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Catching Up with **Robert Trent Jones, Jr.**

Superintendent Profile:
Josh Clevenger
Claremont Country Club

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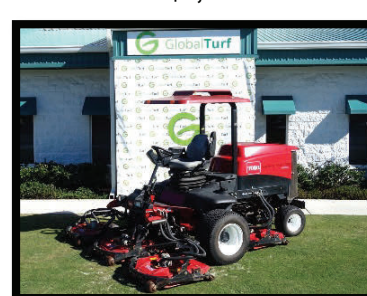
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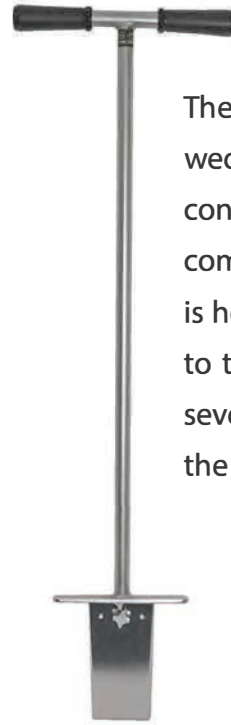
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Catching Up with Robert Trent Jones, Jr. 8

When last we saw Bobby Jones, Jr. he was basking in the afterglow of a successful and memorable U.S. Open at Chambers Bay, reaping in accolades for a high-energy renovation of Monterey Peninsula's Poppy Hills, and finishing up his first course in Ireland, Hog's Head, high on the cliff-tops overlooking gorgeous Skellig Bay
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I know what you're thinking, import or domestic, what is he talking about? Is it going to be an article about cars, beer or something else?
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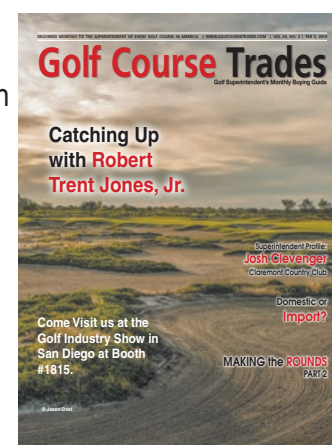
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Photo Picture:

It's called Termas de Rio Hondo: it's in Argentina. Thermal Springs of Deep River in Spanish. It's in Santiago de Tero, about an hour north of Buenos Aires by jet.

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Catching Up with Robert Trent Jones, Jr.

By Jay Flemma



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When last we saw Bobby Jones, Jr. he was basking in the afterglow of a successful and memorable U.S. Open at Chambers Bay, reaping in accolades for a high-energy renovation of Monterey Peninsula's Poppy Hills, and finishing up his first course in Ireland, Hog's Head, high on the cliff-tops overlooking gorgeous Skellig Bay

Cut to just under a year later, and Hog's Head won Golf Magazine's Best New International Course Award in a landslide, Jones is still criss-crossing the globe as spryly as he did when he was half his age, and golfers everywhere alternate marveling at his brilliance and his resiliency. Soon to be an octogenarian, Bobby doesn't get older, but he certainly gets better, and Bobby's company, RTJ2, is at the vanguard of the craft, blending artistry and strategy in his designs while using state-of-the-art maintenance techniques that save money and are environmentally friendly. Bobby's designs still beguile golfers around the globe. From Italy to Ireland or from Baja to Beijing Bobby's courses are both playable for everyone and irrepressibly fun. They are a reflection of his personality – a bon vivant. And he's done it on every continent on Earth except Antarctica.

RTJ: Don't tempt me, Jay because I'll go download a topo

map of the ice floes and radio McMurdo Station for a ride down there.

JF: Do it! I'll go with you. You know I love to ski.

RTJ: Okay well we'll have to use orange golf balls though, and we probably won't get much roll unless it's icy. Also, we'll have to dress up in shirts and ties, because the penguins will be well dressed.

(Laughter)

RTJ: Actually I'm opening a course perhaps as close to Antarctica as I've ever been. My latest design is in Argentina. It's called Termas de Rio Hondo: Thermal Springs of Deep River in Spanish. It's in Santiago de Tero, about an hour north of Buenos Aires by jet.

JF: What's the terrain like?

RTJ: While Buenos Aires and its surrounding area are generally flat, Termas de Rio Hondo

is a high desert climate. It's much like Madrid and Catalonia: dry and arid. But this site also features many hot springs. It's a magnificent site that Mauricio Macri, the President of Argentina, and Gerardo Zamora the regional governor of Santiago de Estero province are developing into a destination spot with hunting and fishing and other outdoor activities.

JF: That's got to be a first for you, designing in and around hot springs?

RTJ: No I did some work in Japan early in my career. I think it was in Karuizawa Golf 72, because it was 1972. It's two hours into the mountains from Tokyo. But it is unusual. The water from the hot springs is, of course, too hot to irrigate the golf course, but the Deep River is right there, so we use that cool water for irrigation.

JF: Tell us about some of the more interesting holes and architectural features.

RTJ: A number of holes have many different ways to play them, and so the par can be adjusted to whatever set of tees they set or whichever green they put the pin in since we have one hole with a two greens that alternate. On the sixth hole, it is either a two shot or three shot par-5 depending on where they place the tee markers. There is a central stand of trees and you must choose which fairway to take around them - the high road or the low road. With the tee markers back, it's a true three-shotter, but with the tees forward it's reachable in two.

Then at nine we build on that idea by having two greens one of which makes the hole a par-4 and the other a par-5. The green complexes are markedly different; the par-4 green is a true punchbowl, while the par-5 features a strategic shot to a green placed right up against a barranca. They choose what green is in play by putting the flag in it, and that determines whether it's a par-4 or a par-5.

Finally, on the back nine, the 15th hole can play either as a long par-3 or as a drivable par-4, depending on the tee placement.

JF: So it's a remarkably flexible golf course.

RTJ: It is indeed.

JF: Have you been employing any of those ideas at any of the other new courses you're working on?

RTJ: Well you know me, I like to be whimsical. I like to be avante garde. For example, right now, you're reaching me in Baja, Mexico at Costa Palmas. I'm doing 18 new holes, nine by the sea and nine inland. Again a beautiful dry arid site, but also oceanside.

JF: Baja and Cabo in particular are unusual like that. They have desert aridness right on the edge of the ocean.

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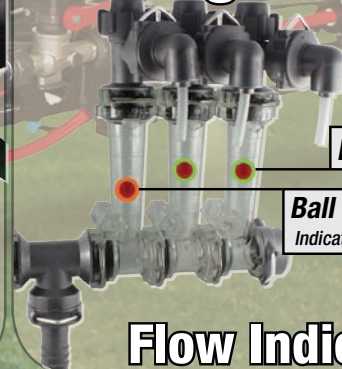
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INDUSTRY DIRT



Sprayed the greens late last week with a fungicide which delays fall/winter dormancy and should assist in spring green up. Yes think spring!

