

Because of the past success of this event, the FGCSA has been able to build and maintain a research green at the University of Florida's IFAS Research and Education Center at Fort Lauderdale.

As testament to the worthiness of the venture, the USGA recently awarded \$150,000 for two research projects on the green. Research of this nature is critical for demonstrating to the public that products and procedures used on golf courses are not harmful to the environment.

GCSAA attracts 16,400; FGCSA gives \$5,000

While a nervous economy and travel jitters prompted by the Persian Gulf War may have had a slight effect on the turnout for the 1991 International Golf Course Conference and Show hosted by the Golf Course Superintendents Association of America, more than 16,400 members made the trip and were not disappointed.

A strong contingent of Florida superintendents were in attendance and they took full advantage of more than 42 continuing education seminars on currently sensitive topics like Integrated Pest Management, Environmental Concerns in Golf Maintenance, and Water Resources.

They also had the opportunity to visit more than 590 exhibits that showcased the latest in turf equipment products and equipment ranging from a new biodegradable tee to the most sophisticated, computerized irrigation control and pumping equipment on the market.

Last year in Orlando, the attendees left with the knowledge that environmental issues were going to be paramount in the 1990s. And Lewis Crampton, associate administrator of the EPA was at two special presentations this year to reinforce the message.

This year, with education and research reflecting very positive data concerning the real positive impact that golf turf has on the environment, the challenge facing our in-

dustry is how to communicate the benefits of golf courses to the public.

The Florida GCSA met the challenge by maintaining its membership in the Platinum Tee Club with a \$5,000 donation to the GCSAA Scholarship and Research Fund.

At the close of the GCSAA Conference and Show, the membership elected officers and directors for the coming year:

President Stephen G. Cadenelli, CGCS, Metedeconk National Golf Club, Jackson, N.J.; Vice President William R. Roberts, CGCS, Lochmor Club, Grosse Point, Mich.; Secretary/Treasurer Randy Nichols, CGCS, Cherokee Town & Country Club, Dunwoody, Ga.

Directors Gary T. Grigg, CGCS, Shadow Glen Golf Club, Overland Park, Kan., Charles T. Passios, CGCS, Hyannisport Club, Mass.

Bruce R. Williams, CGCS, Bob O'Link Golf Club, Highland Park, Ill., was appointed to fill the remaining one year of Bill Roberts' term as director.

Directors not up for re-election were



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FGCSA SPOTLIGHT



Joseph G. Baidy, CGCS, Acacia Country Club, Lyndhurst, Ohio; Randall P. Zidik, CGCS, Rolling Hills Country Club, McMurray, Pa.

GCSAA officers for 1991-92, from left: Randy Nichols, CGCS, secretary/treasurer; Stephen G. Cadenelli, CGCS, president; William R. Roberts, CGCS, vice president.

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THE FLORIDA GREEN

Take a byte out of costs

Computer allows a superintendent to control water and chemical applications and gives him more time to spend on the course

BY MACK BAUGH, CGCS

Everything in golf has gone up. Membership dues and initiation fees are at an all-time high, buying a new set of clubs requires a personal loan, the latest styles cost a fortune, tournament tickets are approaching Super Bowl levels and handicaps, well, we all know about handicaps.

Golf course maintenance costs, while perhaps not as visible, are on the rise and indications are the trend will continue. These increases are eventually passed on to paying members who should be concerned with keeping their courses well maintained while keeping costs as low as possible. Course architects, developers, operators and superintendents need to be — and are — equally concerned with rising maintenance costs.

At Laurel Oak Country Club in Sarasota, we've taken important measures to conserve money while maintaining course quality. These steps also have taken us firmly into the computer age, a move that can be a bit scary for a former computer illiterate like myself.

The system we installed (in our case a Rain Bird MAXI V) helps us conserve electricity, water, and manpower and it provides a fast, accurate means of irrigating the entire course and all of Laurel Oak's public areas. Water conservation in each of these areas translates into significant money savings.

