

Golf's Own Imagineer

Walt Disney would have loved Tom Mascaro who combines engineering skill with imagination

BY KIT BRADSHAW

"My objective through all my years of business was to develop equipment that had never been made before. And now John is continuing on with the same thing."

Sounds a little like Tom Mascaro, 74, is getting ready to pass the torch to his son, John, 24. But don't bet the store yet. As Tom says, "I've tried to retire three times before and always came back."

There's a difference this time.

The last time Tom had what might be called a brief lull in his active career was in the early 1970s. Young John was only turfgrass high at the time.

Today John has his associate degree in business management from Tallahassee Community College. He has taken additional courses in turfgrass management and has learned the business by working with his father.



Tom Mascaro
Age: 74

Experience: West Point Products Corp., Pennsylvania, president; Turf Grass Products, North Miami, Fla., president; Turf-Tec International, director.
Professional: Consultant, lecturer, writer on all subjects relating to turfgrass. Adjunct professor, Florida International University, Miami; Biscayne College (now St. Thomas University), Miami.
Awards: USGA Green Section Award, 1971; GCSAA Distinguished Service Award, 1976. Many state and regional awards.
Personal: Wife, Dorothy; daughters Tammy 27 and Linda 26; son John 24.



John Mascaro
Age: 24

Experience:

*Turf-Tec International,
North Miami, Fla., CEO;
Turf Grass Products,
North Miami, Fla., vice
president.*

Education:

*Associate of Arts,
business management,
Tallahassee Community
College.*

Professional:

*Sports Turf Managers
Association, Florida
Chapter 1, secretary;
GCSAA, South Florida
GCSA; Florida Turfgrass
Association.*

Personal: *Wife, Jenni.*

John has become Tom's right-hand man in their company, Turf-Tec International, with headquarters in North Miami. And he and Tom have dovetailed their efforts to expand their line of golf course equipment into diagnostic tools to help golf course superintendents gather data about their turfgrass and greens in order to better maintain their courses.

If there is a transition in the offing, then it is moving steadily and very smoothly.

Walt Disney would have loved Tom Mascaro. Years ago, Disney coined a word to describe a person who combines imagination and engineering ability:

Imagineer.

Although Disney and Mascaro never met, the word describes Tom perfectly.

And what has this Imagineer developed in his nearly half century of creativity? The aerifier, the verticutter, the Verti-Groove and the soil profile sampler, just to name a few.

Mascaro says he has had the brainstorm for the creation of all these mechanical devices from other people's suggestions, helping to solve problems that needed new, innovative solutions.

Take the aerifier, for instance.

"My brother, Anthony, and I had developed a mechanical leaf-gathering machine in 1946 and we went to Washington to discuss its application with Dr. Fred Grau, director of the USGA Green Section and a pioneer in turfgrass," Mascaro recalls. "He thought the machine was a good idea, but he said that if we could make a machine that cultivated bluegrass fairways, we could make a million dollars. The problem with bluegrass fairways was compaction.

"So we came back home and worked until we invented the aerifier, the first practical tool that cultivated the turf without disturbing the turf. It was basically a modified plow. It removed cores of soil and redistributed them."

Did they make a million dollars?

"Well, let's just say that because of the aerifier, we were jet-propelled into the national picture overnight. We had developed a machine that was just what the superintendents were looking for and the word spread rapidly.

"For a time, we had mailbags with checks in them that we couldn't open for a month because there was so much mail.

"A million? Well, it did pretty well."

Things started getting pretty hectic for Mascaro once the aerifier hit the national scene.

Grau and L.J. Noer, the city of Milwaukee's world-famous agronomist, made arrangements for Mascaro to speak at turfgrass seminars throughout the country. For years, he attended about 25 such meetings annually.

He not only talked; he listened.

He took prodigious notes at the conferences, learning from turfgrass experts. For 40

years, he carried a notebook with him, recording the problems, the needs and the suggestions he heard from golf course superintendents he met on his travels. The notes were translated into designs and into machines to help superintendents do their jobs better.

For instance, when Mascaro found out that some superintendents were using the aerifier on greens in addition to fairways, he invented a smaller version for greens and "it took off like wildfire," he recalls.

"Now, when you invent one thing, everyone thinks you can invent anything. And we had all kinds of suggestions about what was needed. Like the verticutter.

"The verticutter. Now that's an in-

vented word as well as a machine. It was a vertical mower... a true mower that cut the green vertically. You see, a greensmower is horizontal. It only

"We'd verticut half the green, sweep it up and then invite the pro which side he wanted to putt from. He picked the verticut side every time."

cuts the blade that's up. But all grass blades don't stand up. Some of them are down at the base, and they never get cut.

"They just lie there, and they accumulate as part of the thatch. The verticutter was designed to remove

thatch before it started by cutting those blades, runners and so forth, before they could form thatch."

