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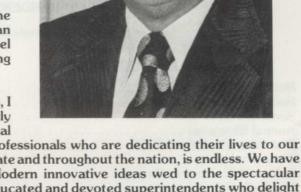
President's Message

After having the pleasure of addressing you on seven occasions thru the President's Message, I find it difficult to put into words my feelings as I realize this will be my last opportunity to deliver a sermon.

First and foremost, I want to thank everyone for permitting me to serve for the past two years as President of your organization, the Florida Golf Course Superintendent's Association. I have done it proudly and with deep humility. Nothing can be more self-rewarding than to be recognized as the leader of an organization which has accomplished so much and which has created such a favorable impact on that segment of our society in which it is so deeply involved. I take great pride in our success because I know the future will be even better.

Undoubtedly, I have not influenced our industry nearly as much as the close relationship with many of my peers has influenced me. I can honestly say that I have benefited greatly from my experiences and feel that I am a better person because of them. It has been a truly rewarding time.

As I review the past and momentarily revel in the attainment of goals, I quickly realize that we must not look back, but rather be constantly alerted to the uncertainties of tomorrow. This is made a great deal



easier when one recognizes the tremendous wealth of qualified professionals who are dedicating their lives to our existence. The list of extremely competent individuals, both in our state and throughout the nation, is endless. We have come a long way and yet we have only scratched the surface. Modern innovative ideas wed to the spectacular achievements of electronic wizardry and cost in the molds of well-educated and devoted superintendents who delight in daily combats with Mother Nature will lead us down the path to unthought-of excellence. Be part of this migration! Participate! You don't get interest back until you make a deposit! I guarantee you can never put in as much as you will receive!

To my fellow officers and members of the Florida Golf Course Superintendents Association Executive Committee, I extend a sincere thank you for your cooperation and loyality. It has truly been a pleasure working with you. May your futures be as bright as you have made my present.

To all the members of the Florida Golf Course Superintendents Association, I again say thank you for the privilege of serving you. It has been two of the busiest years of my life and yet I recognize the inability to accomplish all of my personal goals. But I step down knowing your organization is in even better hands.

No lecture this time — just a challenge — let's all strive to do a better job in all aspects of our daily lives — there is always room for improvement.

Best regards to all. ■

The Florida Green

The Official Bulletin of the Florida Golf Course Superintendents Association Florida Green Phone: Days - (305) 793-2497

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Budget Bonuses

By MEL WEINSTEIN

Several years ago, while doing some consulting work, I came across a very experienced Superintendent. He was one of the most knowledgeable men in the "Greenkeeping Art" that I had ever encountered. After a review of his golf course we compiled a list of deficiencies and a list of improvements that were necessary to bring the course into top condition. I left the list with him, and when I returned several days later, we reviewed the entire project. He advised me that he had analyzed every thing and the total cost of both the deficiencies and improvements would come to fifty thousand dollars. Most of the cost consisted of labor. When we got through that season, 75% of the work was done. The total additional cost of labor was zero and the material cost was only \$1,500. How it was done is a "BUDGET BONUS."

We all work on budgets. For most courses the budget is very tight, but even in the tightest budget there is room for extra work and improvements for the course. This outline will show how any one of us can do it.

The first step is for the Superintendent and the Chairman to go out onto the course; going from hole to hole, they should compile a written list of the various jobs that are to be done. This generally will not take too much time, no more than several hours. The list is then organized and analyzed. A sample of the type of listing would be as follows:

Hole #1

- a) Tee needs extra top dressing & aerification
- b) There is puddling near first mound on left
- Sprinkler does not reach far enough (near 150 yd. marker)
- d) Left front green trap has large rock
- e) Small depression, left rear of green
- f) Woods back of green need thinning out

The Superintendent and Chairman then review the list to determine which items have first priority, second, etc. A

period of time is then set to accomplish the work. I recommend the shortest time to be three months and the longest to be six months.

The Superintendent then agrees, or contracts, to complete the work within that period. This is a give and take situation whereby some of the jobs are postponed to a subsequent period. Once the contract is made it is entirely up to the Superintendent to produce the desired results.

The list is now in front of him for this particular period. He knows what materials are needed and he should bring them on the premises to be used on a moment's notice. What is that moment's notice? We all know that there are plenty of times when the cutting is all caught up. Time when the grass is not growing. Times when golf play is low or very busy. Times when weather conditions discourage normal maintenance. These and many other circumstances are the time and moment to make your move. You now know what is expected. You have made the contract. There is no more thinking what is my crew going to do today?

I personally feel that if 75% of the contract is fulfulled, then a good job was done. All we would do with the leftovers is add them to the next period.

A program of this type over a period of years will accomplish tremendous results. Results in improving the condition and appearance of your golf course. Results in proving to management what a great job you can do. Results in saving your club thousands of dollars. It is these results that all add up to your course always being in fine condition. After a period of time you'll be working on those little niceties that all golfers appreciate. They'll be even more appreciative when they learn it's not costing them anything extra.



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South Florida Sunshine

By BRAD G. KOCHER Inverrary Country Club

Fall Fertilization

No matter how you apply it, fall is the time to increase turfgrass nutritional levels in South Florida. The bermudagrass generally does not go dormant as it does in the northern half of the State, and high nutrition levels are necessary to keep the turf healthy and vigorous.

Sixty to seventy percent of our annual play occurs here when the bermudagrass is least likely to gorw. We experience temperatures as low as the high 20's during the November to April months with mid-40's, 50's and 60's being the average morning low.

Additionally, the hours of daylight may be as little as eleven hours compared to our long summer daylight hours of up to fourteen to fourteen and a half hours further putting a stress on bermudagrass that does not want to grow.

September through December are the most important months to prepare for the less than ideal growing conditions that prevail particularly from mid-December to the beginning of March. If we get behind in our nutrition levels during these months, it is very difficult to "catch up." The bermuda can slip into a semi-dormant state and very high nutrition levels would be necessary to bring it back. It would also be likely that other nutrition-related problems would develop, i.e. weed encroachment in weak areas, "thin" stands of turf add greater compaction from cart use on these "thin" areas.

