## THRU THE GREEN

The Golf Course Superintendents Association of Northern California

October 2019



See Inside For Preview of January 2020 Institute & Boot Camp Hosted at Bayonet & Black Horse



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Location of the January 2020 Institute & Boot Camp at Bayonet & Black Horse



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Photos by Pete Galea, CGCS

#### **INSIDE**

PRESIDENT'S MESSAGE by Brian Boyer	4
EDITOR'S NOTES by Stacy Wallace	6
EXECUTIVE DIRECTOR'S REPORT by Marc Connerly	8
FROM THE FIELD by Jeff Jensen	11
ASSISTANT SUPERINTENDENT PROFILE by Conner Galea	12
WHAT IS YOUR SAND MADE OF? by Doug Soldat	14

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## President's Message

By **BRIAN BOYER**GCSANC President, Cinnabar Hills Golf Club

Last month I wrote that I hope you've enjoyed a bit of rain before this issue, but had I known about recent energy and weather events, I should have written that I hoped you survived the blackouts.

It has been a scramble, to say the least. Similar to what I've heard expressed about our most recent events at Diablo and Chuck Corica. I can't say I disagree with those comments, but I do want to convey what it's like behind the scenes. It's a big commitment to have a club agree to host an event. While GCSANC still pays a fair amount, we do receive generous discounts and those decisions don't happen overnight in most cases. In some cases, when a club does agree to host an event, we'll only have 3-6 weeks to set the lineup. Particularly with Field Day, as that tends to be a "wait and see what's happening this year" kind of event. Most of the time, we have an idea of what we want to do at the host course for speakers, but we don't like to confirm anything until dates and contracts have been solidified. That can make getting a solid agenda published difficult. We do understand it's difficult to get your club to pay for an event that is "TBD."

While it may only be worth the paper or digital page it's printed on, please know that the Board is working tirelessly on bringing good content and speakers to the membership. The Board as it's assembled constitutes some of the top guys in the industry who are just as knowledge thirsty as anyone out there. The content that ended up being presented at Diablo and Chuck Corica turned out to be fantastic, and the work the host superintendents did to help make these events a success can't be thanked enough.

That all being said, we have much of our lineups set for the Annual Meeting, Institute, and Bootcamp. At the annual meeting, you can look forward to hearing from Jeff Jensen, Pat Gross, and endurance athlete Karl Meltzer. At Institute and Boot Camp, you can look forward to hearing from Doug Soldat (University of Wisconsin), Gina Rizzi (Arcus Marketing Group), and Andy Staples. We are efforting Maggie Rieter, a PGA agronomist, local STMA members, and chemical manufacturers. The events should be a good cap to 2019 and a nice start to 2020.

USGA comes to the Presidio Golf Club and host Superintendent Brian Nettz on March 9th. We are working with Brian Whitlark and the USGA on content, and if there is something in particular about which you'd like to hear from the USGA, please let us know. We still have time to guide the agenda.

Until then...

Brian Boyer

#### **NORCALENDAR**

Tuesday, November 12, 2019 GCSANC Annual Meeting Cinnabar Hills Golf Club

Friday, December 6, 2019
GCSANC Annual Holiday
Meeting
Hyatt Regency Monterey

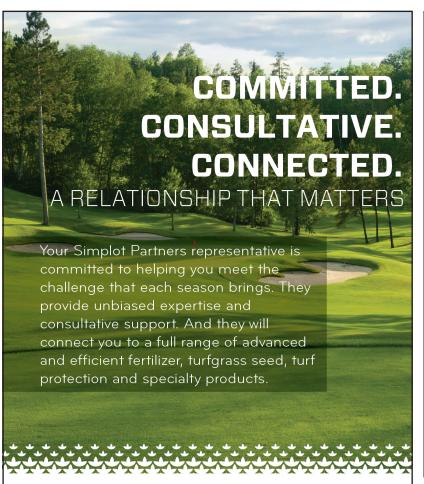
Monday, January 13, 2020 GCSANC Institute Bayonet & Black Horse

Tuesday and Wednesday
January 14 - 15, 2020
GCSANC Assistant
Superintendent Boot Camp
Bayonet & Black Horse

Monday, March 9, 2020 GCSANC Assistant Superintendent Boot Camp Presidio Golf Course

In response to member requests, we are now pleased to offer full-color, printed copies of Thru The Green for \$40 per issue. To order a copy, to be shipped to you via mail, submit your name, address and payment information to mconnerly@connerlyandassociates.