Bunker Repair and End of Season Greens Spray



Repaired edge with new sod.

Our bunkers have gone through their 6th season and are in need of some repair. Most of the entrances and exits have some wear and tear issues from both equipment and efforts to keep them clear of debris. We spent most of the day on Friday repairing the left front bunker of #5.

The first thing we had to do was remove the sod along the edge to locate the actual edges of the bun-

ker. We had to remove the excess sand that has been either blown out or dug out by our bunker rake.

We took the sod off and scraped the sand down to the soil layer and dug down along the sand until we found the original bunker edge that was done in 2012.

Once this was completed, we then laid new fescue sod and then

moved the sand up against the new sod to assist in stabilizing the bunker edge over the next few months. In some cases, we will need to remove sod from the green splash side of a bunker as well. We will attempt to complete a bunker a week until sod cannot be cut from our supplier and will then begin again in late winter/spring hopefully completing most of the problem areas before spring has fully arrived. We will of course be checking sand depths and adding sand as needed as well to insure we have proper depths for our members and guests to play.

Some of you might have noticed the greens were pretty bright in color over the weekend. No, not a lot of growth taking place. We sprayed a fungicide called Civitas which has some late season benefits as well as early season benefits for 2019. Click on the link if you want to read more about it.

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-Mike Greene, Supt., Downriver GC, Spokane, WA

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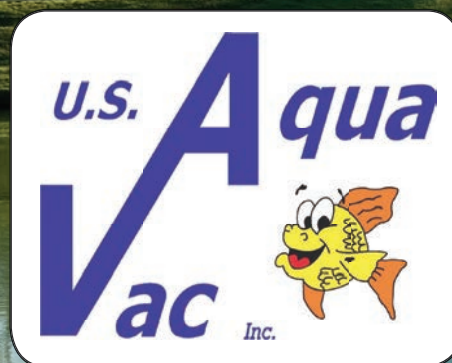
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RTJ: They do. Right now we are on the eastern cape-area, about an hour and a half northeast of Cabo San Lucas. It's a little remote, but there's a marina with great sport fishing.

JF: What's the golf course like? When will it open?

RTJ: The nine holes on the oceanside are already planted, and the entire course will be in play next year by June 1. The course plays along the dunes. It's a spectacular setting.

JF: Are there any ideas here that are similar to the flex ideas of Argentina

RTJ: It's funny you should ask that because we are debating whether number seven is a par-4 or a par-5. We decided to make it a par-5 crossing an arroyo, very similar to crossing Hell's Half Acre at number seven at Pine Valley or the wasteland at number 17 at Baltusrol. Those are direct influences there. But also like those holes, you can hit out of the hazard, and we wanted to make it playable out of our arroyo too.

And then we just finished a remodel of nine holes at Oxbow, in Fargo, North Dakota.

JF: An oxbow is a bend in a river, isn't it?

RTJ: Right first time! In this case the Red River, a tributary into the Missouri.

Oxbow was an exciting course I designed originally in the 1970s. But the Red River floods and the club decided it might be prudent to move the nine holes in the flood zone. So they asked the Army Corps

of Engineers to make a recommendation, and the Army Corps suggested that the holes in the oxbow be moved into the prairie lands right above the oxbow. So I got to build nine entirely new holes, and they put a new clubhouse up there too.

JF: What's next for you?

RTJ: Next time we can talk about my new course in Perugia, Italy. Home to St. Francis of Assisi and some of the world's best chocolates! ■

Linda Parker has been writing professionally since the 1980s. With clients in finance, sports, technology, change enablement, resorts and nonprofit global initiatives, Linda helps organizations communicate their stories in meaningful ways to the people they most want to reach. She has authored, ghostwritten or contributed to more than a dozen nonfiction books. Linda is a member of the Authors Guild and the Golf Writers Association of America. You can connect with her at Linda@GlindaCreative.com

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Superintendent Profile: **Josh Clevenger**, Claremont Country Club



Josh Clevenger with his wife Jill, Son Jonas, and Daughter Ivy.

How did you get your start in the golf industry?

I started playing golf as a teenager and fell in love with the game as a young adult. After high school I worked a few years for my dad in the family business, a Tire and Automotive shop in North Lake Tahoe, CA. When realized the tire business wasn't for me, I wasn't sure what to do. It took me a few years and I found myself working on a maintenance crew in Reno, NV.

Can you tell us a few things about your early life, where were you born, what high school, first jobs?

I was born in Roseville, CA. My father is a Vietnam Vet and my mother taught middle school after growing up on a farm in Colorado. My younger sister and I learned the importance of hard work and commitment at an early age. I grew up going to work with my dad at the tire shop and by 15 was working

weekends and pretty much anytime I was off of school or sports. We moved to Truckee, CA in 1989 when he started a new business. This was the summer between 8th and 9th grades. Went to high school at Tahoe Truckee High. We loved living, working and playing in the mountains and we stayed busy. My motto became work hard – play harder and this was the place to do it. We played lots of sports. I lettered in Football, Wrestling and Baseball. 1991 Nevada AA state football champions!

Can you tell us a little about your family, how you met your wife, kid's names?

I met my wife Jill in a hair salon in Truckee. So long ago I actually had hair. We were friends for a year or so before things got serious and we haven't been apart since. We have an 11-year-old son named Jonas and a 9 year old daughter named Ivy. They are

amazing and my rock. As we all know the business can be hard on the family life and we are lucky to have been together from the beginning. She put up with me not being home for basically 3 years while I went to school or worked 7 days a week.

Where did you go to school for turfgrass management?

I started a bit late in the industry and went to school at Merritt College while doing a construction and grow in project here in Oakland. While not known for their Turfgrass management program, their Horticulture program is solid and gave me a good foundation in soil and plant management.

Who was your earliest mentor in the industry and how did he inspire you?

I'd have to say Tim Powers at Crystal Springs in Hillsborough, CA. Tim

kicked me in the backside encouraging me to go to school. He sent me over to Metropolitan Golf Links in the fall of 2001 prior to grow-in to do all the erosion control stuff and supported me when I asked to leave so I could finish the project. You always knew right where you stood with Tim which I liked and respected. I've been fortunate enough to work with some amazing people. Gary Ingram at Metropolitan, Mike Kosak and Matt Dunmeyer at Sonoma Golf Club and Randy Gai at Claremont are all mentors and I learned so much from them.

How do you work with people to create a team?

I've always been a lead by example guy. Clear and open communication is key. I learned Spanish early on and that's helped for sure. I feel like my background in sports has helped and I've been a part of many teams both successful and unsuccessful. A successful team receives clear and consistent direction and has a solid understanding of why they are doing the things they do. I like to have fun at work and I love what I do. I think this rubs off on those around you.

