000 for greens reconstruction was not worth it".

Nicholas continued to investigate this situation. "Was that the year Mrs. Woodley was the green's chair? Did you get angry and blow up at the board meeting when it was turned down?"

"Yes, it was Mrs. Woodley who was chair and no, I did not blow up because she said I was a talented enough superintendent to be able to do what needed to be done short-term to keep the greens playable." Tony continued, "And one tough year out of 17 was a record any business person would be proud of. Besides, I've learned to make those greens into a daily testimonial to my talents."

Tony began to grin. "Plus, the best part of the story was that the assistant pro and the member that were backstabbing me were arrested for embezzling money from the club. The club got the money back, and Mrs. Woodley saw to it that after my most difficult year I received a 10% raise."

"Don't you think it is a strange set of priorities that golfers think nothing of dropping a few mil into a clubhouse," Nicholas philosophized, "but won't put \$100,000 into the reason people come near the clubhouse?"

"I used to, but now I understand." Tony explained, "Like when I had to leave that day and be with my family, that was my priority. To them the clubhouse is their priority, and to you, young man, that beautiful wife and children should be yours. So dog days or not, get your butt outta here. Go home, spend time with the kids then bring them over to spend the night with Clelia and me. Take Angela to dinner, eat with your fingers, skinny dip in the lake and look at the stars and remember that Sirius will be here for you tomorrow."

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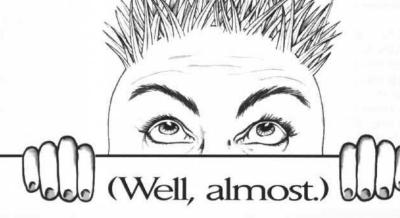
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O.J. WOULDN'T RECOGNIZE THE PLACE!

By Monroe S. Miller

The May/June 1986 issue of *THE GRASS ROOTS* had what I thought was a great story by Jim Spindler. As part of our *Made In Wisconsin* series, Jim put together the history of Milorganite and the people involved since its beginning in March of 1926.

My last tour of the Milorganite plant was inspired by that series ten years ago. Although Milorganite hasn't changed in 70 years, the Jones Island facility is, for all practical purposes, brand new. I didn't recognize Jones Island or the plant; I'd guess O.J. Noer, if he were to come back today, wouldn't either.

The changes have been massive and impressive. On that last visit I got there by boat. Today a four lane divided highway practically takes you to the front door. The facility in 1986 — from the office to the dryer building — was unchanged from 1926. Today, those buildings are all gone. The red brick buildings have given way to a thoroughly modern look. All that remains is the towering brick smokestack that has been prominent in the Milwaukee skyline for so long.

I wasn't prepared for the Anniversary Tour. No one had warned me of the extent of the revamping of the entire MMSD system. Little did I know that a good deal of the change is underground. Huge tunnels were built to provide enormous storage capacity for the system, eliminating the need to ever run excess into Lake Michigan.

When you stop to think about it, even the staff changes have been 100% now. I never knew O.J., but Charlie Wilson, Jim Latham and Bob Welch were synonymous with Milorganite for most of my career. They are all now retired. The new crew of Terry Ward, Al Nees, Larry Lennert, Tisa Overman, Kent Coburn and Jan Vogt is talented and carrying on the tradition of this pioneering effort in environmentalism and turfgrass nutrition.

This is a Wisconsin idea and company, through and through. MMSD was the first large scale activated sludge treatment plant in the world. It was so innovative and so ahead of its time that the American Society of Civil Engineering named it a "National Historic Engineering Site" in 1974.

At its beginning MMSD had enough sense to know that the solids resulting from this one-of-a-kind treatment plant would require enormous landfill area. So they went where common sense would dictate - the College of Agriculture at the State Land Grant University in Madison. Professor Emil Truog, a world renown soil scientist, directed a fellowship to study the use of activated sludge as a fertilizer. Truog chose one of his graduate students to do the study - a Norwegian farm kid from Stoughton named Oyvind Jual Noer.