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## **Editor's Note**

By STACY WALLACE, GCSANC Past Presidentm, Sonoma Golf Club

Our annual meeting is fast approaching. With that, we are looking for candidates interested in serving on the Board. If interested, please e-mail or call me at swallace@sonomagolfclub.com or (707) 527-2254.

Along with that, e-mails have been sent out for the annual Superintendent awards. Be sure to nominate someone you feel deserving. The nominating committee will be meeting soon to discuss.

On another subject, we are always looking for quality articles to add to the Thru The Green magazine. If you have any ideas, please feel free to contact me to discuss.

Hopefully things are settling down as we approach the fall season and you have more time to spend with family and friends. For those of you going to Orlando this year, registration is open for the California Room. It will be held at the Blue Martini Lounge Wednesday, January 29th from 6PM – 9PM. This is always a great event to see everyone from throughout the state. Hopefully you can make it.

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## **Executive Director's Report**

By MARC CONNERLY, GCSANC Executive Director

As you read this, we are very close to opening the Institute and Assistant Superintendent Boot Camp for registration. Both will be held at Bayonet & Black Horse in Seaside, with the Institute to be held on Monday, January 13, and the Boot Camp on Tuesday and Wednesday, January 14 and 15.

Doug Soldat from the Department of Soil Science at University of Wisconsin-Madison will be on hand to present at both meetings, and we are happy to include an article from Doug in this issue of Thru The Green as a preview of the valuable information that Doug will present in January.

In addition to Doug, Gina Rizzi of Arcus Marketing will present at both meetings. Superintendents in attendance at the Institute will enjoy her presentation on transitioning crews into cohesive teams. Attendees will learn strategies and tips based on NASCAR, IndyCar, and IMSA Sports Car Racing professional pit crew best management practices. Understand how to shift paradigms to create recognition, motivation, and improved communications, while maximizing team efforts to improve performance.

Gina will also present at the Boot Camp on the topic of learning how to marketing yourself. Whether pursuing a promotion or a raise, greater freedom in your position, acknowledgement for a job well done, or contemplating a new job, marketing yourself is key. This starts with understanding your personal brand and harnessing your authenticity so others see you as the person you are. Learn the five-steps to best market yourself, including personal branding, identifying who you're marketing to, what your message is, plus how and where to best communicate it. Attendees will receive strategies and practical tips, including best practices for social media, and will be introduced to CAMPS, an easy to execute everyday strategy for personal marketing, networking,

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and professional development.

Additionally, Maggie Reiter, Environmental Horticulture and Turfgrass Advisor with Cooperative Extension Fresno County, will share a presentation at both events entitled "Managing Naturalized Areas for Multiple Functions." She will cover establishment and maintenance of golf course naturalized areas, especially challenging weeds and control options, herbicide safety for desirable plant species, and IPM planning and monitoring tactics.

The events are shaping up to be an outstanding lineup of education, with more presenters still to be added. We are also marketing the events to GCSA chapters in Southern California, Arizona, and Oregon, and we expect this to be the best attended Institute and Boot Camp to date.

Watch your email and the GCSANC website for full details soon, and please enjoy Doug Soldat's article at the end of this issue.



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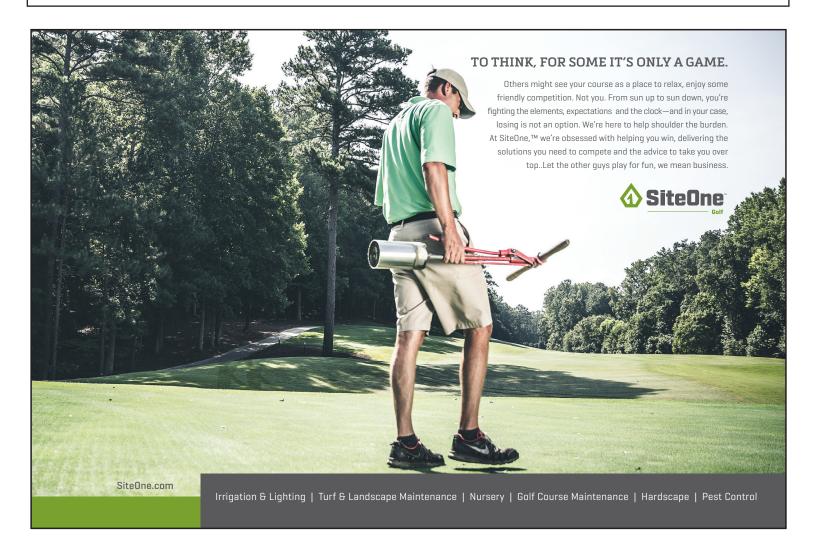
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## From the Field



By JEFF JENSEN, GCSAA Field Staff, Southwest Region

It's hard to believe that the 2020 Golf Industry Show (GIS) and GCSAA Golf Championships are right around the corner. This year's show and golf has been moved up a week and will take place Jan. 25-30, 2020 at the Orange County Convention Center in Orlando, FL.

