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from page 70

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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President honors Jacobsen for exports

Jacobsen Division of Textron was honored by President George Bush for its export success during a recent ceremony at the White House. The company received the U.S. Commerce Department's "E Star" Award for outstanding export sales.

In accepting the award, Jacobsen President Robert Reid credited increased emphasis on overseas markets, spearheaded by the company's international operations department, and a strong network of foreign of foreign distributors for making the award possible.

"We have been responsive to the needs of international markets, supplying our customers with quality turf products," Reid said. "We have a very competent group of distributors throughout the world, and we've been able to benefit from the growing worldwide interest in turf care in general and golf in particular. These factors are helping Jacobsen experience strong international sales growth."

The "E Star" is given to companies which already have received the Commerce

Jacobsen
Textron
President
Robert
Reid
receives
the E-Star
Award
from
President
Bush with
U.S. Trade
Representative
Carla Hills
looking on



Department's "E Award," which Jacobsen won in 1974 for export sales of consumer lawn and garden equipment.

Jacobsen now manufactures only professional turf equipment for golf courses, parks, sports fields and other large turf areas.

Mike Young Designs names first VP

Mike Young Designs/Turf Mark Golf Services of Watkinsville, Ga., has named Tracy Meeks, former superintendent at Berkeley Hills CC in Norcross, Ga., as the firm's first vice president.



Tracy Meeks

Meeks, who holds a B.A. in turfgrass maintenance from the University of Georgia, will oversee day-to-day operation of the company's

golf course construction projects.

Before moving to Berkeley Hills, Meeks had been assistant superintendent at Cherokee CC in Atlanta, where he was involved with the construction of a nine-hole addition to the club's 18-hole layout.

Lofts taps A&M grad to head new facility

The former assistant to Dr. Milton Engelke at Texas A&M University's turfgrass breeding research project in Dallas has been named to head the new Lofts Seed research facility near Albany, Ore.

Dr. Virginia Lehman, who completed her doctoral studies at Texas A&M earlier this year, earned her master's degree from the University of Idaho, specializing in turfgrass breeding and seed production.

Lofts also operates a re-

Turf Industry Roundup

Companies doing business with golf course superintendents in Florida are invited to submit their news releases to *The Florida Green*, c/o Janlark Communications, 1206 Kimberle Court, Auburndale, FL 33823. We cannot accept items for this section over the telephone.

search facility in New Jersey.

Ciba-Geigy picks turf manager

Bernd Druebbisch is the new product manager for herbicides with Ciba-Geigy's turf and ornamental products group. He will be responsible for the company's Pennant herbicide, a control for yellow nutsedge and other weeds.

Before joining the turf and ornamental division, Druebbisch was product manager for Ridomil, an agricultural fungicide. He managed the product in Africa and Asia.

Druebbisch moves from Ciba-Geigy's worldwide headquarters in Basel, Switzerland, to the company's U.S. headquarters in Greensboro, N.C.



Fuller Tresca, Jr., right, and Jacobsen President Robert Reid

PGA Show moves to Friday-Monday

The PGA Merchandise Show will change to a Friday-Monday format next year, Jan. 25-28, at the Orange County Convention / Civic Center in Orlando.

The four-day, Friday-Monday pattern will be maintained through the year 2000 except in 1993, when a scheduling conflict forces a return to the Saturday-Tuesday format.

The format switch was made to reduce the time exhibitors must spend away from the office and to allow all attendees to take advantage of more cost-effective airline prices.

"Member-Only Day" has been reduced to the first four and a half hours of the show on Friday, from 8:30 a.m. to 1 p.m.



Turf students from all over the country at Jacobsen's annual seminar

Tresca named Top Performer

Tresca Industries of Jacksonville and Orlando was honored by the Jacobsen Division of Textron with the manufacturer's Top Performer Award for 1989 at the GCSAA Convention and Show in Orlando last February.

Florida supt. talks at Jake seminar

Tom Alex, superintendent at Grand Cypress Resort in Orlando, was one of the faculty members for the 23rd annual Jacobsen College Student Seminar at the company's headquarters in Racine, Wis.

The seminar brought together 36 students from turf programs throughout North America and two students from the United Kingdom.

Students heard lectures on subjects ranging from budget preparation to employee training to environmental management.

"I talked about a little bit of everything," said Alex, whose lecture was entitled, "The Daily Pressures of Maintaining a Golf Course."

"The neatest thing about the session was the final afternoon session when they put all the speakers on a panel and let the students fire questions for three hours.

"The whole seminar is kind of neat. I'd go back if they asked. Any superintendent should be delighted to be asked. Those kids were the cream of the crop—I came back with a couple of resumes.

"I'm surprised other manufacturers don't do the same thing."

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They were on the evening newscast.

Dramatic ground and aerial pictures of the fires in the Everglades burning off thousands of acres. There was a shot taken from the ground level at night that intrigued me. You could see the long line of flames against the darkness of the night.

From afar the flames looked like some gigantic hand saw and the flames leaping upward were the teeth.

Florida's drought poses challenges, opportunities

There were long fingers, then tiny short fingers beside one another.

The long fingers were made, I suppose, when the fire hit a thick clump of weeds and grass, and the short fingers were made as the fire swept along ordinary short weeds and grass. I thought about our association. The flames were like our members. The tall flames represent the members that are on fire for our industry and are doing everything they can (including water conservation) to promote the image of the golf course superintendent as a true manager and professional. The small flames represent the members that do not take an active part in our association or spend the time promoting the positive side of golf course management.

