

# Month

## Hole Stats

Distance: 171 yards

Par 3

## The Turf

Green: A-1 Bentgrass

Fairway: Meyer Zoysiagrass

Since 1990, The Founders 18-hole championship course, designed by Robert Trent Jones, Jr., has consistently ranked among the best modern golf courses in the nation. But actions speak louder than awards for Chenal Country Club's private members and course crew who have taken joint responsibility for sustaining the healthy greens and fairways.

Two years ago, head superintendent Jed Spencer began hosting a Golf Course Open House, sponsored by the Greens Committee, to educate the club's members about the science, process and products that go into keeping turf in excellent playing shape. Spencer teaches members turf-care basics, including how to properly repair divots and ball marks.



He also touches upon plant pathology, explaining how problematic pest pressure may kill their golf scores — especially when a challenge like The Founders Hole No. 11 is already a bogey trap.

"No. 11 really signifies what The Founders course is about," Spencer said. "Its natural areas around the green are scenic while a demanding ridge and three bunkers speak to the discipline and precision required to sink the shot."

When a pythium outbreak hit The Founders Course's greens, Spencer turned to Insignia® fungicide for broad-spectrum control and curative knockdown. He incorporates Insignia in his rotation every 28 days during summer months at a rate of 0.9 ounces per 1,000 square feet.

"For the past two years, Insignia has been a great staple for us for new, emerging diseases and hard-to-diagnose pythium strands," Spencer said. "Insignia suppresses and cures nagging outbreaks, helping us keep all our bases covered."

*To see past Holes of the Month, download a desktop image and more, visit [www.betterturf.com](http://www.betterturf.com).*

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GOLFDOM'S HOLE OF THE MONTH IS MADE POSSIBLE BY:

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# Shades Of Green

■ OPINION

**A** funny thing happened on my way to my first colonoscopy at age 65. I learned there are some pills you can swallow instead of drinking that horrible stuff that has been used for decades. And the porcelain perch is still your best friend during the prep period.

My doctor is an avid golfer, and I noticed the guy ahead of me paying him off in golf balls, ProV1s no less. My last words to him before the anesthesia kicked in were, "Don't take any divots."

One small benign polyp later, I was off to eat real food with a reminder to return in three years. Have you 50-year-olds seen your gastro-enterologist yet? I was pushing the envelope waiting so long, but I'm here to tell you it wasn't as bad as I had imagined it would be.

One thing I haven't taken for granted — at least I don't think I have — is the wealth of information I have gathered along the road of life. Given my line of work, a lot of those roads have been cart paths on lush, green layouts, and last week I picked up a couple of tidbits I'm compelled to share, not because they were life changing, but because they were interesting.

Do you know proper gopher tortoise handling etiquette? Well, I learned that there are definitely a couple of basic rules to follow when picking up a gopher tortoise to show an excited group of school kids and their accompanying adults on a tour of your course. Understand that gopher tortoises are just as excited to see you as you are to see them. They are so excited in fact that they will lose bladder control and pee all over you if you are not careful. It might seem logical to hold them horizontally in their natural crawling orientation, but you will end up wet if you do. So when picking up a gopher tortoise to show your visitors, keep his head up, his tail down and your arms fully extended away from your body.

The gopher grab was being demonstrated by certified superintendent Tim Hiers at his

## Tales of Tortoises, Death and Jackasses

BY JOEL JACKSON



KNOWING THE  
DETAILS OF LIFE  
MAKE IT FAR MORE  
INTERESTING

Old Collier Golf Club in Naples, Fla., and he admitted he learned the technique the hard way.

We also spied a 3.5-inch-long baby tortoise with a yellowish shell compared to the familiar dull-gray shells of the adults. Hiers mentioned that crows are the chief predator of the soft-shelled youngsters. They pick them up and fly into a tree to peck them right out of their little leathery shells. But there's a happy ending: Hiers reported the tortoise population is up 70 percent since the course opened.

