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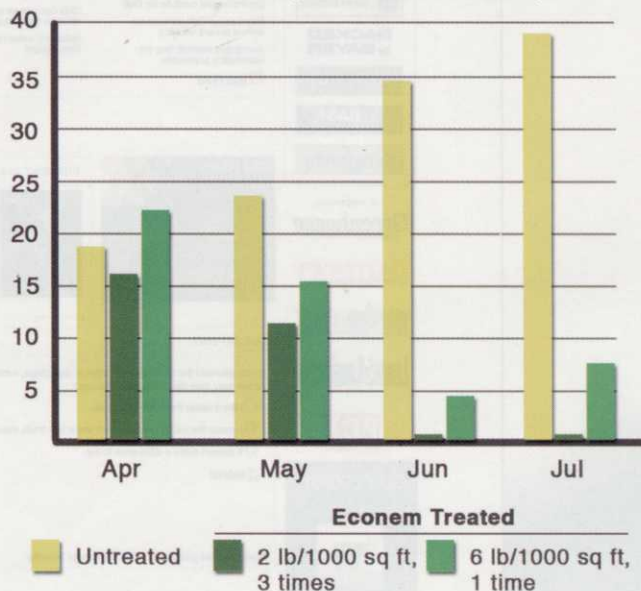
Field trials prove Econem has the power to effectively control sting nematodes. While reducing nematodes, Econem **improves turf density** and **stimulates new root development** resulting in **green productive turf**.

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2009 Field Trial, Palm Beach Gardens, FL



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New and improved

The newly redesigned golfcourseindustry.com provides news, resources and an interactive experience.

The editors of Golf Course Industry are pleased to present the newest stage in the ongoing evolution of golfcourseindustry.com. The site has a fresh new look, more multimedia and easier-to-access resources than ever before. GCI hopes online users will take advantage of the current enhancements and work with us to continue to improve the site to work better for you by letting us know what you think. Send your raves, rants and/or what you'd like to see in the future to gci@gie.net.



1

THE NEWS YOU NEED – At the core of golfcourseindustry.com remains our news section with daily headline and supplier news updates.