What achievements are you most proud of?

I'm really proud of becoming the Director of Golf Course and Grounds at Claremont while helping to see my predecessor to his retirement after an amazing 35 + year career. I started here as the Assistant in 2009 and was promoted to Superintendent in 2011. The transition was smooth and I think all parties were more than satisfied with the way things worked out. Randy was able to retire at the end of 2013 and am most proud of helping to see him go out on his own terms.

What item or person could you not do without at your golf course?

Equipment Manager is without a doubt the key person. Unfortunately, my skills in the shop are pretty weak. I depend on Armando Ramirez here at Claremont a great deal and he's one of the best.

What is your favorite part of the job, least favorite?

I love seeing the sun come up every morning. That never gets old. I love bringing the family out to the course and spending time with them. It's a great game with many great people involved and anytime I can share that with them it's a good thing. As for least favorite I'd have to say the office work. I enjoy being out on the course working with the staff and talking with members.



Continued on page 17



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- Toro ProCore 648 Aeriater
- 2009 Fairway Mower 1200 hours
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Continued from page 14

At this point my responsibilities in the office take up most of my time.

Do you collect anything? Hub caps, license plates, signs...
I started collecting hickory era golf

What do you like to do away from work? If you have time to yourself what do you like to do?
Spending time with the family is best. We go to the mountains and snowboard a few times each winter. We love getting the kids in the car with their machines turned off. As soon



clubs a while back and get a kick out of playing golf with the hickories. I also collect old and obscure art, music and treasures from my favorite band.

What would you do if you won the lottery?
I'd take care of my parents and immediate family. Then we'd buy a house somewhere in the mountains where we could snowboard all winter and I could change cups at a local course in the summer.

Few people know I like to...
I'm really into music. I play drums. We try and get out to see live music anytime we can. The weirder the better.

as they say "we're bored" we feel like we've accomplished something. A good golf trip is always fun and I try to get out somewhere and spend a few days away from our area. Preferably with my dad or some other grass growers. As far as time to myself, its rare but when it happens, I'm usually home cleaning or cooking with the stereo turned up to 11. ■



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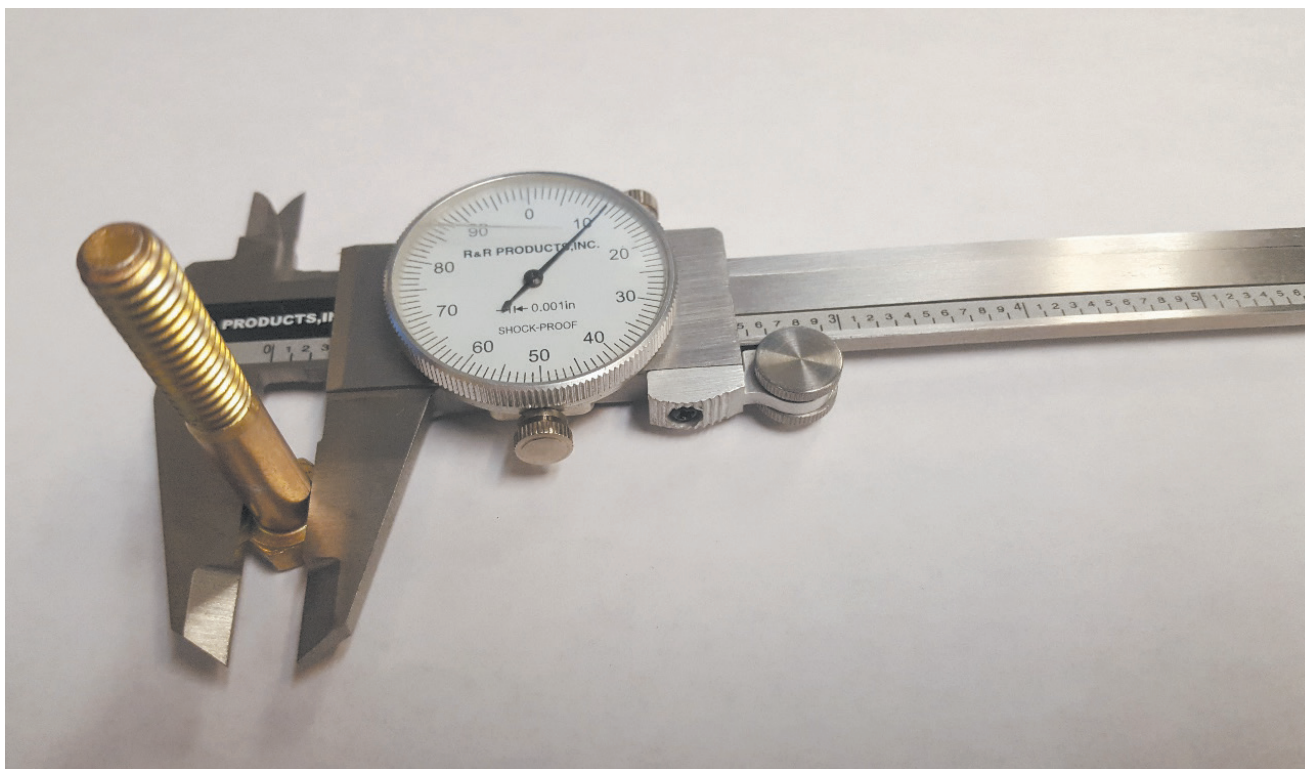
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Domestic or Import?

By Brian Duffy



I know what you're thinking, import or domestic, what is he talking about? Is it going to be an article about cars, beer or something else? Your right it is going to be about something else. We work with these every day in our shops and they are a little more exciting than plain old import or domestic cars and beer.

I am just going to dive into the nuts and bolts of this month's topic. This month I am talking about treaded fasteners, primarily nut and bolts. You ask, what does title, "Import and Domestic," have to do with nuts and bolts. Well it has a lot to do with nut and bolts. The nuts and bolts used to assemble turf equipment in general, will be either SAE (domestic) thread or Metric (import) thread and definitely not the same threads used to repair our clothes.

If you are like me, I always have an interest in the history of anything mechanical and how it originated and developed into what we see and use today. The origin of the modern nuts and

bolts can be found dating back to the seventh century BCE. The Assyrian King Sennacherib used wooden screws as a part of the water pumping system to provide water to the gardens of Babylon. By the first century BCE, wooden screws were commonly used in oil and wine presses. These screws had a permanent handle attached as part of the mechanism. The wooden screw and handles were turned together to crush the olives and grapes for the production of olive oil and wine.

