

Serving Membership Is Primary Goal of MGCSA Office

* * * *

Variety of Programs, Projects Pursued to Build Association

By Ralph Turtinen

A) P.O. Box 617, Wayzata, MN 55391

B) 612/473-0557 or 1-800-642-7227

C) 612/473-0576

For members of the Minnesota Golf Course Superintendents' Association, the impersonal numbers listed above represent:

A) The address to which they send responses to association requests or dues payments or *Hole Notes* articles or other information;

B) The association's telephone numbers;

C) The fax number.

But behind those numbers are living, breathing, dedicated people who seek to do everything they possibly can to provide a quality, personalized service to all MGCSA members.

For nearly five years the association office has been located in Suite 212 of the Justice Building at 240 Minnetonka Ave. South in Wayzata, a block north of Lake Street which borders the northern shore of Lake Minnetonka.

It's where Scott Turtinen, the MGCSA's executive director; his brother, Jeff, and Scott's wife, Laurie, implement the policies and programs of the association's board of directors who, in turn, are responsible to those superintendents who elected them — the members of the MGCSA.

Whether it's preparing and distributing important announcements or listing job openings or producing *Hole Notes* or organizing material for a monthly meeting or coordinating information for the MGCSA roster or the association's annual conference or following up on a myriad of duties or requests, this office, indeed, is a busy place.

"And, says Scott Turtinen, "this effort always is channeled in one primary direction — to serve our membership."

Basically, the primary objectives of the MGCSA are to:

- Advance the art and science of Golf Course Management;

- Collect and disseminate among member Superintendents practical solutions to problems with a view toward more efficient and economical maintenance and production of golf courses;

- Promote the welfare of the Superintendent and the profession.

At the MGCSA office, these objectives are pursued in a variety of ways.

"As with any organization, communication is a vital part of keeping members informed about what's going on — statewide, regionally and nationally," said the MGCSA's executive director. "Much of this is accomplished with *Hole Notes*, which features informative articles on a variety of pertinent subjects as well as timely association news."

"In recent years, contributions from several member golf course superintendents have increased, and they're most welcome since these stories bring the publication much closer to home as well as increase readership," he said, "and we're proud to say that *Hole Notes* is recognized as one of the best state golf course superintendents' publications in the nation."

Other forms of communication, again directed towards serving members, include:

- Employment opportunities that are distributed to all MGCSA members, with the MGCSA serving as a clearing house for golf course job openings;

- Special announcements regarding important warnings;

- Notices of monthly meetings;

- Membership rosters;

- Election information and ballots;

- Descriptions of MGCSA wearing apparel

- Environmental Guidelines booklet

"Today, as everyone knows, environmental issues are of prime concern to all superintendents," Turtinen said. "Through the help of many members, we produce the MGCSA Environmental Guidelines Book which offers more than 100 pages of state and local federal regulations affecting golf courses, and it's updated annually."

Reports also are made on research projects sponsored by the MGCSA to help members learn about the latest technologies of golf course agronomy to meet these environmental challenges.

One of the more visible aspects of the association's service to its members is the annual MGCSA Conference and Business Meeting — an informative, comprehensive, 3-day program of educational opportunities specializing in golf course maintenance.

"During the past two years this conference, held in conjunction with the Minnesota Turf & Grounds Foundation, has expanded considerably," Turtinen said. "Along with

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MGCSA Office —

(Continued from Previous Page)

presenting excellent speakers on a variety of subjects, the exhibit area for associate members has enjoyed a sell-out of the 150 booths available. The move from hotels into the metropolitan area to the Convention Center in downtown Minneapolis has proved successful."

During the year the MGCSA office also prepares information regarding other MGCSA-sponsored conferences, seminars and meetings which focus on ways to help superintendents improve themselves, their golf courses and their profession as well as the association's monthly meetings.

All of them provide an opportunity for individual superintendents to compare problems and concerns with their colleagues in an informal, casual atmosphere after a round of golf.

In addition, the office coordinates information regarding pesticide licensing sessions, which give members the opportunity to comply with state recertification requirements at the MGCSA's annual licensing seminar.

Throughout the year the MGCSA office keeps in close contact with association directors and chairpersons of the organization's 10 committees.

