

(Continued from page 9)

"The superintendent has to be kept aware of what's going on because he's going to inherit the course," he says. "If we're going to have a smooth transition from construction to play, the superintendent is going to be the link. We're all part of the same team."

"A lot of the decisions that we make are joint decisions," Dick continues. "I like to have the superintendent look at something and ask him, 'If we build it this way, can you take care of it? Do you have any special problems with this?'"

He also thinks it's beneficial if the superintendent can see the irrigation and drainage systems being put into place. "When they're walking on top of the course, it's nice if they can have a picture in the back of their mind of what's under there," Dick says. "If they have to dig up something for repairs, they can almost picture in their mind what it's going to look like."

Dick is a member of the American Society of Golf Course Architects, and he served as its president from 1981 to 1982. "Right now it has around 100

members," he points out. "When I started there there were maybe 20 to 30 members."

He's also a member of the American Society of Landscape Architects, and he currently serves on the Green Section of the USGA.

Dick's wife, Cindy, is a retired school teacher. They have three grown children. Tim is in business with his father. Another son, Dan, is a mechanical engineer in plant operations for the Mars Candy Company in Chicago. And their daughter, Kathleen, is an attorney in Texas; she received her bachelor's degree from the UW-Madison and was named Outstanding Senior Woman there.

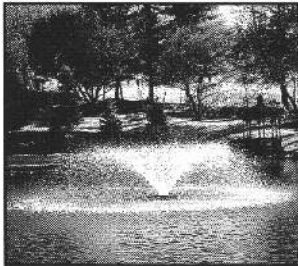
Now that Cindy is retired, the Nugents go to Arizona in the winter. This gives Dick more time to play golf. "Back in the Midwest, in the summer when everybody else is out golfing, we're busy building the courses," he says.

And, with his love for his work and no immediate plans for retirement, he plans to go right on building them. ♣

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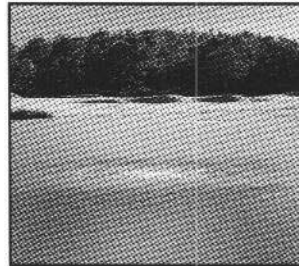
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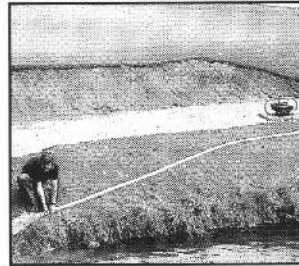
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# The Simple Pleasures of a Golf Course

By Monroe S. Miller

The list of things most of us like about managing a golf course would probably run for pages. That list would include everything from feature construction to tournament preparation to everyday problem solving. The between things might be the most interesting.

I was thinking the other day about the simple pleasures that come along at work, day to day through the Wisconsin seasons. The thought of such simple pleasures put a smile on my face, and I was reminded of all the variety that makes this such a rich and enjoyable career.

So here are a few of my simple pleasures. Can you relate?

- Watching a hundred kids on the range on a Friday morning, with moms and dads, learning to play golf. What fun!

- Driving onto the golf course in the early morning in the autumn and smelling wood smoke from one of the neighbors' fireplace. It could be the best smell on earth.

- Being at the pumphouse in the summer and catching the sunrise over the waters of Lake Mendota.

- Driving to work in the dark when the moon is full, looking like it touches Century Avenue. It is hard to believe it was so long ago that Americans walked on the moon.

- Being in the clubhouse kitchen when the bakery chef is pulling a sheet of fresh, hot chocolate chip cookies from the oven, begging a few and eating them on the spot with a glass of ice cold milk.

- Mowing a green with a walking green mower. It is the best planning time, stress reliever and exercise I know. And so few know about it!

- Filling my empty coffee cup with fresh ripe mulberries, putting my feet up on the cart deck and enjoying them, one by one.

- Stopping by a mockorange or a Koreanspice viburnum in the spring when they are in peak bloom and

getting a rush from the aroma of their flowers.

- Taking a cup of fresh brewed black coffee, in my favorite cup, out to the golf course with me, early in the morning, and enjoying it all by myself while I am checking the course.

- Looking at the sun through the water being thrown by a Toro 650 sprinkler, early in the morning when the angle of the light is low. Beautiful! And it looks so refreshing!

- Standing back and looking at a just finished sod job, noting that there is not one overlapped seam. Perfect! And so green . . . .

- Knowing that, after the 4th of July fireworks, my worst day of the year is over.

- Watching the crew work, at mid-season, to get ready for a tournament that begins at 8:00 a.m. They function like a well oiled machine, and the results are just great.

- Watching the chairman drop a birdie putt into the cup on the first green!