Mascaro developed a unique sales presentation for the device.

"We'd get the pro and the superintendent out on the green," he recalls, and we'd verticut half the green, sweep it up and then invite the pro which side he wanted to putt from. He picked the verticut side every time."

In 1969, Mascaro's Pennsylvania-based company, West Point Products, merged with Kearny National, and he became vice president of development. Three years later, the company divested its turf division and Mascaro took the cue to move to Florida.

Once in Florida, Mascaro took four years to begin Turf Grass Products,



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which was joined later by Turf-Tec International.

"I sat around for four years," he recalls.

"But you were inventing things in your head the whole time, Dad," chided John.

What came from those mental designs was the soil profile sampler, which Mascaro claims is the only one of its kind.

"The Soil Profile Sampler is vertical, and the cutter blades split apart so that the profile of the soil is visible," he says. "You can see everything that's been done to that soil sample in a nice slice. You can even photograph it for reference.

"I have a slide of a soil sample which shows soil that seven superintendents

had worked on. The sample shows each one's pet mixture in that piece of soil."

Miami's Orange Bowl was the birthplace of the Verti-Groove.

"I was part of the transition from artificial turf back to good grass. . . natural turf," he says. "So when they had a problem with the turf, I was called in. The problem was that the roots were decomposing down deep. The samples we took showed the roots had turned into a giant sponge and the field didn't drain.

"Something had to be done to remove those dead roots, not only to get water into the soil, but also air, nutrients and so on. So I invented the Verti-Groove.

"It takes out thin slices of soil, six

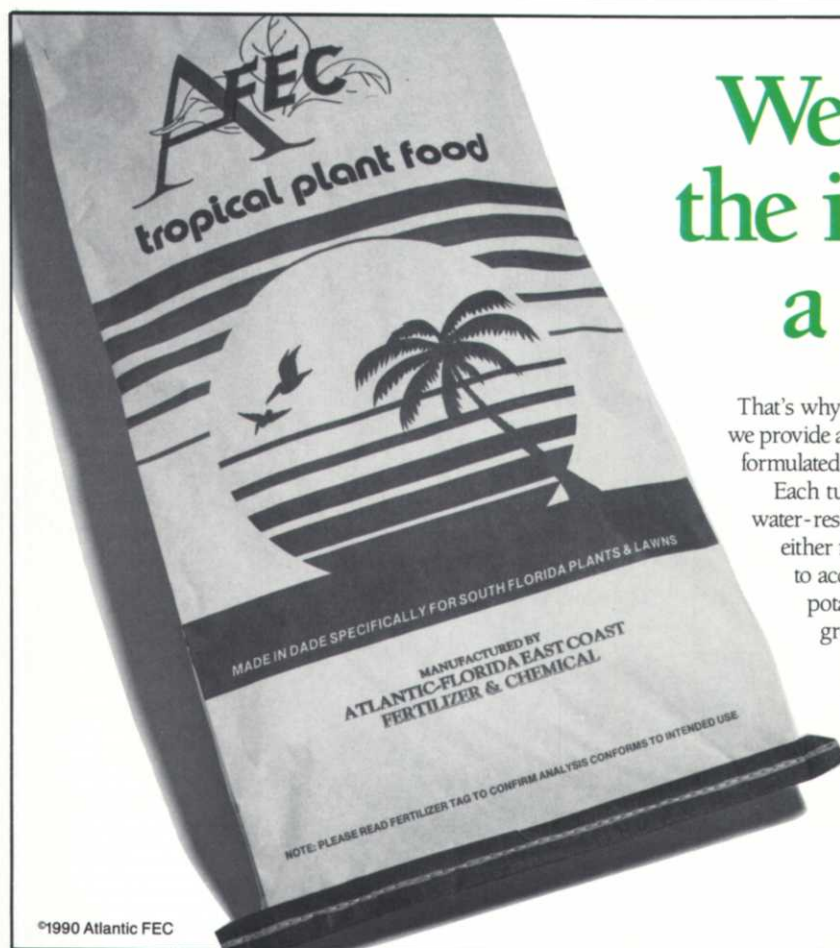
inches deep, and brings the soil to the top without materially disturbing the surface. They could play football in the Orange Bowl the day after we used the Verti-Groove."

Mascaro adds that until that time, no machine had been made that went more than three inches deep to cultivate turf. The Verti-Groove helps to cultivate the soil to a much greater depth.

If the Verti-Groove was born in the Orange Bowl, its development also spawned the successful collaboration between father and son on the creation of new devices to help the industry.

When John joined the company, Turf-Tec changed focus.

"We already had the Soil Profile



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“Growing Turf the Hard Way”

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Tom Mascaro keeps his focus sharply on the future.