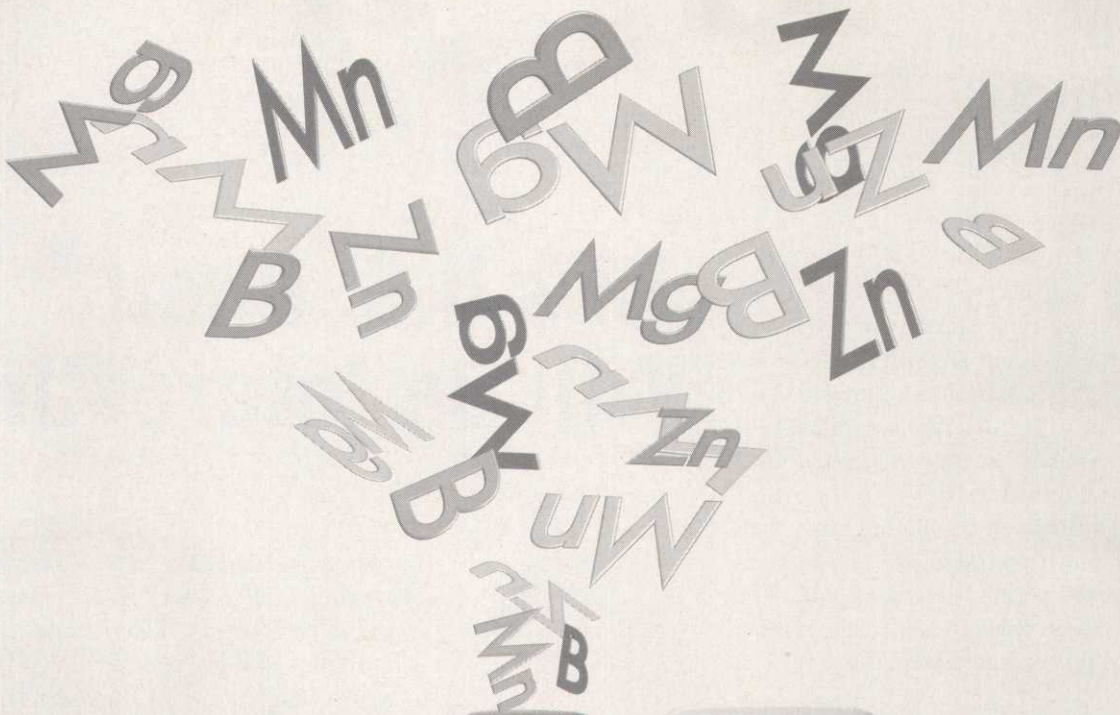
Another lesson learned recently revolved around coyotes, which have moved to Florida in significant numbers and might soon rival the human snowbird migrations. Now this little pearl of wisdom I'm about to reveal might not be news to the folks living west of the Mississippi, but it was news to this Easterner.

Don't ask me why our lunch conversation turned to the growing number of goat herds springing up in the state, but I guess there could be worse things. Eventually, the conversation progressed to talk about how coyotes were preying on the kids, the young goats, that is. Once again, Hiers, the walking encyclopedia of environmental trivia, said goat ranchers have learned to put a couple of donkeys in the goat herd because a donkey will flat out kill a coyote while the goats just panic.

You probably could have gone through life without needing to know about tortoise handling etiquette or donkey bodyguards, but after reading this column you can now file for GCSAA education points. I'm just not sure in which category.

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*Certified superintendent Joel Jackson is executive director of the Florida GCSA.*



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# Designs on Golf

■ ARCHITECTURE

**T**his month's U.S. Open at Torrey Pines should mark the beginning of a precedent-setting era in our national championship's history. We might just be in store for a sound, interesting examination of skill with a hip, new twist.

Though the U.S. Open often transmogrifies into an absurd display of defensiveness where the world's best players plod along and rarely see an opening to play aggressively, some have argued that it doesn't have to be that way.

Sure, difficulty is the defining characteristic of the U.S. Open, but the cost to maintain those traditions in the face of major equipment changes has been too great for not only the championship, but for every golf course superintendent required to reproduce such silliness for the club championship.

Now that Mike Davis has taken over as the U.S. Open's setup man, the United States Golf Association once again has a good player in charge. Davis is a single-digit handicapper, and like the last good player who set up Open courses — current Champions Tour player David Eger — he has no desire to humiliate the best players in the world.

That does not mean Davis is going to allow the U.S. Open to deviate from its place as the most mentally taxing event in golf. He vows to maintain a "test" with a fun new twist that will be talked about at Torrey Pines. Davis wants to cleverly pose questions to players via course setup tactics.

What Davis and the USGA championship committee have in mind is both revolutionary and yet totally unoriginal. The question is: Will players and fans get it or see it as USGA trickery?

The blue coats want to mix up tee locations and strategy, especially for weekend play. They want to vary par-3 yardages, move tees around and, in general, make players think on their feet. They are going to do less handholding in the way of announcing which days holes will play a certain way.

## *This U.S. Open Will Be Interesting*

BY GEOFF SHACKELFORD



THE USGA SETUP

WILL FORCE

PLAYERS TO THINK

WHILE ON THE TEES

Players will actually step on a tee and have to plan their attack under pressure instead of deciding the night before.

