



UF'S PLANT SCIENCE RESEARCH AND EDUCATION UNIT AT CITRA

Research and Development for Florida

In 2005 the University of Florida opened the new turf and agricultural research complex on more than 1100 acres of donated land roughly 20 miles south of Gainesville. The G. C. Horn Turf Research Plots, formerly located near the Devil's Mill Hopper in north-

Part of the 1.5 acre, 9-hole putting course. In the background football goal post and soccer net indicate area dedicated to sports turf research. Photo by Daniel Zelazek

west Gainesville, were relocated to this new facility which sports more than 40 acres of turf plots, three full-size golf holes and a nine-hole putting course

(or green if you like).

Mark Kann, current coordinator of research programs for turf, says travel time getting to the new turf plots by

faculty, staff and research assistants is about the same (20 minutes) when you factor in the crosstown traffic versus the easy drive down I-75 or even U.S. 441. By consolidating people and equipment at one location, IFAS was able to maximize productivity and economize on expenses. Kann says personnel at the whole unit assist one another in land preparation, infrastructure repairs and improvements, planting and harvesting crops and the latter includes helping to sod and sprig turf plots. It's a total team effort.

The best time to see the facility and absorb the scope of the work being done there is the annual IFAS Spring Field Day in May. After getting a handle on all of the comprehensive turfgrass research, take a full tour of the other research projects... from avocados to watermelons. Did you know blueberry breeding was a huge funding source for IFAS research?

Back to our own specialty, Kann and his three assistants – Joel Berry,

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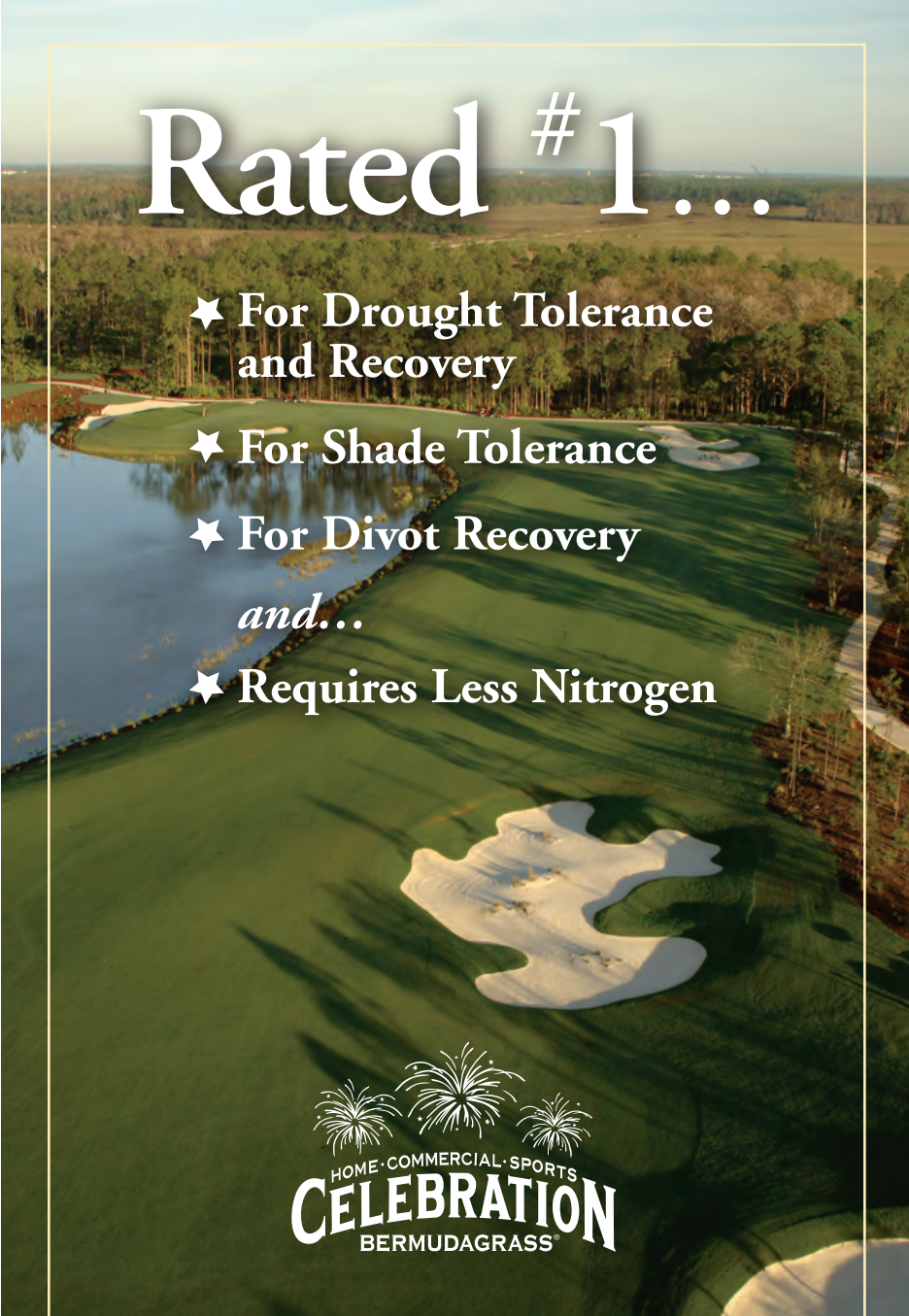
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In 2006 UF/IFAS dedicated the new G.C. Horn Turfgrass Field Laboratory in Citra. Photo by Mark Kann.