“I had been asking myself what was going to become of my collection of 75,000 slides when John came up with a great idea,” Mascaro said at the South Florida GCSA Field Day this past April.

“He suggested we turn them into a series of video tapes.”

Professionally produced and distributed under the Turf-Tec Productions label, the first tape, “Growing Turf the Hard Way,” was released in April.

Nearly a verbatim replay of Mascaro’s most popular banquet lecture, the tape not only will become a sought-after piece of memorabilia for the current generation of turf managers, it should become a stock training item for untold future generations.

Featuring Mascaro’s familiar droll, understated delivery, the tape is in some ways superior to his live lecture because it uses the production technique of “dynamic stills,” which creates much more visual interest than a

static slide on a silver screen.

For those who haven’t heard “Growing Turf the Hard Way,” the program humorously details many of the problems Mascaro has encountered in more than half a century of work with golf course superintendents and other turfgrass managers.

“We should learn from the mistakes and experiences of others,” Mascaro says, “because we cannot possibly live long enough to make them all ourselves.”

Sampler,” John says, “so we decided to come up with a line of diagnostic tools that were as simple as possible — no engines or moving parts — tools that normally would be available to university researchers.

“But the tools that researchers use are impractical for superintendents to use. So we tried to come up with practical approaches to analyzing problems and practical lab instru-

ments that we could put right into the hands of the superintendents.”

Development was a cooperative process, with John translating the original concept into a prototype of wood, steel and leftover parts. Father and son then finely tune the working model before having a local machine shop create a production prototype.

Their new devices include the

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Moisture Sensor, Digital Thermometer, pH Meter, Penetrometer and the Infiltrometer.

The Penetrometer is the superintendent's equivalent to a Stimpmeter. It measures percentage of soil compactness from 0 (uncompacted sand) to 100 (cured cement). Fifty is the preferred measurement, Tom says, meaning the soil should contain 50 percent solids, 25 percent air and 25 percent water.

"In Florida," says John, "the problem with soil is often compaction. Between mowing greens daily, high traffic and so on, there are some greens that become so compact they show 80 percent compaction on the Penetrometer.

"You have to remember that practically any area will become compacted if you are putting a 2,000-pound mower on it every day of the week. With this device, the superintendent can tell how compacted the area really is.

"Superintendents are in the position of trying to please all the golfers who play at their clubs. If the golfers are complaining that the greens are too soft or too hard, the superintendent can take a compactness reading. He's got a device that can take out the guesswork."

Three other tools — moisture sensor, and special versions of the digital thermometer and pH meter — also help the superintendent



Tom and John Mascaro with some of their inventions.

diagnose problems with his turf.

The moisture sensor, which measures the moisture absorption at any selected depth between one and six inches, helps the superintendent plan his irrigation program. The digital thermometer helps him enhance seed germination or head off heat-related stress problems. The pH meter helps the superintendent make micro-adjustments to the soil alkalinity.

Right now, the Infiltrometer, which tests soil percolation in 15 minutes, is the Mascaros' pride and joy.

"It's a blockbuster," says Tom.

"Usually, a soil sample is sent to a laboratory," explains John, "and the lab mixes the sample,

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compacts it to a specific weight and then tests how long it takes water to run through the area.

"The advantage of the Infiltrometer is that it gives the superintendent this information, not in the lab, but in the field. You aren't just getting the soil infiltration, but you are getting soil infiltration on number-seven green. You are getting a truer reading." As with all the Mascaros' tools, the Infiltrometer comes with a complete set of instructions, including all the data needed to analyze the results obtained.

"If it shows that water is percolating at less than four inches an hour, that's bad," says John. "Anything under one inch is critical... and we've seen readings that low in some tests we have done."

Two other Mascaro devices are in production and soon will hit the marketplace: the Singafier and the Aeriforke.

The former kills weeds by using a concentrated propane flame for killing crabgrass and goosegrass. It's extremely popular with environmental activists and a South Florida chapter of the Audubon Society already has two of them.

"There's no residue, no chemicals, it's very simple to use and very inexpensive," says the elder Mascaro. Penn State University is developing a larger version of the device, he adds.

"The larger models can be used to kill weeds in bunkers without chemicals," he says. "That way, when sand is blasted out of traps and lands on the green, it doesn't contain any herbicides."

The Aeriforke is a hand aerifier for homeowners.

"You'd be surprised how many homeowners are aware that turf is aerified on golf courses, but they don't have an easy way to do the same thing on their own lawns," says John.

Tom says it may be marketed as an alternative form of exercise.

"Instead of 'aerobicizing,' people could be 'grassercizing,'" he says.

The end of the Mascaro line of inventions is not in sight, both say. Imagineering is an ongoing activity.

"My dad has always said, 'Just because people are doing things one way doesn't mean it's the only way to do it. You can look at any operation on a golf course and there can be a better way to do it.'"

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