(Continued on page 14)



That's Dr. Wayne Kussow in the center, with Chris Kerkman and Larry Lennert. Both Kerkman and Lennert earned their M.S. degree under Kussow. They are at the NOER Research Facility, looking at Milorganite plots.



Massive storage bins, part of the new Milorganite facility, hold millions of pounds of America's favorite natural organic fertilizer.



The Milwaukee skyline from a top the concrete storage bins at MMSD on Jones Island.



Milorganite even has its own train! The bulk product is hauled to a separate bagging facility west of the city.

(Continued from page 13)

Noer determined sludge analysis, experimented with its use on field and vegetable crops and tried it on lawns. In all cases, it outperformed fertilizer materials available at the time.

Golf courses were another obvious use of the Milwaukee sludge. It pleases me no end knowing that his first plots were at Blackhawk Country Club where I have labored for 24 years. He also set up research at Maple Bluff CC in Madison. Other work was done at Blue Mound CC, Ozaukee CC and Milwaukee CC. The results at all locations were superb. This led Noer to take his research to golf courses all over the country. Word got out about this "new" organic fertilizer and the rest is, as they say, history. Wisconsin history.

I think, for me anyway, that was what the Anniversary Tour at Milorganite had for a message. Times change, years pass, the facility changes and grows and improves, the people change. But the product remains what it was on August 1, 1926 — a world class, environmentally sound, high quality turfgrass fertilizer. And it is made right here at home.



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Turning 50 in America's Best City While Working at the Best Club Anywhere!

By Monroe S. Miller

Sometimes it takes an artificial landmark to put focus on one's life and work. That happened to me this summer, on my 50th birthday. I did some thinking about turning 50, reflecting back and looking ahead.

What I quickly figured out was this: I am one lucky person. One of my youthful staff members (now that I am 50, they ALL are youthful!) asked something like "aren't you kind of depressed about turning 50?" The answer was easy. "How can one be depressed about having enjoyed a very successful career, doing something he loves in what is officially (for 1996, anyway) America's best place to live?"

Depression would be an impossibility for me. It might be an emotion for the poor guy who has hated every minute of his work, who hates the place he works and the organization he works for. Or the guy whose kids are screwed up and don't like him. Or who has had health problems. Or who has moved too often. Or who experienced a failed marriage. Or who suffered a permanent injury fighting for his country in a foreign place.

Me? I'm on the plus side of all those potential downers. The kid who asked the question was told by me "I hope you can have as full and rich and varied and rewarding life as I have had for 50 years."

Is Madison, Wisconsin 'Shangrila?' No. The politics of the place drives normal people nuts. But it is incredibly beautiful — four lakes, the isthmus, the state capitol building, promontories and wetlands, Indian effigy mounts and giant oak trees.

Where but here and at Blackhawk could one lean over a split rail fence and visit with Dr. Howard Temin and congratulate him for winning the Nobel prize for medicine, golf with a Big Ten coach or watch Vincent visit with Bart Starr on an early Monday morning?

You can hear Pink Floyd one night at Camp Randall, listen Itzak Perlman the next evening at the Civic Center, enjoy the Dave Brubeck Quartet at the Campus Stock Pavilion and dance to Smokey Robinson and the Miracles in the ancient Field House. From Sinatra to Elvis, they have all been here.

Madison is just big enough that you can go downtown and boo the president of the U.S. or cheer a hero like Bishop Desmond Tutu. Because of the presence of the great State University of Wisconsin, your neighbor might be a member of the National Academy of Science. And how lucky have I been, over the years in this town, to have frequent visits from faculty members — Love, Worf, Newman, Koval, Rossi and others. We have had plant pathologists from, literally all over the world, on bended knee with tails in the air in front of our 17th green, hands lenses out, looking at weird patches! What

You can go to the Madison Club and probably seen the Governor, go to Camp Randall and watch the Badgers clobber Michigan or Penn State in football.

