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CONVERGENCE

The crowdsourcers at Wikipedia tell us that “convergence” is the “the tendency for different technological systems to evolve toward performing similar tasks (whereby) previously separate technologies such as voice, data, productivity applications and video that now share resources and interact with each other synergistically.”

In simpler terms, convergence is that stupid thing you carry around that lets you talk, text, email, search, watch, navigate, locate and otherwise interact with about 3 billion other wired humans around the planet.

We here at GCI's global science lab are always trying to stay one step ahead of the technology convergence wave. We've been online forever. We've been digital and mobile for years without (hopefully) losing track of the fact that nearly all of you still demand the paper edition. And we continue to be the only publication in the industry (and one of the few business magazines nationwide) to offer a native app version of our publication that truly is where convergence happens.

The app has been a remarkable tool for many readers not just because it's cool. It is most definitely cool but it's also very useful. For one thing, it's completely portable. Once you've downloaded the issue, you can read it anyplace at any time on your iPhone or iPad. Many folks tell me they appreciate being able to read the issue on a plane or anywhere else without a connection.

The app also allows us to embed enhancements into the stories you get in the print edition. Videos, Superintendent Ra-

dio Network podcasts, downloads, bonus pictures, animations and, of course, links back to our site and others allow you to explore a topic completely without ever leaving the edition.

Now, we're taking that to a new level by offering special content you can ONLY find in the GCI app. We're starting with this month's edition (which should be available about mid-month) and I'm pleased to announce that our very first app exclusive will be ground-breaking instructional video created by our friends at Turf Republic that shows you how to create your own videos using the tools you already have or even a GoPro camera.

If you haven't seen what some of your colleagues are doing with GoPros, make sure to check out the GCI video library on our site or visit Turf Republic. The bottom line is that they are

remarkable tools that allow you to tell your story from any point of view. You can mount them on a mower or aerifier, attach them to a tripod for time-lapse shots or even fly one around in a robotic drone if you're really looking to have some fun.

Wait! You don't have a GoPro yet? That's so sad. Here's a crazy idea... maybe you could get one for free! How? Just download the April app edition of GCI, find the exclusive Turf Republic video we've embedded in it and register to win your very own GoPro. That's the grand prize. We also have some slick GCI-logo gear for five more lucky entrants.

Yup... not only is the GCI app the best way to get the most out of the magazine... it also has a prize inside! It's like a digital box of Cracker Jacks. Enjoy the treat! GCI



Pat Jones
Editorial director and publisher

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The Richly Colored Night

How a new adjuvant is shining a light on course maintenance.

By William Olmstead

In 2011, GCI's Bruce Williams wrote about the benefits of alternative scheduling for course maintenance and the resourcefulness of some forward-thinking superintendents. The principle behind this nighttime grounds-work is simple: superintendents maximize their operational efficiency while minimizing crew interference with players on the course.

"The number of days and hours in which one can golf are limited," said Williams. "People pay a lot of money to either play public golf or belong to private clubs. They have an expectation that they can go out and play without being interrupted."

The daylight hours in which superintendents and their crews can accomplish their maintenance goals are also limited. Being natural problem solvers, industry professionals turned to the night for a solution.

Working under cover of darkness presents some obvious difficulties, from employee safety to low visibility. While equipment lamp mounts and light banks provide some relief, they are often not enough. Mowing fairways and roughs in the dark, for example, is extraordinarily problematic. Floratine Products Group recently released an adjuvant that seeks to solve this dilemma. The new product, called Night-Ops, is revolutionizing the way that superintendents will look at low-light maintenance work. I spoke with Kevin Cavanaugh, executive president at Floratine, about the new release and how superintendents are responding.



How exactly does Night Ops work?

"Night-Ops is a patent-pending, non-toxic adjuvant designed to be safely applied to turf. It has the unique ability to phosphoresce so that when activated with black light it becomes visible to the eye. Under regular daylight conditions or without the use of a black light, it cannot be seen by the naked eye. It works great as an adjuvant in a tank mix. At night, the applicator can work under black light and dial in spray patterns easier than in daytime operations. It literally looks like a million tiny points of light.

