

Hole Notes

The Official Publication of the MGCSA

Vol. 56, #3 April 2021



Featured in this issue:

MGCSA Hosts 'first' First Green Event at OCC



Industry Spotlight:
MTI Distributing
MGCSA 2021 Gold Annual Sponsor
pages 46 - 51

On the cover:

Owatonna Country Club Nikk Dickerson instructs First Green 4th Grade Students about tree identification and tapping maple trees for sap. At other stations, kids learned about bird habitat, how to measure area, soil properties and a final stop for sap-to-syrup processing and a sweet maple syrup on ice cream treat. The day was a perfect choice for the 'first' First Green event. Thank you Nikk, OCC and the GCSAA.

Events Ahead:

May 3rd Spring Carnival
May 18th Turf "Talk-about"

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By Kari Haug

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COM



Presidential Perspective

by Scott Thayer, Legends Club

Looking back at this time last year and what was going on: golf, our country, and

personal lives were completely shut down. Is it different now? Yes, of course, but still not back to “normal”. Many things still need to change to get us back to our lives “pre-covid”, however, it really is getting better every day. I am grateful for that!

Weather-wise, this spring seems to be a lot like last year. It is always nice to come out of winter with little to zero damage to our golf courses. So much less stress and easier for all of us to get more important things done, and oh so much better than repairing dead turf. After the year we all had (2020), it was really a relief to have a winter that was not tough. I have heard that all of us came out of winter just like we did going in, looking real good. Thank you, Mother Nature! If you are like me

you have lots to do now to get the course ready for play and the rest of the golf season.

The MGCSA has been, and will always be, busy preparing for the year and hopefully for all of us to be able to get together as an in-person association again. I am looking forward to seeing all of you at the May “Carnival” at TPC Twin Cities and am excited to see how this event comes together. Thank you, Superintendent Mark Michalski, for thinking of this great idea and helping to plan the event at your course!

The other topic that I want to talk about is a very big deal with our association, the lack of Assistant Superintendents in our business. I know it has been an ongoing ‘soft’ topic in our profession for the last four to five years but I think it is more of a reality now than ever. It seems that a lot of us Superintendents have been talking about how we don’t have Assistants or not many assistants in our business like

there were 10-15 years ago.

I remember graduating from ISU in 2000 and looking for a job along with quite a few assistants pursuing the same jobs. It certainly isn't like that now. Recently, I saw on Twitter there were 350+ Assistant jobs in the country this winter and very few graduating from the limited number of turf programs.... wow, how do we fill that void? Not sure if many of you know, but I lost an Assistant to a car crash due to snowy conditions over the winter some years ago. I had two really good assistants at that time; my other assistant then started his own home lawn care business and has since become very successful. In a short time I was down two very good assistants, how fast things can change before you know it!

Over the past years, I have filled the position, and some have left, and some have stayed. Although I have a really good staff right now, recently, I lost yet another assistant due to him returning to his hometown area. It is a challenge finding his

replacement. Jack has a really good column in this issue of Hole Notes about how we can start kids looking into our business once again, and realizing how great it is to be a golf course Superintendent.

When I was in high school, I got to do a job shadow with my boss at the course. It was great! Even though I worked at the course, I *experienced* more just being around him all day and going through everything he did on a daily basis. Let's all go out and get a young adult to just even look into our profession. Whether it's a young adult on your staff that likes the work or going to your local high school to spark interest into this business, I feel it is worth it for our profession. Yes, our's can be a very tough profession, but how satisfying it can be on a warm sunny beautiful day and seeing a wonderful sunrise! We all need to get out and recruit some good help for our golf courses. If not for yours, maybe for your neighbor's course; it will be worth it in the long run for the industry. Hope to see you all on May 3rd!

***2021 Spring Carnival, Affiliate Appreciation and Social
It Is Time to get back together!***

***Think of it as your community's "farmer's market"
only with a golf turf management twist!***

Everyone is eligible for:

Free food

Long drive competition (prizes too)

Social networking

Live, yes, real live demonstrations

Putting contest (prizes too)

Soft good displays

Product displays

Answers to questions

Affiliate "games"

Booth sales

Chipping contests

Brick oven pizza FREE

Displays

Plinko Game

Corn Hole

Isn't it time to get back together?

2020 Affiliate Appreciation and Member



**Monday, May 3rd
TPC Twin Cities Practice Range
Host Superintendent Mark Michalski**

**11:00 - 2:00 Trade Fair and Demo's
games of chance, treats, social interaction!**

11:30 - 1:00 Free Lunch****

TPC Brick oven pizza and soft drinks

1:00 - 2:30 Games of Skill \$\$\$ Awards!

**Long Drive, chipping and putting events
Games of skill open to all MGCSA members.**

**This opportunity is intended to bring our
membership together in a fun and Covid safe
atmosphere following a year without group
interaction. MGCSA members only please.**

******must register for food count**

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Kari's Golf Crossword

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Kari Haug, Golf Course Architect
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ACROSS

- Name for = 3.14159
- _____ Young Kim, 2020 Rolex Player of the Year
- Returned to play a tour event after 13 years away
- Type of doctor caring for Tiger right now
- Abbrev. homestate of LPGA's Amy Olson
- Common Minnesota water hazard
- Title sponsor of LPGA tournament on Annika's home course
- _____ Kim, 2017 Richoh Women's British Open winner
- When golfing, it's nice to get a lot of these
- Often called the GOAT of mens' soccer
- The seventh note on the musical scale
- Canine Apso

DOWN

- Surname of 5. down
- Opposite of out
- Find them in the trees or on the scorecard
- Slammin' Sammy!
- Winner of 2008 USWO at Interlachen CC in Minnesota
- Annika's home course: Lake _____ Golf and CC
- An elastic sports tape designed to relieve pain while supporting muscles, ligaments, and tendons
- Moby Dick's Captain _____
- Social media praises
- Metric weight unit Abbrev.
- Annika is often called this
- Former 'All My Children' star, Kelly _____
- Se- _____ Pak, So. Korean women's golf trailblazer
- Sixth note on the musical scale

Drones On The Golf Course: Fun For All Ages and a Great Tool Too!

By Kevin Leeper, Winfield United

Drones can be a wonderful addition to a golf course. The primary benefit is drones allow a user to obtain a high-level overview of the turf health for targeted and efficient deployment of manpower and resources.

For superintendents, drone images can bring a wealth of knowledge about their property. Some forward or

creative thinking may be needed, as many of the benefits superintendents could decipher from drones have not been researched at this point.

What we do know, is that a new perspective from 400 feet in the air can display patterns in the turf which may not be recognized from 5'10". Some of these patterns

might be recognized as poor irrigation system design or broken heads. Other images might show misapplied nutrients or preventative pesticide treatments. Many noticeable patterns may include turf stress

caused by environmental factors including weather events, or something as simple as excessive shade from a tree.

10 years

ago, taking these images or videos would require an airplane with a camera or sensor and a private pilot's license. I have a private pilot's license from the University of North Dakota, as well as a Drone license and 5 years of experience flying drones at golf courses across the U.S. for Winfield United. I also have some great news for those inter-



ested in drone technology, 10 years is a long time ago.

