

(Continued from page 30)

tion. The topdressing, which in theory, acts the same as a fertilizing. These practices, from the fall, prove beneficial, as club tournaments are consistently played with pride.

Of all the golf courses in Palm Beach County, few clubs exhibit such heavy play, yet maintain good quality turf throughout the season as Atlantis Country Club. Certified Golf Course Superintendent, David Bailey, finds the fall fertilizing to form the foundation for the season. Text book theories must be revised here, as Ormond Bermuda, dense shade and extremely heavy play on small greens averaging 4,300 sq. ft. prove to be high stress to the turf-grass plant. For Bailey, the end of September, which usually is after the heavy summer rains, correlates to the beginning of the fall fertilizing. The concept is to fertilize, but not too early, and then have to deal with excessive mowing. Summer soil testing taken after the heavy rains, when the soil is most deficient, reveals an analysis of an 0-0-30 at a rate of 400 lbs/A that is applied for fairways and roughs.

In mid-November, a 10-10-10 is applied to equalize nutrient levels across the spectrum. Bailey states, "I am not interested in purchasing unneeded elements as the soil test along with course conditions reveal the demand." A few weeks following, a 20-0-0 liquid is applied through the fertigation system to begin equalizing the nitrogen/potash levels. The nitrogen program is continued at a rate of 30 to 40 lbs of Nitrogen/month until May, or in other words, the end of the heavy playing season. January and February show to be the severest of months, so an 0-0-30 is again applied in late December, as this is the last of the bulk dry applications for the season. The liquid provides the source from here afterwards, as play always exceeds 300 rounds a day. Because of the ease of application and the design of individual irrigation head control, the fertigation system proves to be quite beneficial.

The fertigation is a bonus to the system, as once again we find a 1-0-1 analysis. The greens are maintained on a similar ratio as IBDU and an 0-0-30 is applied, which in reality, boils down to a 31-0-30 analysis. The Nitrogen is slow release and the 0-0-30 also is a low risk for burn. Bailey feels "this combination is so efficient and effective for me, it works as well as a 3,000 lb ton. Fast, smooth, consistent putting surfaces are the factors for my criteria. Color is not a factor and overseeding is not used, because the putting surface desired could not be achieved with such small greens and heavy traffic." Once again, a light topdressing is used every three weeks during the heaviest times of play. For Atlantis, we find a unique combination of dry and liquid with high analysis ratios, yet little risk of burn.

Of all the means for fall fertilizing, perhaps the most unique program can be found at Banyan Golf Club. Certified Golf Course Superintendent, Dan Jones, employs a total liquid fertilizing program. Again we find a 1-0-1 ratio applied as Jones feels "an 8-0-8 best suits my needs. I have used the 12-0-6 and the 11-0-5, but I feel the 8-0-8 to be the best ratio, because I need to get the Potash levels up, while the higher Nitrogen levels are not needed.

Beginning September, the plant is growing during a period of maximum uptake for storage of food for the fall. So, for September, October and November, Jones applies 40 lbs

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of Nitrogen/acre/month. From December onward, the program tapers down to 30 lbs of Nitrogen/acre/month. The greens are treated with a similar blend at a rate of 1/4 lb of Nitrogen/1000 sq. ft./week except this analysis contains 0% Chlorine content because of the intense care of the greens.

Soil test, along with tissue test, provide additional data. The difference between the soil nutrient level and the uptake within the plant has caused Jones to specify an application high in minors. The program gives Jones a total management program. The elemental poundage of material applied per month is the same as any other course; however, the spoon feeding effect again maintains a level of consistency.

After reviewing several different golf courses and analyzing their respective programs, we find different analysis, grade of material, and means of application. Even though each management program is unique, the programs all produce the common denominator: excellent tournament quality condition-type golf courses year round.



During the month of June, at the J.D.M. Country Club, the Palm Beach Chapter of the Florida Golf Course Superintendents Association elected the new Board of Directors for the 1982-1983 year.

President

BILL KRIEGEL, CGCS, Delray Beach C.C.

Internal Vice-President

STEVE PEARSON, Boca Groves C.C.