2

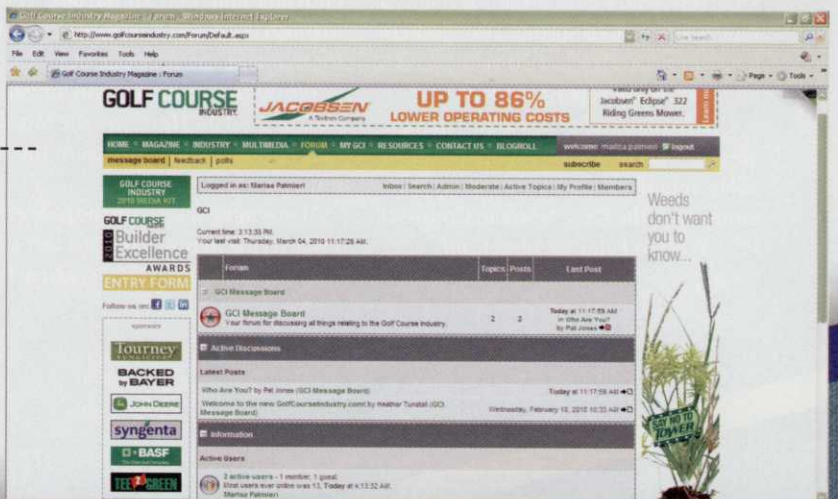
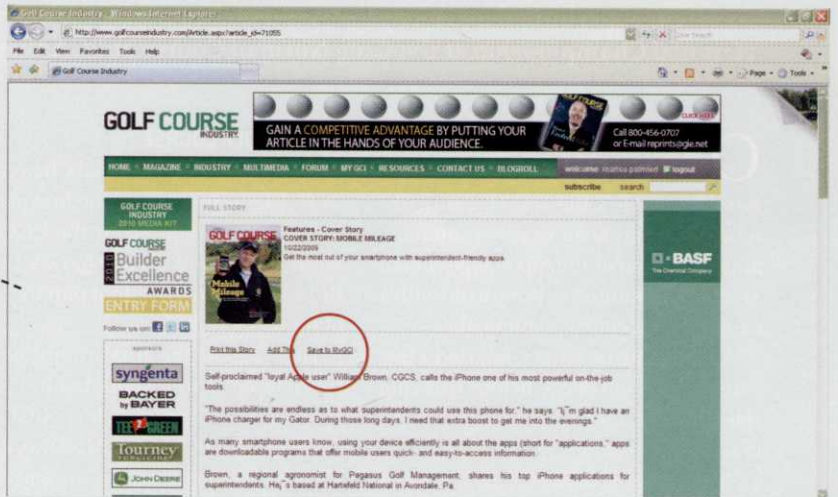
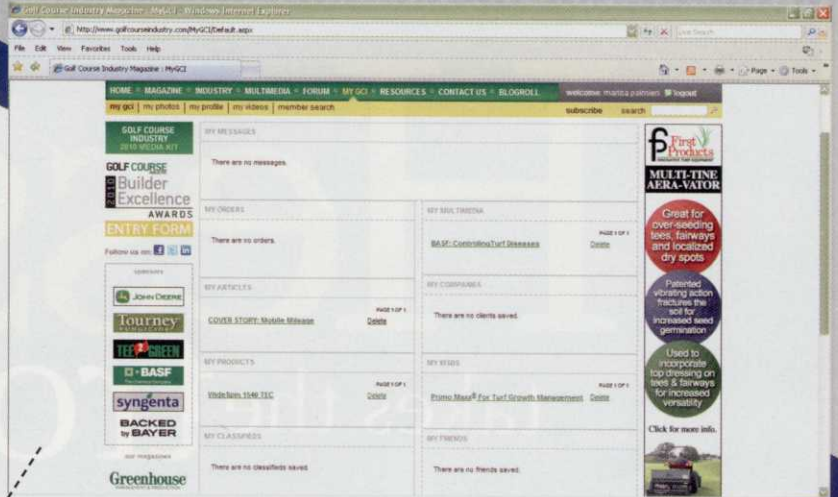
MULTIMEDIA ACCESS – Editorial videos, including event coverage; sponsor videos, including product information and trade show coverage; and podcasts are easy to locate in this new homepage feature.

3

YOUR GCI – A key component to the site's redesign is the addition of MyGCI, which allows users to post their own photos, video and other media, and tag items within the site that they'd like to save to their MyGCI page. On any article, resource or media page, just select the "Save to my GCI" link.

4

EXPANDED FORUMS – Now with enhanced capabilities like the ability to add graphics and create polls, the GCI Message Board is a great place to ask your peers for advice and share your experiences.



By Marisa Palmieri

Hess takes the trophy

Assistant superintendent Adam Hess, son of 30-year GCSAA member Alan Hess, won the GCSAA National Championship at the Greg Norman Course at PGA West in Palm Springs, Calif., last month.

On the surface, Adam Hess is like many assistant golf course superintendents: He's the son of a superintendent; he grew up working summers at the golf course and, upon high school graduation, wanted nothing to do with a career in golf course maintenance.

And, like many others, he tried a few career paths in college before realizing the allure of a 9-to-5 job wasn't all it's cracked up to be.

"I eventually realized I did want to get into the golf business, and with a little maturity, I've loved it ever since," says Hess, who's the assistant at Augusta Pines Golf Club in Spring, Texas, where his father Alan Hess, a 30-year GCSAA member, is the superintendent.

Unlike many other assistants, though, 26-year-old Hess is the youngest winner of last month's GCSAA National Championship at the Greg Norman Course at PGA West in Palm Springs, Calif.

ON THE GOLF COURSE

Playing in his first National Championship, Adam Hess parred the first playoff hole to defeat Tim Scott, the CGCS at Stony Creek Golf Course in Oak Lawn, Ill., who missed a five-foot putt for a par of his own on the hole.

Hess began the final round of the tournament three shots behind first-round leader Danny Fielder, CGCS at Creekside Golf Course in Modesto, Calif. Hess had a rough start to his day, with a double bogey on No. 3 and a bogey on No. 5, but settled down to birdie the seventh hole and then par the next 11 holes to finish the day at 2-over-par 74 and the tournament at 1-over-par 145.