Orlando sets the high-water mark for GIS attendance and 2020 will be no different with more than 13,000 attendees and over 550 vendors expected to participate. Education tracks featuring nearly 90 seminars will be offered along with numerous free sessions on the trade show floor. Seminars are available in 1.5-hour, 1.75-hour, half-day and full-day sessions. Seminar costs for members are \$75, \$85, \$140 and \$185 respectively.

In addition to the trade show on Jan. 29-30, other show related events to put on your calendar include the Opening Reception on Jan.28, Grassroots Ambassador Academy, Opening Session on Jan. 29, Ladies in Turf Networking Social, Collegiate Turf Bowl, Health in Action 5K, GCSAA Annual Meeting (now at 9:00 a.m. on Jan. 30) and the always popular Closing Celebration with live entertainment on Jan. 30.

Housing and early registration for GCSAA members opened on Oct. 15. Early registration (thru Jan. 8) price for members is \$500 and registration is available at http://www.golfindustryshow.com/.

The GCSAA Golf Championships will take place Jan. 25-27 at three Orlando area facilities including ChampionsGate, Ritz-Carlton Grande Lakes and Shingle Creek Golf Club. The event features the National Championship, Golf Classic, Four-Ball and Scramble.

The National Championship (open to the first 100

superintendents with a handicap index of 5.0 and below) and the Golf Classic (flighted by handicap, using a point quota scoring system) are \$475 per player before Dec. 21 (\$575 for affiliates participating in the Golf Classic). Entry fee for the Four-Ball and Scramble are \$200 per player before Dec. 21 (\$300 for affiliates). Tournament entry includes green fees, cart, range balls, tee prizes, drink tickets, on course contests, awards, Welcome Reception and 19th Hole receptions following each day of play.

The GCSAA Golf Championships represent one of the world's largest amateur golf events (450 plus players) and spots fill up quickly, so register now at http://www.golfindustryshow.com/gcsaa-golf-championships/registration-information

We hope to see all of you in Orlando and If you have any questions or need anything to make your GIS experience more beneficial, please contact me at jjensen@gcsaa.org and don't forget to follow me on Twitter @GCSAA\_SW for daily industry updates.





## Assistant Superintendent Profile: Steven Spatafore, Contra Costa Country Club

By CONNER GALEA, Assistant Superintendent, Spyglass Hill

It's always great to showcase some of the up and coming talent in our industry. Northern California has some of the richest history in golf, with great courses and hardworking crews that keep them in exceptional condition. For this issue, we interviewed Steven Spatafore from Contra Costa Country Club.

CG: What made you decide to get into golf maintenance? SS: I had a chance encounter with, then Assistant Superintendent, Billy Hausch at Pebble Beach Golf Links during the 2008 AT&T Pro-Am when I was 12 years old. A relationship was created that allowed me to volunteer on the maintenance staff the following year for the event, and I was hooked. I loved the early mornings and evenings spent on the golf course and knew that I wanted to work in this industry.

CG: What is your proudest accomplishment in the industry? SS: Being a part of the team to host the 118th U.S. Amateur Championship and 119th U.S. Open Championship at Pebble Beach Golf Links as an Assistant-In-Training.

**CG:** Who would you consider your most influential mentor in the industry?

SS: I am so blessed to have an amazing group of mentors whom I can call on for advice and support that it's hard to narrow it down to a single person. I would say Chris Dalhamer from Pebble Beach and Billy Hausch have greatly influenced who I am as a grass grower and person.

CG: Where did you grow up? SS: Yuba City, California

CG: Your best Nicknames?

SS: N/A

CG: If you could drive any vehicle, what would it be?

SS: A matte black Maserati Levante

CG: Do you have any pets?

SS: No, not yet!

**CG:** What is the funniest thing you have ever seen on a golf course?

SS: It happened during a round with my father and uncle. My uncle made a joking comment about how my dad was standing in a bad place. He then proceeds to shank a ball at a 45 degree angle about 6 inches over my father's head. After a second, we realized it didn't nail my dad and immediately started laughing.

CG: What is one thing that most people don't know about you? SS: I don't own a single pair of jeans. I find them extremely uncomfortable and have only worn them once because it was a requirement for a high school marching band performance.

CG: What was your lowest score playing golf, and where? SS: 68 (-4) at Peach Tree Golf and Country Club

CG: What is your favorite manual labor job on the golf course and why?