- Listening to the first locusts and crickets of the season sing; it tells me that autumn will be here before I know it.

- Cutting pine lumber with a table saw. The sawdust offers one of earth's best aromas. It is a similar treat to plant a fragrant white pine tree, or to park in the midst of a group of mature white pines on a humid morning. The smell is intoxicating!

- Waking up on a summer night to the sound of a soft rainfall. It makes me smile, knowing the next day will be easier.

- Waiting patiently for July 28th, the date in Madison when the average daily high temperature finally starts to drop. Cooler days are ahead.

- Stretching a fungicide application through some tough pythium and brown patch weather and not having either disease appear. There is satisfaction is a good decision that saves a boat load of money.

- A visit by Wayne Kussow. He is a busy man and doesn't stop often, adding to the pleasure of the times when he does.

- Getting to work at daylight to spray fairways and finding them white with dew. It is even better when you arrive and the air is dead calm. "No marker and no dye today."

- Announcing to the world that one of our bluebird houses has an occupant for which it was built!

- Looking overhead, in the fall, and watching a skein of geese flying south. "Snow before long," I smile to myself.

- Tree flowers in the spring, big green leaves in the summer, and bright colors in the fall.

- Writing a letter of recommendation for an outstanding graduate, faithful summer employee and future golf course superintendent.

- Watching the first snow fall on the golf course—irrigation system is empty, snow mold materials are down, and there is no ice anywhere on the course.

- Seeing a new issue of THE GRASS ROOTS when it is fresh off the press.

- Rolling three golf balls with a stimpmeter and having them all touch, at about 10 feet away. "No grumbling accepted today." ♣

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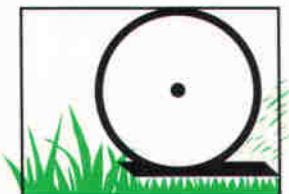
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# *The Silence is Deafening*

By Monroe S. Miller

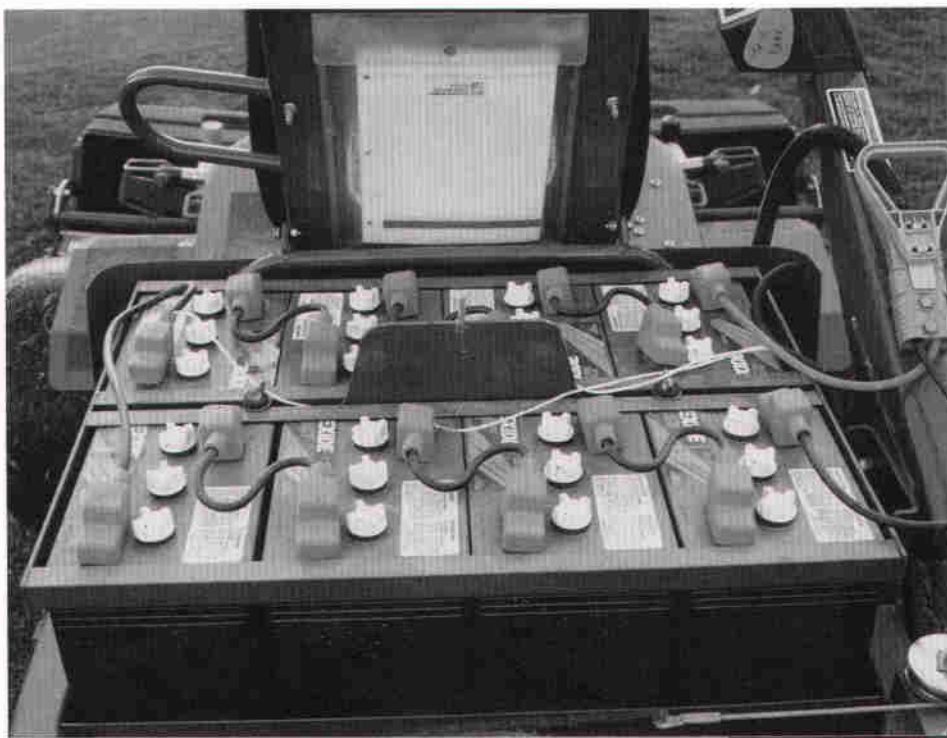
From the GCSAA conference show floor a year and a half ago in Dallas to the distributor showroom today, the Ransome electric greensmower is finding acceptance on America's golf courses. The early success of the machine doesn't surprise me.

We had a demonstration on our course for several days earlier in the season, and we liked it. It seems to me it will be an especially popular machine for golf courses like mine that are surrounded by homes and limited by noise ordinances. The only sound you hear is the entirely pleasant hum of reel blades lightly passing over bed-knives.