Primarily these duties include follow-up on requests by the President, attending the Golf Summit (a meeting of all Minnesota associations dealing in golf), informing the president of job openings, working with the Vice-President in regard to research notices, working with the Treasurer while sending records of deposits of monthly meetings, dues, advertising, apparel sales and depositing the monies in appropriate accounts, sending Board minutes prepared by the Secretary and creating and mailing membership cards to all members.

In addition, the office pursues all tasks assigned it by MGCSA committees: Arrangements, Research, Conference/Education, Membership/Scholarship, Environment and Government Relations, Editorial, By-Laws, Ethics, Industrial Relations, Nominations and Water Resources.

"What makes our work interesting and worthwhile is the dedicated manner in which directors and other association members work on these projects," Turtinen said. "Their enthusiasm has a way of generating more enthusiasm, and the results of their efforts are evident in so many positive accomplishments."

The association office also maintains close working relationships with suppliers, who help members considerably with advice on goods and services.

"In Minnesota we're very fortunate to have such strong, supportive associate members," Turtinen said. "Their financial support at conferences, meetings and through advertising is important of course, but moreover they play a very active role in helping develop several programs that help our members."

"Enjoyable, too, is our work with the various MGCSA-sponsored golf competitions," Turtinen said, "and it's been a pleasure to watch the growth and interest in all of them.



Jeff, Laurie and Scott Turtinen run the variety of tasks at the MGCSA business office in Wayzata.

Yes, activity in the MGCSA office has increased a thousandfold since the association was organized some 68 years ago.

"Those individuals who got it organized, then developed it year by year deserve a lot of credit for building an excellent foundation," Turtinen said.

Years ago, when the association was in its formative stages, association affairs were pursued out of the home of the member who had been elected Secretary.

Later, when the MGCSA began to grow considerably, both in membership and in its activities, the office became part of the Minnesota Golf Association's office, where, among other duties, information was mailed, money collected and *Hole Notes* was produced.

In the late 1980s the growth of both organizations caused leaders of both groups to review their relationship.

In 1990, the MGCSA decided to obtain its own office. This decision, in effect, was a positive testimonial to the growth of both organizations, and they parted amicably while noting they would always be willing to help each other. From the MGCSA's standpoint, it was a desire to provide a more direct service to its membership.

Turtinen Communications, a Wayzata public relations/graphic arts/association management firm established in 1964, first was retained to produce *Hole Notes*, the MGCSA's news magazine published 10 times annually. The Turtinens' first issue was the December/January 1989-90 publication. After various interviews were conducted by the MGCSA's Executive Director Search Committee early in 1990, the Turtinen firm was selected to begin serving on August 1, 1990.

At their Wayzata office they have the necessary working tools like computers, graphic arts equipment, cameras, a copy machine and fax machine as well as proper space to file all association records, publications, correspondence, photographs, job openings, advertising contracts and materials.

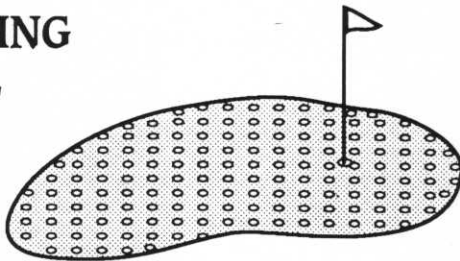
"When members call or write for information, we do our level best to respond as quickly as we can," Turtinen said. "We may not always have the answer right on the spot, but we'll find it or direct the member to the proper source. After all, we're here to serve the membership."

A (W)HOLE IN ONE

One-stop shopping for golf course materials

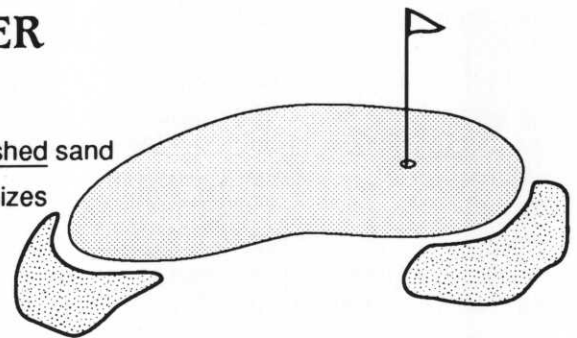
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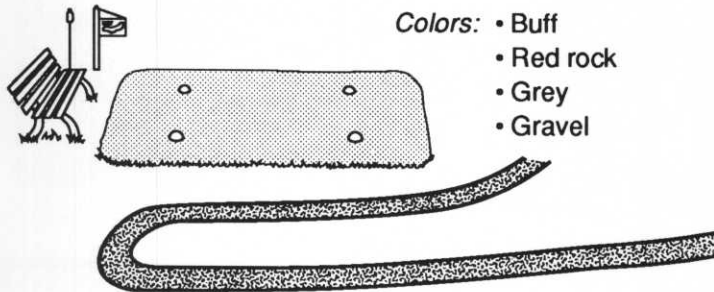