Madison has the Art Fair on the Square and the Farmers Market. You can catch a walleye in Lake Mendota or a northern in Lake Monona. Or go boating. Or watch the University crew teams, on cool mornings in the spring and fall, glide silently past our pumphouse. Or you might even have a Badger football player or a member of the women's crew team on your summer staff.

Your child can take (free) piano lessons from a Music School prof or flute lessons from the gal who is first chair in the Madison Symphony Orchestra. In the summer thousands and thousands enjoy the weekly "Concerts on the Square" with the Wisconsin Symphony Orchestra.

Visitors love to go to the Memorial

Union — the most European setting outside of Europe — or sit out on the Union Terrace on a summer night. You can take them to worship in the beautiful Congregational Church or down to State Street to see the crazies

How about the Arboretum in any season, but especially in the spring when the lilacs and flowering crabapples are blooming? Looking for a view to enjoy, miles to see? How about one of the best in North America — the 18th hole at Blackhawk CC on Blackhawk Drive? I enjoy it everyday. Madison has fall color (no, it isn't New England, but it is pretty good) to feast the eyes on.

And golf — boy, does this community love golf. Population — under 200,000, something over that with the suburbs. But we have five private 18hole courses - Blackhawk, Maple Bluff, Nakoma, Cherokee and Bishops Bay. We have Pleasant View (27 holes) and Tumbledown Trails (18). The city has Yahara Hills (36), Odana Hills (18), Glenway (9), and Monona (9). The University of Wisconsin-Madison has University Ridge (18 and maybe more to come before too long). Door Creek (18) is close. Many others are not far away, either.

Madison has my beloved alma mater — the UW-Madison — the Noer Facility to nuclear reactors, heart transplants to hair transplants, Babcock Hall ice cream to Big Ten sports. I could write a book about what has gone on there since 1964 when I arrived, a hick farm kid from Grant county.

It has the outrageous and absurd politics I have already noted, the meddling bureaucrats, the petty politicians of state and county and city government, and sometimes ridiculous policies. But with the right attitude and mind set, they can provide entertainment not found for sale anywhere!

(Continued on page 17)



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(Continued from page 15)

This has been a great place to live for 32 years (plus one, for the first year of my life when my dad finished his degree at the UW after WWII, and minus 15 months in Vietnam). It provides endless pleasures; if you are bored in Madison, Wisconsin, you are a BORING person, doomed to a dull life no matter where you live. It has been great for both Cheryl and me to live in the midst of all the fun and activity.

Life has to give a guy a few big breaks. One of my biggest breaks was being hired by Blackhawk CC. Since 1973, my career has been almost continuously interesting and challenging. It is a cautious and well run organization, taking balanced and measured steps of progress every year, always moving forward and getting better. It is a beautiful, old 100 acre golf course, typical of those built 75 years ago. Its history includes a place on the National Park Service List of Historical Places in America, and a touch from A.W. Tillinghast. It often strikes me as incredible that I have been the golf course manager for what is essentially a third of its history. There were only five before me - a perfect venue for a man whose personality likes stability for himself and his family. And how lucky for a faithful UW-Madison alumnus - I can walk to the western edge of campus in 10 minutes, bike there in under five, and drive there in two! And along the way, I will see a couple of Frank Lloyd Wright buildings.

The players — members — treat me as an equal, yet expect none of the responsibilities associated with a membership. Some of them are my dearest friends. I have a sense that they respect hard work and the quality product we try to present every day of the season. Who could ask

for more?

So, it is easy to see why I haven't suffered the "turning 50" maladies so many seem to suffer - you know, mid-life crisis, male menopause and all that. I am not complex enough (some say I am too simple-minded!) to be bothered. My life as been too rich, too full, too busy, too happy, too rewarding, too fun, to think such thoughts.

Growing older isn't the end of the world. In reality, it has many advantages. Only when you can look back from the perch afforded a 50 year old person do you realize how little you knew when you were young (30, for example) and how wonderful experience is. I feel more capable, stronger and smarter about how to use the plentiful energy I still have. My ability to stay focused increases every year. The opportunity to participate in physical activity helps keep me healthy, I am sure.