External Vice-president

FRED KLAUK, Pine Tree G.C.

Secretary

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Directors

GLEN KLAUK, Delray Dunes C.C.

JOHN MCKENZIE, CGCS, PGA Nat'l Golf Club

DENNIS WEBER, Frenchmen's Creek C.C.

Past President — Vacant

MARK HENDERSON was appointed by the Board to fill Kevin Downing's move to the Treasure Coast Chapter.

Congratulations to all for the fine past year, and may this coming year be even better! ■

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- St. Andrews of the Gulf, MS
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Treasure Coast "Tide"ings

By JAMES P. CALLAGHAN
Riomar Country Club

FALL FERTILIZATION

Getting Back to Basics at John's Island

During the past two years, Adam Yurigan, Jr., Golf Course Superintendent of the John's Island Club in Vero Beach, has spent a great deal of time in evaluating and readjusting his overall fertilization program. As the 1982-83 season approaches, Adam is confident that his turf will be in peak condition. Having worked closely with Adam and being aware of his new fertilization program, I asked him to share his ideas for this issue of THE FLORIDA GREEN.

Adam stated that the basic fundamental which has shown success for him was simply returning to basics. In other words, he sat down and examined his past experiences with fertilization practices, overall turfgrass quality especially under stress conditions, interactions between fertilization, disease, weeds, insects and thatch, and most important—COMMON SENSE. He said "We started using a large amount of high priced blends that just didn't seem to cut it—the results were not justifying the amount of money being spent. I said to myself that there must be a better way. That's when I sat down and started to do some serious thinking."

Working closely with his two assistants, Chuck Calhoun and Lee VanValkenburg, a total revamping of fertilization practices at John's Island was underway. Frequent soil samples were taken to determine if any deficiencies in phosphorus, potassium or any of the essential minor elements were present. Also, a more intense monitoring of the high soil Ph found at John's Island (and along the entire Barrier Island) was initiated. Yurigan stated "The soil Ph at John's Island will range from an acceptable level (6.2 - 6.8) on the greens to over 8.0 on some of the fairways because of the high content of shell in the soil. Under high soil Ph, iron, manganese, and zinc are tied up in the soil and are not available to the grass-plant. By lowering soil Ph with sulfur, we are correcting many of the minor element deficiency symptoms that we had experienced." Also, to aid in determining possible nutrient deficiencies, Adam has grass clippings analyzed as a failsafe measure in the late summer so that necessary additions can be made in the fall.

Another important facet in Yurigan's fertilization program is economy. "We were spending over \$600.00/ton on some blended fertilizers," he commented. Adam continued, "On some of the so-called economy blends, we were still throwing away money on filler material. So now I

blend my own fertilizers. At John's Island we are now using primarily Ammonium Sulfate and Sulfate of Potash on the fairways. 100 lbs. of Ammonium Sulfate and 50 lbs. of Sulfate of Potash gives me a 14-0-16 blend that supplies 20% of sulfur for less than \$250.00/ton." (When loading the hopper, different raw materials are added in unison as required for the particular blend. Before the fertilizer is distributed, the agitator is run for 1 minute with the discharge closed to mix the materials. Adam commented that his practice mixes the materials as well as founded in blended fertilizers that he has purchased in the past.) Adam added, "If I want slow release nitrogen, I'll add IBDU to the Sulfate of Potash and if I need some Minors in the blend, I go with Milorganite. Basically, we're using pure, refined materials—no fillers. And by blending them ourselves, we're saving money."



Frequent soil sampling and testing have insured a sound fertilization program at John's Island.

To insure optimum benefit from their fertilization program, Adam, Chuck and Lee have been paying more attention to rainfall amounts. They have come to the realization that after several heavy cloudbursts, nitrogen and potassium used to be replenished because of the ease of leaching that occurs on the sandy soil. And the requirements differ on the two courses considerably. Yurigan stated, "Just last week we recorded 2.5 inches of rain on the North Course and only .75 inch on the South. That fact alone will play an important role in determining the date for the next individual fertilizer application for each course." In addition, the greens on the South Course contain a high amount of organic material whereas the North Course greens are relatively sandy. Also the South Course is irrigated with effluent and water from shallow

(Continued on page 36)

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PLANTS IN TAMPA AND FT. PIERCE

(Continued from page 35)

wells while the North Course is irrigated primarily with water pumped from a private well on the mainland. North Course fertilization requirements are 20-30% higher than the South Course.