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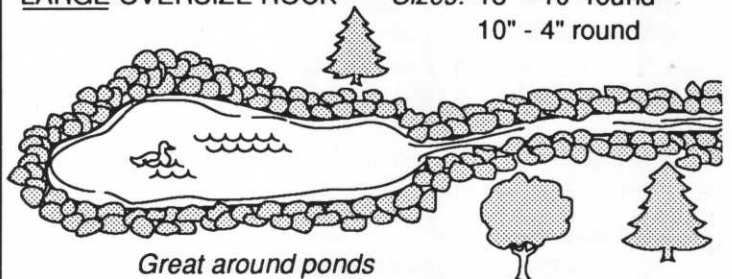
CARTPATH AGGREGATE



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 - Red rock
 - Grey
 - Gravel

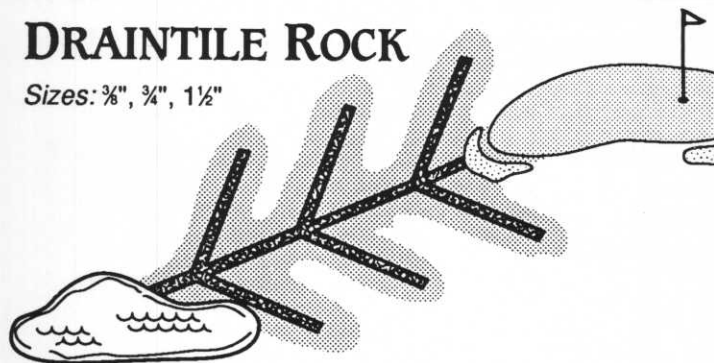
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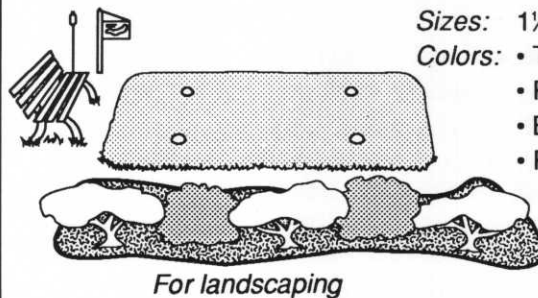
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- Sizes: 3/8", 3/4", 1 1/2"

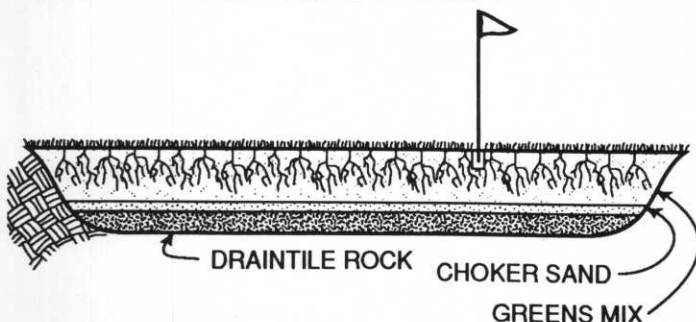


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MDA to Collect Waste Pesticides in September

Minnesota Department of Agriculture (MDA) will collect waste pesticides in the seven county metropolitan area the third week of September of 1995. The collection is designed for residents, businesses, and other pesticide users from Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington Counties.

Collections are intended to prevent pollution by removing potentially dangerous products that could otherwise end up in the trash, a landfill and/or the ground water, and make Minnesota a cleaner and safer place. Collections will also occur in southeast Minnesota in August and September.