While the sudden-death finish was exciting, Adam Hess says the last three holes of regulation play were the most difficult.

"I was more relaxed in the playoff then I was trying to finish the last three-hole stretch," he says. "That's when I had

most of my adrenaline pumping, knowing I needed to par it out. On the 16th hole, I drained about a 16-foot putt – that was probably the most exhilarating part of the tournament."

Several weeks after the tournament, Adam Hess was still in disbelief.

"It's still kind of unbelievable that it actually happened," he says. "Every day it sinks in a little more."

His dad agrees, saying he was probably more excited than his son was.

"I think it took him a while to settle in and realize what he accomplished, but I was probably more excited than he was. He seems pretty well under control."

Adam Hess, who played golf in high school, says the tournament reinvigorated his interest in competitive golf. In addition to a \$250 purse, a lot of positive press and messages from friends and family who didn't even realize what he'd accomplished until they saw him in the Houston Chronicle, he received an exemption to play in the Trans-Mississippi Amateur tournament, and he's looking

Adam Hess won the GCSAA Championship & Golf Classic as a rookie in the first hole of sudden death against Tim Scott, CGCS. See page 67 for the Top 10's stats.



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GCSAA NATIONAL CHAMPIONSHIP



Adam Hess and his father, Alan Hess, a 30-year member of the GCSAA, with the trophy.

forward to it – and to next year's GCSAA National.

"Next year I'm going to have more pressure on me, but I'm pretty psyched," he says. "I haven't come down from the high of winning and holding the trophy yet. It's a really good feeling."

Alan Hess, who one time aspired to be a golf professional, says he's played in the tournament about 20 times in his career, finishing in the top 10 a few times. This year he won the Senior II Gross Division. He calls the experience of playing in the Championship along with his son a special one.

"It just adds to the overall enjoyment of the experience not only being with friends and colleagues, but with a member of your family," he says.

Who's the better golfer when it comes to family match-ups?

"Adam comes out on top more than he used to," Alan Hess says, laughing. "I can't hit the ball as far as he can."

But who has the better short game?

"That would be my dad," Adam Hess says.

AT WORK

No matter where his amateur golf career takes him, Adam Hess is the assistant golf course superintendent at Augusta Pines, which is owned by Tour 18, the company for which his father is the agronomist. Alan Hess hired his son several years ago as a full-time assistant after Adam Hess completed an internship under superintendent Kevin Hicks at Coeur d'Alene Resort in Idaho.

In addition to his full-time assistant duties, Adam Hess is wrapping up his advanced certificate in turfgrass management from Penn State's World Campus. He'll graduate in the fall and soon after he hopes to pursue a full-time superintendent position.

As for working for his father, Adam Hess likes it.

"It's very open around here," he says. "My suggestions are listened to and taken into thought and consideration. Also, there's a bit of flexibility involved, which is nice when you have the stresses of both work and school."

Alan Hess agrees. "We have our routine and we work very well together. He's familiar with me and my peccadilloes – my expectations.

He knows how I think, and he's able to deliver pretty much on everything I ask him to do."

Like many superintendent/fathers, Alan Hess is happy his son is following in his footsteps as long as Adam is happy.

"I never wanted to pressure him into the business," he says. "I wanted him to come to

the business only if he wanted to and was going to be happy. I've seen a lot of parents expecting and demanding too much from their children – forcing them into their careers when maybe it wasn't necessarily the right fit or wanting them to play golf all the time.


"I always wanted Adam and his two broth-

ers to have golf as an outlet, but I never wanted them to feel that they had to play," Alan Hess says. His sons Stephen and Nicholas are also both in college.