Moving forward into the 1400s, metal screws and bolts began to be used in Europe. During the 18th century both British and the US used patented screw thread

cutting lathes. These lathes produced custom screws with square heads in limited quantity. There was no standard sizing at this time. The Square heads on the screws and bolts were easy to make and the wrenches to turn them did not need to be exacting in size. Square head bolts were rather cumbersome and required more room for them to turn. Some standardization began in the mid 1800s; at the same time hex head bolts were developed to allow bolts to be more compact. During the same era, steel was starting to be produced with an accurate thickness. This allowed for mass production of nuts that lead into the development of the humble hex-head bolts and nuts we know today.

In 1864 the standard USS thread was developed by Willian Sellers. The details for this standard were written by Sellers in a paper titled, "A System of Screw Thread and Nuts". The standard for metric threaded fasteners was developed in 1898 and soon was followed in 1906 by the SAE thread which is based on the USS standard, but with a finer thread pitch.

During World Wars I and II the use of different threads between the Allied Forces became a huge

obstacle in their war winning efforts. During the late 1940s, Britain, the USA and Canada agreed on a unified thread to be the standard for all of these countries. The quality of nuts and bolts continues to improve even today, as engines run hotter and produce more horsepower than ever before. These engines will demand bolts made from aluminum, magnesium, titanium.

Before getting into the different sizes and threads, I want to clarify the difference between a screw and bolt. A screw cuts its own threads as it is turned into material such as wood or mild steel. Bolts are turned into preformed threads that match the bolts' threads.

With so many different bolts how do we identify them? There are three main parts that, together, reveal the size of a bolt: the overall length not including the head of the bolt, bolt diameter and thread pitch.

Bolt length can be measured with ruler, tape measure or caliper. Bolt lengths vary but are in common increments such as 1/2, 3/4, 1 inch and so on. Metric lengths are measured in millimeters 10, 15, 25 and so on. One inch is almost equal to 25 millimeters.

Bolt diameter is the size of the threaded hole in which the bolt will fit. This is the measurement across the diameter of the bolt. This measurement can be found with a





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METRIC PRODUCTS					BRITISH INCH PRODUCTS				AMERICAN INCH PRODUCTS			
Size	Thread Pitch	Major Dia.	T.P.I.		Size	T.P.I.	Major Dia.		Size	T.P.I.	Major Dia.	
M1.6	0.35	1.60	0.063	73					0		0.060	
M2.0	0.40	2.00	0.079	64					1	64	0.073	
					8BA		59.1	0.087	2	56	0.086	
M2.5	0.45	2.50	0.098	56					3	48	0.099	
					6BA		47.9	0.110	4	40	0.112	
M3	0.50	3.00	0.118	51	1/8	40		0.125	5	40	0.125	
					5BA		43.0	0.126	6	32	0.138	
M4	0.70	4.00	0.157	36	4BA		38.5	0.142	8	32	0.164	
					3BA		34.8	0.161	10	24	0.190	
M5	0.80	5.00	0.197	32	2BA		31.4	0.185	12	24	0.216	
					3/16	24	32.0	0.187				
M6	1.00	6.00	0.236	25	1BA		28.2	0.209	1/4	20	0.250	
					0BA		25.4	0.236	5/16	18	0.313	
M8	1.25	8.00	0.315	20	1/4	20	26.0	0.250	3/8	16	0.375	
M10	1.50	10.00	0.394	17	5/16	18	22.0	0.313	7/16	14	0.438	
					3/8	16	20.0	0.375	1/2	12	0.500	
M12	1.75	12.00	0.472	14 1/2	7/16	14	18.0	0.438				
M14	2.00	14.00	0.551	12 1/2	1/2	12	16.0	0.500	5/8	11	0.625	
M16	2.00	16.00	0.630	12 1/2	5/8	11	14.0	0.625				

Thread Pitch Chart

Inch				Metric			
Grade	Head Marking	For Inch Diameters	Tensile Strength ¹ (PSI)	Property Class	Head Marking	For Metric Diameters	Tensile Strength (PSI) ²
2		1/4 - 3/4	74,000 PSI	5.6		M12 - M24	72,500 PSI
	No marking	7/8 - 1 1/2	60,000 PSI			M17 - M36	120,350 PSI
5		1/4 - 1	120,000 PSI	8.8		M17 - M36	120,350 PSI
		over 1 - 1 1/2	105,000 PSI			M6 - M36	150,800 PSI
8		1/4 - 1 1/2	150,000 PSI	10.9		M6 - M36	150,800 PSI

Bolt Grade Chart

caliper, bolt size gauge or even the open-end American or Metric wrench fits the diameter accordingly.

Thread pitch is the number of threads per inch or millimeter. This is most easily determined with thread pitch gauge that will measure American and metric threads. For American thread they

will be either fine or course thread. Metric gets tricky with a multitude of thread pitch measurement from 0.5, 0.7, 0.8, 1.0, 1.25, 1.50, 1.75, 2.0 thread. Thread pitch is the number of threads per inch or millimeter in length. For example, a 5/16-18 course thread bolt has 18 threads per inch, while a 5/16-24 is fine thread bolt with 24 threads per inch. Similar sized metric bolts

are 8mm x 1.25mm course thread or 8mm x 1.0mm fine thread. Metric thread pitch gauge is very handy when trying to determine metric thread pitch.

Another way to identify bolts are by the grade marks or numbers on the head of the bolts. SAE will have a blank bolt head for grade 2, three marks on the head for grade 5 and six marks for grade 8. Grades 5 and 8 are the most common. Metric will have a number designation on the bolt head such as 5.8, 8.8, 9.8 and 10.9, with 8.8 and 10.9 being the most common.

The grade mark is the tensile strength of a bolt. Tensile strength is the maximum amount of stress a bolt can endure from being stretched or pulled until it fails. Tensile strength determines the amount of tightening torque that can be applied to the bolt. Proper

bolt tightening torque is critical for components like a cylinder head or connecting rods and main bearing and even wheel lug nuts.

Use the included charts and picture as an aid in identifying the Domestic or Import bolts.

Happy wrenching and feel free to submit your comments, questions and ideas to Brian Duffy at mxk92@yahoo.com.

Brian Duffy's career spans thirty five plus years in the golf industry. With a diverse background of working on golf courses and turning wrenches on all types of equipment. Plus teaching Golf Course Equipment Mechanics and progressing into turf equipment sales and service. For any questions, comment or ideas contact me at mxk92@yahoo.com





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2280 hours! Great Unit!

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2015 TORO GM3500-D

1600 hours! Nice!

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TORO GM4300-D

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Nice Unit!