Although different superintendents have differing opinions on amounts of nutrients to be applied, we can establish some generally acceptable norms. In South Florida seven to eight pounds of nitrogen per 1000 square feet for rough fairways and green slopes will provide in most cases adequate nitrogen requirements, even though several superintendents use substantially less. Phosphorus, although most South Florida soil samples show sufficient levels, can be applied one half to one pound per 1000 square feet per year to ensure availability should there be deficiencies in some areas. Potash levels, and there is room for a great deal of discussion in this area, can vary from four to seven pounds per 1000 square feet per year. There seems to be some very positive results on many courses that are using a one to one ration of nitrogen to potash. I believe we will see greater use of potash in the future. Minor elements are used in much less proportion with magnesium additions the most necessary.

Differing analyses are certainly necessary for different times of the year. Weather conditions dictate which levels of elements are necessary and it is up to the superintendent to analyze and decide which analysis is best suited to the needs of his course.

Most superintendents in South Florida will apply 75% of their nutrient requirements from September 1 thru April 1st. Between three quarters to one pound of nitrogen with proportionate amounts of potash and minor elements per month should produce healthy and hardy turf that can withstand cold weather extremes during these months.

As is the case with nearly every phase of golf course maintenance, the methods, rates and sources of nutrients very greatly with the preference of the golf course superintendent or consultant who sets the fertilization patterns for the year.

Pull-behind fertilizer spreaders such as the John Deere and the Lely are widely used as a method of doing your own granular fertilization. There are also commercial operated truck mounted spreaders who can fertilize your course for a reasonable cost per ton. Additionally, there is the fertigation method by which liquid fertilizer is injected directly into your irrigation system. It is controlled by the superintendent through variable percentages on a fertilizer injection pump. Fertigation is becoming more and more widely used every year.

A look at several different superintendents and their methods show substantially different analysis of fertilizers being used, but judging from nutrition levels and course appearance, the end results are admirable.

Neil Kalin at Pembroke Lakes, a Western Broward County Golf Course, kicks off his fall fertilization program in mid-September with an application of an 0-8-16 mix at approximately 400 lbs/A. He follows this in about ten days with a sulfate of ammonia (20-0-0) application at 250-300 lbs/A. Another application of sulfate of ammonia usually follows by mid-October at a 200-225 lbs/A rate. A sulfate of potash (0-0-50) mix is also applied prior to October 30th at 400 lbs/A. The next application of fertilizer is put on around February first and is again sulfate of ammonia. Neil feels potash levels in his soil are the key factor to winter hardiness and turf recovery.

(Continued on page 8)

Doral Country Club's superintendent, Dick Lemmel, will fertilize his courses in late September or early October with a 16-4-8 analysis (5 of the 16 nitrogen units being urea formaldehyde) at a rate of 1½-2 lbs. N/1000 square feet (400-550 lbs/A). He continues with this mix at approximate eight week intervals going again in December, February and April. Supplemental applications of a special blend of liquid fertilizer is sprayed on an as needed basis through the winter. The blend is 20-20-20 analysis with Techmangum. Dick uses a spray vehicle with a flood jet nozzle attachment. Green and tee areas are also supplemented with liquid fertilizer of a 12-0-6 analysis and sprayed on in a similar manner.

Golf courses on liquid fertilizer generally apply fertilizer each time they irrigate. Although many blends are available, the most popular analyses are a 12-0-6, 11-0-5, 20-0-0, 8-0-0 and a 30-0-0. The goal per month is approximately one pound of nitrogen per 1000 square feet and approximately ½ to ¾ lbs. of potash, along with minor elements during the Fall months. December through April levels drop to around ¾ lb N/1000 month and proportionate reductions in other nutrients. Constant applications of fertilizer are the key to providing consistent availability of nutrients using the fertigation method.

No matter how you apply fertilizer or how often or what analysis is used, soil testing is an absolute must. Without this information, we are just taking a shot in the dark at the plant nutrient requirements. Periodic tissue analysis of turfgrass leaf blades will also show you which nutrients the grass plant is using. The laboratories can suggest

nutrient requirements and then we can use our talents and preferences to determine how and when we satisfy those demands.



Members are (left to right) Les Brown, La Gorce Country Club, secretary-treasurer; Dave Lottes, Rolling Hills Country Club, director; Brad Kocher, Inverrary Country Club, president; Ernie Alexander, Miami Beach, vice-president; Kenneth Nicholson, Woodlands Country Club, past president; Mike Newell, Coral Ridge Country Club, director; and Al Weitzel, Metro-Dade, external vice-president. ■

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by ALLEN HANCHEY Meadows Country Club

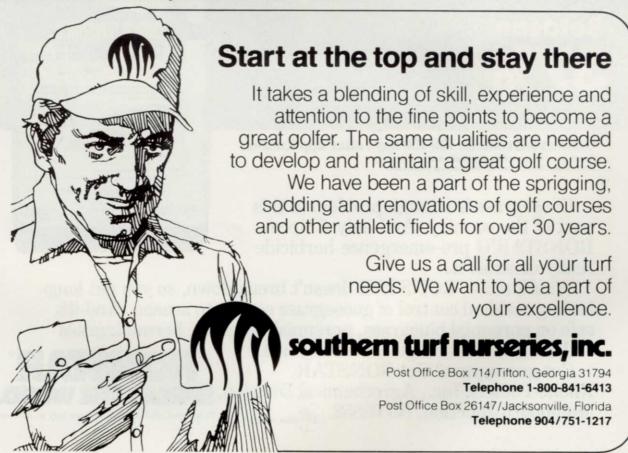
Fertilization during the fall and winter months probably has as great of an effect on the success of our golf course during the season as any other single maintenance program. At this time of the year there may not be a chance to "catch up" once behind on a fertilization program. Due to the distinct possibility of several heavy frosts between December 15 & March 1, the turf must enter this period in top nutritional condition. For this reason most superintendents in this area consider September, October and November as key months in preparation for the winter season.