Drone technology has advanced to a point where planes, pilot licenses, and years of experience are no longer necessary for beginner pilots.

In other words, technical ability is no longer a reason not to use a drone. Some software platforms will fly the drone for the user in a pre-determined pattern with the intended purpose of driving proactive treatments or remedial actions. Some platforms incorporate zone management areas based on various measurements taken during the

flight to assist in decision making. It is safe to say in 2021, that drones are useful and easy to use. Why haven't more superintendents been using them?

The likeliest of reasons is that people are unaware how seeing a property/problem area from a different perspective can change short- or long-term decision-making process.

Another reason might be the expectation of high cost. Most drones that a golf course might want for images and videos will run less than \$1,500 and have high



A drone picture taken above Winged Foot Golf Course (courtesy online search). Imagine the possibilities of drone use on your course. Owning your own has never been easier.

quality images and decent battery life (flight time). Drones will no doubt get more expensive if the desired data includes NDVI or Thermal images.

The last, and most important, consideration in drone usage is understanding that there may be airspace restrictions over the property intended to be flown. This is a big issue for courses in densely populated areas because densely populated areas have airports... and with airports come airplanes... and with airplanes come airspace restrictions.

As a general rule, an airport will have airspace restrictions extending 2 miles from the airport on the ground. After two miles, the airspace restrictions for drones will lift to anywhere from 50' - 400' AGL, (400' is the maximum height above ground level drones can fly). Should a property fall within the 2-mile radius, a waiver may be obtained for flight at various elevations deemed safe to fly by the local airport.

Airspace restrictions are not limited to airports. Buildings like stadiums, schools, hospitals, and National Parks may have temporary



Bird's eye view of Wild Marsh Golf Club in Buffalo, MN



Par Aide designs lead the industry across our entire product line. You don't build the best without constant improvement as your foundation.



or permanent flight restrictions. So, what is needed to be a responsible drone pilot? The FAA, Federal Aviation Administration, has developed rules, called “Part 107 Guidelines” for drones less than 55 lbs. to be flown for work or business purposes. (Use this link to find all the information to fly a drone for business purposes). A few key points for those who wish to jump into flying a drone for business use:

- 1) Be sure to get a Part 107 Drone Pilot License.
- 2) Pass the Knowledge test(study materials are available online) at a FAA-Approved Testing Facility
- 3) Register your drone.

Recreational drone flight, defined as, “for fun or personal enjoyment.” follows similar guidelines that commercial drone flight will require. If a user is in doubt about whether a Part 107 license is needed for a flight, it probably is. Safety is the most important thing when it comes to anything Aircraft related. Many of these safety guidelines for drone use are common sense, such as keep your drone within your “Visual Line of Sight”, do not fly at

night, do not interfere with manned aircraft or emergency response activities, and do not operate the drone in a reckless manner. These and other guidelines for Recreational flight can be found at the FAA website.

Always remember, when flying for business or recreational use, fly your drone safely and within FAA guidelines. Most importantly, know and understand where it is and is not safe to fly – Get an app for your phone like, “AirMap” to better understand airspace restrictions. Drones and the images or data which can be produced by them are truly remarkable, considering the low cost of the technology and ease of use offered to novice flyers. Like any new technology, drones will require time for adoption. Many golf courses have already benefited from the use drones and have incorporated the data into their spray programs, from individual wetting agent or fertilizer applications to variable rate fungicide programs. In time, with research, education, and increased usage, the benefits will be better understood and Drones will become just another tool in the back of the Superintendents cart.

FAA tips for flying your drone

Getting Started

Got a drone? Whether you're a novice drone pilot or have many years of aviation experience, rules and safety tips exist to help you fly safely in the National Airspace System. Think of these tips as a pre-flight checklist to help you fly safely.

Drone Safety Tips

- Register your drone
- Fly your drone at or below 400 feet
- Keep your drone within your line of sight
- Be aware of FAA Airspace Restrictions
- Respect privacy
- Never fly near other aircraft, especially near airports
- Never fly over groups of people, public events, or stadiums full of people
- Never fly near emergencies such as fires or hurricane recovery efforts
- Never fly under the influence of drugs alcohol

Operating Your Drone

The FAA rules you need to follow while flying your drone will depend on what your mission is.

- Recreational Flyers & Modeler Community-Based Organizations
- Certificated Remote Pilots including Commercial Operators
- Public Safety and Government Certificated Remote Pilots including Commercial Operators

If you have a small drone that is less than 55 pounds, you can fly for work or business by following the Part 107 guidelines.

[To fly under Part 107 rules, there are 3 main steps:](#)

Step 1: Learn the Rules

a. Make sure you understand what is and is not allowed under Part 107 rules. [Review a summary of the Part 107 rules \(PDF\)](#) .

Still unsure if Part 107 rules work for you and your intended operation? Check our user identification tool.

b. Some operations are not covered by Part 107 and will require a waiver. Here are some common examples of Part 107 sections that are subject to waiver:

- o Operation from a moving vehicle or aircraft (§ 107.25) *
- o Daylight operation (§ 107.29)
- o Visual line of sight aircraft operation (§ 107.31) *
- o Visual observer (§ 107.33)
- o Operation of multiple small unmanned aircraft systems (§ 107.35)
- o Yielding the right of way (§ 107.37(a))
- o Operation over people (§ 107.39)
- o Operation in certain airspace (§ 107.41)
- o Operating limitations for small unmanned aircraft (§ 107.51)

*The FAA will not waive this section to allow the carriage of property of another by aircraft for compensation or hire.

If your operation will require a waiver, read about the Part 107 Waiver application process.

c. Drone operators should avoid flying near airports because it is difficult for manned aircraft to see and avoid a drone while flying. Remember that drone operators must avoid manned aircraft and are responsible for any safety hazard their drone creates in an airport environment. Read more about flying near airports.

Step 2: Become an FAA-Certified Drone Pilot by Passing the Knowledge Test

- a. To be eligible to get your Remote Pilot Certificate, you must be:
- o At least 16 years old



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- o Able to read, write, speak, and understand English**
- o Be in a physical and mental condition to safely fly a UAS**
- b. Review the full process to get your Remote Pilot Certificate.**
- c. Study for the Knowledge Test by reviewing the Test Prep materials provided by the FAA.**
- d. Obtain an FAA Tracking Number (FTN) by creating an Integrated Airman Certification and Rating Application (IACRA) profile prior to registering for a knowledge test.**
- e. Schedule an appointment to take the Knowledge Test at an FAA-approved Knowledge Testing Center.**
- f. Once you've passed your test, complete FAA Form 8710-13 for a remote pilot certificate (FAA Airman Certificate and/or Rating Application) using the electronic FAA Integrated Airman Certificate and/or Rating Application system (IACRA)***

Step 3: Register your Drone with the FAA

- Registration costs \$5 and is valid for 3 years. You'll need a credit or debit card and the make and model of your drone handy in order to register.**
- Visit dronezone.faa.gov and select "Fly sUAS under Part 107" to create an account and register your drone.**
- Once you've registered, mark your drone (PDF) with your registration number in case it gets lost or stolen.**