Anyone who has played a links knows that the toughest golf in the world is facing the same hole over four days in vastly different conditions. But most American golf courses are too soft, too windless or too inflexible to pose much in the way of day-to-day variety. So at a place like Torrey Pines, the only way to have players hitting a 3 iron one day to a simple hole location and an 8 iron the next day to a tucked pin is to vary the setup.

Any good player will tell you this kind of day-to-day variety is far more testing than merely trying to hit the ball to a narrow fairway or a firm green. Give the player a road map to the hole and he can play worry-free. That's boring to watch and boring to play.

But throw him a curveball that he wasn't expecting, and suddenly we learn who is the supreme player — the one who can think on his feet.

This approach hopefully will trickle down to everyday golf. Nudge your best players to notice how the USGA made the flatbellies earn their pay by asking the boys to think a little bit more. Point out that it wasn't just the super-high rough or excessive length that provided a test.

If they say it's trickery — as players reared on thought-free golf are prone to do — remind them that the players had three practice rounds to scout out all of the possibilities.

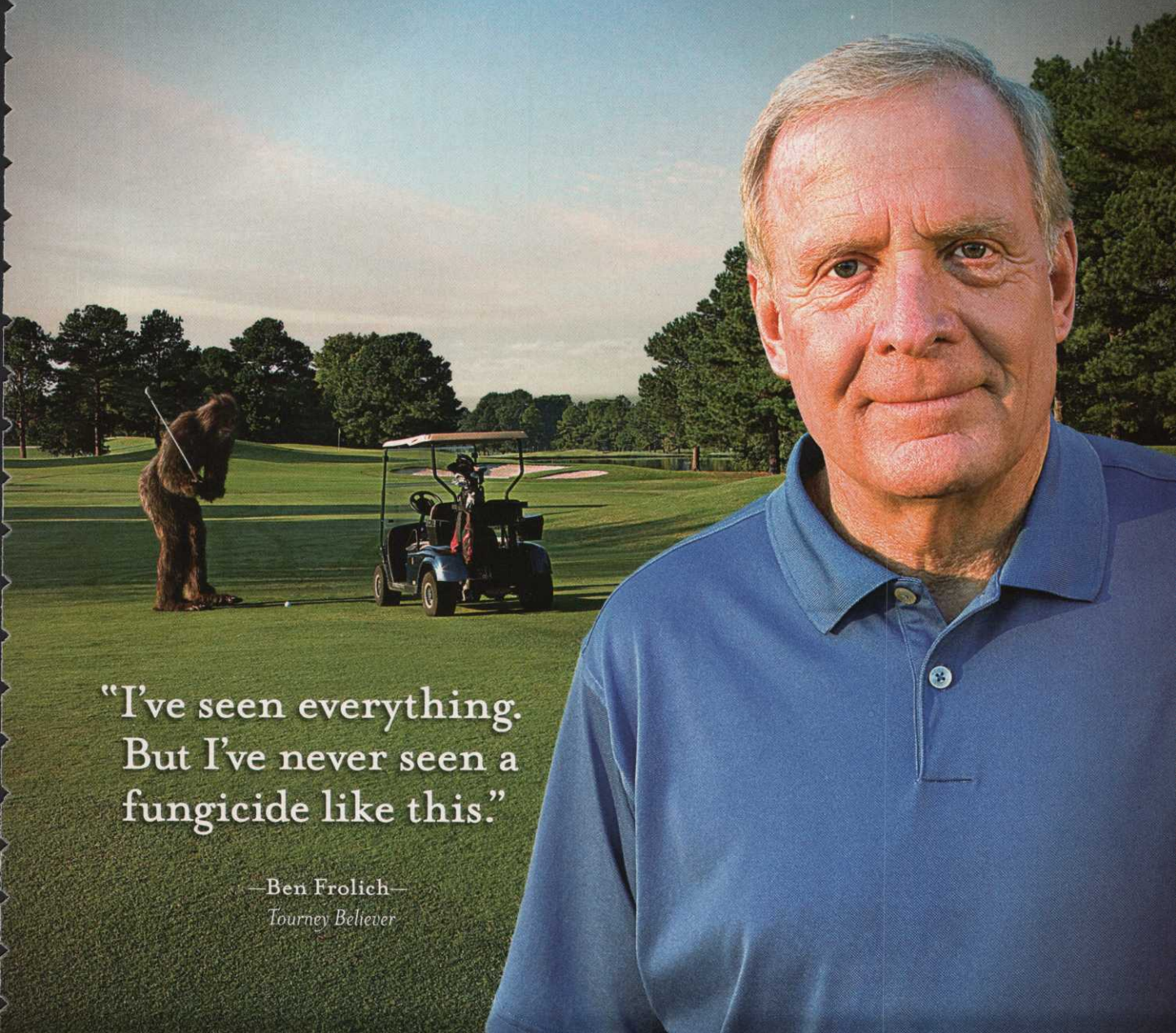
Is that so difficult?