In general, fertilization of fairways is increased to 1 lb/1000 or more of N during the months of September, October and November. Some sample programs include: 1) Larry Weber, Palm Aire Country Club — $1\frac{1}{2}$ lb. N/1000 from 16-4-16 with 4 units IBDU & minors in September and six weeks later 1 lb. N from 16-4-8 containing minors. 2) Hugh Bebout, Sara Bay Country Club — one or more applications of a chemical fertilizer followed by one or more applications of an organic fertilizer. Hugh feels that an organic fertilizer will tend to stay in the root zone

enabling the roots to stay warmer during the middle of winter or dormant period. 3) Mac Bough, Longboat Key Club—one application of 8-1-3/kerb at 1 lb N/1000 during September followed in October by application of 5-10-15 at 1 lb N/1000. 4) Allen Hanchey, Meadows Country Club—September application of granular 16-4-8/minors if a specific need to bring nutrition back into balance as a result of soil test or use liquid injection system 12-0-6. In general apply 1 lb./N/1000 per month thru season. In general, potassium levels are obviously increased.

For greens, fertilization is also at a rate of 1 lb. N/1000 per month. Weber alternates application of 9-3-6 containing sulfur coated urea and 8-1-8 containing IBDU approximately every two weeks, whereas Bough uses straight IBDU once permonth supplemented by foliar applications of ferrous ammonium sulphate and potassium nitrate.

Although methods and materials used certainly will differ from course to course, the objective of fall fertilization is certainly to have the turf in top nutritional condition for the season.



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ANNUAL BLUEGRASS (Poa Annua L.)

By STEVE BATTEN

Annual bluegrass is adapted to a wide range of soils and climates and is common worldwide. So much so, that it can be cultured as a turfgrass in the cool humid regions of the United States. It can easily be identified among warm season or overseeded grasses by its boat-shaped leaf tip. A vigorous seed producer, a mature unmowed plant can produce 360 seeds over a four month period. Potentially the soil surface could contain up to 30 million seeds/acre. Annual bluegrass is capable of producing seeds on open pyramidal panicles under low mowing heights of ½ inch (6 cm).

Annual bluegrass will not tolerate high amounts of soluble salts or low pH. Observations by researchers suggested that acid-forming fertilizers could be used for control (seedhead suppression). However, control has been more successful with applications of sulfur. Annual bluegrass is also highly susceptible to smog (ozone & sulfur dioxide) damage. It has even been used as a smog indicator plant in Los Angeles, California. Most common diseases and insect pests that affect cool season turfgrasses also affect annual bluegrass. Even with all these susceptibilities, annual bluegrass is still the most economically important winter weed on Florida golf courses.

Declination of the root system at soil temperatures above 80 to 85° F (30-32° C) allow bermudagrass to gain the upper advantage in the spring. With a lack of heat tolerance, it is good that annual bluegrass is only seasonal in Florida.

(illustration from *Turf Management for Golf Courses*, Fall 1982, by James Beard, published by Burgess Publishing Co., Minneapolis, Minn., illustrated by Steve Batten)

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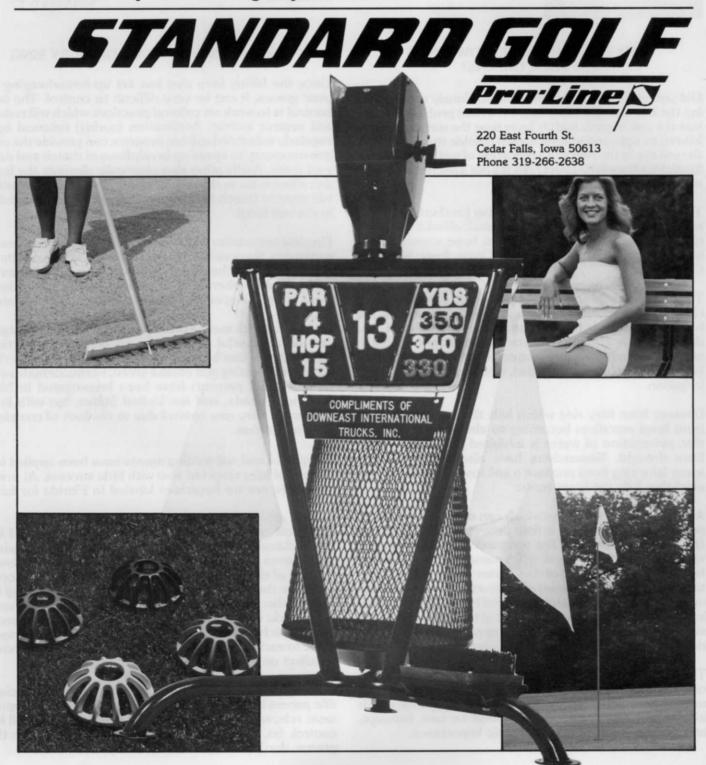
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Watching Your Tees & Q's

by Steve Batten and Bud White United States Golf Association—Green Section Southeastern Region



WHAT ARE THOSE YELLOW RINGS ON YOUR GREENS?

Did you ever have yellow rings mysteriously appear during the hot summer rainy season? When probing the soil, was the soil/organic matter layer near the surface brownish-red as opposed to dark brown outside the rings? Was the soil dry in the ring and application of wetting agents or fungicides have little effect? No, it's not a bacteria, but you might have had fairy ring.

To verify this, inspect the yellow ring for thumb nail size mushrooms. The mushrooms are small off-white puff ball types. This kind of fairy ring has been common this summer along the Florida East Coast from Miami to Cocoa Beach.

There are over 28 species of fungi which can cause fairy ring. Of course, most species in Florida do not kill the turfgrass, but some do when under the right cultural conditions. These conditions favor accumulation of thatch and soil organic matter, warmer summer temperature (above 85 degrees F daily highs), along with rain or excess irrigation.