Remember:

- Always be sure to fly your drone safely and within FAA guidelines and regulations.**
- It is up to you as a drone pilot to know the Rules of the Sky, and where it is and is not safe to fly.**
- Aren't sure if Part 107 is right for you and your operation? Try our user identification tool or contact us for more information.**

The MGCSA is excited to present the first in a series of social/educational programming:

Talk-about Turf Tours at Midland Hills Country Club

*May 18, 2021** *Rain or shine!*

*8:30 until 11:00 am ** *meet up in parking lot by shop*

Host Superintendent Mike Manthey

Mike has had a few exciting years following his discovery of the original construction blueprints of Midland Hills Country Club. The membership quickly understood the potential of restoring the course back to the architect's original intent. Join Mike on a "talk-about" walking tour of the course and learn from him the ins and outs of the project. *Members are encouraged to bring the "rising stars" on their green staff to encourage them into the industry.*

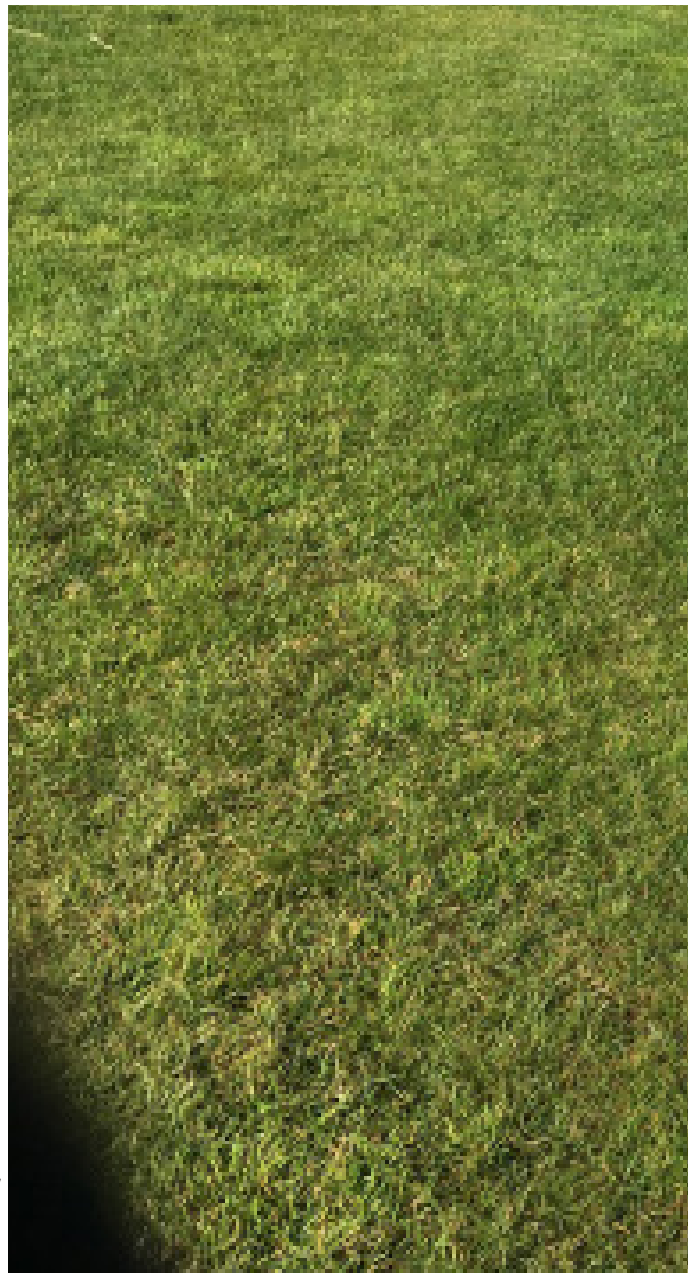
This is a free event but the association needs an accurate count for coffee. Please register at mgcsa.org



What Is Next?

Scott Verdun, Echo Robotics

I have noticed recently, whether while making customer calls or attending an industry function, that I no longer belong to the younger demographic. This has been happening for a few years if I'm being honest and at this point, I likely have more in common with those who spend the winter in Florida than those looking for their first big career move; this isn't a knock to those who winter in Florida, I spend a week there with my parents every winter and it's fantastic! After 20 years in any industry, I assume it's common that as one makes the transition to one of the more experienced of a group the likely next step is to look back and reminisce about what has changed. While access to quality labor may be the biggest change in the past 20 years I'm going to focus on technology, some of which can likely alleviate some of the stresses caused by the labor market.



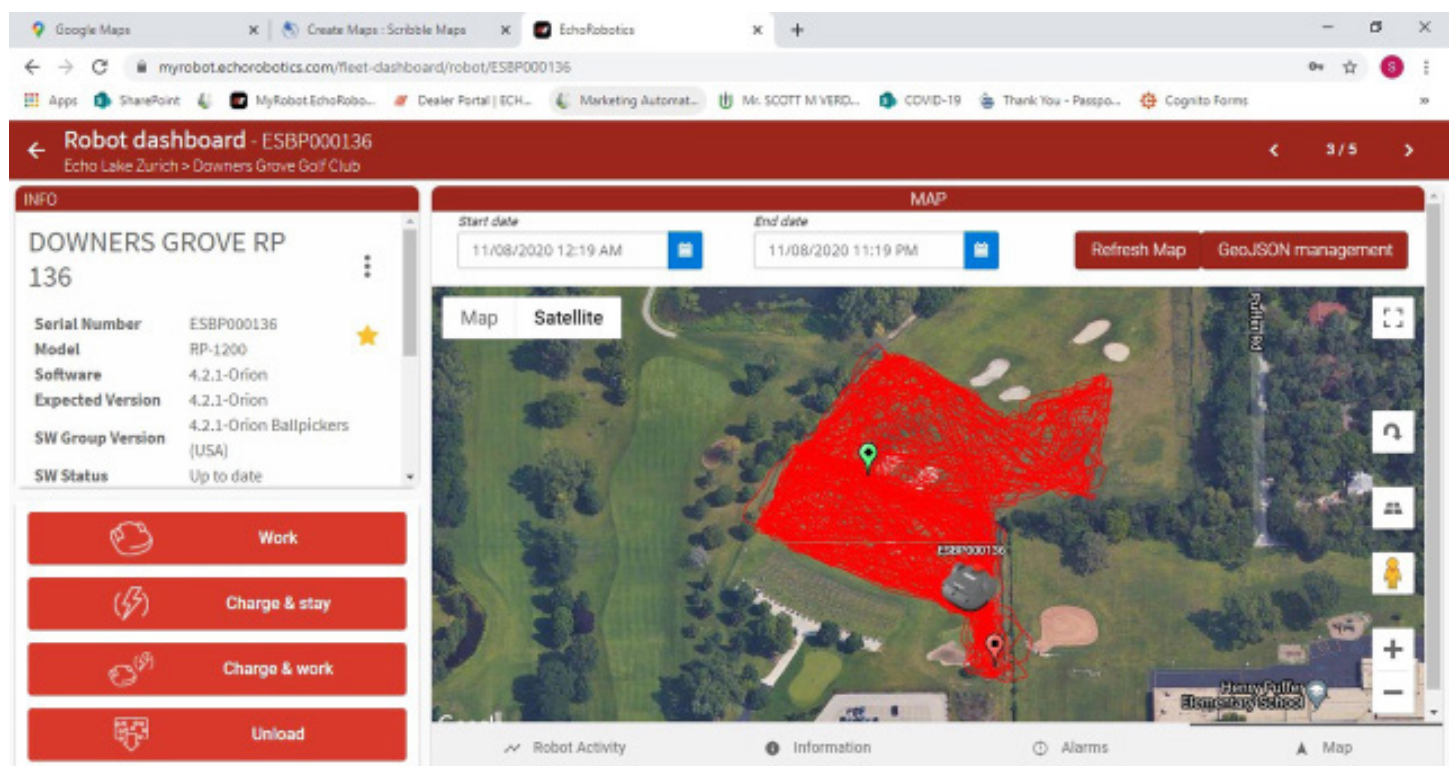
Looking back over the first half of my career, it can be remarkable how much the use of technology has grown in the turf industry. When I first got out of college a cell phone ONLY made phone calls and not everyone had one. They also had real buttons, no data use ability, and if you wanted a picture you needed a real camera, although digital had mostly overtaken film by then. Now the list of uses for a modern smart phone is virtually endless; program irrigation, monitor weather, adjust your digital job board, correspond with anyone via dozens of different outlets, perhaps even tell your mowers to go to work.