How have superintendents responded

to the Night Ops?

There was quite a bit of discussion about it at the GIS in Orlando. Some superintendents were initially adverse to the idea saying things like, "I don't need to work anymore than I already do!" However, a lot of superintendents like the idea of using Night-Ops in their spray mixes to be able to track where their sprays (herbicide, pesticide, fungicide or nutritional) actually went down. Remember, the adjuvant doesn't always have to be used at night. As an example, it can be mixed into a pre-emerge herbicide spray and applied during the day, if desired, and the superintendent (or his assistant) can come back to

the course in the evening and see exactly where that spray application went down and map where the sprayer may have missed and target that area for corrective measures sooner rather than seeing a flush of weeds later. Of course, if used at night it can be seen immediately by the spray applicator and a very tight spray pattern can be had.

Are there specific turf types that respond best to this product?

No, all turf types work very well with Night-Ops. If it can be sprayed, Night-Ops will show up under the black-light and will be invisible all other times without the lights. The

adjuvant will last as long as it remains on the leaf. Dew, irrigation or rain will wash it from the leaf and render it inactive.

Are there any limitations to who can use this product?

No, anyone can utilize Night-Ops. It's safe, easy, effective... and we think it's pretty cool.

William Olmstead is GCI's assistant editor.

CHECK IT OUT ONLINE

+ For the full version of the Q&A with Kevin Cavanaugh, executive president at Floratine, check out the app version of Whiteboard, or check out the digital edition of this story at golfcourseindustry.com

From THE FEED



Across the pond, many superintendents are banning golf shoes that are ruining their courses and putting greens. In the U.S., many turf managers are beginning to do the same, looking to protect the turf that they work so hard to maintain. Check out what industry professionals had to say about Adidas' adizero Tour, the shoe that has caused the most damage.



Alex Nicholls @Golfcornerstone
Brocket Hall Golf Club ban adidas Adizero golf shoes as they allegedly cause 'damage to greens'



Brocket Hall @BrocketHall
So far no arguments against our decision to ban Adidas Adizero Tour golf shoes as they damage turf. What are your thoughts?



Caledonian Golf Tours
@CaledonianGolf
@ClearSwing @BrocketHall I love @adidasGolf shoes and I agree that some have overreacted. Possibly an issue with greens drainage?



Darren Gough @clearswing
@Caledoniangolf @BrocketHall
@adidasGolf — too many courses including Tour venues banned them — so not a drainage problem



Luke Geoghegan @Lukegeoghegan
@ClearSwing @CaledonianGolf nothing to do with drainage, they make deep indentations on compact greens like ours. Hence the ban.



Darren Gough @clearswing
@CaledonianGolf @Lukegeoghegan — it's the accentuated spike mounts which are the problem unfortunately.



Join the conversation
on Twitter @GCIMagazine!



One step forward, two steps back

Earlier this year, GCI began to receive an enormous amount of feedback from superintendents across the country about new golf shoes that were ruining their putting greens. The new spikes, which boast improved traction and performance for players, dig too deeply into the turf that superintendents work so hard to maintain. In order to find out more we reached out to Dr. Thomas A. Nikolai of Michigan State University and Josh Lewis, chief superintendent at Chambers Bay in University Place, Wash. The results are troubling for superintendents, proving that shoe manufacturers need to start rethinking their research and development strategies.

“We better start speaking up as turf managers now, because this is an obvious trend in shoes. We need to be heard.”