It's not just a question of mowing 40 acres of grass. It's a question of mowing 40 acres of different cultivars of turf.

Dave Carson and Bob Jones – are charged with the primary maintenance of the 40 acres of turf plots and the golf holes. It's not just a question of mowing 40 acres of grass. It's a question of mowing 40 acres of different cultivars of turf: bermuda (16), paspalum (3) bahia (3), zoysia (9), St. Augustine (10), centipede (3), carpetgrass (1), bentgrass (1), ryegrass (1), sporobola (1), buffalograss (1) and perennial peanut (1). Now put those grasses under the control of 15 faculty researchers and 12 graduate students monitoring 50-75 ongoing research projects and figure

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My goal is to maintain these plots and golf holes as close to the real world as possible... But we also have to compromise to meet our budgets.

out your mowing and maintenance schedule.

Kann admits the toughest adjustment he had to make was to learn that research can be ugly. He had to learn how to suppress his natural instinct to solve a problem or bad condition of the turf and, instead, let the turf plots exhibit the stresses without correction. Of course once a research project is over he can use his skills to rehab the plots and produce a healthy stand of grass for the next study.

One key to his job is keeping in

constant communication with the faculty researchers, so any routine maintenance that needs to be done doesn't interfere with something the researcher wants to accomplish.

For example, Kann planted some Larraflower to provide a food source for the Larra wasp that attacks mole crickets, including those that were chewing up the sports field plots. Dr. Detman-Cruz was very happy, but entomologist Dr. Eileen Buss needed to have a mole cricket population so she can study the pest. So the Larraflower planting was reduced in size to accommodate all sides. Remember, research can be ugly!

Besides the very complex scheduling challenge on the plots, Kann had to come up with a realistic maintenance plan for the actual golf holes. Budget constraints prohibit the luxury of daily maintenance. "My goal is to maintain these plots and golf holes as close to the real world as possible," Kann said.

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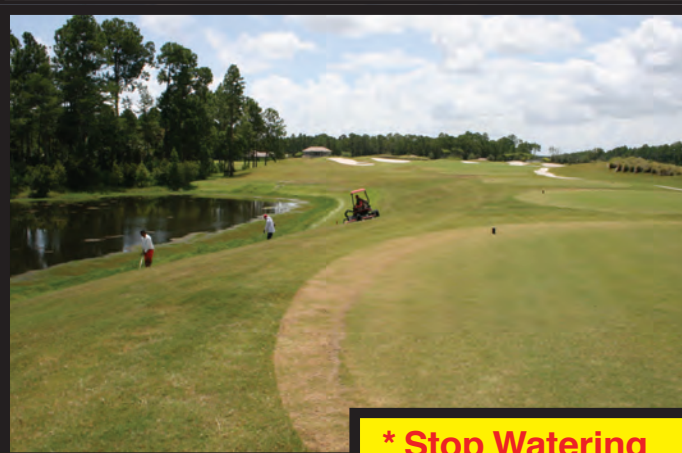
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SUPERINTENDENT FACTS



Mark Kann (far right) enjoys leading and teaching on student and visitor tours. Photo by Joel Jackson.