Twenty years ago you were likely using a pocket knife or soil probe to test moisture content; now digital, Bluetooth connected moisture meters give volumetric moisture content and can create a map of dry or wet zones. Similar is the use of firmness meters in creating a surface that accepts an approach shot consistently across each putting surface. The ability to communicate has advanced tremendously from the printed newsletter to where most are at the very least using Email to using text blasts or social media to instantaneously communicate to their clientele. This list can go on forever to include a plethora of items and I'm sure you all have your own items to add. So, what's next?

I think it's safe to assume that environment, safety, and filling the labor gap will be at the forefront of a lot of product development. Autonomous equipment checks all of those boxes. In the early 2000's at a Midwest Turf Clinic, it was predicted that in the not-too-distant future we would be programming our mower fleet to operate in the way we program irrigation. While we aren't quite there yet in North America, it has begun in Europe where autonomous mowing has been adopted on a much greater scale. So where does that leave us in North America? It leaves us 5-10 years behind Europe where autonomy here consists mostly of smaller units that can maintain a specified area, defined by a buried wire. These units require limited supervision, no fossil fuels, and virtually no noise pollution.

So, how does it work? Think Roomba for the grass (or to pick the range), however, instead of bouncing off the walls these units bounce off an Electro Magnetic (EM) signal transmitted via a buried wire two to three inches below the surface. Wires are placed to establish a boundary and after some programming and scheduling specific to each location a robot will safely and without human intervention go to work. Just like an employee these units are not perfect, they can get stuck on a mound of mulch and



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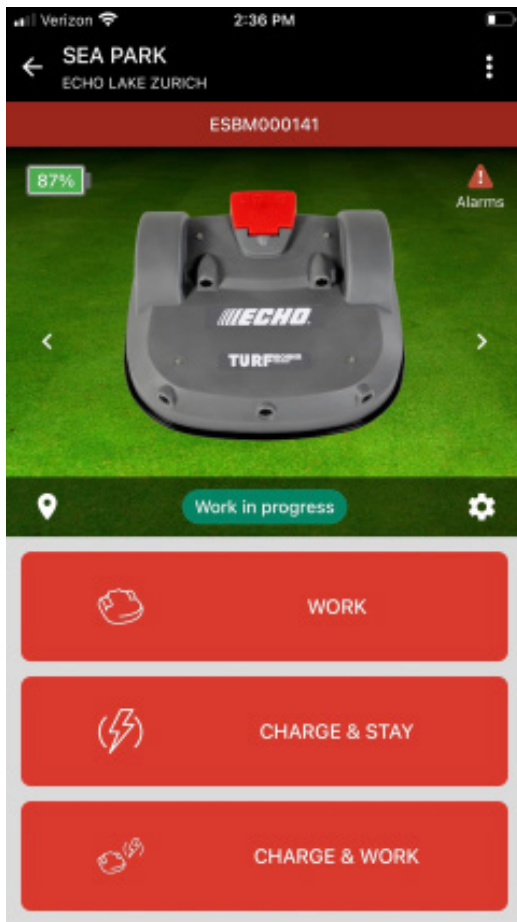
651-773-5422



Setpoints

Pump Status

INNOVO
AUTOMATION



a hard enough bump in the ground could trigger a safety sensor; occasional supervision is required but can be done remotely via computer or an app on your phone. Much like current equipment, periodic inspection is recommended to check on blades, wheels or for basic cleaning.

Robots are able to work night and day, charge when necessary and in the case of a range picker it will dump the hopper of golf balls when full. In regards to driving range management and safety, a plastic covered robot is a much better target than a person protected by a net and in terms of

mowing the range the robot won't damage a golf ball if hypothetically a few got missed while being "clean picked" on Sunday evenings. The robot can eliminate the need to use labor to mow the range as well as alleviate a potential stress point between two key heads of their departments.

Mechanically robots are pretty simple and have a limited number of components when compared to traditional equipment. To start there is a computer which is where all initial set-up occurs. The robot is



programmed to know which electro-magnetic channel is associated with each working zone, from here a strong signal can also be confirmed and adjusted if necessary. Other parameters are defined like height of cut, docking with the charger, and the scheduling of when to work.



All units are powered by two electric drive motors, one on each of the rear drive wheels, and balance is provided by 4 caster wheels on the front of the unit. In addition, the range picker has an electric actuator which raises and lowers the hopper to dump the golf balls when full. The mower is equipped with either 3 or 5 cutting units depending on the size of the mower. Each cutting unit consists of 3 razor blades which operate with centrifugal force similar to a hover mower only smaller. There are also sonars, sensors across the front bumper, and lift sensors in each corner to ensure safe operation.



So, where is this going in the future? Research and new technology are ongoing and while a fleet of autonomous fairway mowers is likely on the horizon, the next great advancements will likely be in efficiency. Random patterns will be replaced by back and forth or circle patterns. This will lead to opening up a greater total area covered while still utilizing the same amount of energy. As batteries become lighter and more efficient, mowers will be able to cover greater areas on less charges. Another addition

will be the ability to set geo zones where higher concentration of golf balls will need to be picked more frequently or only pick balls on the target greens. This is likely where the next advancements in autonomous operations will be, but as you know technology moves fast. Will you see a neighborhood golf course with a fleet of autonomous fairways mowers in 2021? Not likely, but it will be here soon and it will be a game changer for those willing to take the plunge.