Damage from fairy ring which kills the turfgrass results from fungi mycelium becoming so abundant in the soil, that penetration of water is inhibited and plants suffer from drought. Researchers have also suggested that some fairy ring fungi produce a soil toxin (hydrogen cyanide) that kills the grass roots.

Appearance of these rings which can number 20 or more per green usually starts in light yellow rings 10-30 inches (25-75 cm) in diameter. The turfgrass declines in several weeks, and dies after the ring has matured to its final size. Inside the ring is a band of dark green vigorously growing turfgrass which is the result of a natural nitrogen fertilization from microbial breakdown of soil humus. The advancing soil mycelium on the outer part of the ring can cause a similar plant nutrient uptake and appear as a lush green ring (see figure 1).

These two green rings surrounding the yellow turfgrass can make the rings most conspicuous, especially on low mowed bermudagrass greens. The fairy ring fungi which kills bermudagrass can also be found on tees, fairways, and roughs, but is of less economic importance.

SUPPRESSION AND CONTROL OF FAIRY RING

Once the killing fairy ring has set up housekeeping on your greens, it can be very difficult to control. The best control is to work on cultural practices which will reduce soil organic matter. Aerification (coring) followed by a regularly scheduled spiking program can provide the oxygen necessary to speed up breakdown of thatch and dead root mass. Aerification also physically disrupts the fungi mycelium mass in the soil. Careful reduction in irrigation will prevent thatch build up and reduce water availability in the soil fungi.

Physical excavation is possible, but the labor is extremely expensive. Removal of the soil mycelium which can be as deep as the 12 inches (30 cm) of the greens soil mix can be tricky. Besides, there is no guarantee that the soil replacement is free of mycelium unless it is correctly fumigated.

Fumigation with methyl bromide or chloropicrin (teargas) can be successful at the time of green construction. Although this can be a drastic was to eliminate fairy ring fungi in an existing golf course green. Formaldehyde solutions (0.125-2 percent) have been investigated in New Zealand, Canada, and the United States, but with little success in fairy ring control due to the lack of complete soil sterilization.

Fungicides and soil wetting agents have been applied for control of fairy rings but also with little success. At present, there are no fungicides labeled in Florida for fairy ring.

Biological control of fairy ring has been suggested by researchers in Canada. This has been related to such phenomena as the less intense fairy ring fungi on the down hill side of slopes. A ground water intrapment in the center of the rings would encourage soil antagonistic fungi to reduce the fairy ring fungi. Similar observations have been made where two fairy rings cross and cancel each other, which could be due to fairy ring fungi being antagonistic to each other. In any event, soil microflora can have an effect on natural control.

Although literature on fairy ring has been cited in scientific papers from 1807 in Great Britain to 1982 from Japan, most references agree on cultural practice of the soil for control. So, if you get a case of the yellow rings on the greens, don't panic, just aerify, aerify, and aerify.



ON THE NATIONAL SCENE

by: John P. Hayden CGCS Director, GCSAA



Time flies! I have spent a very busy summer attending to my duties at San Jose Country Club along with my responsibilities with GCSAA. Due to GCSAA's interest in Orlando I have had the opportunity to meet with Executive Director McLoughlin in person on several occasions, and with Education Director Jim Prusa occasionally. Our meetings have been very productive and have dealt with a number of issues in addition to the move. From what I have observed I can assure you that your national association has been working diligently to implement many new and progressive programs. In addition plans are being finalized for what I feel will be the finest conference ever in Atlanta. The new directory should be in your hands by the time you read this. In the coming years, with the addition of our new inhouse computer, this publication will be updated and improved so that we will be able to use it as our professional handbook.

The editor's seminar has been held and hopefully this will be one more step in the direction of keeping the members abreast of all the ideas and programs that your association is planning for the future.

One of the most critical decisions coming up at your annual meeting in Atlanta next year is the subject of dues. As you know the increase this year was a one shot deal. Next year they revert back to the old structure. I feel something must be done to give the directors the flexibility to run the association in a professional and business-like manner. I therefore believe we should give our elected directors the option to set the dues structure at a rate that would give the association fiscal stabiltiy.

The movement of our national headquarters has been narrowed down to the primary target of Orlando, Florida. This seens like a very good choice and your truly is actively helping assemble facts and figures for such a move. Bear in mind though that GCSAA is a national

organization and being an elected director I feel I should act and vote in the best interest of all our members around the world.

Although many of you are already aware of the fact, I must make a comment on the recent addition to the GCSAA staff of fellow supt. Lewis C. "Chip" Powell, CGCS. Chip and I have become close friends in the past five years since he came to Jacksonville. His main interest is in the performance and professionalism of the golf course superintendent. In this vein I think that GCSAA could not have picked a better man to help guide us and further the cause of the golf course superintendent in the next decade. I am sure Chip will want all his friends in Florida to keep him informed of all their ideas and comments about GCSAA. We are truly on the move to greater leadership in the golfing community with the dedication of young men like Chip.

Again I ask if you have any problems or ideas to benefit the association please give me a call..... I am working for you.

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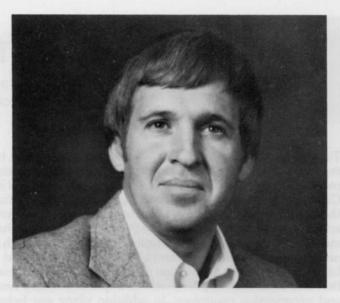
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NEWS RELEASE

Standard Golf Company, Cedar Falls, Iowa, has named Steve Tyler as a sales representative to represent Standard's Pro-Line golf course accessories throughout the United States.

Tyler has been the course superintendent for Cedar Falls, Iowa, managing two municipal golf courses in that city. He has been a superintendent or assistant superintendent for 14 years.

He is affiliated with Golf Course Superintendents Association of America, the Iowa Golf Course Superintendents Association, where we was president in 1978, and the Iowa Turfgrass Institute, where he was president in 1980.

Steve Burrell, Vice-President of Standard Golf, said that with Tyler and present sales representative Bob "Chief" Waseskuk, the company will greatly increase its efforts to advise and assit the Pro-Line distributor organization.