The system starts with a weather station which is centrally located on the first of our two courses. The station collects and measures rainfall, records temperature, wind speed and direction, solar radiation, and relative humidity.

This information is constantly fed into our computer which evaluates the data and processes it according to guidelines



FGCSA/JACKSON

Mack Baugh at Laurel Oak Country Club's weather station, which helps him put exactly the right amount of water at each spot on the course, right down to the drop.

we've established for each part of the course and community.

For example, we may want our greens and tees to receive a quarter inch of water using a given period and our fairways one-half inch.

From the information fed by the weather station, the computer knows exactly how much rain has fallen during a 24-hour period and how much has evaporated due to temperature, wind and solar radiation. The computer also knows how many of each type of sprinkler heads are in place at any given location and at how many gallons per minute they apply water.

With this information, the computer automatically decides which heads go on, when and for how long to apply the precise amount required. Once a fairway has received exactly what is needed right down to the drop, the computer turns its attention to the irrigation of the greens, then the tees, then the common areas, etc.

Under the old system (and "old" is only

as recent as five to eight years ago) still operating on many courses, watering was largely a manual control operation often done inaccurately.

A mechanical timer activated sprinklers on the No. 2 green, watering the surface for two minutes whether two minutes' worth of water was really needed or not. The pumps would then be turned off and the procedure would continue on through the day or night until the job was completed.

Often the result was the application of either too much water, which is a scarce and expensive commodity these days, or too little water, leaving the greens thirsty and in less than optimum condition.

It also meant repeatedly turning the water pumps on and off. Turning these huge pumps on uses tremendous amounts of electricity and creates a maximum mechanical strain that accelerates the need for downtime and maintenance.

The savings solely in terms of money are obvious.

But there are other considerations to keep in mind. Water usage is being increasingly restricted in Florida. This factor alone necessitates far more controlled use of this dwindling resource. A computer-controlled irrigation system is state-of-the-art in controlling water amounts used.

Computers are also allowing golf course superintendents to precisely control herbicide and insecticide application, an important factor during a time when the public's environmental awareness is at an all-time high, as it should be. Manhour need is also reduced, allowing for fewer yet better skilled employees on the payroll.

One of the effects I've personally felt as a golf course superintendent is that the computer allows me more time to be out on the course on a daily basis, both for checking conditions and for contact with members. Those of us who are in this business must always remember that the members are our ultimate employers but are also the course's — and our — best critics.



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Most of us probably got into this business because we love the game of golf. But, with all that must be done to keep a course in top condition, too few of us have the time to play as much as we would like (which goes back to my opening comment about rising handicaps). The members play the

course every day and are perhaps the best barometer of what's right and what's wrong. Keeping in close contact with them is as important as any computer may be in maintaining a great course.

While a sophisticated computer irrigation system may not be able to help lower

their scores, it can do wonders in providing the best course conditions available and saving valuable maintenance dollars.

Mack Baugh is superintendent at Laurel Oak CC in Sarasota. This article is reprinted from the January issue of Florida Golfer with permission of the publisher.