Come September, everything is analyzed again. Yurigan and his two trusty assistants are expecting very positive results from this fall's fertilization program. ■



Proper materials and timing of application will provide dense healthy turf for the peak traffic season ahead.



A picture perfect golf course resulting from an intense fertilization program (#17 - North Course, John's Island).

TREASURE COAST ELECTS OFFICERS

At the July 28, 1982 meeting of the Treasure Coast Chapter, the following new officers were elected:

President:

JAMES F. CALLAGHAN

Vice-President:

Joe Snook

Secretary:

ROSS SAYLOR

Treasurer:

CRAIG BAKER

GCSAA Membership & Chapter Relations Committee Member:

TOM BORROWS

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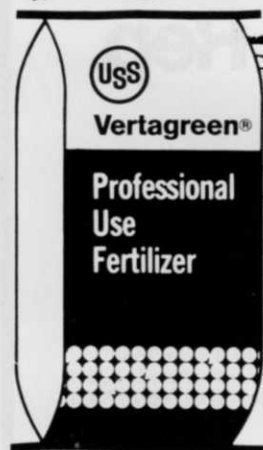
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Training Program Keeps Students on the Links

By LORA BOLTE
Sun-Times Correspondent

As the Tournament Players Club enters the countdown before its first national tournament on the new course, the pressure is on to get each blade of grass manicured, each sand trap impeccable, everything brought up to the level of perfection demanded by the touring pros. In another part of town, high school students are busy preparing to take their places in the golf course industry.

A new program at the Westside Skills Center is offering training for entry-level employment to students from all of Duval County. The students work in every phase of golf course maintenance in addition to studying horticulture and nursery operational. Four students from Fletcher Senior High are enrolled in the classes.

The department head at the Westside Skills Center is Bob Baughman of Neptune Beach. Baughman says of the golf course maintenance program, "This is the only program I know of at the secondary level in the country. For training purposes we have built a green and tee. We will eventually have a short nine-hole course. This is the kind of "hands-on" training we stress at the Skills Center.

"We are building the course from scratch. It was pretty hectic around here when the 18-wheelers were unloading

the sand for constructing the hole. We cooperated with the plumbing department in installing the drainage and irrigation systems.

"There will be no play on this course since it will frequently be torn up to experiment with different turf cover. We will be changing it continually to give incoming students the same valuable experience of observing what goes into the building of a golf course."

The students are now learning to operate all the complex and very expensive machinery involved in maintenance. This is as close to the real world of work as it is possible to get in a school setting. The curriculum is geared to prepare the students to take their places in the golf course industry.

The statistics of the golf course industry are impressive. There are 12,000 courses in the United States to provide facilities for 13 million adults (28 percent women). The capital investment in the industry is \$5 billion.

Baughman said, "Golf course superintendents have a problem hiring and keeping responsible workers. The

(Continued on page 39)

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(Continued from page 38)

machinery is expensive and can't be trusted to lackadaisical employees. We are not just teaching skills, we continually stress attitude, interest, and responsibility. An employer, familiar with our program, knows he is getting somebody who has been trained to act responsibly.

The Skills Center works closely with employers. Baughman is a member of the Golf Course Superintendents Association.

A Beaches resident, John P. Hayden is course superintendent of the San Jose Country Club. Hayden was recently elected to the Board of Directors of the Golf Course Superintendents of America.

Hayden said of the program at WSC, "In the old days, greenskeepers were working with a sling blade and push mower. Now we are using machines costing up to \$40,000. I would certainly look hard at any prospective employee who came to us with some training.

"Greenskeeping is not a dead-end job. If they do well, they can go on to specialize in the mechanical area or work as spray men. These jobs pay in the neighborhood of \$10 an hour.