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CUTTER #	ITEM	REPLACES OEM #
11039	Engine Oil Filter	107-7817
11035	Air Filter Element	92-0530
12319	Air Cleaner Cartridge	92-0527
12320	Hydraulic Oil Filter	107-9531
12321	SERVICE KIT	\$31.95

TORO GM 3500-D (2008-2012)

CUTTER #	ITEM	REPLACES OEM #
10619	Engine Oil Filter	108-3841
10620	Engine Oil Filter Breather Element	98-9493
10622	Air Filter Element	108-3810
10624	Hydraulic Oil Filter Element	86-3010
10623	Diesel Fuel Filter Element	110-9049
12331	SERVICE KIT	\$44.95

JACOBSEN GREENSKING IV (GAS)

CUTTER #	ITEM	REPLACES OEM #
11039	Engine Oil Filter	5000440
11041	Hydraulic Oil Filter	558022
12026	Fuel Filter	5000436
12319	Air Filter	5000441
12328	SERVICE KIT	\$42.95

TORO RM 5210|5410|5510 (2008 and later)

CUTTER #	ITEM	REPLACES OEM #
10619	Engine Oil Filter	108-3841
10622	Air Filter Element	108-3810
10624	Hydraulic Oil Filter, Steering	86-3010
12005	Hydraulic Oil Filter, Reservoir	94-2621
10623	Diesel Fuel Filter Element	110-9049
12326	SERVICE KIT	\$77.95

TORO GM 4000-D|4100-D|4500-D|4700-D (2008-2012)

CUTTER #	ITEM	REPLACES OEM #
10625	Engine Oil Filter	104-5169
10627	Air Filter Element Inner	108-3816
12000	Air Filter Element Outer	108-3814
12004	Hydraulic Oil Filter at Pump	75-1310
12005	Hydraulic Oil Filter at Manifold	94-2621
10623	Diesel Fuel Filter Element	110-9049
12332	SERVICE KIT	\$148.95

JOHN DEERE 2500A (GAS)

CUTTER #	ITEM	REPLACES OEM #
11042	Engine Oil Filter	AM107423
11036	Pre-Air Filter	M76076
10635	Air Filter	MIU11376
10636	Fuel Filter	M111816
10637	Hydraulic Oil Filter Spin-On	LVU14258
12109	Hydraulic Filter	AM102723
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Making the Rounds – Part 2

By Jeff Shelley



.What golfers find atop the hill overlooking Plains GC in Montana. (photo by Jeff Shelley)

This column features the author's recollections of his 31 years as a golf writer. These installments stem from his travels and experiences, which led to a gradual understanding that the game has many intriguing components, especially its people.

When you do something so long it's odd how particular memories surface while others must be deliberately retrieved. Such is the case with this article, which recalls a few characters I encountered along the way. There are many other such folks, which may come to light in future installments. But, for some reason – a human version of random-access memory? – these are a few who recently came to the fore.

Don Cutler – A Man Ahead of his Time

The first course I visited while researching my book, "Golf Courses of the Pacific Northwest," was the sublime Elkhorn Valley in Lyons, Ore. In retrospect, I couldn't have picked a better place to start. There I met Don Cutler, who, unbeknownst to him, became one of my personal heroes.

Don set the tone – with a standard of excellence and certain Northwest outside-the-box mentality – for what might await me during my upcoming years of research. So, here's Don's story.

While on a fishing trip in the early 1960s, Salem natives Don, and his wife, Bonnie, discovered the 480 acres they ended up buying – in the Opal Creek Wilderness on the west side of the Cascades. After selling their large manufacturing company, the couple sought to convert the property into a resort with an 18-hole course and assorted guest amenities. Unfortunately, that attempt devolved into a costly 10-year battle with state agencies to receive approval. Sadly, or perhaps fortuitously, after expending millions of dollars while wading through regulatory

red tape, the Cutlers got approval for nine holes. That's all.

But, boy, are those holes special. They were recognized as such in the 1980s by Sports Illustrated, which ranked Elkhorn Valley as among America's top-five nine-hole courses.

Don's first and only course design stemmed from a desire (and decidedly not the government's) to protect native plants and animals, while preserving a personal tenet of "pure golf." All told, it took him 11 years to finish this 3,169-yard gem, in 1976. But the labor of love fulfilled Cutler's goals, as golfers still enjoy hawks soaring overhead as well as elk and deer foraging in nearby woodlands. Wildflowers, rhododendrons, native grasses, maples and conifers border fairways, while creeks, ponds and a lovely waterfall are on display.

Believing golfers should be in charge of their games, Cutler installed no yardage markers when the course debuted. It wasn't until his wife heard complaints that he acquiesced by adding birdhouses as 150-yard markers. Don was also way ahead of his time in other areas. In the mid-1970s, the standards were the use of tees designated for men and women. But Cutler created an alternative, which is quite common today. Before golfers reached the first tee, they encountered a large sign informing them to use tees that fit their handicaps, not their gender.

Don was given the go-ahead for a second nine holes 20 years after the first side opened. Unfortunately, he didn't see that come to fruition as

he succumbed to cancer in 1998, a few years before the addition was completed. Probably because he didn't oversee the new holes, the second side doesn't measure up to his original work.

Don Cutler still oversees his beloved Elkhorn Valley; he's buried behind the fourth green.

Jack Beaudoin – Not a Boring Man

While on my travels around the Pacific Northwest, I met many folks, the vast majority of whom were welcoming and very few who were not. An example of the latter came at the old Top O'Scott Golf Course on Portland's east side. When I walked into the pro shop and explained why I was there, the manager angrily pointed toward the door and told me to leave.

Miffed and a bit shocked as I'd been receiving overwhelming hospitality up to that point, I exited the pro shop, disregarded this blunt rebuff, went around the building and walked, took notes and photos of the rather ragged track – which now lies underneath a typical residential and commercial development. I later learned that the impolite cur had just been released from prison and suspected I might be a parole officer checking up on him.

More common were welcoming faces like Jack Beaudoin's. Beaudoin, a former pro hockey player who switched to golf, was about 5'6" and, my guess, a pesky stickman and real pain in the ass to opponents. After leaving hockey, Jack became the designer, developer, head pro and owner of Mountain View Golf

Course in Boring, Ore. When I arrived there, he greeted me as a long-lost friend, insisting that he personally take me on a tour. He proudly stepped into the photos I took of his course, named for its vistas of mounts Adams, Rainier and St. Helens in Washington and Hood in Oregon.

Jack, who passed away in 1997 at 59 after selling the course, told me he held the course record of 60. Beaudoin enthusiastically noted that the 12th hole, a 183-yard par-3, boasted the region's highest tee at 180 feet above the green. Jack took credit for a sign beside the 12th tee that read: "This hole may be hazardous to your health."

Rocking Out at Plains GC in Montana

My MO for travel itineraries was to call ahead and "warn" courses of my impending arrival. But in the late-'80s, many courses didn't have telephone, let alone the personnel to answer them. There were several times when I showed up at a so-called Podunk course sans land lines that I heard: "What are you doing here?" Once I explained that the title of my book incorporated all golf courses, people were pleased that I had made the effort to get there.