MARK KANN

Originally From: New Jersey

Family: Mother in Florida, brother in New Jersey.

Education: B.S. in Turfgrass Science, UF, 1999. AA from Pasco Hernando Community College, 1997. Undergraduate courses at Trenton (NJ) State College, 1993-95.

Employment: Coordinator of Research Projects 2006-present. Superintendent Meadow Oaks G&CC, 2001-2006; Assistant Supt Golden Ocala CC 2000-2001; Assistant Supt Champions Club 1999-2000.

Professional Affiliations & Offices

Held: FGCSA – current secretary/treasurer and education chairman,

director since 2005; GCSAA Class A member since 1997; Seven Rivers GCSA past president; FTGA – Board member and IFAS Advisory Committee chair; USGA.

Work philosophy and advice: Do things right the first time. It's about quality not just quantity. Doing something over takes longer than taking the time to get it right the first time.

Goals: Attain CGCS status and get my masters degree.

Hobbies & Interests: Anything to do with water – swimming, tubing, fishing. Also like cooking, golfing and attending Gator football and basketball games. Just started attending a new church, the First Lutheran of Gainesville.

“But we also have to compromise to meet our budgets, so we experimented with various mowing schedules to reduce scalping.

“We are a five-day-a-week operation. We found that mowing Monday and Tuesday, skipping Wednesday and mowing Thursday and Friday worked for us. Of course sometimes the researchers tell us not to mow some plots depending on their study objectives.”

When it comes to pest control and IPM programs, Kann follows a low-maintenance approach, monitoring the idle plots and golf holes, and applying herbicides and insecticides as needed to keep them from being infested and unusable for testing. He also applies preventive fungicides to the golf greens. In addition he maintains buffer zones around the site's water bodies.

The wildlife inventory on the property is huge, thanks to the rural loca-

tion and easy access by larger animals. The list includes alligators, bald eagles, barn owls, bears, cows, coyotes, deer, donkeys, fox, hawks, heron, sandhill cranes, all the small song bird species, and tilapia. Speaking of sandhill cranes Kann said there are about 20 year-round resident cranes, but during the winter migratory season, the sky is black like a thundercloud with them; about 20,000 will roost on the prairie just east of the turf plots.

With all the headaches that come with managing such a diverse expanse of turf under so many research-imposed restriction, Kann cites the teaching and education opportunities that come from hosting a variety of tours as a source of reward and personal satisfaction. Besides the annual spring IFAS Field Day in May, there are tours and classes all year long including the Farm Bureau, Master Gardeners and legislators.

One of Kann's favorites was a group called the Gulf Coast Air Streamers that just showed up one afternoon around 1:00 pm asking if they could have a tour. He said, “We're eager and happy to share and showcase our facility and the work being done so we don't really turn people down. Normally a typical group tour would last about an hour, but these folks were so engaged and asked so many questions that 4 o'clock rolled around before I knew it.”

And some of the work currently going on is the research funded by the Florida Dept. of Environmental Protection focused on the runoff and leaching of fertilizers and basic nutrient requirements for healthy turf.

Besides the DEP work, there are turf breeding programs, nematode work, pesticide studies, sports turf wear, fertility and overseeding and water-moisture-sensing technology and irrigation requirements. Research seeks an answer to a question framed as an hypothesis. Sometimes the results is perhaps inconclusive or, in many cases, leads to other questions. Research is an ongoing process that has helped all of us do our jobs more efficiently and in a more environmental friendly way.