A lot of the impact on aging is mental. I take the tact that my life is only half over. There is so much more to look forward to - books to read, places to go, people to meet that I look forward to each day with a

great big smile.

And when I do grow old - whenever that is - I have a plan. I am going to unwrap and become outrageous! That will really be fun! W





Ornamental Grasses, Part II

By Tom Schwab, Superintendent O.J. Noer Turfgrass Research and Education Facility

In the summer of 1995, we installed an ornamental grass study at the Noer Facility. I wrote about some of the interesting features of these grasses in a GRASS ROOTS article last year. The main purpose of this investigation is to gather information on the cold hardiness and reliability of this group of plants for our upper midwest climate. Other information may also be derived from the study over the years. We hope to learn more about which plants can be invasive, which will tolerate weather conditions experienced here, and what pest problems the plants may have. We will also report on seasonal interests of their foliage, flowers, and shape and find out information about where to best use the different plants.

There is an informative extension publication that already reports on the cold hardiness of ornamental grasses. You can call your extension publication office and ask for the North Central Regional Publication # 573 if you'd like a copy. That study, done at the University of Minnesota, investigated 165 different grasses, of which 85 survived after six years of observations. I think it is important to gather additional information at another cool season research location, such as the Noer Facility, to help validate each other's information. Ornamental grasses seem to be gaining in popularity because of their interesting features and uses, so the more information we can gather the better.

This first winter of observation at the Noer Facility was a good test because of the extreme harshness of it. The Noer Facility, like the majority of Wisconsin, is located in Zone 4 of the USDA Plant Hardiness Zone Map. Pam Naber-Knox of the Wisconsin State Climatology Office stated that in Madison we experienced a winter more like Zone 3 this past winter.

The temperatures were near all time record lows, they were cold for long durations of time, and temperature swings were often extreme over short periods. Those conditions do freezing damage and can kill many usually cold tolerant plants. Thus we found many more of the grasses had died than we had expected. The results are reported below.

Our study consisted of 41 ornamental grasses with at least three plants of each type. Most of the plants were container grown and donated by a local landscape company, CR Stephenson Co. Other plants were transplanted from a year old ornamental grass nursery that existed at the Noer Facility. The grasses were planted into unammended silt loam soil plots. We took care in placing the plants in their natural environments; shade loving plants in the shade, dry loving plants in dry areas, etc. The planting beds were then mulched with 3 inches of



Yellow foxtail grass was hardy over this past harsh winter. It has a nice lime-green color that allows it to either blend or contrast well with other selections in the garden.



Foerster's feather reed grass blooms early and for a long period in cool climates. It's narrow vertical growth habit is present year-round even when dormant.



Palm sedge sounds tropical but proved very hardy in both Minnesota and Noer Facility studies. It's an excellent ground-cover in moist slightly shady areas where it can be used as a lawn substitute.

shredded oak bark. An application of 6-2-0 fertilizer was added to each plant in the fall.

The rating of plant hardiness was done by visually observing plant health and survival rate. The observations were done in early June to make sure all plants had a chance to put on new growth. Although the information from the Noer Facility is only from one winter of cold tolerance observation, it should be a good test because of the extreme winter of 1995-96. We used the same method of rating the plants as the University of Minnesota.

Group 1 (The most winter hardy and recommended for USDA Zone 4)

Group 2 (Some of the plants die or show extensive winter injury)

Group 3 (Most or all plants died, thus are not recommended as perennials for Zone 4)

The Minnesota ratings are included as a comparison with the Noer Facility results. Since Minnesota's study was over a six year period, their results are more conclusive. The Noer Facility study is still a good test because of the extreme and harsh winter the plants had to endure their first year. Anything, plant or human, that survived last winter should be around for awhile!