Permission was granted to reproduce this excellent article on the future of robotics and their use on golf courses from the Midwest Association of Golf Course Superintendents and author Scott Verdun. The membership of the MGCSA thanks MAGCS and all of the supporters of the industry.



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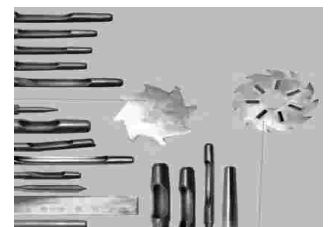
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**WE ARE
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Get to Know 'em

Superintendent Sally Jones, Benson Golf Club

by Hole Notes Editor, Joe Berggren



FACILITY INFO:

Golf Course: Benson Golf Course, Benson, MN

Public or Private: Public

Number of Holes: 18

Full time employees: 1

Seasonal employees (not including full time): 9

Number of employees of entire facility at peak season:
10

Types of grass: Bentgrass, blue/ryegrass, poa annua

Total course acreage: 126 acres
Greens acreage: 2.5 acres

Tee acreage: 2.5 acres
Fairway acreage: 26 acres

Rough acreage: approximately 80 acres

Driving range acreage: 3.8 ac
Range tee acreage: .2 ac



Personal Turf Facts:

How many years have you been in your current position? 18 years

How many years have you been in the turf industry? 26 years

The Classic at Madden's - Intern; The Club at Cordillera Valley Course - Intern, Penn State Golf Course - maintenance; Dellwood Hills Country Club - 2nd Assistant

Turf School Attended (if any)? BS in Turfgrass Science from Penn State University

Industry thoughts:

What is one "master plan" thing you would like to change at your golf course? 5 years ago we underwent an irrigation renovation. That was a huge goal for me and our club. We are now still working on a clubhouse renovation which is nearing its final phases. My next goal is to complete our tree removal plan.

What concerns do you have the turf business and the future of golf? I am concerned with the reduced numbers of students enrolled in turf programs. Will we have enough people to fill our shoes?

What is needed to bring more young professionals into the industry? We need to somehow promote our industry more. Whether it be working with programs such as the First Green or for us to personally get out and teach our.

What piece of equipment do you want? Not a need, a want. Soil Moisture Meter or a weather station.

In terms of industry costs (equipment, pesticides, labor, etc.) are they too low, too high or just right? Overall, I feel the golf course industry is priced pretty high. We are a small, rural golf course that rarely breaks even. I firmly believe products designed for our industry are well worth the in-

vestment and needed to remain competitive, however we will rarely recoup the costs fully within a season. We have a solid equipment capital expenditure program, but we will rarely be able to purchase any pieces of equipment new.

FUN FACTS:

What is your favorite vacation spot? The North Shore

What is your favorite job on the golf course? Mowing Fairways

What is your least favorite job on the golf course? Bunkers

Who is your dream foursome? Nancy Lopez, Babe Didrikson Zaharias, Patty Berg, and me



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Club Green Staff. It
was an incredible
“First “ event!





Want to host a First Green at your course? Connect with your local elementary school for permission and then coordinate the day through Jack at the MGCSA and Leann at GCSAA. It is a super fun way to promote our industry and educate youth.

May, 1988

Heard It Through The Grapevine

By Fred Taylor, Superintendent at Mankato Golf Club

In the history of the world, there has been more information shared by word of mouth than any other method. There has also been a good deal of misinformation shared the same way. Go back about 30 years or so to the era of Andy Griffith and Aunt Bea - an era of sewing bees and barbershop gossip. The town of Mayberry was an open book for anyone who as much as walked down the street. Everyone knew all the business of everyone else. Whether it be the brand of hair creme Goober used to slick his hair, or Floyd's personal financial picture, all information was common knowledge. So, it was in small town America. So, too can it be in a small circle of

professionals.

When we were kids, there was a game that we played called telephone. The rules were simple. A child at one end of the line would

whisper a short statement to the next person in line. That person would in turn whisper the same message to the next person, and so on. At the end of the line the last person would announce out loud what message he or she heard. For example,

Tommy begins the game, "The big, red fox is dumb to go into Uncle Bob's cornfield." This typically childish statement slowly makes its way



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down the line, whispered with a giggle and a gasp, finally making its way to a proud Billy who excitedly renders the words he's just heard. "The red fox took a big dump in Uncle Bob's cornflakes!" he exclaims.

It's easy to see in this small example that stories get turned around and meanings get changed as information goes through the grapevine. In the last six months I have heard at least three tid-bits of "news" that turned out to be categorically false. Unfortunately, there is no way of knowing where the news started, or where it got turned around. There are probably many examples of information that you

have heard through the grapevine that turned out to be less than factual and true. Most of the time this misinformation is harmless; however, there are a few cases where a person's, or an organization's, reputation is at stake. These are the cases where, as professionals, we must be very careful to screen what we hear, and not to repeat untruths.

I must admit that I like to be on top of the news. I read the daily paper, watch the national and local television news, listen to radio news, (KQ92 is preferable, I'm not old enough to enjoy 'CCO yet) and yes, wait with ears perked for grapevine rumblings about hap-



penings in our industry. The grapevine is the place where you typically hear who got what job, what courses lost some turf, where the new course is being built and which suppliers are changing corporate philosophies. In other words, the grapevine is the conduit for news - and gossip - therein lies the challenge for news hungry superintendents. . . separate fact from rumor, news from gossip and never repeat things you don't know for sure.

In an effort to reduce the amount of misinformation that goes around the industry, I invite you to join me

in following a few guidelines with regard to grapevine news:

- 1) Never pass information about a person that could be considered detrimental or slanderous to him or her or their career. For example, if you hear Jim-Bob has been drinking like a sailor on shore leave lately, and his job is in jeopardy, don't repeat it. What if it isn't true? Even asking a leading question like "Have you heard anything about Jim-Bob being a slobbering lush?" is enough to give him the reputation even if he has been sober for months. Rumors that are untrue travel just as fast as those that are true.



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2) If you hear something that is unbelievable, it probably is. In other words, check out rumors that common sense tells you are false. In these cases, either forget you ever heard it, or go to the source and ask him or her. A case in point was the “Jacobsen bought Ransomes” rumor. Although true to a degree, it was a case where the facts should be heard from authorities before repeating them with their permission.

3) Forget some information as soon as you hear it. Sometimes what people hear is more than

what they wanted to know. It’s like hearing your parents talk about their sexual fantasies: You just wish the conversation would have never started.

4) Always be suspicious of the statement: “This is just a rumor, but . . .” If that’s all the substantiation that a news source has, then it’s best to tune it out. Similarly, it’s just as bad to inform someone else of information that needs such a disclaimer. If it’s just a rumor, then bury it.

5) Remember that if you are talking about someone else, then there



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is probably someone talking about you. If you spread negative information about someone else, those negative vibes will return to you.

Having an ear to the ground and a sense of what is going on around us is good business sense. After all, it is said that knowledge is power.

But, at the risk of endangering careers and reputations, let's all think twice before we attempt to share information that may be of suspicious origins or negative in nature. We know that the grapevine will continue to be a source of information, but hopefully one that is truthful and kind.