While the Research Center staff is

FUN FACTS

Vehicle: 2000 Ford Ranger
The last good movie I saw: Angels & Demons.
I stay home to watch: How I Met Your Mother.
The book I've been reading: The Bible.
Favorite meal: Sushi or Mexican.
Prized possessions: Photos of my father, who passed away when I was 15.
Personal heroes: My parents
Nobody knows that I: Played lacrosse in college.
I'm better than anyone else when it comes to: Planning ahead.
If I could do it over: I would have become a professional wrestler.
I'd give anything to meet: Jimmy Buffet.
My fantasy is: Learn to sail. Cruise the Carribean. Hang out with Jimmy Buffet.
The one thing I can't stand: Doing things twice.
If I could change one thing about myself: I'd lose more weight. Down 41 lbs so far.
Most humbling experience: Being diagnosed with diabetes.
The words that best describe me: Dedicated and determined.



Representing the Seven Rivers Chapter, Mark presents a check for \$5,000 to FGCSA President Shane Bass, CGCSA in 2009. Photo by Joel Jackson.

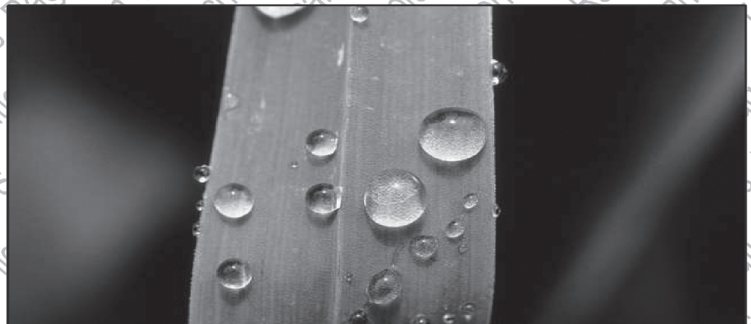
My dream foursome would be: Tiger, Arnold, Fred Couples and me.
My best fish story: Went fishing in 8-foot seas in a small boat. Caught fish. Got seasick.
My most amazing/lucky/important golf shot: Hole in one, 4th hole Ironwood GC.



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Two of the seven “mini” bunkers on the putting course. In the background just a partial view of the expansive agricultural research fields at the Plant Science Center. Photo by Daniel Zelazek.

Kann lives on the property in a manufactured home. 'Yep, I live in a gated community!' he said.

basically on a five-day work week, Kann lives on the property in a manufactured home. I asked if his only way out was through the main gate on State Road 318, he smiled and said, “Yep, I live in a gated community!” While his commute to work might be short in the morning, Kann is on duty 24/7 thanks to the automatic freeze alarm installed in the house. He said, “My job is to crank up the irrigation all across the property if we are going to have a frost or freeze. I live in the coldest spot on the property so I have some lead time to make my rounds turning on the water as directed.”

Prior to assuming his current position, Kann was a full-time golf course superintendent at Meadow Oaks GC near New Port Richey. He served on the Seven Rivers GCSA board of directors including president of the chapter and he still serves as the chapter’s external vice president, and oh by the way, he’s also the secretary/treasurer of the Florida GCSA.

While it’s true that the acreage of the golf holes under his supervision is small and they submit to only a couple of hundred rounds per year by faculty, staff and students, Kann is still considered a Class A member by the GCSAA

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G C HORN MEMORIAL TURFGRASS FIELD LABORATORY



From left: UF/IFAS Agricultural Assistants for turf Joel Berry, Dave Carson and Bob Jones.
Photo by Mark Kann

Location: University of Florida IFAS Plant Science Research and Education Unit, Citra

Ownership: University of Florida

Field laboratory includes: 3 golf holes, a 9-hole natural turf putting course, one island green and 40 acres of research turf plots.

Designed by: Jan Beljan, Constructed by UF personnel and opened in 2005.

Management Team: Director of Research Programs Daniel Colvin, Ph.D; Coordinators of Research Programs are Mark Kann (Turf), Jim Boyer (Citrus and Agriculture), Carl Vining (Private Research), Buck Nelson (Fruit & Vegetables) and Administrative Assistant Tonya Morgan

Major projects: Taking out undulations in #1 fairway and renovating the island green. Added back tee to #2. Added turfgrass nursery.