Standard Pro-Line accessories include ball washers, benches, flags, flag poles, putting cups, club washers, signs, and everything else superintendents need to operate a successful golf course.



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The golf tournament was played over the historic links of Riomar Country Club.



Chuck Calhoun (left) and Lee VanValkenburg (right) with Don Barth who took commercial honors.



Some of the newly elected officers are from left to right: Sid Saloman, Tom Burrows, Joe Snook, and Ross Saylor.

Treasure Coast Annual Meeting at Riomar

The Second Annual Treasure Coast Chapter Golf Tournament and Meeting was held at the Riomar Country Club and Riomar Bay Yacht Club in Vero Beach.

The tournament was won by Cliff Settergren of Dodger Pines with a 76. Defending champion, Adam Yurigan of John's Island, was runner-up. Lew Chaff, retired, took low net honors and Don Barth, Sales Representative for DeBra Enterprises, took the trophy for low gross commercial.

The Annual Meeting was highlighted by a keynote address from Joe O'Rourke, Immediate Past President of the South Florida PGA. O'Rourke commented on the working relations between the golf professional and the superintendent for better operations within the club.

Elected to office for the 1982-83 year were: President, Jim Callaghan, Riomar Country Club; Vice President - International Affairs, Joe Snook, Riverbend Country Club; Secretary, Ross Saylor, Stuart Yacht and Country Club; Treasurer, Craig Baker, Indian River Plantation; Directors, George Ord, CGCS, Piper's Landing; Sid Saloman IV, Indian Pines Golf Club; and Adam Yurigan, Jr., John's Island. Tom Burrows serves as Vice President - External Affairs for one more year.

Lonnie Stubbs, Immediate Past President, received a well-applauded hand for his outstanding services rendered to the chapter.



Cliff Settergren, left, with Sid Saloman. Settergren won the tournament with a 76.



Craig Baker, right, announcing that Joe Snook had taken high gross honors for the second year in a row.



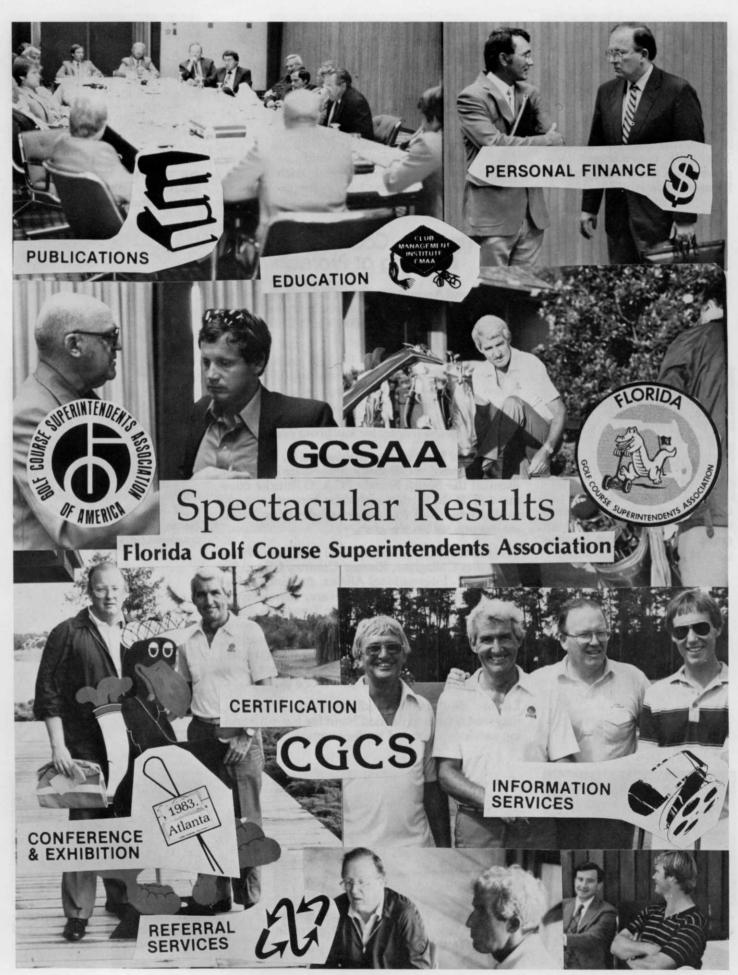
Adam Yurigan, defending champion, finished second.



Tex Ardonyo, signing in Immediate Past President, Lonnie Stubbs.



Jim Callaghan, host superintendent, is the new president of the Treasure Coast Chapter.



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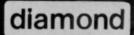
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IFAS TURF UPDATE AND FIELD DAY

By CHARLES H. PEACOCK Extension Turf Specialist, IFAS

The University of Florida was host to 350 people in Gainesville who came to the Institute of Food and Agricultural Science (IFAS) Turf Update and Field Day, May 18. Turf industry people representing sod production, professional lawn care, golf course maintenance, parks and recreation departments, and county extension programs attended the two part program to update them on current turf research and recommendations in IFAS.

Opening remarks by Dr. Ken Tefertiller, Vice-President for Agricultural Arrairs, pointed out the sizeable contribution turf industries make within the state. Dr. Tefertiller stressed the need for IFAS to continue its program in turfgrass science through the 1980's. The morning session was designated as an update from personnel involved in the turf program at the university. Dr. Ed Freeman, currently state turf coordinator, opened the session with an overview of the IFAS turf program. He recognized three individuals in the audience that helped to pioneer the turf program, Dr. Roy Bair, Dr. G.C. Horn and Mr. Ralph White. Dr. Freeman noted that the program in Florida is sizeable and that a new comprehensive technical report on turfgrass research is being published for release shortly. Dr. A.E. Dudeck followed to report on several recently completed projects, including "Effects of sodium chloride on eight bermudagrass cultivars" and the use of "Temporary grasses and mulch for warm season turfgrass establishment." The turf extension program was reviewed by Dr. Charles Peacock who stressed the need to continue to work with the professional organizations and provide area wide programs for the industry through county extension personnel.