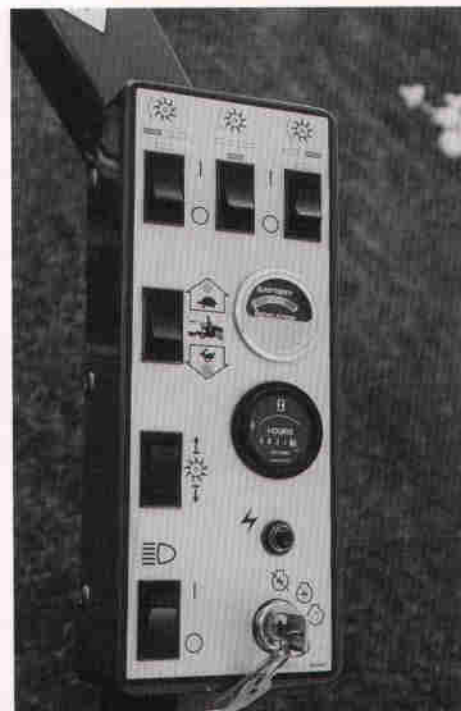
Although the machine did a fine job of cutting, the tractor is the news here. The electric motors on the reels and on the drive assembly eliminate hydraulic oil leaks—three cheers! The most noticeable thing to me was the practice required to operate it. The machine



The simplicity of the machine is very appealing.



The "power plant" of the Ransomes E-Plex.



The controls of the E-Plex are something new!

*(Continued on page 15)*

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(Continued from page 13)

free wheels, oversteers a little bit, and requires more finesse than the triplexes I am used to operating. But in a short time, all was well. The machine is only different from others, not worse. And the silence it offers is going to make it better for a lot of golf course superintendents.

We shouldn't be surprised that battery operated mowing equipment is finally making its way into our shops. The electric golf car has been a shining success for a lot of years now. Apparently, manufacturers were waiting for some improved battery technology. I guess that it is available now.

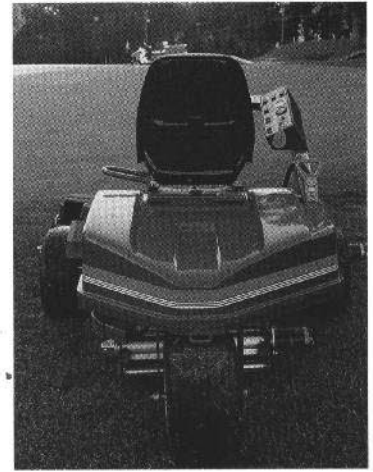
Some manufacturers are ready to surge forward in a big way. In fact, one company executive asked me a month ago, as we toured my shop, "how many gas or diesel engines do you think you will have here ten years from now?"

I have no idea, but he thinks there will be only a few.

Both Tom Harrison and Mike Semler used the Ransome E-Plex, too. Tom says that in two years he will be mow-



A sideview—the operator sits high on the machine.



A look from the back of the machine.

ing greens only with electric greens-mowers. He is trapped in the middle of the city like I am and suffers neighborhood grouching about noise. Already he has made a substantial commitment to electric equipment—all of his utility vehicles are battery operated.

Mike likes the E-Plex as the result of the demonstration at his course.

Bishop's Bay is really strung out, up and down hills, and he was able to mow 24 greens before the machine slowed.

The Ransome E-Plex is the first legitimate offering of electric mowing machinery. Trust me—there will be more to come. 🌿

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# Brutal Summers Require A Little Courage and a Lot of Common Sense

By Monroe S. Miller

Usually, in most years, we all have an occasional "summer day from hell" when the hot weather and associated problems pile up to the point of being overwhelming. Not very often have we had "weeks from hell" like so many of us did this summer.

The heat of 1995 was serious stuff: grass dying is one thing; people passing away from heat indices of 120 degrees is something else entirely. It was tragic.

Course conditions are bound to suffer when the daily high for days on end goes above 90 degrees, and even 100 degrees. These are cool season grasses in the northern tier of states,

not transition or southern grasses in the sweat belt and on south. Who could be surprised they were stressed out?

Probably as stressed out as those managing them. And that grass stress dictated some decisions that may have been unpopular with players, which in turn added to the discomfort of golf course superintendents.

The weather required courage, for lots of things. Like telling a player griping about slow greens the reasons why they were slow (and then offering him the opportunity to perch and rotate on the bevel end of a stimpmeter). Slow greens on a run of hot and

humid days could have been the result of a savvy superintendent raising the height of cut. Or from the experienced decision to switch from grooved rollers to solids. Or from the wise choice of single cutting for a few days instead of the normal (at some places) of double and triple cutting.