Greens: 3 acres. Turf types – Tifdwarf, Classic Dwarf, TifEagle and SeaDwarf. HOC: 0.100- 0.165 inches depending on turf type. Overseeded with Poa trivialis 6-8 lbs/1,000 sq.ft. Mowing schedule – Monday,

Tuesday, Thursday and Friday.

Tees: 1 acre. Turf types – bermuda (Classic, Tifsport, Celebration and Princess); paspalum (Sea Isle Supreme and Aloha); zoysia (Ultimate and Pristine). HOC: 0.5 inches. Mowed on Mondays and Thursdays. Various overseeding rates and types of seed.

Fairways and Roughs: Fwys: 4 acres. Roughs : 10 acres. Turf types – bermuda (Tifway 419, Tifsport and Celebration); paspalum (SeaDwarf and Aloha). HOC: 0.625 inches on fwys and 1-2 inches on

roughs. Mowed on Mondays and Thursdays. No overseeding.

Bunkers: 7 on the golf holes and 7 on the putting course. Sand type: Florida Rock 329; raked with Sand Pro 3020 and by hand.

Native Plants and Trees: A variety of native trees and ornamental grasses and plants is used to landscape the area for display and examples of Florida friendly plants.

Irrigation water source: Well. **Irrigation Control System:** Toro Site Pro. Heads on 50 ft. spacing. Separate fertigation system for greens programs.

Water Management/Conservation: St. Johns River Water Management District. We use rain sensors, ET sensors, soil moisture sensors and common sense.

Communications: Weekly meetings with managers on Mondays and crews on Tuesdays.

Staff: Mark Kann, coordinator of research programs; Agricultural assistants – Dave Carson, Joel Berry and Bob Jones. Part time help using six county inmate day laborers.

and he is immersed in the future of golf as never before and it's time to tell that story. I wondered what possessed him to choose this particular career path.

"My dad was a science teacher and I think I was curious about how things worked," Kann said. "Unfortunately, Dad passed away when I was 15 and I think I struggled a long time to deal with that loss and I wasn't as focused as I should have been for many years. My GPA at Trenton State College was nothing to write home about, but when home became Florida and I took up golf, things began to change.

"Mostly they changed because of Sonny Kirkland at Beacon Woods GC and Jeff Hayden with Golf Ventures at the time. I had been looking for a part-time job to provide free golf and I applied to Beacon Woods as a cart attendant. Unknown to me was that Sonny was in charge of cart maintenance. When I followed up about the job, I found out that Sonny had pulled



Since the three full-size golf holes run alongside the turf research plots, when staff and students play the course they must take a free drop from the turf plots. No divots allowed.

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I suppose deep inside I always wanted to be a teacher, and through my contacts with the university, it was an appealing career decision when this position opened up.

my application as cart attendant and he offered me a job on the crew.

“Two weeks later the overseed delivery truck pulled in and I and one other guy unloaded the whole truck by one bag at a time. I found out that’s why Sonny had hired that big, strapping young kid.

“I moved up quickly under Sonny’s guidance and my curiosity about things returned and Sonny tirelessly answered my questions about golf course maintenance. I enrolled at the University of Florida and thought I wanted to be a landscape architect. After a few classes and lots of money spent on buying supplies to build scale models, which often ended up in the instructor’s trash can, I switched to the new turf science major.

“While I was in school, Jeff Hayden would come visit us at our Turf Club meetings. Jeff was a legend in the area and he dearly loved working with students, talking shop and most of all talking about research. We spent many an afternoon at the Ale House in long discussions about turf management and the future of the business. When I made a 4.0 GPA in my last two years I brought the 1.9 GPA from junior college up to a 3.47. I was back on track thanks to my mentors.

“I suppose deep inside I always wanted to be a teacher, and through my career travels and involvement and contacts with the university, it was an appealing career decision when this position opened up. Helping researchers conduct classes and tours with their turf students and leading other industry and public tours at the Plant Science Center has helped me scratch that teaching itch.”



Research assistant Tommy DeBerry on the turf plots extracting a water sample from an in-ground lysimeter used to collect leachate. Photo by Daniel Zelazek.