Dr. Phil Busey, Turf Breeder from the Agricultural Research and Education Center (AREC) at Ft. Lauderdale outlined his recent work and focused on the direction and productivity necessary from his breeding program. He stressed the need to keep Florida turfgrass needs current with improved cultivars for our unique environment. Dr. Don Short updated control recommendations on turf insects and in the absence of Dr. Jim Reinert discussed mole cricket control research. Weed control recommendations and research were reviewed by Dr. Wayne Currey and Dr. Charlie Tarjan reported on current nematode projects. Finishing up the morning session, Dr. Mike Davis from the AREC at Ft. Lauderdale reported his finding relating to the bermudagrass decline problem on golf course turf in South Florida.

The afternoon tour of the Turf Field Laboratory involved Drs. Jerry Sartain, Charles Peacock, A.E. Dudeck, Don Short, Ed Freeman, Charlie Tarjan, and Wayne Currey. Thirty-five stations were available for observation of experiments and the researchers discussed findings in various detail at most of these stops. Time was allowed and used by conferees for extensive discussion with researchers of projects. Experimental topics covered included turf fertility, weed control, renovation, sod quality, legume overseeding, shade tolerance, disease control, cultivar evaluation, nematode control herbicide application and saline irrigation studies. Plans are being formulated for an annual program in conjunction with a field day at the AREC Ft. Lauderdale for 1983 with long range plans for a field day alternating between Gainesville and Ft. Lauderdale on a yearly basis. ■



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"This 50% intermediate of RONSTAR® herbicide (oxadiazon) will be marketed, in 50 lb. fiber drums, to fertilizer formulators for incorporation in their fertilizer products," says RONSTAR Product Manager, Gerald Quinn. "Several large fertilizer formulators have already expressed interest in the new RONSTAR® 50% Intermediate."

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The RONSTAR 50% intermediate/fertilizer combination will be available to turf care professionals under various private labels.

For more information, contact Gerald Quinn, Rhone-Poulenc, Agrochemical Division, Box 125 Monmouth Junction, NJ 08852, (201) 297-0100. ■



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Central Florida and Smither Win Crowfoot Open

The sixth annual Crowfoot Open Golf Tournament was won by the host chapter, Central Florida. Held at the famous Lake Buena Vista CC, Walt Disney World, the field consisted of over 150 players.

The team event is scored on the Calloway System best four man total. The Central Florida victory was by only one stroke over the Everglades Chapter. Scores for the winning team were J. Ondo - 71, J. Ellison - 71, S. Leventhal - 72, D. Parker - 72.

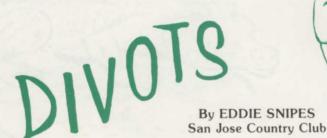
Gary Smither, superintendent at Bent Tree G&RC, Sarasota, won low gross honors with a splendid 69. The victory margin was three strokes over runner-up Fred Klauk of Pine Tree GC, Boynton Beach. Gary Smither, no new comer to the golf business, has been at his club for years. His scratch handicap is better understood when you know his brother is the professional at Bent Tree, and his father is PGA North Florida section president. Smither finished 9th last year in the GCSAA national tournament from a field of 250. This upcoming year he will be on the four man Florida GCSA team, as we try for our third national title in a row.

The winning team gross chapter was Palm Beach with a one stroke edge over West Coast GCSA. Low net superintendent was David Court of Boca Lago, Boca Raton, with a 70.

Heavy rain mid-way during the round of play made these low scores even more impressive. The course was in excellent playing condition. Larry Kamphaus is executive superintendent over all three Disney courses. Joel Jackson is superintendent at Lake Buena Vista. ■



NORTH FLORIDA





Have you ever gone to bed hungry? Waking up in the morning can be a real problem. It is very difficult to greet the new day when your body is running on empty.

Turfgrass in some cases can be equated biologically with the very people that take care of it. North Florida Superintendents don't like to think about going to bed hungry and they don't like their turfgrass to go into dormancy undernourished. Early spring green-up can be directly related to the type of fall fertility program that one has.

Fall fertility programs in turn can be affected by economics, temperature of region and desired effects for the course.

Low budget courses can not always take advantage of a good high nitrogen fertilizer application in the fall. With the turf going into dormancy a matter of a few weeks away, one may think this is the time to save money. One may save money, but in the spring, the turf may prove to be lethargic in nature from lack of fertilization.

North Central Florida reached temperatures in the teens last winter. Superintendents in that region find that increased amounts of potash in their fall fertility application helps their turf to resist cold damaging temperatures and support early spring green-up.

Resort courses in the North Florida area, because of entire course overseeding programs, continue normal fertilization practices. This is easier done for courses that are near the North Florida coastline as opposed to courses more inland. Cold temperatures and frost damage are naturally not as severe and a deep dormancy turf condition does not exist where temperatures are 5 to 10 degress warmer than inland temperatures.

(Continued on page 29)

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The Gator Growls

By DAN L. HALL JR. Imperial Golf Club

Florida's West Course Supers are about as diversified in their fertilizer programs as they are in their over-seeding; everyone uses materials differently but accom-plish the same purpose within budgetary limitations. We will attempt to generalize the programs after discussion with many Supers from our chapter.

Basically, the following materials are those most prevalently used:

12-4-8 with and without Minors 16-4-8 with and without Minors 15-0-15 with and without Minors Ammonium Sulfate Ammonium Nitrate 8-1-4 with IBDU or UF 17-1-10 with IBDU or UF

Milorganite

Liquid Aq 8-0-8 and 12-0-6 with and without Minors

Liquid Ag produces custom blends to meet all turf needs dictated by soil and tissue tests.

Green and Tee materials are principally the 8-1-4, 17-1-10, the straight Nitrates, and of course, Milorganite along with the fertigation products. Rates of N² and 1-2lbs. of K² used by those not overseeding during the cooler season.

Both programs are using some formula of fertigation but the rates are maintained in plant foods applied. Those who rely on fertigation to maintain color and growth still apply 3-4 applications of a dry material to tees and putting greens, primarily the balanced 8-1-4 or 17-1-10 and Milorganite. Basic application criteria are set by the weather, member preferences, as well as by the budget.