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**S**unlight is ubiquitous in our everyday lives. Like many things that are repetitive, we take it for granted, unless we're trying to plan a vacation or are hoping for a big golf weekend.

In nature, the repetitive quality of sunlight is what sustains life. Plants capture light and convert it into a usable form through the process of photosynthesis. In ecology, light is a resource, like water or nutrients that can occur at excessive or deficient levels that limit the ability of plants to achieve optimal photosynthesis.

At excessive levels, or at light saturation, the photosynthetic rate doesn't increase. At low levels, the plant is not receiving enough light to achieve a desired level of growth and development.

Radiant energy, which includes gamma rays, X-rays, ultraviolet light, visible light, infrared light, microwaves and radio waves, travels from the sun to Earth in elementary particles called photons. The discrete packets of energy contained in a photon are called quanta.

Plant pigments (chlorophyll) absorb the packets of energy within the light spectrum (400 nanometers to 700 nanometers). This photosynthetically active radiation is expressed on a quantum basis —  $\text{mol m}^{-2} \text{s}^{-1}$  (moles per meter squared per second) or  $\mu\text{mol m}^{-2} \text{s}^{-1}$  (micromoles per meter squared per second). How we express this radiation is called Photosynthetic Photon Flux Density (PPFD).

Now, why would I go through this arduous explanation of PPFD and subject you to old classroom memories? For two reasons, the first of which is to re-emphasize that this energy is a resource the plant needs and might get it at levels that are too low or too high. The second — in the ongoing fight between creeping bentgrass and annual bluegrass in golf course turf — light influences the outcome.

The photosynthetic saturation points differ between warm- and cool-season turfgrass. At sea level, photosynthetic light intensities can reach 1,800 to 2,300  $\mu\text{mol m}^{-2} \text{s}^{-1}$  on a cloudless day (Fry and Huang, 2004). For cool-season turfgrass, the saturation point ranges from 534 to 1,072  $\mu\text{mol m}^{-2} \text{s}^{-1}$  and ranges from 1,794 to 2,139  $\mu\text{mol m}^{-2} \text{s}^{-1}$  for warm-season turfgrass.

## With Light as the Deciding Factor

BY KARL DANNEBERGER



IN THE ONGOING  
FIGHT BETWEEN  
BENTGRASS AND  
ANNUAL BLUEGRASS,  
THE SUN INFLUENCES  
THE OUTCOME

The saturation point is determined by PPFD and plotted against the carbon dioxide exchange rate (CER). For creeping bentgrass and annual bluegrass, the saturation point is close to 1,000  $\mu\text{mol m}^{-2} \text{s}^{-1}$  (Gaussoin, et al., 1988). Given factors such as temperature, photoperiod and variable cloudiness will effect CER. On average, annual bluegrass has a 25 percent higher assimilation rate than creeping bentgrass (Gaussoin, et al., 1988).

In shaded environments, the ability of a turfgrass plant to survive at low light levels is based on two measurements called light compensation point and carbon dioxide compensation point. Although measured slightly different, the compensation point in both instances is where photosynthesis (capture of energy) equals respiration (energy use).

In nature, plants that adapt to sunny environments have four to 10 times higher compensation points than shady plants. This is because of the extremely low respiration rates of shady plants under low light conditions. When comparing the carbon dioxide compensation point between creeping bentgrass and annual bluegrass compensation points, specifically the carbon dioxide compensation point, annual bluegrass was 12 percent lower (Gaussoin et al., 1988).

So where are we in this discussion? Based on light, annual bluegrass is 12 percent to 25 percent more competitive than creeping bentgrass under average/ideal temperatures and/or shaded environments. Thus, this contributes to the competitive advantage that annual bluegrass has on golf courses in the cool-temperate regions, and in areas where shade tends to predominate in turf.