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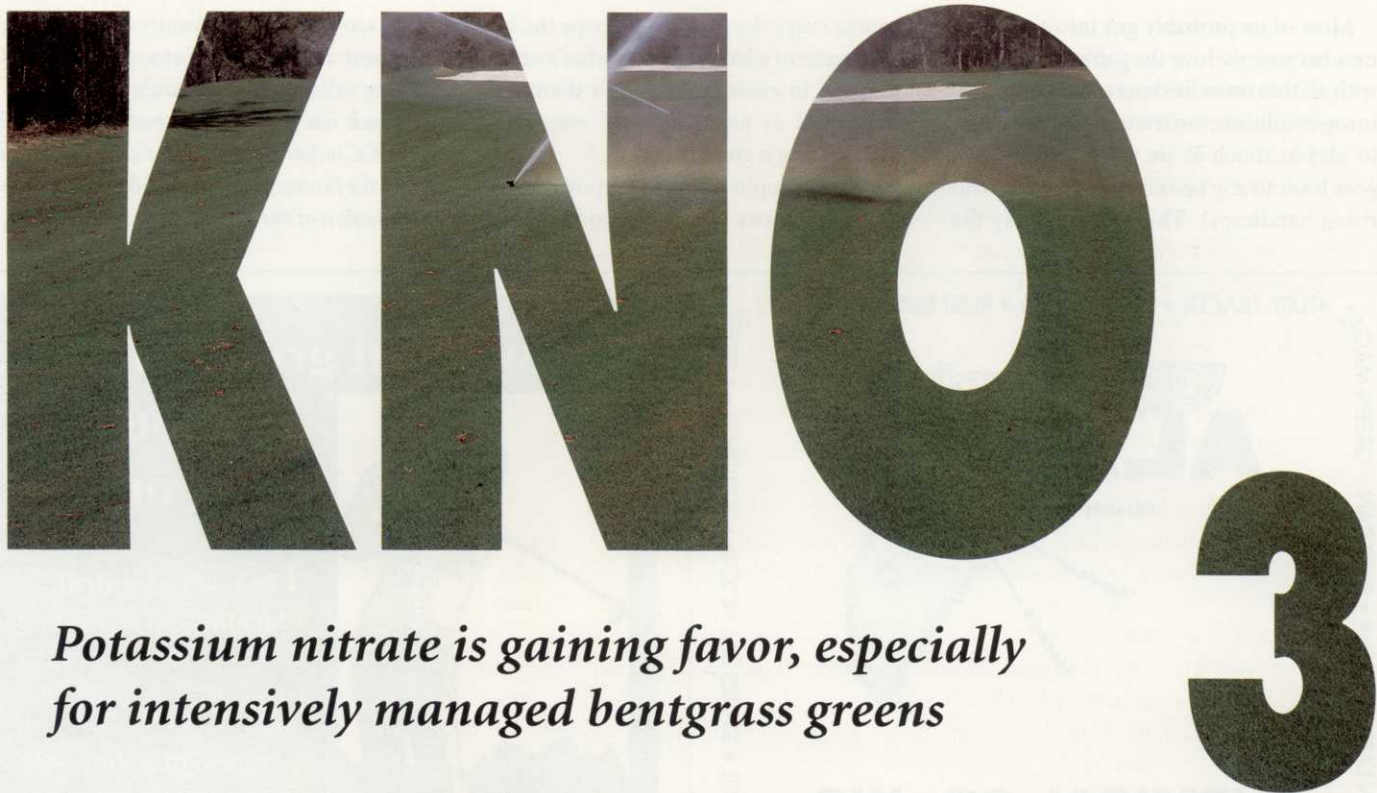
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KNO 3

Potassium nitrate is gaining favor, especially for intensively managed bentgrass greens

BY CATHEY L. BATEMAN

Researchers in many areas of the country agree on the importance of supplying potassium to maintain healthy greens and fairways on golf courses. Superintendents and fertilizer suppliers are placing more emphasis on potassium nitrate, especially for intensively managed bentgrass greens and tees.

Potassium nitrate is a unique source of two major plant nutrients, and since it is applied as a foliar spray, it is safer to use in those areas particularly sensitive to groundwater contamination. Many believe it is also safer for the plant, since it is less likely to cause burn and is free from chlorine and sodium.

In several areas of the country, potassium nitrate is the preferred source of potassium, particularly in intense greens programs. J.B. Sartain, professor of soil fertility, turf and ornamentals at the University of Florida, said that in Florida, potassium is used more in the fall and winter, when least amounts of nitrogen and higher levels of potassium are necessary.

Sartain said potassium nitrate minimizes growth while enhancing greener color, even in cooler weather. During the summer months, when higher rates of nitrogen are desired, potassium nitrate is often used in solution with added nitrogen sources.