Did his pressure-free strategy work – are they golfers? "We make a good foursome," Adam Hess says. **GCI**

GCSAA National Championship & Golf Classic Top 10 at PGA West - Greg Norman Course


		Scoring to par	Round 1	Round 2	Total	Purse
1	Adam Hess Augusta Pines Golf Club, Spring, Texas	+1	71	74	145	\$250
2	Tim Scott Stony Creek Golf Course, Oak Lawn, Ill.	+1	76	69	145	\$125
3	Daniel Fielder Creekside Golf Course, Modesto, Calif.	+3	68	79	147	\$75
T4	Justin VanLanduit Briarwood Country Club, Deerfield, Ill.	+4	79	69	148	\$65
T4	Jonas Conlan Desert Princess Country Club, Indio, Calif.	+4	75	73	148	\$65
T4	Michael Stieler Riverbend Golf Club, Madera, Calif.	+4	73	75	148	\$65
T7	David Brown Flatirons Golf Course, Boulder, Colo.	+6	74	76	150	\$50
T7	Chris Webster Braeburn Country Club, Houston, Texas	+6	72	78	150	\$50
T7	Shawn Westacott Jackson Country Club, Jackson, Tenn.	+6	72	78	150	\$50
10	James Rattigan Schuyhill Country Club, Orwigsburg, Pa.	+7	77	74	151	\$40



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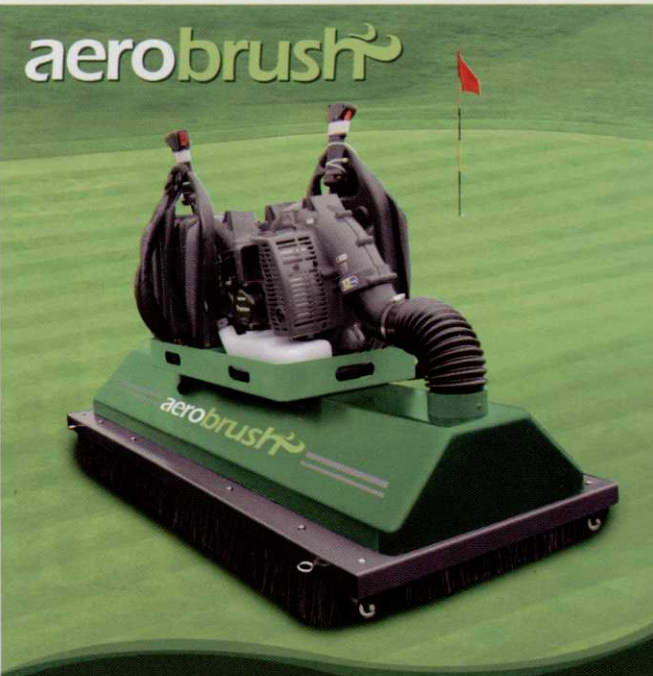
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Research

BY BARRY STEWART, PH.D.



Amending fairways

When blended with sand at 10 percent by volume, Lassenite Soil Amendment improved water-holding capacity of golf course fairways.

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This study was conducted to examine the properties of Lassenite Soil Amendment (LSA) for use in golf course fairways to improve water relations and examine plant-water relationships with water that is fairly high in soluble salts.

The LSA improved water-holding capacity (field capacity) compared to other amendments, when blended with sand at 10 percent by volume.

Materials were tested using a modified double wash cation exchange capacity (CEC) procedure to determine the CEC of each material using sodium (Na) as the ion being exchanged. Since Na would probably be the ion of interest, the usual magnesium for calcium procedure was not used. Instead, the samples were saturated with Na and then potassium (K) was used as an exchanging ion.

The LSA had a higher CEC than was anticipated, after examining a chemical analysis provided by Western Pozzolan, entrained sodium and soluble sodium components were ruled out. It is speculated that the source of the CEC is amorphous (without form) minerals present in the pozzolan. Amorphous materials are common in volcanic deposits. Amorphous materials also have been shown to have significant CEC

values. This could be either a good thing (the amendment provides some nutrient holding) or not so good (the amendment becomes saturated with Na and this hurts the plants). Further CEC testing may be warranted to better define this property.