Total application of N² and K² for an annual basis in our area are within the range of 14-16#, 18-24#, 24-36#, from lows to the highs. There is even one club running higher than 36# N² with 22-24# K² but this is an exception — the basic average from those I've spoken with are in the 16-30 lb. range in N2 with 12-24 lb. range of K2.

Fairways and roughs are fed over-all in late September or October with the 12-4-8, 16-4-8, and 15-0-15 mixes at rates of 300-500 lb. of the mix per acre. A repeat is made again in late November or December at approximately one-half the above rate. Those on fertigation usually eliminate this application relying on fertigation at least through March or April. In the event of extremen cold, both Supers may apply an application of the soluble nitrogen sources at 100-200 lb. rates per acre during the season. They are divided into two groups, those that apply the N² before or immediately after the cold spell.



Those with-out fertigation will usually apply another mixed good application from late February through 15th April. Recent data has shown that we should possible wait until the natural spring frowth flush is complete before we make this feeding. Feeding prior to the natural flush has a tendency to reduce root growth significantly and since this is our dry season, more harm than good can be done at this time of year. Annual N2 in our area on fairways and roughs run from lows of 4-6 lb./MSF to highs of 12-18 lb./MSF with K² again in the .75 range ration of Nitrogen.

Our area has some extreme highs in PH values, some up in the 8.4-9.0 range. Minor elements, MN, FE, Mg, S, B, and Mb are rarely in the proper ratio under these conditions while at the same time AL and CA factors could be toxic, even to the point of causing turf kill. In addition, the full benefits of the primary elements are rarely attained. Sulfur is definitely equally as essential as N2, P2O5, and K2 and thence becomes a fourth major element. These factors are easily determined by leaf tissue tests made on site. Supplementary applications can be made by incorporating the minor elements in either a separate spray mix or as part of the normal sprays. Compatability should be established before mixing materials. Side applications of Sulfur must be carefully applied and such application even more if applications of soluble Nitrates or Potashes are considered. The resulting combinations, due to the caustic Sulfur can result in extreme phyto-toxicity to vegetation.

Manganese, Magnesium, Boron, and Molybdenum deficiencies have been showing up on a number of West Coast courses. Liquid chelates of these minors applied as sprays without irrigation have shown turf responses equal to an application of a balanced plant food. Results in some instances are even superior and surely less costly. Spot spraying so-called declining areas has proven much less expensive using the minors compared to an over-all application of either fertigation or a dry mix.

Fall and Winter applications of plant foods by whatever means are no longer, "just done," but are made strictly on data obtained by reliable soil and/or tissue analysis indicating specific needs. Material costs dictate the use of these instruments and they will become even more essential as budgets are becoming limited. Another vital part of plant nutrition is the use of quality products. A 16-4-8 can be made for plus or minus \$120.00/ton up to over \$350.00/ton even without the use of WIN Nitrogen sources. This concept of a fertilizer being a fertilizer is about as acceptable as a \$1.00 steak compared to a \$10.00 steak. While chemically correct, the differences are easily recognizable in the final results after application.

(Continued on page 29)

Golfers comparing courses must be made aware that the differences in color doesn't always mean the greener course is better play-wise. Problems reulting from excess feeding are too numerous and as professionals we are already aware of them. The goals and aims of the members — owners, as well as the budget, MUST be considered before player critique along this trend of thought can be valid or warranted. The present economical status will more than likely equalize the greenness of golf turf everywhere, all other factors being equal.

(Continued from page 27)

Superintendents in North Florida may not be able to agree on what particular fertilizer is best for their region and circumstances, but they do agree that some form of fall fertility is essential in bringing turf out of dormancy into a healthy condition. Remember, dormancy means "inactive" not dead, and inactive turf requires nutrients in the soil for growth stimulation.

NORTH FLORIDA CHAPTER NEWS

The North Florida Golf Course Superintendents Chapter annual meeting was held July 16, 17, and 18 at the Ponce DeLeon Lodge & Country Club in beautiful St. Augustine.

Chip Powell of Deerwood Country Club handed the gavel to new president Jeff Hayden of Turkey Creek Country Club. Jeff's tenure will be aided by Vice President Robby Robbins (Gainesville G & CC); Secretary, John Perham (U. of Florida CC); Treasurer, Tom Prescott (Timuquana CC); External V.P., John Hayden (San Jose CC). Directors for the chapter are Dick Johnson (Ponce DeLeon CC), Jim Reemelin (Zaun Equipment), Frank Sharro. Past President, Chip Powell (Deerwood CC).

Three days of tournament golf, good food, and fellowship were enjoyed by North Florida members and families. A very special thanks to Golf Course Superintendent Dick Johnson and his staff. The golf course reflected Dick's hard work and effort as the course was in excellent condition.

Dick was a superior host and we again thank him.

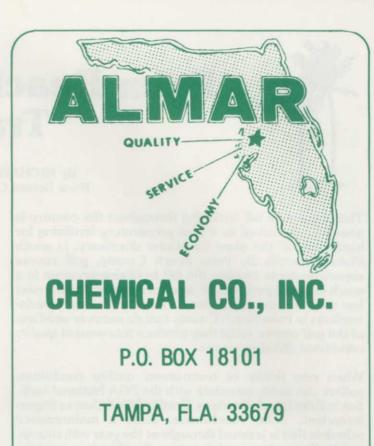


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Palm Beach Trade Winds



By MICHAEL BAILEY Boca Greens Country Club

The concept of fall fertilizing throughout the country is generally conceived as a final preparatory fertilizing for hardening off the plant for winter dormancy. In south Florida, specifically Palm Beach County, golf course superintendents imagine the fall fertilizing program in a much different perspective, as even compared to the next few counties just to the north. There are many superintendents in Palm Beach County that do not over-seed any of the golf course, while they produce tournament quality conditions 365 days a year.