"It is one of the more soluble forms of potassium," he said.

He added that the importance of potassium in turfgrasses was thought to be less than that of nitrogen for many years.

"Many felt a ratio of 3:1 (nitrogen to potassium)

was the most effective," he said. He said potassium helps develop a stronger root system during summer on bermudagrasses, Florida's primary golf course turfgrasses.

Dr. John Street, associate professor at Ohio State University, agreed. He said early indications from research at the University of Nebraska by Dr. Robert Sherman suggest that relatively high levels of potassium are necessary in a fertilizer blend even when soil potassium levels are high.

He said Sherman's research suggests a 2:1 ratio — or even 1:1 — of nitrogen to potassium is more beneficial for enhancing the summer stress tolerance of cool season grasses. Street said the results of Sherman's work may lead to a change in thinking about potassium's role in turfgrass production.

In most areas where cool season grasses are more prevalent, higher potassium-to-nitrogen ratios are now being applied in September, with another application in October or November to help winterize the turf. Street said Kentucky blue, creeping bent, perennial ryegrass and tall fescue are the predominant golf course grasses in the northern areas of the country. These experience more heat stress than the South's warm season varieties, which receive more nitrogen during the summer months.

In warm areas, cool season grasses are also making their way onto the greens in a big way, according to Tim Orton of Sta-Green Plant Food Co. of Sylacauga, Ala.

"With the technology and superintendents com-

ing out of the universities, the industry is getting so many guys with degrees in growing grass that bent(grass) is becoming more prevalent further south," he said.

"A lot of people are using potassium nitrate on bentgrass in the South. It's basic, it has a favorable effect on soil pH. It also has a small amount of nitrogen, along with the potash which is very important to the turf."

Potassium nitrate doesn't widen the leaf blade. A wide leaf blade slows the putting speed and affects the roll.

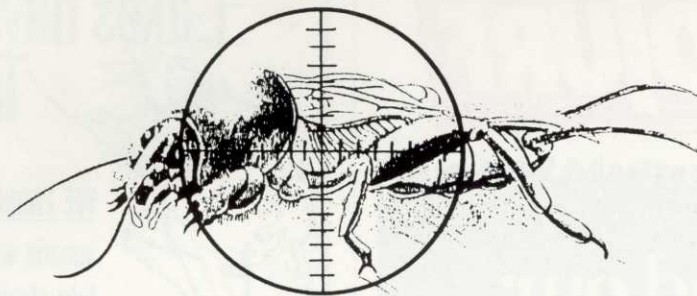
"That's why so many clubs went to it in the first place," said Orton, "to get a superior putting surface in the South. You see very little, if any, muriate of potash used on putting greens in the South, be they bent or bermuda."

Dave Lowe, golf course superintendent at The Plantation at Ponte Vedra near Jacksonville, said potassium nitrate is especially important in his intensive greens program.



Potassium nitrate is available in wet and dry formulations. The dry form spreads evenly and is non-hygroscopic.

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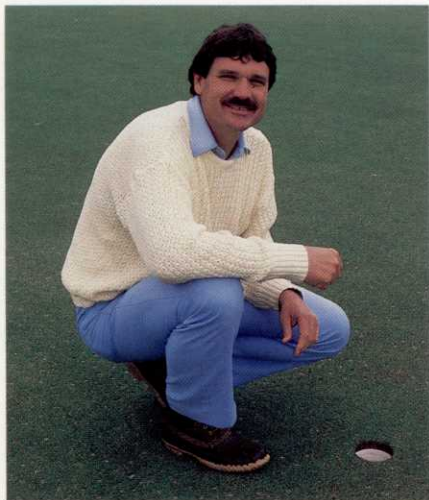
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David Lowe, superintendent of The Plantation at Ponte Vedra, uses potassium nitrate on his bentgrass greens.

"We have bentgrass greens, which are still a little unusual in Florida," he said. "Potassium nitrate offers an excellent ratio, especially for use in the fall, winter and spring applications we make here in Florida."