Right now we need every golf course superintendent in Florida to take an active role in overcoming a very

serious problem facing us: Florida's drought. Our population is growing at a staggering 5,000 per week. The building of houses and roads decreases our watersheds. The water crisis is here and it can only get worse over the next decade.

In 1780, Florida had 20.3 million acres of wetlands covering more than half the state. By 1980, the number had dwindled to 11 million acres.

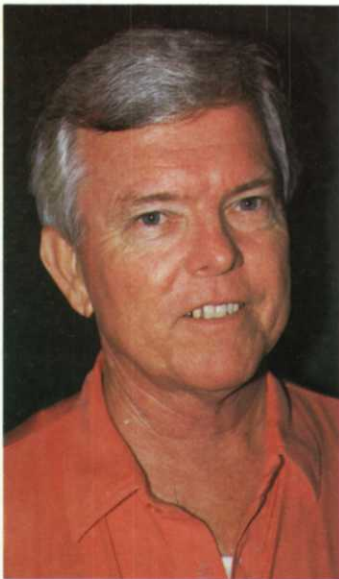
Will golf courses in Florida survive the water crunch? If golf course superintendents pull together, then the answer is "yes." We will not only survive, we will prosper.

Superintendents, I have found over the years, are a rare breed that loves the land and everything that comes from it. The active will encourage the inactive

Will golf courses in Florida survive the water crunch? If golf course superintendents pull together, then the answer is "yes." We will not only survive, we will prosper.

and we will, I believe, learn how to live with restricted water use.

The Florida Golf Course Superintendents Association needs to fund research on drought and heat-tolerant grasses. Seminars should be sponsored so superintendents will know how to monitor their irrigation systems efficiently. Reports must be issued on the latest state-of-the-art computerized systems, variable speed, energy-wise



Dan Jones
Dan Jones, CGCS

FNATS

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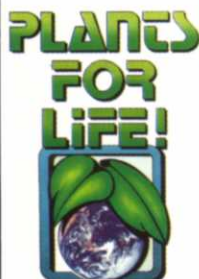
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AFTERWORDS

pump stations, low-pressure irrigation heads and the correct piping and spacing of irrigation heads to keep golf course superintendents aware of the fast-changing '90s.

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This is water that can be used for irrigation and, at the same time, it will help reduce the risks of contaminating our environment: Nature has given us grass as an excellent filter for the effluent.

The voices of the golf course su-

perintendents in Florida must become strong and unified to promote our need for sewage effluent. We must explain why healthy golf courses are

Effluent water will be the answer for golf courses in Florida. . . Every month, Dade and Broward counties alone dump 10 billion gallons of effluent into the ocean.

critical to the economic well-being of our state.

Florida receives 25 billion gallons of water a day from underground rivers in Alabama and Georgia and

another 150 billion gallons a day from rain. We lose 107 billion gallons daily to evapotranspiration and 68 billion gallons flow into the ocean.

Florida has about a quadrillion (1 and 15 zeros) gallons of water in its aquifer. With 800 new residents moving to Florida every day, our water usage increases by 100,000 gallons a day. That's 37 million gallons a year, of which 35 million gallons will end up as wastewater.

By using sewage effluent, golf courses could help preserve our precious water for home use and prevent saltwater intrusion along the coastal areas. That is the good news. The bad news is we will lose it if we do not act now. Farmers, citrus growers and other groups are also looking for al-

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The Age of Science had arrived...

from page 12

And life became more enjoyable.

The men called Farmers became efficient.

A single farmer grew food for 28

Industrialists, Artists and Doctors.

And Writers, Engineers, and Teachers as well.

To protect his crops and animals, the Farmer

produced substances to repel or destroy

Insects, Diseases and Weeds.

These were called Pesticides.

*Similar substances were made by Doctors to
protect humans.*

These were called Medicine.

*The Age of Science had arrived and with it
came better diet and longer, happier lives
for more members of Society.*

Soon it came to pass

That certain well-fed members of Society

Disapproved of the Farmer using Science.

They spoke harshly of his techniques for

feeding, protecting, and preserving plants

and animals.

They deplored his upsetting the Balance of

Nature;

They longed for the Good Old Days.

*And this had emotional appeal to the rest of
Society.*

*By this time Farmers had become so efficient,
Society had given them a new title:*

Unimportant Minority.

*Because Society could not ever imagine a
shortage of food.*

*Laws were passed abolishing Pesticides,
Fertilizers, and Food Preservatives.*

Insects, Diseases, and Weeds flourished.

Crops and animals died.

Food became scarce.

*To survive, Industrialists, Artists and Doctors
were forced to grow their own food.*

They were not very efficient.

*People and governments fought wars to gain
more agricultural land.*

Millions of people were exterminated.

*The remaining few lived like animals,
Feeding themselves on creatures and plants
around them.*

*And this was called, "In Balance with
Nature."*

Dr. John Carew

This poem by Dr. John Carew, the late chairman of the horticulture department at Michigan State University, was first published as a column in *American Vegetable Grower* in 1970. It is reprinted here with blanket permission from the original publisher.

*Our water goal:
the right kind,
the right
amount, the
right place at
the right time.*

*The days of
unlimited water
use are over.*

from page 79

ternate sources of water.

Every golf course superintendent, golf pro, golf course manager and owner should write his representative in Tallahassee, the water management agency in his area, governing bodies of his city and county and the directors of sewage facilities to tell them of our water needs and our desire for sewage effluent.

If, after reading this, you do not think we

need to act now, talk to our peers in California. We are only five years behind them and closing the gap fast.

Our water goal: the right kind, the right amount, the right place at the right time. The days of unlimited water use are over. This natural resource is decreasing, and we need a plan to keep Florida green and growing. We must prepare for tomorrow by getting involved today.