Chip Powell, course superintendent of Deerwood, who is president of the North Florida Chapter of the Golf Course Superintendents Association, has visited the Skills Center.

"I was flabbergasted to realize that enormous facility was out there and I hadn't even known it existed," Powell said. "It makes a lot of sense to me to spend part of our education tax dollars to train young people for jobs that exist. Not every high school student is headed for college.

"Baughman showed me through the facilities for the golf course maintenance program. Those students will have a marketable skill. Take the list Baughman developed of 65 tasks his students perform. That list is outstanding. It would be years before an entry-level employee would get experience in all those phases of our work. It takes a devastating amount of time for all that training.

"If I were hiring and a graduate with that training applied, you can be sure I would give that applicant priority. In addition, the school's graduate will advance faster if they build on what they have learned."

Powell added, "You have to realize that besides very expensive machinery, we are working with chemicals that must be treated with respect. We are working close to golfers, homeowners, children, pets. Our employees must be knowledgeable and responsible."

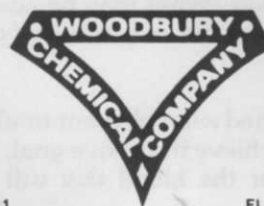
Sixteen-year-old Geoffrey Gibson is enrolled in the program from Fletcher. A golfer since the age of three, he has his long-term career plan mapped out. He will use the skills he is learning at the WSC for summer employment to help him with the expenses of the six-year course of training required to be registered as a teaching pro.

Students spend from two to three hours a day at the center for three years. The balance of the day they complete their academic requirements at their high schools.

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West Coast Buccaneers



By REED LeFEBVRE
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Fall fertilizing involves more than just dumping 10 or 15 tons of fertilizer on the golf course and then praying for rain to wash it in.

First, fertilizers come in many grades and many different mixtures, each with its own benefits. Many of the elements that make up many of the blends are found naturally in different types of soil, therefore if your soil is abundant in phosphorus for example, then you would be wasting money to add more phosphorus. The key to fertilizing is the question "What may be added to assure the desired results under the conditions of growth and use of the area?"

Once it is determined what element or elements are going to be needed to achieve the above goal, then we can start to look around for the blend that will take care of our needs.

Fertilizers fall into several categories, ranging from an all organic to a straight chemical blend. Many of the popular blends are a combination of both the above.

Generally the organic fertilizers won't burn where your chemical blends do have that tendency. However, if cost is a factor, then you may put up with a little burn in order to be able to put out as much of the material as needed.

Here on the west coast, it appears as though most of the superintendents go with a high nitrogen and high potassium mix when they fertilize in the fall. High nitrogen being used just because bermuda grass needs high amounts, the high potassium is used in the fall to help strengthen the grass cell structure to withstand the cold and frost conditions.

Many superintendents take the opportunity to add herbicides with the mix at this time to take care of their pre-emergents. Kerb is commonly used at this time.

On the greens which are to be overseeded, generally regular fertilization is cut back, especially with nitrogen, and

just before overseeding a preplant fertilizer is used, a 5-15-15 mix seems to be very popular. Once the overseeding is up, a lot of the fellas like to use IBDU to keep the amount of nitrogen available under rather strict control.

Summing up, fertilizing is a custom operation, the type of fertilizer used depends on local conditions at the time it is put out and may even vary green to green on some courses, but the end result is the same. Use the elements your turf needs for the conditions it will be subject to. ■

WEST COAST ELECTS NEW OFFICERS

At the July meeting of the Florida West Coast Chapter held July 19th at the Countryside Country Club in Clearwater, the following were elected as officers of the Florida West Coast GCSA for 1982:

President:

JOHN LUPER, CGCS

Countryside Country Club in Clearwater

Vice-President:

DON DELANEY, CGCS

Isla del Sol Golf Course in St. Petersburg

Secretary-Treasurer:

JOHN N. CHANEY

Eastlake Woodlands Golf & Racquet Club in Palm Harbor

Directors:

REED LeFEBVRE

Plant City Golf & Country Club in Plant City

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