To participate, individuals and businesses must register their waste pesticides with MDA by September 7th. After participants register their waste, they may bring it to any convenient collection site for disposal. Collection dates and tentative sites are:

- ★ Mon., Sept. 18, Hennepin Cty. Hazardous Waste Drop-off Site, Bloomington.
- ★ Tues., Sept. 19, Farmers Cooperative, Belle Plaine
- ★ Wed., Sept. 20, Anoka County Fairgrounds, Anoka
- ★ Thurs., Sept. 21, Farmers Cooperative, Hampton
- ★ Friday, Sept. 22, Washington County Fairgrounds, Lake Elmo

Waste pesticide drop-off hours will be from 9:00 a.m. until 1:00 p.m.

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SOIL CORE ANALYSIS A DIAGNOSTIC TOOL

By Joe Farina, Golf Course Turf Specialist
Read Sand & Gravel, Inc., Rockland, MA

(Reprinted with permission)

The turfgrass plant, much like a human being, requires a proper balance of air, water, food and a healthy environment to sustain life and survive in its flora world. The basic teachings of turf physiology have sharpened the expertise of many a superintendent to help combat against the elements that seek to upset this balance and to weaken, stress or kill our grasses. When an adverse condition is noticed—whether a pathogen, insect or climatic influence—the turf manager becomes a physician of sorts who analyzes, defines and resolves the problem using diagnostic methods of on site visual or off site laboratory tests. Most of the time this occurs after the damage has been done to some degree. We know that a weakened turfgrass plant is more susceptible to disease, stress and parasitic invasion. Identification of what causes a weakened plant in the first place could be the key to prevention and could increase the survivability of the turfgrass. A soil core analysis should be part of your check list.

True, many factors from close mowing to foot traffic or phytotoxicity can put a turfgrass plant in a weakened state, but the subsurface environment of the root zone area can set the stage for “do or die” of the turfgrass plant. Infiltration, porosity, organic content and particle distribution are the dynamics of a soil structure engineered for turf. Harmony and balance must exist among these root zone characteristics below the surface in order to support your cultural program atop the surface. When a soil imbalance exists, the turf cannot respond fully to the applications you apply to enhance its quality and vigor. Thus the turf plant becomes weak due to the soil environment in which it is anchored. Unfortunately, by the time the weakening effects are felt the mercury hits 90 plus, humidity is oppressive, there is a shotgun member guest at 12 o'clock, and you cancel lunch while you grab that bottle of antacid. Sound like the summer of '94? It's “no holds barred” with Mother Nature and the last thing on your mind is a soil test.

Spring and Fall are more opportune times to conduct a soil test analysis as a diagnostic tool prior to aeration and topdressing, and to make proper decisions on what material you should or shouldn't be amending the root zone with. Conventional soil testing methods are good for choosing a new root zone or topdressing material for greens and tees. However, for an existing soil profile in either a new high sand or an old push up green, a more surgical approach is required to locate, pinpoint and isolate a soil malfunction within a specific area from 0 to 12" so that you can implement the proper corrective action (a “smart bomb” analogy, if you will). Such a method has been developed

by International Sports Turf Research Center of Olathe, Kansas, to test intact, undisturbed soil cores inch by inch and evaluate the physical well-being of the soil medium as it relates to the root system and health of the turf plant. This is especially effective on golf greens where intense culture and abuse struggle to find an equilibrium. Now soil testing technology has devised a way to bring your golf green to the laboratory. Okay, sure, core samples have been done for years by using a cup cutter or pounding in random lengths of PVC, but never with this high degree of accuracy.

This New ISTRC SYSTEM cores with a plugger device and extracts a 2" diameter by 3" deep intact core into a copper sleeve that is then capped and sent off the the lab. Two types of cores are extracted which represent specific levels of the root zone for analysis. First, the most crucial upper tier — 0" to 3" — that is subject to general aeration practices, topdressing, soil amending, surface contamination and direct compaction. Second, the lower 3" to 6" tier that can harbor hard pan, fines build up, and is affected during vertidrain, deep tining and hydrojet practices. Additional lower tier cores may be extracted from 6" to 9" and 9" to 12", especially when considering deep tining or rebuilding. Identification of the make up of the soil profile with inch by inch accuracy is the intended purpose when subject to the following series of tests: USGA physical evaluation guidelines including infiltration rates; Walkley/Black organic; Particle distribution and textural analysis; Bouyoucous test; Porosity in capillary and non-capillary; Particle sphericity/angularity; and Root mass and feeder roots analysis.