Thanks for the reminder Fred!

Kari's Crossword Solutions

¹ P	² I		³ B					⁴ S	E	⁵ I
⁶ A	N	⁷ N	I	⁸ K	⁹ A			N		N
R		¹⁰ O	R	T	H	O		E		B
K		¹¹ N	D		A		¹² L	A	¹³ K	E
	¹⁴ G	A	I	N	B	¹⁵ R	I	D	G	E
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	²¹ T	I		²² L	H	A	S	A		



Kari Haug, Golf Course Architect
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 E-mail: kari@karihaug.com

Recapping a Needs Assessment Survey of Minnesota Golf Courses

By Maggie Reiter and Michael Barnes, University of Minnesota

What we wanted to know

A needs assessment is an important part of program planning and enables setting needs-based priorities for research and extension efforts. We conducted a survey of Minnesota golf course superintendents to systematically determine turfgrass research and extension needs, and to elucidate the gaps between current and desired conditions. Our survey was designed to understand 1) the impacts of abiotic stresses associated with climate change like drought, heat waves, extreme rainfall, and winter injury, and 2) use of information and communication technology.

Who we surveyed

We reached out to golf course superintendents, directors of agronomy, owners, and general managers in Minnesota. A total of 86 complete responses were recorded, with 67% from public courses and the rest from private or semi-private facilities. The median age of a golf course superintendent was 46.5 years, with the median time in their current position of 10 years. Figures 1 and 2 show additional details of the surveyed golf courses.



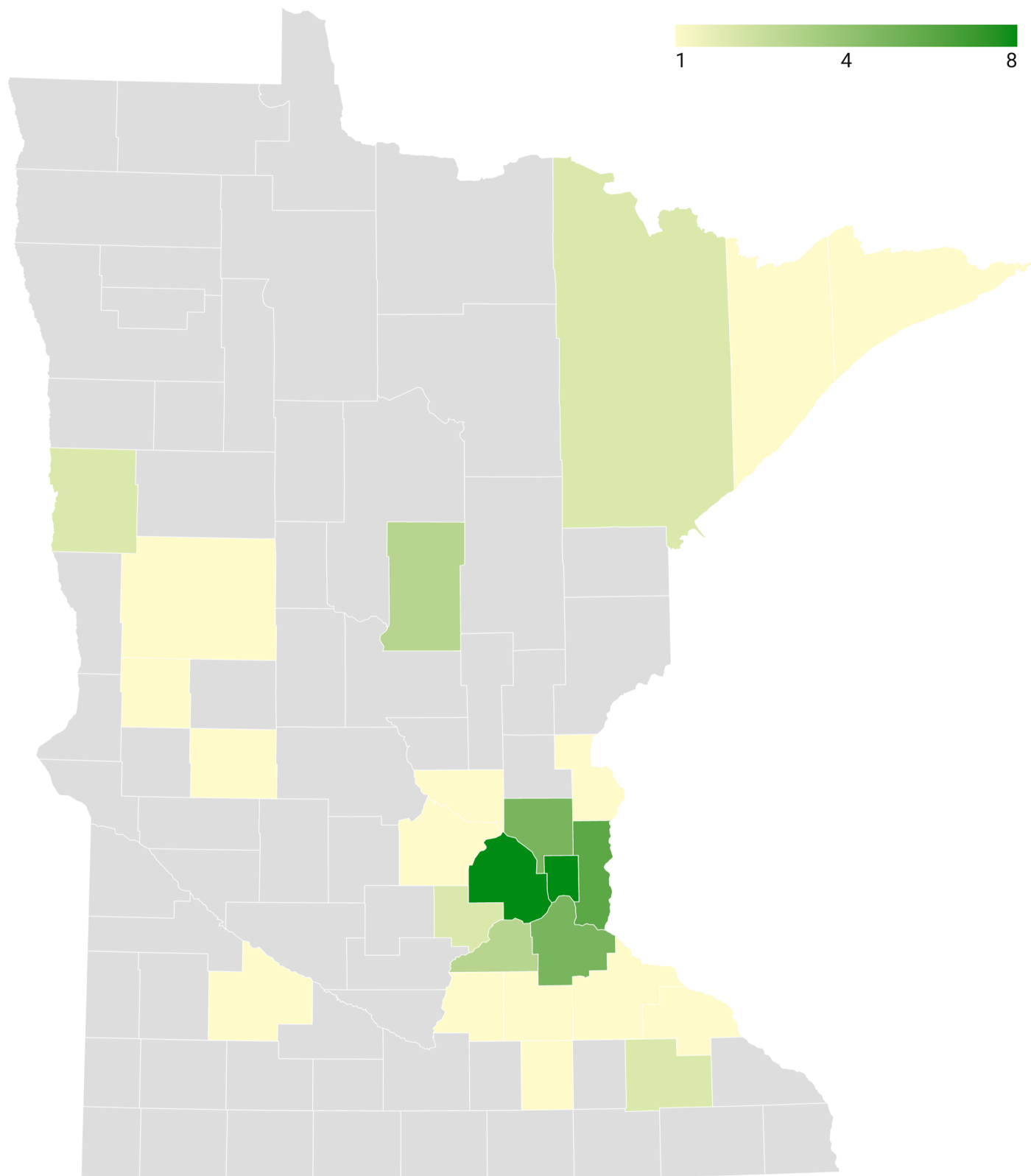


Figure 1. Number of survey participants by county.

Data	Maintenance budget	Annual rounds	Facility acres	Turfgrass acres
Low	\$10,000	3000	25	6
Median	\$500,000	25000	168	90
High	\$1,250,000	83000	400	280

Figure 2. Profile of Minnesota golf course budgets, annual rounds played, and acreage.

Managing winter stresses

Among the different abiotic stresses, 92% of golf course superintendents indicated they have experienced winter injury. We characterize winter injury as turfgrass death that occurs over winter months, usually revealed in the spring time when grass does not green up. Interestingly, most respondents went on to say winter injury is happening about the same compared to the past. This is surprising because we have weather data that suggests March temperatures are more erratic, autumns are warmer, and we have less snow cover throughout winter. Thus, we would think impacts of winter stresses are more severe than in the past. This is a piece we don't completely understand. Our thinking is that superintendents could be getting better at mitigating winter stresses, and so the impacts of climate variability are overcome.

We asked what management strategies superintendents have used to handle winter injury. The responses are listed in Table 1. The collective knowledge of the superintendent community and the innovations emerging from the group are truly incredible. Most people reported doing something to address winter injury, and this long list of practices tells us that flexibility is key to management.

Needs for more information

Within the questions related to information access and communication networks, we asked where superintendents feel like they are missing information or need more information. The responses can be distilled into



Management practice

Stop PGRs in September	Cover greens	Seeding alone
Aerify late fall	Add winter drains	Seeding with blanket
Reduce fall irrigation	Place sandbags to direct flow	Sodding small areas
Build carbohydrate reserves	Install snow fences	Apply micronutrients
Apply anti-desiccants	Water turf in winter	Keep traffic off
Apply plant protectants	Remove ice	Reduce shade stress
Apply wetting agents	Remove snow	Reduce annual bluegrass populations
Apply snow mold fungicide	Remove standing water	Do nothing
Overseeding	Aerify after snow melt	
Topdress heavy	Topdress compost or black sand to enhance melt	

Table 1. Management practices conducted to prevent and address winter injury.