SS: Walk mowing greens. When I was in college, I would go mow our research green whenever I got stressed out and needed a break from whatever I was doing so it became a very relaxing experience for me and still is.

CG: Greatest piece of advice anyone has given you?

SS: Whatever you do, give it 100%.

CG: If you had to survive on a deserted island for 1 year, aside from food and water, what 5 items would you bring with you to occupy your time?

SS: Set of golf clubs, my drum set, a collection of political science books, lots of paper, and sharpies to design golf holes.

CG: Favorite Beer?

**SS:** 805

CG: If you had your choice, what would you do in retirement?

SS: Travel around the world

**CG:** Favorite sports teams?

SS: Boston Red Sox, Denver Broncos

CG: What's your favorite type of grass to manage as a putting surface and why?

**SS:** Bentgrass. I love how incredible of a surface you can create and push the grass to attain speed and firmness.

**CG:** If you could have lunch with anyone, past or present, who would it be?

SS: My grandfathers, Stan and Nino.

CG: What do you enjoy outside of work?

SS: Cycling, going to baseball games, traveling to new places with my fiancé Courtney.

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## What Is Your Sand Made Of?

By DOUG SOLDAT, Dept. of Soil Science, University of Wisconsin-Madison

Have you ever wondered why beaches are usually white? This is one of the questions we ask the students in our introductory soil science class at the University of Wisconsin. The explanation has to do with the weathering of rocks. Rocks are made up of minerals, and different minerals break down at different rates. For example, the state rock of Wisconsin is red granite, which is composed primarily of potassium feldspar (pink), quartz (white), and biotite (black). If given enough time, granite will break down into smaller pieces of itself through the actions of freezing and thawing, and root penetration, and maybe as a result of tumbling down a hill. We call those types of breakdown physical weathering. The granite will also break down chemically from exposure to rain and the acids excreted by plant roots and lichen until the minerals are completely dissolved. I recently learned that the state rock of California is serpentinite, which contains the minerals serpentine and chrysotile - a form of asbestos. Therefore, this rock is "known by the state of California to cause cancer." But then again, so does Wisconsin's state rock, because granite also contains small amounts of radiation emitting elements like uranium, thorium, and radium, but I digress.

Physical and chemical weather doesn't affect all minerals in the same way. The minerals in rocks possess different abilities to resist physical and chemical weathering and quartz turns out to be one of the most resistant minerals of all. Quartz also tends to be clear or white in color. So the reason beaches are often white is because the action of the waves has weathered away everything else (feldspar, biotite, etc.). Eventually, the quartz will weather away too, or become buried and cemented into sandstone. The reason beaches are sand instead of silt or clay (which can also be made of very resistant minerals) is that the waves carry away the smaller particles leaving only the heavier sand sized particles.

Non-white beaches exist but are quite rare. The Big Island of Hawaii has many black sand beaches and one famous beach composed of green sand. There are very few green minerals on Earth, but one is olivine (along with Californian serpentine,

actually). Olivine happens to be one of the easiest minerals to weathered, and therefore green beaches are rare because the olivine doesn't last very long under nature's forces. We tend to find these green and black sand beaches in volcanic areas where the earth is new (like Hawaii). But after a few million years, these weird colored beaches will turn mostly white because the non-white minerals will be lost to the persistent actions of the waves and other weathering processes. Colors can tell you a lot about potential mineral weathering rates. Light colored minerals (white, pink, gray) tend to weather slowly, while dark colored minerals (black, dark gray, green) weather relatively quickly.

With the exception of nitrogen and maybe sulfur, plants in natural ecosystems get all of their mineral nutrients from the breakdown of rocks and sand and silt and clay through physical and chemical weathering processes. Soils derived from easily weathered minerals (like olivine and biotite) will make for a nutrient rich soil, because the nutrients become plant available as the minerals weathers away. Soils derived from quartz sandstone tend to be very nutrient poor. Plants play a role in this too, plants native to nutrient rich soils haven't evolved too many intricate strategies for acquiring nutrients, but plants native to nutrient poor soils have evolved the ability to speed the breakdown of soil minerals to meet their nutritional needs. Your turfgrass isn't much different. Sure, you apply nitrogen, potassium, and phosphorous often, but you probably don't think about molybdenum or nickel or magnesium very often. That's because your turfgrass is able to find those three, and the near dozen other mineral elements in the soil through the slow but steady weathering of minerals.