Where and what are the most common soil problems found through core testing? Definitely in the upper tier 0" to 3". Buildup of organic and fine layers that seal off the root zone and impede proper infiltration, choking of the soil porosity creating an imbalance of air and water, the restriction of feeder roots from penetrating the depths of the root zone, and confining the root mass to the upper portion of the root zone. What could cause all the mayhem? The cause could be as simple as using improper topdressing material. Not that your topdressing material may be bad, but it just might be too much of a good thing such as high organics or particles too abundant in coarse or fines. Can you imagine what would happen to our cholesterol levels if we ate steak and eggs every day? Just as a blood test is a good diagnostic tool for human health, soil core analysis is a good diagnostic tool for the health of your turf.

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KNOW YOUR SAND

By Frank Hardy
Standard Sand & Silica

Of all the products used in the turfgrass industry, perhaps the most abundant and often misunderstood is sand — common sand.

Sand is one of the most abundant, naturally occurring resources on earth.

It is readily available throughout the world in many different textures and colors.

Sand is used in great quantities by the turfgrass industry, from building athletic fields and fairways, to filling bunkers, to mixing topdressing and greens mixes.

Sand is the building block for golf courses and athletic fields. The right sand holds tremendous benefits for superintendents and turf managers — and yet, how little is really known about selecting it. There are many uses and each may have its own specific needs. Great care should be taken to make sure your supplier understands just what your needs are. There are many people on the supply side that have little or no knowledge of USGA specs.

Most sand sources are suppliers of DOT spec materials, with golf courses as an afterthought.

All sands not alike

Historically, turf managers often purchase a local, inexpensive sand without regard for USGA specifications. This sand is not always suited for their needs.

All sands are not alike!

They vary in particle size, shape, composition, color and purity.

So, where do you find a good sand that will be the proper sand for your needs?

This question is often asked by contractors, agronomists, architects and turf managers alike. Finding and selecting a quality sand that is affordable is not always easy. It will take a basic understanding of what makes a good sand to make an intelligent choice.

To better understand sands and their uses, let's look at what sand really is.

To begin with, the term sand is very vague. In soil science, any soil that contains 85% or more sand and not more than 10% clay is texturally classified as a sand.

By this very definition alone, no one could select a proper sand.

Soil and sand are not the same, so let's look at what exactly makes up sand.

Basically for our purposes there are three classifications of sand:

1) Manufactured sand, which is the least desirable of all sand because of chemical content and poor quality.

2) Calcareous sand, which is not recommended because it has a high pH, normally in the neighborhood of 8. All efforts should be made to avoid using calcareous sand because it substantially reduces the availability of secondary or minor nutrients for uptake by grass roots, and it increases maintenance costs.

3) Quartz silica, which is preferred for the turfgrass industry and particularly for every phase of golf course usage — bunkers, greens, tees, fairways. That's because it is chemically inert and very resistant to further breakdown (or weathering). The higher the quartz silica content, the better turfgrass results will be.

Five selection keys

When selecting sand for turfgrass uses there are five keys to making the right choice. Briefly, those keys are:

1) **SIZE** — particle size is probably the single most important factor in choosing the proper sands. For golf course construction and maintenance, the USGA has very specific guidelines on particle size. To the naked eye, the need for such exactness may seem doubtful. In order to put the significance of the size factor into perspective, consider this scale of rough analogies to grains of sand:

Clay	Oatmeal
Silt.....	Poker chips
Very fine sand.....	Softball
Fine sand.....	Basketballs
Medium sand.....	Medicine balls
Coarse sand.....	4-foot beachballs
Very coarse sand.....	8-foot beachballs

This is why specifications, and laboratory testing for them, are worthwhile to ensure proper particle size distribution.

2) **SHAPE** — sand shape varies depending on geographical location, weather and other physical and mineral conditions. Basic shapes are round, angular, sub-angular and crushed.

A. Crushed, sharp particles tend to shear the roots and the particles do not conform to one another.

B. Round sand tends to be like ball bearings and will shift underfoot or under machine traffic. They tend to be droughty.

C. Angular or sub-angular sands are preferred because they tend to shift less and are more resistant to compaction.

These particles tend to conform to one another, giving optimum capillary spaces for root growth and water movement.