- 5 main ideas:
1. Summarized research from the University of Minnesota and other universities
 2. Lower-budget approaches, less features about high-end golf courses
 3. Product testing for new technologies and products
 4. Lowering pesticide use, especially fungicides
 5. Miscellaneous (communication with membership, winter injury)

The good news is we consistently focus on these research areas, which are a traditional part of our mission. However, these responses indicate that information may not be readily accessible and that superintendents need more efficient or effective ways of accessing the information.

Next steps

We will use this survey data to make decisions about our University of Minnesota turfgrass program design, improvement, and allocation of resources. We have already included survey responses in several research grant proposals to document need for funding. We are summarizing and communicating results to stakeholders like the Minnesota Golf Association, United States Department of Agriculture, national GCSAA, and industry affiliates. Golf courses exist within an environment that is often complex and changing. The more we know about these situations, the more solid the foundation of our research and outreach program.

Acknowledgements

We would like to thank the Minnesota Golf Course Superintendents Association and the Minnesota Golf Association for supporting this survey.

Better Together!

The MGCSA membership appreciates the partnership held with the University of Minnesota and thanks Maggie Reiter, Michael Barnes and the whole Turfgrass Research Team for their continued support.



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The certificate courses are offered over two 8-week periods, early-October through mid-December, and mid-January through mid-March. This timing works well for prospective students who already work in the turf industry and want to augment their work experience with a world class education. It also allows those in the two-year program to participate in an extended internship program (late March – October).



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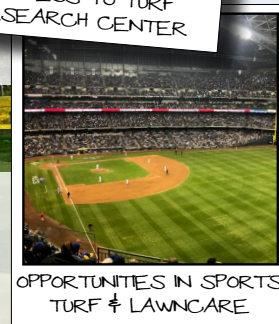
The two-year certificate curriculum offers courses in introductory soil science and turfgrass management with a focus on communications, human resources, and the business side of the industry in year one, and specialized courses in turfgrass management in year two. The two-year certificate courses follow the same time frame as the one-year certificate courses. Recent high school graduates should pursue the two-year certificate instead of the one-year option.



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Four-year college students receive a strong background in the social, mathematical, communication, physical and biological sciences. This is the foundation which students use to progress to advanced courses related to turfgrass management. The graduate has a variety of options for employment and professional certification, provides increased flexibility to change careers or to pursue advanced degrees and further expand employment opportunities and career advancement.



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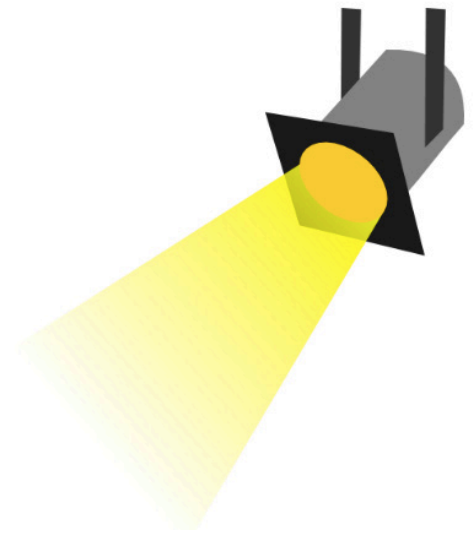


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Affiliate Spotlight



Founded in 1947 in Minnesota, MTI Distributing now serves the golf and grounds industry in seven states through our dedicated sales and service teams with facilities in Minnesota, Iowa, and Missouri. We have a legacy of taking care of customers at a high level and empowering our team members to provide exceptional service. Our culture is built around the MTI mission of professionally marketing, selling, and distributing quality products and services, creating exceptional customer satisfaction, and being the preferred supplier in our industry and market area. In doing so, we

will add value for each of our four stakeholders: our customers, our employees, our shareholders, and our suppliers. Our customers continue to be a key component of our success and we strive to provide them value each day.

What products and services are available from MTI Distributing?

MTI Distributing offers a vast selection of Toro equipment, Toro Genuine parts, and irrigation products that are sold and serviced to fit your needs. To back our products, we have an experienced service team that is available full time and

ready to help with any issue that may arise. We offer service through our factory trained mobile technician teams and within one of our three facilities, for both irrigation and equipment products. We also offer multiple brands and a full range of pre-owned industry equipment. Toro's acquisition of Ventrac in March of 2020 has allowed us to partner with this innovative brand and offer their full line of traction units and attachments to provide even more customer solutions and value.

What sets MTI Distributing apart from others?

With a legacy spanning over 74

years, we have gained a wealth of knowledge, experience, and skills that allow us to continue exceeding customer expectations. While our technologically advanced and innovative equipment speaks for itself, we have created a sales process with our customers in mind. From our solution based purchasing process to our award winning service and post-sales support, we want to ensure our customers are more than satisfied. However, the driving factor behind MTI's success will always be our employees. Their passion for customer service, cultivating long lasting relationships, and solving problems, both big and small, are what keeps our custom-



ers committed to MTI. Our team is dedicated to staying innovative and driven to continually evolve and improve by focusing on our customer's feedback and changing needs.

As the times change rapidly, what is MTI Distributing doing to better serve their customers?

COVID-19 brought unexpected challenges to not only the market, but the personal lives of our customers. The fact that this rampant virus was creating issues much closer to home was not lost on MTI. We

consistently came together to get ahead of safety precautions, brainstorm customer solutions, and ensure that both our employees and customers were protected. Rather than dwell on the inevitable, we banded together to overcome the problems that arose and used creativity to find solutions.

What is the most unique Toro product on the market right now?

Toro continues leading the innovation curve as they always have done. From unique products like



the Hydroject, ProCore 648 and the Outcross, Toro constantly looks for ways to develop product that is superior to what is currently available in the market. Most recently, Toro introduced the next version of the triplex greensmower- the eTriflex. These mowers build upon the unique and industry-leading double A-arm suspension that offers true Flex technology, allowing the cutting unit to freely flow similar to a walk greensmower and with no hydraulic fluid utilizing all electronic components. The Energy-Smart units offer noise reduction and reduced operational cost savings. One of the most innovative features of the unit is the Radius Dependent System- RDS, which regulates the reel speed of each unit during a turn to avoid Triplex Ring. With these features, the eTriflex models truly offer walk greensmower quality with triplex mower productivity. In a time where labor is scarce and

standards are high, the eTriflex offers a great solution to traditional methods without sacrificing playability.

Looking forward, what new innovations are expected in Toro Golf Irrigation products?