One of these quirky and remote, off-the-grid places without a land line was Plains Golf Course, named after its eponymous hometown in western Montana.

After pulling into a rutted parking lot, I walked up to the "pro shop" – a tiny red structure a bit bigger than an outhouse. I immediately – and incongruously – heard some very loud rock 'n roll. Finding the upper half of a Dutch door open, I leaned in and was blasted by "Highway to Hell" at full volume. The golf attendant/"DJ" was an old man snoring loudly as the strains of AC/DC rocked Big Sky Country pine trees.

The rocker's hair was thick and white. He was at least 80, an ideal age for overseeing Plains sleepy operation. Not wanting to interrupt his reverie, I started walking to the first hole – a straight uphill par-4 crossed above its green by massive and buzzing Bonneville Power Administration cables. Soon, I encountered another elderly gent astride a Massey-Ferguson tractor-mower older than its operator. Both were hopelessly stuck on the grassy slope, unable to move up, down or sideways. I had found Plains' maintenance staff.

I helped my new friend Jimmy the tractor free, and the driver – a retired Seattle firefighter – waved, smiled and then chugged on as I continued my appointed rounds.

Bunny Mason – A Renaissance Man

Gene C. "Bunny" Mason was a Pacific Northwest golf institution; his fans are legion. Like Cutler, a Salem native,

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$$a_n = \frac{v^2}{r}$$

$$F = \frac{Gm_1 m_2}{r^2}$$

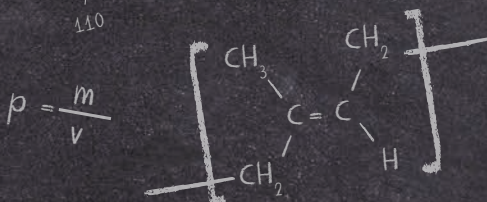
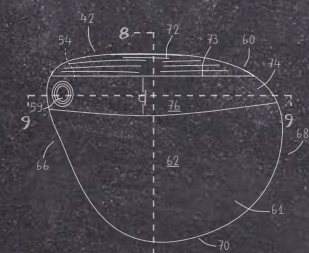
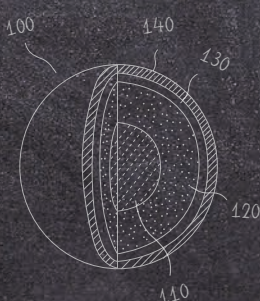
$$C_R = \frac{V_b}{U_d} \frac{V_d}{U_b}$$

V_d is the Final velocity of object A after impact

V_b is the Final velocity of object B after impact

U_d is the initial velocity of object A before impact

U_b is the initial velocity of object B before impact



$$p = \frac{m}{v}$$

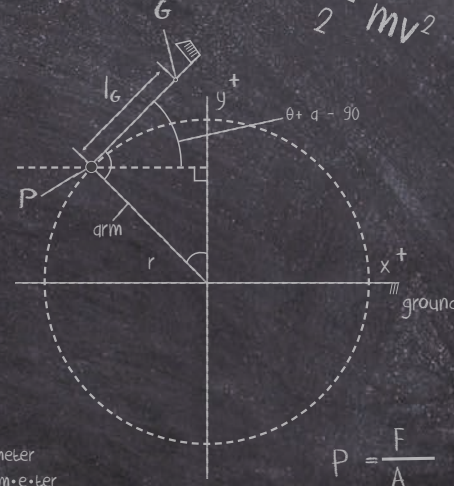
$$F = \frac{1}{T}$$

$$E = mc^2$$

$$W = mg$$

$$p = mv$$

$$T = \frac{1}{2} mv^2$$



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noun
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$$P = \frac{F}{A}$$

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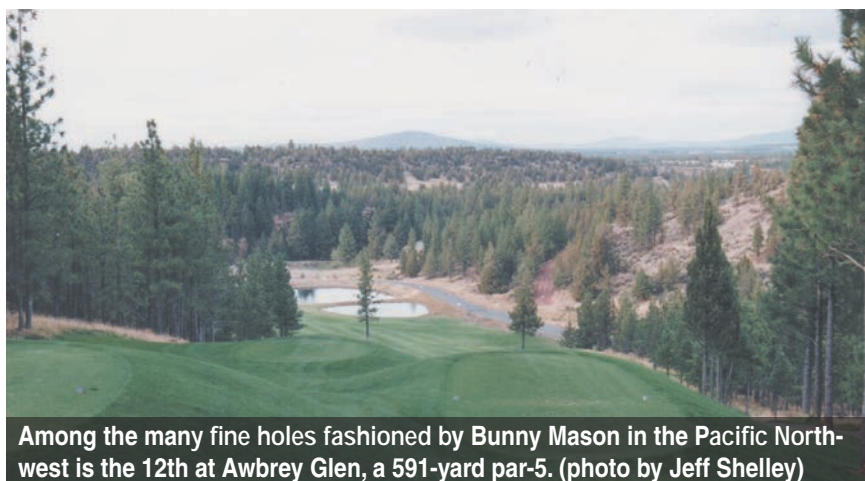
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Among the many fine holes fashioned by Bunny Mason in the Pacific Northwest is the 12th at Awbrey Glen, a 591-yard par-5. (photo by Jeff Shelley)

Bunny died in 2010 at age 81. He started his long career in golf as a high-school champion, moved into the club-pro ranks where he became an accomplished player and, later on, a Vice President of the PGA of America. Among his many accomplishments, Bunny started America's first destination golf academy at Black Butte Ranch in Central Oregon, and branched off into becoming one of the region's most prolific golf course architects.

For his stellar work at the regional and national levels (he founded the national PGA's Education Program and Business Schools and was the first recipient of the Horton Smith Award in 1966), Bunny was inducted into the Pacific Northwest Section of the PGA's Hall of Fame in 1981.

He was unforgettable to many. As a friend recalled at Bunny's life celebration: "One day while I was working for Bunny at Black Butte, an extremely self-assured customer came

in, threw money on the counter to pay for green fees and said, 'What's the course record?' Bunny quickly replied, 'Two hours and 25 minutes for 18 holes!' The customer, deflated, walked out shaking his head."

And this: "While answering phone calls in March for starting times in July, people would ask, 'What will the weather be like?' Bunny would reply, 'I guarantee we will have weather!'"

Bunny and I go back to my start as a golf writer. He appreciated my efforts, especially the three editions of my book. He understood what I had decided to tackle. While active in course design, he subscribed to my golf project-tracking reports, "Golf Report Northwest," "Golf Report West," and, later, www.golfconstructionnews.com when it went online and I covered golf development in all 50 U.S. states.

One day, out of the blue, I received an envelope from Bunny. It contained

a \$50 bill and a note that read: "Jeff, thanks for all your hard work." I called him up to say thanks. He answered in his stentorian voice that sounded like a foghorn on a ship navigating a fogged-in Columbia River, "Well, Jeff, you do good work."