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Know Your Sand —

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3) **COMPOSITION** — sand composition varies greatly. Most sand, however, contains quartz the most common form of silicon dioxide or silica. A hard quartz sand is preferred for golf courses since quartz resists weathering and retains its original shape permanently. Your sand should contain 95% or greater quartz silica. A simple chemical test can be supplied to you for verifying silica content.

4) **COLOR** — sand color should always be secondary in importance to proper particle size and composition.

What good is a white sand if it does not play well? or has poor drainage and quickly discolors due to staining or has high water retention?

5) **ANGLE OF REPOSE** — every material has an angle of repose.

This is the angle with the horizontal at which a material will stand when piled.

The angle of repose will vary with particle size distribution, particle shape and moisture. This is why when you see a pile of sand you find larger particles that have run down the sides and gathered at the bottom. The angle of repose for typical construction sand is approximately 35 degrees. If you are trying to make bunker faces at a 45° angle or greater, you are working against known laws of physics. Damp or wet sand also holds angles better than dry sand. So a sand of proper particle size that retains adequate moisture without being wet is preferred.

Once again size, shape, composition!

Production

A note on sand production: although there are several methods used to produce sand depending on the type of deposit and its intended use. For our purposes here in Florida, we see two methods — wet and dry.

1) Dry production is typically a dragline or loader taking sand directly from a bank or natural deposit. There usually is no or very little effort

to screen the sand. There is very little chance for any quality control with this method.

2) Wet screening is the method most major sand producers are doing and by far the preferred method. Wet processing uses a screening tower that washes out the excess: fines, silts and clays. Also, a classifier which separates sand into different gradations. Depending on the type of classifier system being used sand can be classified into more than just fine or coarse. The number of “splits” made determines how well graded a specialty sand will be.

Keep in mind that most sand manufacturers are producing DOT spec material for their own uses. Few sand and/or gravel companies produce a sand screened and washed for the specific purpose of growing turfgrass. Very often, you are getting someone else's DOT sand.

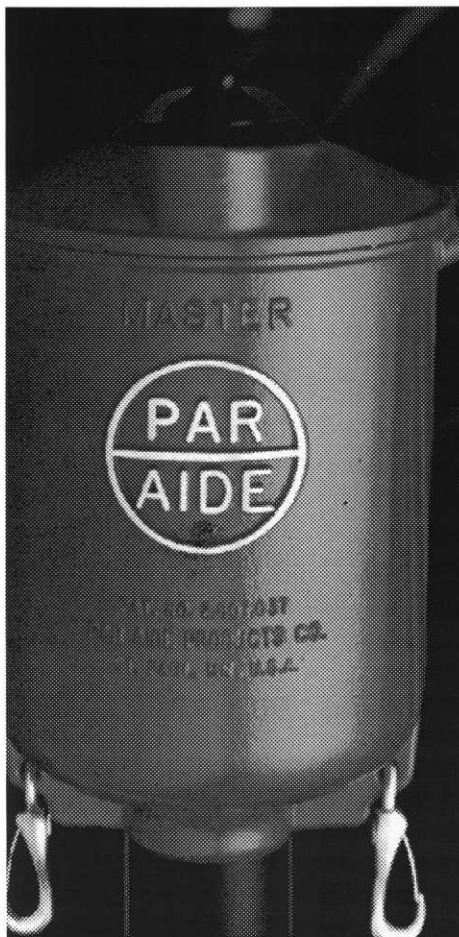
Once again, I cannot emphasize enough to have your supplier show proof that they are producing a material that complies with USGA specs. Current testing is important.

In conclusion

As we have seen, finding the right sand is not as easy as it may first seem. Hopefully, we have learned that sand is not just sand! There are tremendous differences within the sand classifications, sand testing methods and, indeed, within sand sources themselves.

Your supplier must take the responsibility to ensure that what they sell you meets your needs. You must take the responsibility to ensure that you are buying the proper sand.

It is imperative that you choose the proper sand and continue to use the sand intended for each specific purpose.



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A Primer on Sandy (Coarse-textured) Soils

U.S. Department of Agriculture soil scientists classify soils into 12 different texture classes based on their percentage contents of sand, silt and clay. The three texture classes with the highest quantity of sand are sand, loamy sand, and sandy loam.