"We use potassium nitrate in many of our formulations to supply the superinten-

dent with the highest quality fertilizer for production of the highest quality turf," added Irv Stacy, vice president of the Par-Ex Woodace specialty division of Vigoro Industries, Inc.

"We use potassium nitrate because it's a high-grade, chlorine-free fertilizer, composed entirely of potassium and nitrogen in the nitrate form. It offers a microprill, a very finely-sized material and it fits in well with our formulas for greens fertilization."

Par-Ex is one of the few turf fertilizer product lines using potassium nitrate in its turfgrass products.

"It fills a very good niche and we've taken advantage of it," Stacy said.

Superintendent Lowe added that the potassium nitrate prill's uniformity makes it easy to apply, even at low rates. He also noted that it is not picked up by mowers. "It's also highly soluble, and moves into the soil quickly and easily."

Potassium nitrate is an excellent source of nitrate nitrogen in Par-Ex formulations, according to Stacy. His company blends potassium nitrate with its slow-release ni-

trogen. He said the blend offers an immediate green-up and long residual effect.

"Potassium nitrate is an excellent source of nitrogen on cool season turf, because of the nitrate form," he said. "It's an excellent source of potassium because of its low salt index."

Street agreed.

"From a salt-tolerance standpoint, potassium nitrate has an advantage over other forms of potassium," he said. "Other forms have a higher salt index (which can cause burn damage), than potassium nitrate."

"Bentgrass requires a more intensive program for its growth and maintenance anywhere in the country," he continued. "Whether you are dealing with heat stress or wintering over, your potassium source must be such that it can move into the soil profile quickly, made soluble, and taken into the plant to prepare it for stress."

Cathey L. Bateman is a freelance writer based in Orlando. The article was submitted by Patterson, Bach & Brooks, advertising agency for a supplier of a potassium and nitrate plant nutrient.

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Turf Industry Roundup

Former USGA agronomist forms firm

Charles B. "Bud" White, a long-time agronomist with the USGA Green Section before taking over golf and landscape operations at the Harbor Club in Greensboro, Ga., has formed a consulting firm, Total Turfgrass Services, Inc.

The new company will be headquartered in Watkinsville, Ga.

Among his services will be grow-in management, budget development, equipment need determination, custom fertilizer programming, maintenance facility planning and evaluation, soil testing and irrigation and drainage consultation.

White is a certified professional agronomist with a

master's degree in turfgrass management from Clemson University.

Philip R. Gardner has been named executive vice president/sales of Lesco, Inc.

Gardner will oversee all Lesco sales operations. The company markets primarily through golf course sales representatives who operate tractor-trailer Service Centers known as "stores on wheels" in 16 states.

"We will open numerous Service Centers in 1991, increase the number of golf course sales territories and expand our telemarketing operations," Gardner says.

He joined Lesco in 1975 as a golf course sales representative and most recently was vice president of the Lawn Service Sales Division. He is a member of the FTGA, Ohio Turfgrass Association and the Professional Lawn Care Association of America.

Dr. Bruce J. Augustin has been named director of fertilizer and marketing development for Lesco, Inc. He will develop, formulate and market Lesco fertilizer and fertilizer combination products.

Before joining Lesco,

Augustin was associate professor and extension turfgrass and water specialist with the University of Florida.

Larry Turnmire is the new chief planting superintendent for Pike Creek Turf Farms in Adel, Ga. He brings 18 years of experience to his new position.

David J. Campodonico III is a new territory account manager for Lebanon Turf Products, serving the Carolinas, Georgia and Florida.

He came to Lebanon from Kenmure CC in East Flat Rock, N.C., where he was assistant golf course superintendent.

Lebanon also announced the promotion of four product group managers in conjunction with its shift from geographic to product-oriented sales structure.