Plants require so much nitrogen, potassium, and phosphorus that you may add those nutrients to meet your production goals. Scientists work to identify the minimum level in the soil above which you won't need to apply fertilizer. Through experimentation, we've identified a minimum amount of soil phosphorus (Mehlich-3, 7 ppm) but have failed to find the minimum level for potassium after almost a decade of trying

on a sand-based green at the O.J. Noer Facility. This failure has us convinced that the plant is mining the potassium in the sand as a nutrient source. The Mehlich-3 levels of potassium are simply too low for the plant to be able to survive on it alone.

We recently decided to characterize the potassium content of the minerals in our sand. If we assume that the effective root zone depth is three inches, and the bulk density is 1.6 g/cm3, the root zone weighs about 15,000 pounds for every 1,000 square feet of surface area. The total K content of our root zone sand was 0.7%, meaning there were about 105 pounds of potassium per 1,000 square feet in the sand minerals in those top three inches. We noticed that our plants take up about 1 pound of K per 1000 square feet every year, so only about 1 percent of the total K in the soil would need to be "released" from the mineral structures for the plant to meet its nutrient requirement. This seems feasible. Now add in the fact that we are topdressing with about 0.2 inches per year with the same sand, adding about 7 pounds of K per 1,000 square feet annually. We hypothesized that the plant will

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never run out of potassium because our K requirement is being met by the weathering of our topdressing sand, which is being added at a rate that exceeds removal.

In addition to figuring out the total K content of our sand, we worked with some high tech instrumentation in the Geosciences Department to find that our topdressing sand (Waupaca Fines Free, Waupaca Sand and Solutions) was composed of 78% quartz (white and pink in color), 12% Orthoclase (a pink potassium feldspar), 5.2% hornblende (a dark amphibole that contains a small amount of potassium), and 4.4% albite (a white potassium feldspar). The total amount of potassium in this sand was about 0.7% as mentioned above, and as you can see, the main source of potassium in the sand was from potassium feldspar.

We know this work is helpful to the superintendents in Wisconsin growing bentgrass and using Waupaca Fines Free, but we also wondered about how we can extrapolate our results to other areas (like Northern California, for example). Via Twitter, I asked superintendents to send me their sand for total K analysis to compare with ours. We received about 25 samples from all over the US but most coming from the upper Midwest. You can see from Table 1 that the Waupaca sands are on the lower end of the spectrum in terms of K content. This suggests that the majority of sands used for topdressing in the US would be able to supply K to bentgrass. In addition, it seems pretty clear that the farther West, the more K found in the sand. However, we have a lot more work to do before we can say that for certain and are already working on some new studies so we can eventually make more solid recommendations regarding the ability of bentgrass (and maybe annual bluegrass) to extract K from topdressing sands. We'd love to test some sands from California, so if interested please send a quart sized sample of dry topdressing sand. Please double bag it and tape the opening to prevent it from spilling during shipping. There is no cost for the analysis.

Continued on page 17

## What Is Your Sand Made Of?

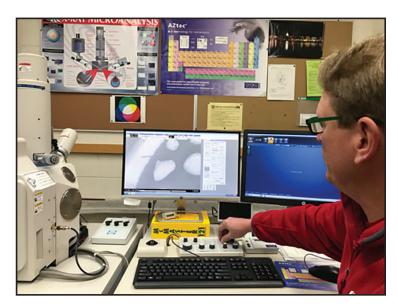
Continued from page 16

**Table 1.** Total K content of sands submitted by turfgrass managers to our lab from around the US. Total K was determined by x-ray fluorescence. Quarries were listed when known; otherwise, the state from which the sample was submitted was reported.

Sand Source	Total K content (%)
New Jersey 1	0.10
New Jersey 2	0.11
Waupaca Roscoe Fines Free	0.54
Waupaca Dousman Fines Fre	e 0.55
Pennsylvania 1	0.60
Waupaca Fines Free – OJ No	er 0.71
Waupaca Chillicothe Fines Fi	ree 0.72
Minnesota 1	0.74
Waupaca Fines Free 1	0.76
Waupaca Fines Free 2	0.78
Indiana 1	0.80
Minnesota 2	0.82
Indiana 2	0.83
Indiana 3	0.83
Indiana 4	0.84
Indiana 5	0.88
North Dakota 1	0.91
Indiana 6	0.93
Waupaca Morris Fines Free	1.01
Michigan 1	1.05
Washington 1	1.10
Idaho 1	1.20
Idaho 2	1.20
Ohio 1	1.23
Minnesota 3	1.24
Idaho 4	1.40
Idaho 3	2.00
Colorado 1	2.20
Arizona 1	2.30



**Figure 1.** The sands we tested varied in color.



**Figure 2.** We used a few different x-ray techniques to identify the minerals in the sands.

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