It was interesting to compare the six year University of Minnesota

results with those from the Noer Facility study. Seventeen of our fortyone varieties at the Noer Facility received the same rating as those from the Minnesota study. Fifteen of our varieties received a less favorable rating than the same plant in the Minnesota study. Pam Naber-Knox's comment about our winter in Madison being like a Zone 3 was correct. In addition to the cold, the huge temperature swings that we experienced this winter were extremely hard on plants. For example, on January 18, 1996 the daytime temperature was a record 55 degrees F and it dropped to 0 degrees F that night. We experienced some of those same temperature swings in February.

Only two of the forty-one varieties at the Noer Facility received a more favorable rating than the Minnesota study. Time will tell whether those plants hold onto their better rating. Then there were seven varieties that we used at Noer that Minnesota did not include. Minnesota included many that the Noer didn't include though. We are continuing to add to our collection and hope to some day have as complete a collection as they do. We've added another ten varieties this summer already which will be included in next year's rating.

(Continued on page 21)

botanical name	common name MN hard gro		Noer rating
Alopecurus pratensis 'Aureus'	yellow foxtail grass	1	1
Andropogon gerardii	big bluestem, turkey foot		1
Arrhenantherum elatius bulbosum 'Variegatum'	, N () () () () () () () () () (1	1
Bouteloua curtipendula	side oats gramma	1	2
Briza media	perennial quacking grass,		
2017(07:14)(7:500))	rattlesnake grass	3	3
Calamagrostis acutiflora 'Stricta'	feather reed grass	1	1
Calamagrostis arundinacea 'Karl Foerster'	Foerster's feather reed grass	1	1
Chasmanthium latifolium	northern sea oats, wild oats	3	3
Carex muskingumensis	palm sedge	1	1
Dactylus glomerata 'Variegata'	variegated orchard grass	3	3
Deschampsia caespitosa 'Bronzeschleier'	bronze veil tufted hairgrass	1	1
Deschampsia caespitosa 'Goldgehhaenge'	gold pendant tufted hairgrass	1	1
Festuca cinerea 'Elija blue'	blue fescue, blue sheeps fescue	1	3
		2	3
Festuca amethystina	sheeps fescue	1	1
Helictotrichon sempervirons Imperata cylindrica rubra	blue oat grass		1
	Japanese blood grass,		
	cranberry grass	3	3
Koeleria	hairgrass, June grass		1
Koeleria glauca	large blue hairgrass	2	1
Luzula nivea	snowy woodrush	3	3
Luzula sylvatica	greater woodrush,		
	sylvan woodrush	1	3
Melica	melic		1
Miscanthus sinensis 'Gracillimus Nana'	dwarf Japanese silver grass	2	3
Miscanthus sinensis 'Purpurascen's'	flame grass, purple silver grass	1	3
Miscanthus sinensis 'Variegatus'	variegatus Japanese silver grass	2	3
Miscanthus sinensis 'Zebrinus'	zebra grass	2	3
Miscanthus sinensis strictus	porcupine grass,		
	banded miscanthus	2	3
Panicum	switch grass		3
Panicum virgatum 'Haense Herms'	red switch grass	1	3
Panicum virgatum 'Heavy Metal'	'Heavy Metal' switch grass		1
Panicum virgatum 'Rehbraun'	dear red-brown switch grass	1	2
Panicum virgatum 'Rotstrahlbusch'	red rays switch grass	1	1
Pennisetum alepecuroides 'Hameln'	Hameln fountain grass	2	3
Pennisetum alepecuroides 'Little Bunny'	'Little Bunny' fountain grass	-	3
Pennisetum alopecuroides Little Burtity		2	1
	fountain grass	1	1
Phalaris arundinacea 'Feesey Form'	'Feesey's Form' ribbon grass		
Schizachyrium scoparium	little bluestem, prairie beard grass	1	2
Sesleria	moor grass	1	1
Sorghastrum nutans	Indian grass, gold beard grass	1	2
Spartina pectinata 'Aureomarginata'	'Golden-edgedz prairie cord grass	1	1
Sporobolus heterolepsis	prairie dropseed, northern dropseed	1	1
Stipa viridula	green needle grass		1

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