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*Karl Danneberger, Ph.D., Golfdom's science editor and a turfgrass professor from The Ohio State University, can be reached at danneberger.1@osu.edu.*

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# Municipal Mae

Mark Woodward rescues Torrey Pines from neglect to showcase a public treasure in his swan song **STORY AND PHOTOGRAPHS BY DAVID FRABOTTA, SENIOR EDITOR**

**G**olfers flock to Torrey Pines like St. Andrews and Pebble Beach. But few are as passionate about the San Diego jewel as its residents, who protect their cherished municipal with fervor generally reserved for religion. No one knows that better than certified superintendent Mark Woodward, the director of golf operations for the city of San Diego, which operates three golf facilities.

When he suggested the city should raise user fees at the community treasure, an avid golfer told him: "If I had a gun, I'd shoot you right now." And his wife was told via e-mail that the community was going to run them out of town.

But Woodward didn't flinch. "I never took it personally. They

were just trying to protect their access to their golf course," he says. "People who come here have a certain reverence about it. You just know it's special. When you stand on the clubhouse deck and look out over the ocean, it's almost a spiritual experience."

It might not have been the warmest welcome, but Woodward understood. Where else outside of Bethpage State Park can golfers start filling the parking lot at 3 a.m. to capture the coveted few tee times between 6 a.m. and 7:30 that are reserved for walk-ons?

As a lifelong municipal golf course operator, Woodward was strangely delighted in the fact that local golfers were so passionate about his new domain, and he would need the community's support to accomplish all that was needed for the 108th U.S. Open, set for June 9 through June 15 on the South Course at Torrey Pines.



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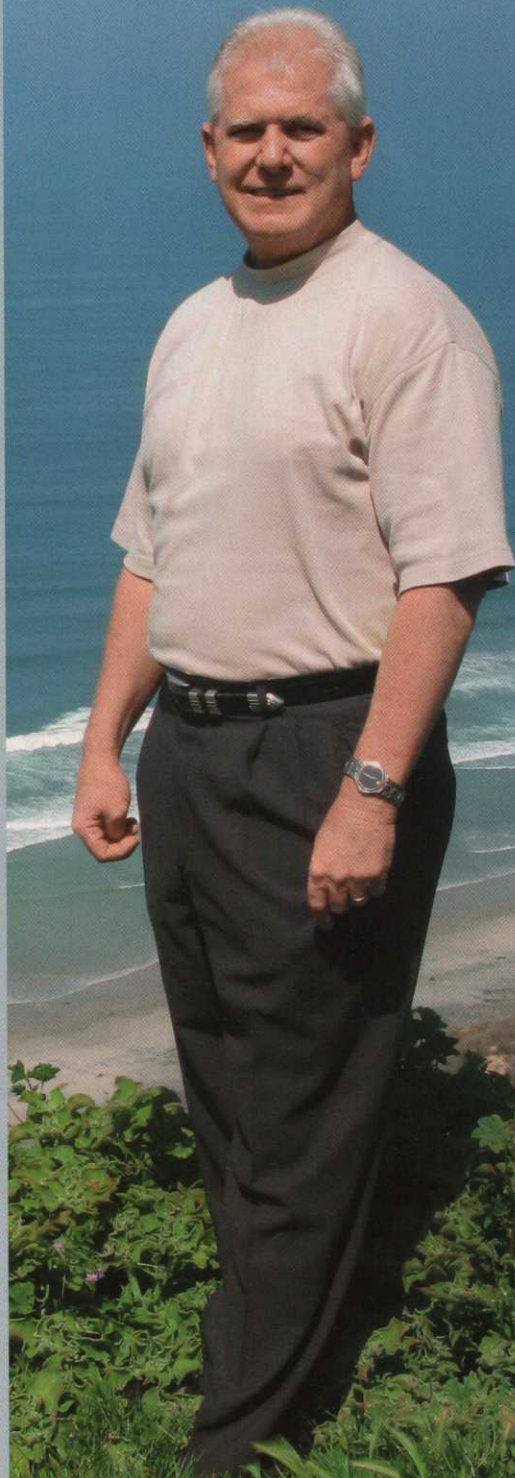
The Open will be his swan song. Beginning July 1, Woodward will become the first superintendent to lead the Golf Course Superintendents Association of America as its CEO.

## Community concern


The area's animosity toward Woodward began when he proposed a five-year business plan, which involved raising some fees throughout the system and staggering major renovations, first at Torrey Pines to prepare for the Open, and then on to the historic Balboa Park complex and rundown Mission Bay facility, the city's other facilities.

Balboa Park Golf Course, a William P. Bell design like Torrey Pines, was losing almost \$1 million a year when Woodward

*Continued on page 32*



Among the aesthetic improvements at Torrey Pines, Mark Woodward embarked on a tree maintenance program so golfers can see the Pacific Ocean from every hole on the golf course.



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