When one thinks of tournament quality conditions, golfers can easily associate with the PGA National facilities in Palm Beach Gardens. Certified Golf Course Superintendent, John MacKenzie, finds a maintenance schedule that is jammed throughout the year with tournaments. Renovation work is extremely difficult to perform. However, projects must be performed within the prescribed time, as the show must go on. For example, during my interview, I was able to catch John at the turn during the PGA Junior Championship.

John MacKenzie is employing a fall fertilizing program that will make everyone happy in the clubhouse. The program actually is a two-stage process that begins in August. Summer renovation in May and June, along with a high pressure insecticide injection for mole crickets during July reveals August to be the ideal month for the fall fertilizing to begin. Soil tests reveal deficiencies in potash to be the major problem, while a 1-0-1 relationship proves to be the most beneficial for proper growth and recovery. A 15-0-15 with 1/3 slow release Nitrogen and the balance of sulfate of ammonia is paralleled with Potassium, all being sulphate of Potash. Minor elements are included with one unit of Iron. This blend is applied on fairways and rough at a rate of 450 lbs/A. McKenzie feels the August fertilizing aids in the development for better root structure, which in turn, proves beneficial during the stress of winter.

The second phase of the fall fertilizing is continued during mid-October. Again, the same product is applied. However, this time results will allow for the plant to maintain a level of consistency, which is the key word in McKenzie's program. Because of the fact of year round tournament conditions, the courses must always be kept up to par. Since turf growth is not viewed with levels of peaks and valleys, the consistency does not bring about a need for overseeding. Management of the greens is primarily with a 17-1-10 every 18 to 21 days at a rate of 1 lb of N/1000 square feet. As there is an interest in the color of the greens, mowing heights will vary with temperature. During the severest of cold stress, heights are raised to one

quarter inch on 328 Bermuda. At this time, charcoal is applied at a rate of 2 lbs/1000 square feet via a 100 gallon centrifugal pump with a flood jet nozzle. McKenzie states, "This I believe in plant growth by the result of increased ground temperature."

The major problem for McKenzie is time. Since time is of the essence, a spreader service is employed for bulk applications. A course is closed at noon, while a spreader truck begins applications at 1:00 P.M. and follows play. Within four hours, all is applied, resulting in little down time for the golf course. Obviously, time is so much of a critical factor at the PGA, for McKenzie must look good year round.

Another golf course that always looks good and up to tournament specifications is Pine Tree Golf Club in Boynton Beach. Golf Course Superintendent Fred Klauk, a scratch golfer himself, is well qualified to produce superb conditions year round.

Unlike the PGA, Pine Tree's program begins a little later because play is not as heavy during the summer. Klauk's fertilizer program tapers off during the summer and is kicked in gear around October. Soil tests show a deficiency again of potash, while a 15-0-15 proves to be the most beneficial analysis. When night time temperatures approach 60° F, a nitrogen source of IBDU slow release at a rate of 350 lbs/A for fairways and rough are incorporated into the blend. This program is continued again about eight weeks later in December. The rough will not be covered at this time.

Some of the most respected greens found anywhere are maintained at Pine Tree. A meticulous program again reveals consistency. Beginning November 1, a 7-3-7 with 70% ammonium sulfate and 30% sludge is applied every two weeks at a rate of ¾ to 1 lb/1000 sq. ft. When night time temperatures dip below 55° F, the rate is increased to 1½ lbs/1000 sq. ft. Putting speed consistency is the primary goal at Pine Tree as green color is not judged as the factor for good play. Mowing heights are adjusted by the means of a stimp meter, as 8 to 8.6 feet is the general average. Hand walk mowers are used beginning the 1st of November, while mowing heights are adjusted accordingly to accommodate for the consistency.

The additional aid to consistency is a result from periodical top-dressing. A 90/10 mix of medium to fine sand matches existing basic soil structure. This, in addition to an application of IBDU, at a rate of 1 lb/1000 sq. ft. combine to overstimulate the turf. Charcoal is not applied, as the topdressing instead, provides the means of stimula-

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 turfgrass 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 liqud 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 lelvels 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

(Continued on page 32)

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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-Presidnent

STEVE PEARSON, Boca Groves C.C.

External Vice-president

FRED KLAUK, Pine Tree G.C.

Secretary

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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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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 fertilation, 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 soild 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 least 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

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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

Directors:

GEORGE OFD, CGCS

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Past President:

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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 "handson" 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.

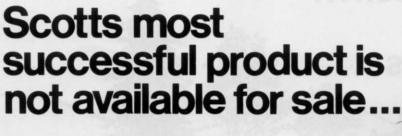
"There will be no play on this course since it will frequently be torn up to experiment with different turf cover. We will be changing it continually to give incoming students the same valuable experience of observing what goes into the building of a golf course."

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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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 Pines & Palms Management Corp.



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 nitorgen 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 preemergents. Kerb is commonly used at this time.

On the greens which are to be overseeded, generally reqular 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

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Directors:

REED LeFEBVRE

Plant City Golf & Country Club in Plant City

JOE CLAY

Clearwater Country Club in Clearwater

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Editorial

Florida has lost a son.... but has gained a very active and viable national association. Yes, all associations have gained with the addition of qualified individuals like Jim McLoughlin, Jim Prusa and Chip Powell to the GCSAA headquarters.

Chip Powell has resigned his position of Golf Course Superintendent at the Deerwood Club in Jacksonville, Florida to become Director of Informational Services at GCSAA. Chip was one of the brightest and most aggressive superintendents in Florida. He was involved in all phases of our local and state associations. We will sorely miss Chip and his bright ideas.

Florida is excited about the new direction of GCSAA. Getting superintendents involved at headquarters is a sure indication that GCSAA will be sensitive to the needs of superintendents world wide. It is very possible that in the next five to seven years GCSAA (or GCMA) could become one of the most recognized associations in golf. Are we willing to pay the price? Not just in dollars but in attitude and involvement. YES, FLORIDA IS READY to pull its share of the load.

To Jim Wylie and the rest of the GCSAA board we can only say RIGHT ON! ■



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