Paul Grosh and Randy Rogers will be responsible for marketing the Country Club brand for golf course use; Harry Mathis will be in charge of Greenskeeper and Lebanon Pro Line products; Ed Price will coordinate development of the Green Gold, Turf Master, WonderGro and private label lines for consumer sales.

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.



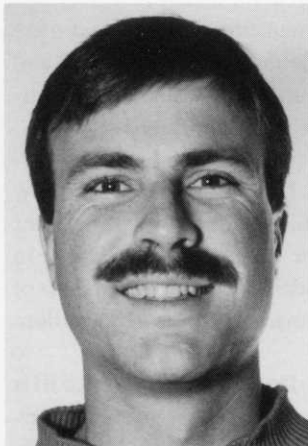
White



Augustin



Gardner

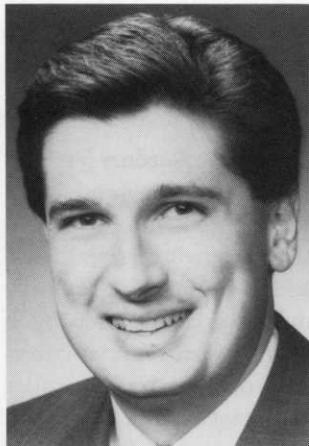


Campodonico

William E. Ryan is a new product manager for Rain Bird Sales, Inc. He will be responsible for developing the company's line of golf course irrigation products, including controllers, valves, rotors and accessories. Ryan has been a marketing coordinator for Rain Bird for the past two years.

Century Supply Corp., which distributes Rain Bird irrigation equipment from 12 locations in Florida and five other states, was named Distributor of the Decade by the commercial and contractor division of Rain Bird Sales, Inc.

Mills Irrigaion Supply of Fort Walton Beach was selected the firm's Eastern Lawn Line Distributor of the Year. Profes-



Ryan

sional Pump Corp. of Boca Raton also was recognized by Rain Bird for outstanding sales achievement.

Pamela Martin has been promoted from manager of accounting for the USGA to controller. She has been on the USGA staff since 1985.

Jim Sweeney has been named manager of the north central region for the USGA's Department of Regional Affairs. He previously was executive director of the Sun Country Golf Association in New Mexico.

David Chambers will oversee Monsanto's Lawn & Garden division in the Southeast.

His territory includes Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina and Tennessee. He previously supervised the division's Southwestern unit.

The PGA Merchandise Show drew a record 23,749 buyers, sellers and industry leaders to Orlando Jan. 25-28, marking an attendance increase of 4.1 percent. By converting restaurants and other meeting rooms to exhibit space, the show accommodated 73 new exhibitors.

On the second day of the show, the Orange County Convention/Civic Center set a one-day record for food and beverage service.

The switch from Saturday-Tuesday format to Friday-Monday, with only a half day reserved for members only, will be permanent, according to Show Director John Zurek.

Excel Industries, manufacturer of Hustler Turf Equipment, has expanded warranty coverage on all of its equipment to a minimum of two years.

Ciba-Geigy has introduced two iron chelate micronutrient formulations for use in turf, landscape plantings and nurseries.

Sprint 138 features 6 percent chelated iron and corrects iron deficiencies in alkaline and calcareous soils. Sprint 330 has 10 percent chelated iron and corrects deficiencies in slightly acidic to slightly alkaline soils.

Both can be applied as a soil or foliar treatment. In soil applications, the product must reach the root zone.

Lofts Seed has a new lower-growing tall fescue, Rebel Jr., which is darker than other turf-type tall fescues. It is dense, persistent, slower growing and performs well in full sun or moderate shade and adapts to a wide range of environmental conditions.

Pennington Seed has added a 10-ounce shaker canister to its line of wildflower seeds. Five different mixtures are available: country wildflower, cutting garden, floral ground cover, herbal garden and hummingbird lovers.

Lesco has introduced the Accu-Rate Professional Injector Gun, a hose-end sprayer featuring a heavy-duty, industrial venturi system, making it suitable for professional use.

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