PLANT GROWTH. Seashore paspalum (*Paspalum vaginatum*) variety SeaDwarf was established on 6-inch (diameter) pots filled with sand mixed with no amendment (control), 10 percent (v/v) LSA or 10 percent (v/v) clinoptile zeolite (Z). The variety Seadwarf was used and the pots were established using washed sod. Sixteen pots of each treatment were established. After one month of growth to get acclimated, the pots were broken into four water regime treatment groups (12 pots per group) with four pots of each soil amendment per treatment. The water regime treatments were:

- Tap water – plants maintained at field capacity (no stress);
- Tap water – plants watered when they showed drought stress;
- Salt water (1000 ppm Na) – plants watered to field capacity; and
- Salt water – plants watered when plants showed signs of drought stress.

Plants watered with salt water at field capacity looked the best. These plants had

better color and few if any brown leaves compared to other treatments. It appears that some sodium is essential for this seashore paspalum cultivar to have its highest quality.

Plants watered with tap water at field capacity looked the next best.

ROOTING STUDY. After more than three months of growth in 6-inch pots in the greenhouse, the pots were dismantled to examine root growth. There were three factors being evaluated in this study:

Water timing – maintaining water at field capacity by watering every day or watering just before the plants began to wilt, which was determined to be every two to three days depending on sunlight conditions. We found that water timing did not have a significant influence on root mass in this study.

Water quality effects were also examined and we found that 1,000 ppm salt (as NaCl) produced a small but significant decrease in root mass per pot (Table 1). The decrease was 1.4 grams per pot.

Soil amendments were also evaluated and found to significantly affect rooting across water timing and water quality (Table 2). The control pots (straight USGA sand) had the highest root mass but did not produce a significantly different root mass than a 90 percent USGA sand/10 percent LSA (LSA) mix. The 90/10 zeolite amendment produced a statistically lower root mass than did the other treatments.

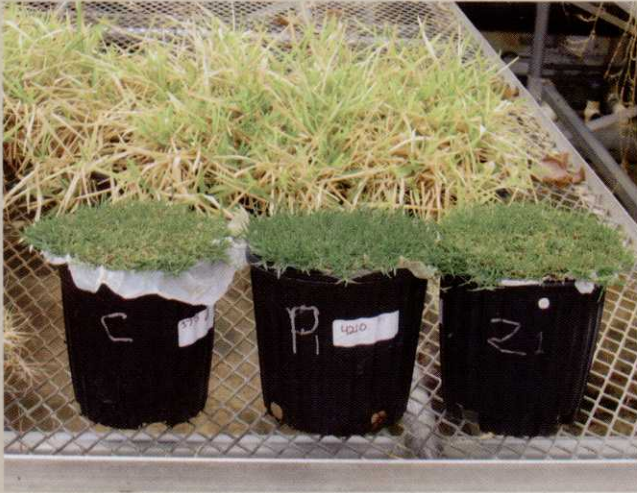
It is logical that the straight sand might produce the highest amount of root mass as it was the driest treatment (always the first to show signs of water stress). This would stimulate root growth to keep up with water demand.

The salt treatment always resulted in a decrease in rooting across all treatments, but this difference was not always statistically different. The zeolite pots showed

Material	Field capacity water (% water by mass)
Sand	21.9
LSA	27.8
Calcined Clay (fine)	26.4
Calcined Clay (coarse)	24.7
Calcined diatomite	23.3
Zeolite	22.2

Material	CEC cmol+/kg material
Sand	0.3
LSA	25.9
Calcined clay (fine)	2.7
Calcined clay (course)	7.2
Zeolite (fine) (clinolite)	68.6
Zeolite (course) (source not known)	10.4
Calcined diatomite	10.5

Figure 1. The best pots (out of 4) for the salt water field capacity pots. C = control, P = LSA, Z = zeolite



Plants watered with tap water at field capacity looked the next best.

Figure 2. The best pots (out of 4) for the tap water field capacity pots. C = control, P = LSA, Z = zeolite



Plants watered with salt water under drought conditions are doing slightly better than those under drought conditions and tap water.

Figure 3. The best pots (out of 4) for the salt water drought pots. C = control, P = LSA, Z = zeolite



Figure 4. The best pots (out of 4) for the tap water drought pots. C = control, P = LSA, Z = zeolite



In most cases the LSA pots looked better than the other two treatments.