Bunny designed over a dozen golf courses in the Pacific Northwest. A mutual friend, Dan Hixson, designer of Silvies Valley Ranch's acclaimed and reversible 18-hole course in eastern Oregon, had Mason as a mentor at Columbia Edgewater Country Club in Portland where Bunny was the director of golf and Dan the head pro. "Bunny never had formal drawings," Hixson told me in 2018 of Mason's approach to golf architecture. "He'd rough-draw 18 holes on a few pieces of paper in a couple of hours and then hand them to the builder. Baffled, I asked him, 'Bunny, don't you have a CAD system or plans that are a bit more detailed?' Bunny replied, 'Nope. I've done my job.'"

Somehow, his system worked. One of Bunny's designs was Skamania Lodge's 18-hole course overlooking the Columbia River on the Washington side. During construction, he hired a shaper who was very difficult to work with. Though talented, the shaper often failed to show up on the job, never answered the phone and acted like he was the boss. In other words, this guy was a real thorn in Bunny's side.

But Bunny got even. He later took a job redesigning a course not far from Skamania. After the owner of that project repeatedly stiffed Mason on his payments, the developer asked Bunny if he knew someone who could finish

construction. Bunny replied, "Sure, but pay me first." After he finally got paid, Mason gave him the shaper's phone number, saying, "You'll really like this guy."

In the early '90s as work was underway on Bunny's private Awbrey Glen Golf Club in Bend, Ore., Bunny took several hours leading me around the site as he eagerly explained the nuances of every hole. We made the tour in my wife's then-new, dark-green Ford Explorer. The property, like that found often in Central Oregon, was comprised of basalt – fine for golf turf but not for shiny new vehicles. After Bunny and I parted ways, I went to a local car wash and, following three thorough cleanings, managed to get most of that red grit off the rig's interior and exterior.

Despite my best efforts, there was still some of that stuff in the Explorer when we traded it in a decade later. Though not everyone mentioned above didn't leave such a tangible lasting impression like Bunny Mason, they were been forgotten. ■

Jeff Shelley has written and published nine books as well as numerous articles for print and online media over the past 30 years. The Seattle resident is the co-founder of the Northwest Golf Media Association and board president of First Green, an international, nonprofit program that provides environmental and STEM education outreach using golf courses as environmental learning labs. jeff@fairgreenspublishing.com

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A bold statement...perhaps. Let's start at the beginning and what led to this partnership between two highly qualified individuals and the development of these elite technologies...

Dr. Salam Awada Ph.D. founded AgSciTech in 2004. AgSciTech technologies are based on worldwide patents, patents pending and technologies utilizing advances in biological fermentation, metabolites, extracts and biological surfactants. AgSciTech is a technology leader on the use of biological surfactants in the fields of plant nutrition and stress resistance.

Brad Snavelly, after spending his early years in farming, transitioned to the turf industry over 20 years ago. After six years with Floratine, Brad left to join Grigg Brothers as their Western U.S Manufacturer Representative utilizing his ability to dissect and analyze soil & water data, formulate nutritional packages for various reasons and seasons and implement proprietary processes needed to create “Pro-Active” site-specific turf maintenance protocols.

In 2010, Brad started Sustainable Turf Science, Inc. and began working with Dr. Awada in 2011 to formulate turf specific products. The

two became business partners in 2014.

STS Turf utilizes proprietary enzymatic fragmentation processes or more simply put, “pre-digestion” for Plants. Picture a mother bird eating a worm and regurgitating it to feed her young chicks due to a simple digestive system. What we expect Mother nature to do in the field is what STS Turf scientists do at their state-of-the-art production facility. Breaking down carbon sources and nutrients into a form that is easily absorbed, digested and translocated within the plant, conserving energy while strengthening the plant and improving stress tolerance.

Dr. Awada brings over thirty years of experience in the fields of plant nutrition and biological fermentation. Bioreactors are used to grow beneficial yeast, bacteria

and fungi in order to harvest their metabolites, extracts, and byproducts, which are used in formulating turf specific products. Dr. Awada's newer patent pending technology uses biological surfactants to solubilize, complex and chelate minerals and nutrients essential for the growth and propagation of biology and plants. Dr. Awada holds worldwide patents on the use of these bio-surfactants.

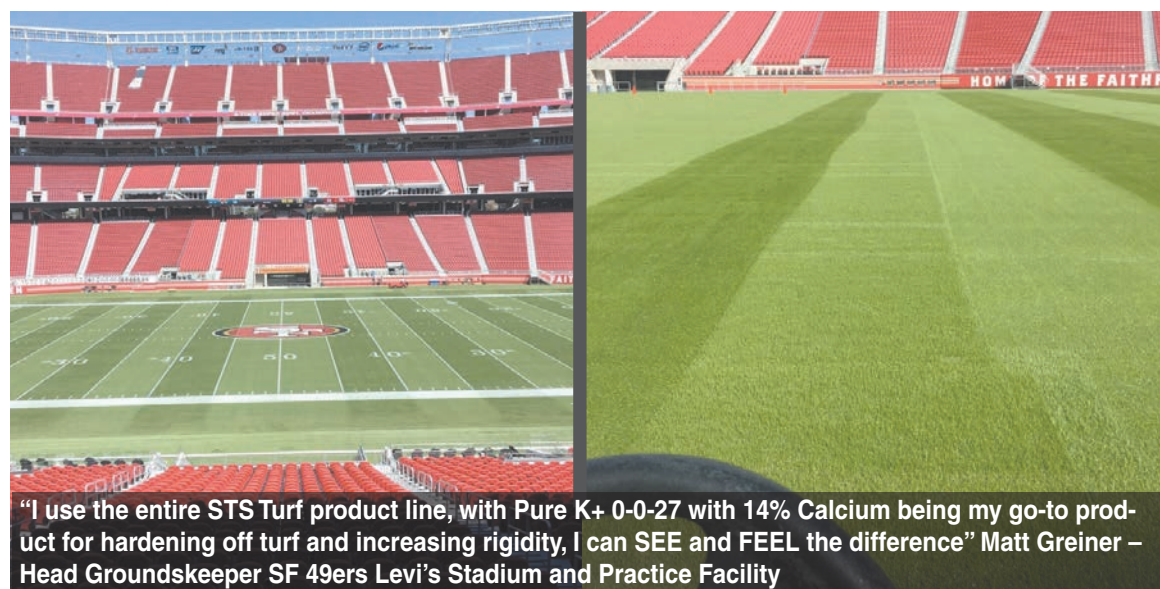
While most products are represented in the form of microns, STS Turf truly engages Nano-technology, defining the products in the form of “Daltons”. Plants, when foliar feeding, need nutrients and beneficial constituents provided at less than 600-700 Daltons to get through the plant cell structure effectively. Dr. Awada's proprietary technology delivers them at half that size!