Throughout our history, we have thrived on providing innovative

product solutions to real problems. Toro has a constant focus on creative solutions to improve productivity, increase efficiency, and provide our golf course customer's the



best tools for their properties. Expect Toro to continue to invest in both satellite and two-wire control platforms with innovative technologies that will continue to be focused on precision like applying the exact amount of water, exactly where it's needed. Look for an expansion of the ability to upgrade controls remotely to take advantage of new features as they become available,

allowing our customers to benefit from the latest technology thorough out the life of the irrigation system. Also, look for further innovations in identifying potential issues before they become irrigation problems in both controls and sprinkler heads. Finally, adding new innovation does not need to make the system difficult to use, which is why Toro keeps ease of use a top priority so our customers can focus on what matters most- providing the very best playing conditions for your golf customers.

Our passion at MTI Distributing is providing you solutions that help you be successful, combined with the right advice, superior products, parts when you need them, and exceptional and timely service support, all supplied by people you can trust. We're here for you when you need us. Our professionally trained team, with over 1191 years of combined industry experience, follows up and follows through. Our mission is laser focused on making life less stressful for you.

At MTI Distributing, we keep small problems small so you have less work and more time to live your life.





In Bounds

by Jack MacKenzie, CGCS

Quality Help Wanted!

This plea is all too prevalent in the current market of managers associated with golf course maintenance. At this moment there are 32 job opportunities posted upon the MGCSA Classified Job pages. Some of the jobs have been unfilled for many months. Many won't have a chance to fill as the compensation packages are pretty meager.

The short-term future holds issues for the golf course turf management profession. Consider the following from Dr. Frank Plachecki, Anoka Technical College Interim Dean, Academic Affairs in an email I received very recently:

***Jack,
As you would imagine, Covid has caused great damage to our college. Enrollments are down significantly, and the budget is in bad shape. We are working an aggres-***

sive strategy to return to financial sustainability. Enrollments for the Turf program, and other programs as well, have been low for several years running. Our leadership team, in partnership with the budget committee, has made recommendations to suspend (put on pause) these programs until we have the funds to properly invest in them. Turf is one of these targeted programs. Current students will finish, and students who are near finishing from previous years will receive the opportunity to finish. Marlin and Travis are re-designing the program to include an on-line component to boost enrollments. And, of course, any ideas you might have are always needed.



Please email back any questions you may have.

Thank you for your leadership and support of our college.

This news is extremely disheartening. Our 'more' senior population of Anoka Tech Graduates, those who learned their skills on the Run River Campus which actually had golf holes to work upon, remember how dynamic the program once was.

Oh yeah, Rochester's turf program is shuttering up after the spring of 2021 class graduates.

The pipeline of youth was hammered for the last decade due to a giant industry disservice problematized by the Minnesota Department of Labor who thought golf courses too dangerous to be a youth employment destination. Even though the MGCSA advocated hard and earned a Law supporting the hiring of 16 and 17-year-olds on the green staff during the 2020 legislative ses-

sion, the DOL kinked our conduit with their not-so-subtle tactics.

To complicate matters even more, as a member of the Forest Lake High School Career Launch Advisory Counsel, I learned at our most recent meeting that their Xello College and Career Readiness software did not have the title Golf Course Superintendent in the digital directory and the only two Minnesota Schools of post high school education were listed as, Anoka Technical College and Rochester Community College. Whoa!

Xello is one of a half-dozen career/college programs being promoted at high schools across our country to be used to help kids choose their future vocations. In fact, kids rely on their self-created profiles, developed over a three-year period, to direct them down a career path based on high school activities, interests, academic prowess, volunteer efforts and employment. They are very popular tools. So popular

in fact, the Michigan State Legislation has mandated their use as a part of all high school curriculum. In Minnesota, access and funding is through legislative approved grants. But it doesn't matter to our industry if the program fails to include golf course turf management or equipment managers as potential employment options.

Our national partners at the GC-SAA were just as surprised by this oversight as I was and have begun an investigation into the issue with hopes to remedy the situation as soon as possible. FYI, if you are looking for a series of GREAT graphics supporting our industry as a vocational destination, check out the links on the MGCSA home page. The GCSAA spent some serious money and time upon this career campaign. You, and everyone in the industry, should be sharing the message that there are careers in the field of golf course management.

How did we find ourselves in this vacuum of potential employees? I place the blame directly on the National Golf Foundation's push for the opening of 3,500 new golf courses over a decade in the 1990's as a destination for the retiring "baby-boomers". All sectors of the golf industry ramped up their games to account for this sudden wealth of employment opportunities including colleges and vocational schools. What sounded good on paper did nothing but saturate the industry with many golf courses and many professionals to work on those properties in the capacity of superintendent, general manager or golf professional.

Unfortunately, the geriatric interest in starting a new hobby didn't materialize, and combined with an economic recession, the industry went through a serious contraction. Those individuals with great educations couldn't find a course to apply their trade. Many left the industry disgruntled that the prom-

ised opportunities had disappeared. Turf schools shrank or eliminated programs to keep pace with the fast-dwindling demand. And, unfortunately for the industry, the cream-of-the-crop assistants left turf for greener pastures.

So, what can be done?

Reach out to your high schools and ask what, if any, career and college orientation software is being used. Check the product to see if the golf industry is even listed. This will also allow you to talk with the school career counselor and request the afore mentioned GCSAA Career materials be distributed to the students. At the very least, have them reach out to me and I will continue the discussion. I personally cannot possibly connect with all 1,244 high schools located across the state of Minnesota.

Ask your school if they have a form of 'On The Job Training'. In Forest Lake it is called Career Launch. Find

out if "golf" is even on their radar. Some schools have grants for the relatively new legislative supported work study program. Request that 'outdoor' minded students be directed to your course to apply for work/study employment.

Host a tour for your high school career club or similar. The pandemic has postponed our first MGCSA hosted Golf Course Career Tour at TPC Twin Cities until the fall of 2021. Once allowed, field trips can be scheduled to get the youth onto the golf course for an introduction to the job of turf and/or equipment management. We have to get kids working upon golf courses at a young age because it is critical to the future of the integrity of our industry.

Identifying an employment option is one step and education is another. Currently Dr. Eric Watkins at the UMN and Dr. Dave Soldat at UW are working on a "key" to help youth develop a track to a career in turf

management. The variables will include associate, four-year, short course and on-line classes, compensation expectations, destination opportunities, costs and other logistical determiners. The idea is to provide all levels of interest a route to success in the industry.

It is also critical for you to have these discussions with your owner, general manager, golf professional and green committee chairs. They need to loosen the purse strings and reevaluate the time commitment placed on the management positions at golf courses. For too long, wages have been too low and hours too long. Today people, “work to live, not live to work”. And

golf is roaring right now, and the surge should support larger compensation packages which will attract more youth to the industry.

Of final importance would be supporting your vocation through continued and expanded participation in your state and national association. Today more than ever, the MGCSA and GCSAA needs your support. Without it, education, advocacy and research, the MGCSA mantra, will gradually dissolve and, in the long run, completely dissipate any interest in a career that was at one time in high demand.

Time to get off your keister and promote your career.

If not *you*, then who will support and embrace this industry as a viable career option?