The five USDA subcategories of sand according to particle size are as follows:

- Very Coarse 2.00-1.00 mm
- Coarse 1.00-0.50 mm
- Medium 0.50-0.25 mm
- Fine 0.25-0.10 mm
- Very Fine 0.10-0.05 mm

TEXTURE CLASS	SAND	SILT	CLAY
Sand	85-100	0-15	0-15
Loamy Sand	70-90	0-30	10-30
Sandy Loam	45-85	0-50	15-55

Sometimes general names are used to designate a sand instead of the official USDA (Comprehensive Soil Classification System) categories. Some of these names, generally based on construction use or source, are:

These are often termed "sandy" or "coarse-textured" soils. Obviously, a soil can be called "sandy" but contain considerable silt and clay. Physical, chemical and biological properties can vary dramatically even between two soils within the same texture class.

- ▶ **Concrete Sand** — usually features wide particle-size range of sands and fine gravel;
- ▶ **Mason's Sand** — similar to concrete sand but without the fine gravel;
- ▶ **Dune Sand** — wind or water-deposited, usually has narrow particle-size range;
- ▶ **River Sand** — bottom deposits, can vary from very uniform to considerably mixed fines.

Coarse-textured soils, whether natural or constructed, are used on many high-traffic sites because of their better physical properties relative to soils with more silt and/or clay content. For example, USGA Green Section specifications for golf greens and athletic fields are designed to provide a playing surface with a root zone that resists compaction and has sample macropores for water movement, gas exchange and root penetration.

For turfgrass sites that receive frequent traffic, rootzone construction often requires sands with well-defined ranges of particle size. On turf or ornamental sites where sand is added to existing soil and limited traffic is expected, size specification is less important.

Sand Classification

The separate soil class of "sand" is based on the size of mineral particles falling within a range of 0.05 to 2.00 millimeters in diameter. Silt particle sizes range downward from 0.05 to 0.002 millimeters, while clay particles go below 0.002.

(Excerpted from Chapter 9, "Physical Problems of Coarse-Textured Soils," by Robert N. Carrow, Crop and Soil Science Department, University of Georgia, Griffin, GA, in the Handbook of IPM for Turf and Ornamentals, 1994, Lewis Publishers/CRC Press, Boca Raton, Fla.)



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- Use a hand held portable radio to turn stations on or off and program run times for those manual operations

Computer Requirement

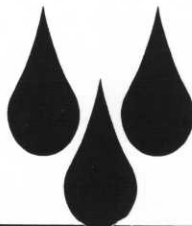
- 486 Personal Computer with PC-DOS or MS-DOS
- 1 MB RAM
- 80 MB Hard Disk Drive
- 3 1/2" or 5 1/4" Diskette Drive

Recommended

Phone modem with communication software, dot matrix or laser printer

Plus Many More Benefits!

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Changing the course of the future: the Ransomes E-Plex



The time is right for battery powered equipment. Electric technology offers many benefits and advantages over fuel powered equipment. It is clean. Quiet. Easy to operate. Powerful. Less costly to maintain.

■ ELECTRIC POWERED EQUIPMENT

- Simple design with minimal parts
- Clean operation eliminating the chance of hydraulic leaks
- Quiet for nuisance-free use in and near residential neighborhoods
- Easy operation
- Capable of running three hours between battery charges

■ E-PLEX* IS THE FUTURE

Battery operated equipment isn't the wave of the future, it is the future, and it is here now in the new E-Plex greens mower from Ransomes.

The E-Plex mower was built with great care and commitment. This innovative greens mower masterfully joins decades of Cushman industrial electric vehicle and Ransomes reel mower experience with the traditional values of quality, reliability and performance. The E-Plex is a showcase of contemporary engineering, leading the industry into the twenty-first century.

■ E-PLEX IS ENVIRONMENTALLY SOUND

- Quiet operation
- No hydraulics—No oil leaks
- Simple, proven technology assures long life
- Zero emissions—Pollution free

■ E-PLEX IS DESIGNED TO PERFORM

- Exceptional quality of cut
- Range of 9-18 greens on a single charge
- Excellent hill climbing capabilities
- More economical to operate and maintain than comparable gas or diesel units

* Patent pending.

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