—Josh Lewis, Chambers Bay

Treatment	Traffic Ratings Oct. 30, 2013
Nike TW '14	3.4 b
Nike Lunar Control	3.6 b
Adizero Tour	4.3 a
Test 13-144	2.5 c
Ecco Biom	4.2 a
FJ M:Project	2.6 c
FJ DryJoy Tour	2.7 c
Untreated	1.0 d
Probability	0.00



Jeffrey D. Brauer is a veteran golf course architect responsible for more than 50 new courses and more than 100 renovations. A member and past president of the American Society of Golf Course Architects, he is president of Jeffrey D. Brauer/GolfScapes in Arlington, Texas. Reach him at jeff@jeffreymbrauer.com.

GOLF IN CHINA

In some ways, China's golf's evolution is like stepping into a time machine.

I have been fortunate to secure design commissions in China this year. Given the lull in new course design in the US, it is fun to travel and design new courses there. Since it's on my mind, it seems reasonable to take a break from writing about down to earth, practical matters I usually tackle in this space, and look at golf as it develops in China.

There are similarities to golf in the U.S. now, and to golf as it developed in the U.S. about 120 years ago.

In both cases, the rich found golf to be a pleasant diversion, and are enthusiastic participants. In both cases, most of the early courses are private. Semi-private and public courses are slowly starting to appear, but are small in number. And given it is generally a sport of the wealthy, they want what they perceive to be "the best" and generally can afford it.

It strikes me that whereas golf (and golf architecture) in America got its start from Scottish golf pros, who adapted the ancient game to American conditions. Not much was known about agriculture and turf in those days, but the Chinese have fewer problems, since they have imported more than a 100 years of US golf technology in design, irrigation, construction and turf science. Golf in China is definitely modeled after the modern U.S. golf industry, and some would say they have imported both the best and worst of American golf.

There are some spectacular successes. They mostly use U.S. architects, including those at the top of their game, like Bill Coore, ASGCA and Ben Crenshaw. On a spectacular ocean-front site at Shankqin Bay, on Hainan Island, they designed a course that deserves early inclusion in sev-

eral World Top 100 lists.

Of course, not every site can be spectacular, ocean front land. Like Japan, it seems they reserve the gently rolling land for agriculture, meaning many courses are built on mountainous sites we would not consider building in the U.S. On my last trip, I ascended (and descended) almost 900 vertical feet one day – equaling walking to the top of a skyscraper. Typically, they move 1–2 million cubic meters of earth, at least five times more than typical on U.S. courses. Chinese practice areas also more closely resemble those from Japan,

“Of course, not every site can be spectacular, ocean front land. Like Japan, it seems they reserve the gently rolling land for agriculture, meaning many courses are built on mountainous sites we would not consider building in the U.S.”

with their AstroTurf practice tee mats and covered double-deck structures.

They also build courses to promote real estate. With their typical high-rise housing, some courses are true “condo canyons.” Early development courses were far too tight, but golf acreage is increasing. Recently, landing zones have been made wider (450 feet, when 400 feet is the most I've seen in the U.S.). They have also embraced some of the newer housing trends, as enlightened developers realize that single fairways, loaded with towers on each side may not create the maximum value. Double fairway corridors are more common to give a better green belt effect.

Environmentalism is highly valued,

whether cleansing runoff with ponds, or using electric vehicles to reduce the carbon footprint.

It appears they are following U.S. design trends from the 1990-2007 period, when designs were based on the tournament length/quality, cart golf, signature holes, one-upmanship and potential rankings and publicity. Water hazards and heavy bunkering are prevalent, making many courses too tough for average players, especially where a larger percentage are new golfers. However, they seem to like such difficulty, and there is talk of courses being “too easy,” which we

have moved away from in the US.

Based on wear patterns, it seems most golfers play from the blue tees no matter what the course yardage is. “Tee it Forward” hasn't caught on in China. Speaking of wear patterns, while carts are the norm, each player gets his own cart and a caddie who rides with them. As turf expert Kun Li told me, “Greens and tees are oversized compared to the U.S., because 20,000 rounds equals 40,000 rounds of traffic on a US course.”

The clubhouses are also typically oversized, providing excellent amenities and service levels, because they say the “culture” demands it.

(BRAUER continues on page 64)



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