The benefits of Dr. Awada's processes include fermentation extracts high in vitamins, enzymes, beneficial microbial metabolites, plant defense elicitors and protein pre-cursors. Dr. Awada has been credited with “unlocking” the glyphosate tie-up. Through independent research, their proprietary product “Solu-Plus” prevented the phosphate fraction of glyphosate from restricting the translocation of positive charged cations.

One of STS Turf's top selling products is Solu-Kelp, which is completely cold-processed and harvested away from the busy shipping channels in pristine, non-polluted cold water and digested over many weeks to release all the beneficial compounds yet maintain the integrity of those components that would otherwise be damaged by high heat.

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Healthy Ponds History

Since its conception, Healthy Ponds has strived to find natural solutions to enhance and clean pond water. Founded in 1995 as a research and development company, the Healthy Ponds team focused on creating safe and innovative ways to improve pond-water quality. After years of formulation, testing, and approvals, we introduced our first line of commercial products in 1999. Our products enjoy high success rates in treating ponds and larger bodies of water, which are ecologically balanced.

How do Healthy Pond Products Work?

Healthy Ponds products are all-natural, microbial-based pond cleaning and maintenance system that improves water clarity and quality while reducing odors. The Healthy ponds unique, patented 30-day time-release system delivers a proprietary blend of naturally occurring bacteria and enzymes that consume the excess nutrients in the water. The key to improved water quality and managing unwanted organic growth is being consistent and treating monthly. Healthy Ponds products are easy to use, safe, effective and all-natural.

Treating water is a process

First you need to determine the number of gallons being treated.

Length X Width X Depth X 7.5 = Total Gallons
This is very important when using our products to treat your water feature. Using the correct dosage is important because it is not possible to overtreat but it possible to undertreat and the desired results will not be achieved.



Our Healthy Ponds products are designed to work when the water temperature is above 45F and last for 30-days.

Healthy Ponds 3-Step Process

In order to achieve the best results Healthy Ponds suggests treating in a 3-step process. Our all-natural products are designed to work together, maximizing your results.

Step 1 – Dispenser: Our dispensers provide a 30-day time-release of all-natural beneficial bacteria and enzymes that consumes the excess nutrients in the water to keep it clean and clear of any unwanted green organic growth. We offer two types of dispensers, biodegradable and reloadable and are available in a wide range of sizes. These dispensers are simple to use, they come pre-loaded and you simply toss the sphere into the water.

AquaSpherePRO: We call our biodegradable sphere the AquaSpherePRO. It is made from a corn-based resin and other starches. It is available in eight different gallon sizes: 1,000; 12,500; 50,000; 250,000; 500,000; 1,000,000; 1,500,000 & 2,000,000. These spheres are marine degradable and last for 30 days.

Reloadable Dispenser: Our re-loadable dispensers come in 4 different sizes: 100; 250; 1,000; 2,500. These treat for 30 days also but then can be reloaded with refills.

Step 2 – Supplements: Our all-natural supplement products help improve the water clarity and quality by safely increasing the beneficial bacteria level in the water quickly, combating excess nutrients both at the top of the water column and bottom. In short, they help consumes the excess nutrients in the water and are a great complement, and designed, to work in conjunction with the AquaSpherePRO. We

have three different supplements; Natural Blast, Vista and Rush. The supplements are also very user friendly, but each work a little different in the water.

Natural Blast: comes in pre-measured water-soluble bags that are simply tossed into the water. Natural Blast works throughout the entire water column to treat common water problems that cause clarity, quality and severe odor issues. This all-natural product advances the decomposition of floating and suspended green organic matter and restores the health of your fountain, aquarium, or pond.

Vista: comes in pre-measured water-soluble bags that are also tossed into the water. Vista works for 7-10 days and targets organic material on the top layer of the pond.

Rush: improves water quality in stagnant ponds by eliminating heavily matted, floating organic matter on the surface of the pond. It enhances the nutrient-consumption activity of beneficial bacteria, accelerating the decomposition of floating organic matter. This product is spread directly on the organic matter and quickly and effectively reduces green organic matter in ponds.

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Tim Johnson is Director of Grounds at Spring Hill Golf Club, the first course to use Klingstone® in 1998. "All of our bunkers, fairway and green, have high flash faces on them per architectural design," he says. "The reason we sought out this type of product for our installation was because of the ease of installation and the permanent nature of the product. We did not want to be reconstructing our bunkers in five years because of liner problems." Johnson says, "There is virtually no maintenance to the bunker liner because Klingstone® is permanent. The Klingstone® is still holding up after almost 20 years. I don't know if I'll ever have to renovate our bunkers because of liner problems. Our bunker sand is still as clean as the day we put it in."

Klingstone® is applied with ease. Applicators pump the liquid resin directly from the drum to the bunker with a simple diaphragm pump and air compressor. It penetrates the bunker soil surface, reacts with moisture and cures to provide a firm, durable barrier.

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- Cement or concrete based products crack, break into chunks, and disintegrate from weather-related soil expansion and contraction. Klingstone® is a polymer, not a concrete. It is hard to a rap from the knuckles, but will yield slightly to a fingertip. So, Klingstone® moves with the soil rather than fighting it. Klingstone® has many satisfied customers in Michigan, Minnesota, Ontario, and other harsh environments.
- Klingstone® is the only bunker liner that seals off the bunker substrate, eliminating contamination of the sand and drainage systems. We know of no other system that protects the integrity of your drainage the way Klingstone does...that means faster running drains, faster drying of the sand, and faster to get them back in play.

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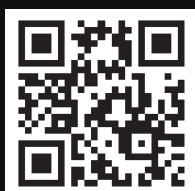
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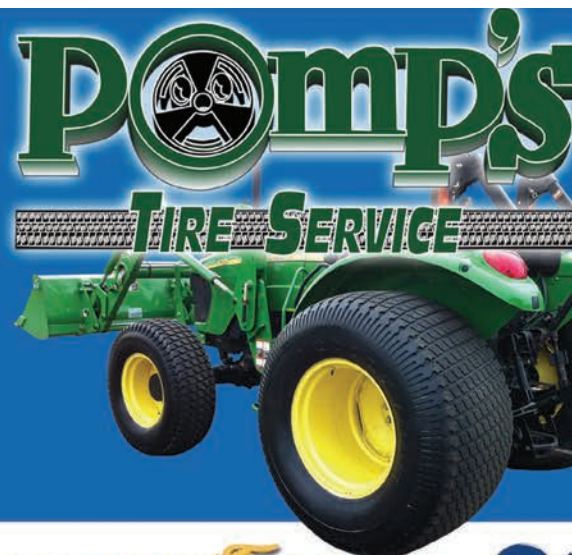


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