We normally mow fairways seven days a week. But following my long held principle of "do yourself no harm" we went to the more traditional three times a week for a couple of weeks at a time, and only in the early morning.

I am baffled why, during such difficult weather, some superintendents are still double and triple cutting



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greens. It seems too risky, and I think that was probably born out this summer. Those feeling pressure to do such things have a real communication problem that they need to address with their players.

In fact, during the hottest day of the early July spell, our course looked so tough at 4:30 p.m. that I told Derek "if it was noon, I'd close the course." I am sure he was surprised, but the fact of that day was that there should not have been players out there. Closing would have helped the turf AND the golfers. Damage was as certain as it is when conditions are very wet or when frost persists.

It was too hot some days for employees, and we simply ended our

day early, once at noon. Heat related injuries and death in the news made this an easy and obvious call.

Fungicide management—distinguished from overreaction and unnecessary application—was essential for plant disease control.

The same was true for water management. We were reminded that irrigation systems only "supplement" rainfall and do a poor job of replacing it. Double row is better than single, and triple row is better than double, but no matter which, the application is uneven.

Comparison between courses is always maddening, but the extremely spotty nature of the summer rain added to the frustration. Rainfall, in

our town, varied east to west and north to south. Hand watering, judicious use of surfactants, and spot aerifying of the worst cases of isolated dry spots I've seen were necessary, despite know-it-all remarks from passing players.

We will always have weather extremes in Wisconsin; they're nothing new. The impact they have can sometimes be moderated by the way we handle them. I feel a little smarter after each one, learning in a way that will be helpful next time.

And about the time I've got it all figured out, it will be time to retire and I won't care.

Bring on the winter! 🍂

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# Bentgrass Seeding Rates: Survival of the Fittest

By Dr. Frank S. Rossi  
Department of Horticulture  
University of Wisconsin-Madison

...at no time would a capable agriculturist benefit from sowing more than [the recommended seeding rate], though seed houses will continue to recommend high rates....(Madison, 1966)

**Perspective.** A few months after I arrived in Wisconsin, I attended my first Wisconsin Golf Turf Symposium in Milwaukee. I truly value the Symposium because of the single topic and perspective provided by practitioners who are actually using the principles they preach. For instance, a speaker on the program provided an animated and informative lecture that included his recommendations for establishing new putting greens from seed. To my amazement, his recommendations for seeding rates were 5 to 10 times the typical seeding rates for bentgrasses to achieve a quick, fine-textured surface. I guess the above quote from Dr. Madison should have included golf course architects!

In golf course design and construction, where the architect meets the superintendent or reconstruction/renovation where the superintendent meets the golfer, the quest for rapid establishment of fine textured plants has resulted in the discarding some principles of biology and ecology. While I clearly understand the economic and political motivations behind management decisions, I wondered if there were long-term consequences that compromise the short-term benefits of excessively high seeding rates.

**Background.** Seeding rate is a primarily a function of seed size. However, it also depends on the turfgrass species, pure live seed (purity & germination) in a seed lot, environmental conditions at establishment, seed cost, growth habit (upright vs. prostrate) and establishment rate desired. Most cool season turfgrasses are seeded at a rate that results in approximately 10 to 25 seeds per

square inch, except for the bentgrasses. There are between 6 and 8 million seeds in one pound of creeping bentgrass, while a pound of Kentucky bluegrass has 2 million seeds and a pound of perennial ryegrass only 250,000 seeds. Therefore, bentgrass seeding rates were designed to deliver 30 to 60 seeds per square inch, typically achieved by sowing 0.5 to 1.0 lbs. per 1000 square feet (M).

In 1966, John Madison conducted a study to determine the optimum seeding rate of turfgrasses. This work, like many other studies conducted by him, provided the baseline information that to this day is still relied upon. There were several interesting results including the observation that Penncross creeping bentgrass seeded at 0.5 lb. per M had the same visual cover rating at 1 month after establishment as the 5 lb. per M rate. Madison moni-

tored seedling density over an 8 month period. At establishment high seeding rate plots had up to 10 times more seedlings than the lower seeding rates. However, during the succeeding months seedling populations in the plots converged so that at the end of eight months, all plots had similar shoot densities. Finally, Madison reported increased disease incidence associated with higher seeding rates. To summarize all this, a fine textured dense turf can be achieved more rapidly at higher seeding rates; however, there will be increased seedling mortality and disease incidence.

The convergence of the number of seedlings following different seeding rates is an example of carrying capacity. The carrying capacity is defined as the amount of life that can be supported (or carried) by a habitat (in our  
*(Continued on page 21)*





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