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TABLE OF CONTENTS

President's Message	9
Preparing Tourney Site Is Major Task for Luper	16
Palm Beach Tradewinds	18
Golf Turf News	
Growing in the Dry Season	26
The Gator Covers	28
The Art of Cover Photography	30
Vegas: (A Wife's Viewpoint)	32
Smutgrass	33
South Florida Sunshine	34
Watching Your Tees & Q's	36
Treasure Coast "Tide"ings	40
Central Florida Crowfoots	42
North Florida Divots	44
Jupiter Island Club	50
Editorial	52

ABOUT OUR COVER

Hole No. 14 at Jupiter Island Golf Club, Hobe Sound. Robert Hurst is Golf Course Superintendent. See article, page 50.



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 Banyan Golf Club



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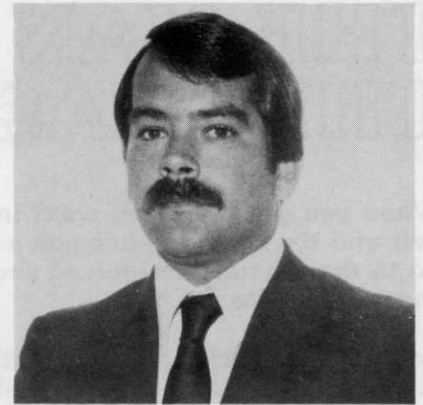
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President's Message

The Golf Course Superintendent's Conference and Show in Las Vegas were quite a treat. The educational sessions were very informative with emphasis placed on improving yourself and job efficiency. The show had several new ideas on equipment and accessories. Add this to a record attendance of 8,900 and a conference ending banquet including Bob Hope, Dick Clark, and Arnold Palmer makes it an event I'm glad I didn't miss. Congratulations to President Bob Osterman, Executive Director John Schilling, and Education Director Jim Prusa and their staffs on a job very well done.

The Florida Golf Course Superintendents Association was well represented in Las Vegas. Our light blue blazer has become a recognized symbol of the largest, most productive chapter in the nation.

On January 31, 1984 in Las Vegas at 7:00 A.M. the FGCSA had the winter Board of Directors meeting. My first meeting as president was very gratifying because of the committee work reported that had been voluntarily accomplished since our FTGA board meeting.

The public relations committee has put together a program to identify the superintendent at clubs hosting PGA and LPGA tour events with the media. They have also organized the Florida Golf Day that was proclaimed by the Governor to be held on May 5, 1984. Also this committee has put together a slide presentation on the many job functions of a golf superintendent which will be available to our members.

The Long Range Planning Committee is studying the possibility of securing an executive director and office location for excelling in organization, efficiency, and overall effectiveness.

The Education Committee gained approval on presenting a seminar at the POA ANNUA CLASSIC on management skills. They are also developing a list of programs and speakers that local chapters could use at their monthly meetings.

The FGSCA is directly responsible, in cooperation with I.F.A.S., for our members receiving the *Ornamental Horticulture 1983 Research Report* and the *Report of Turfgrass Research* supported by the FTGA.

The *Florida Green* magazine once again won more awards than any others at GCSAA conference this year and continues to be recognized as one of the leading golf turf publications in the country.

The FGCSA is very active, united and strong and I look forward to its future. Communicate with your chapters external vice president and get involved to help the promotion of our profession.

Don DeLaney

THE MAN IN THE GLASS . . .

When you get what you want in your struggles for self and the world makes you a king for a day, just go to the mirror and look at yourself and see what that man has to say.

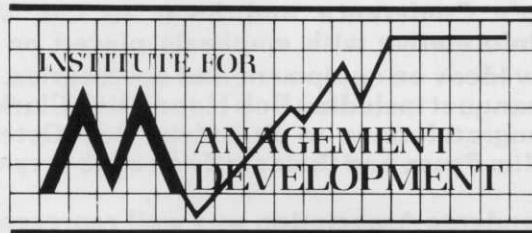
For it isn't your Father, or Mother, or Wife whose judgement upon you you must pass. The fellow whose verdict counts most in your life is the one staring back from the glass.

Some people may think you a straight-shooting chum and call you a wonderful guy, but the man in the glass says you are only a bum if you can't look him straight in the eye.

He's the fellow to please, never mind all the rest, for he's with you clear up to the end, and you've passed the most dangerous difficult test if the man in glass is your friend.

You may fool the whole world down the pathway of years and get pats on the back as you pass, but your final reward will be heartaches and tears if you've cheated The Man in The Glass.

YOU!!!



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Registration 7:30 A.M.

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Please fill out and return by May 1, 1984 with registration check made out to Florida GCSA.

Send to: Reed Lefebvre, Secretary-Treasurer Florida GCSA
Plant City Golf Club, 3102 Coronet Road
Plant City, Florida 33566

Name _____

Address _____ City _____ State _____ Zip _____

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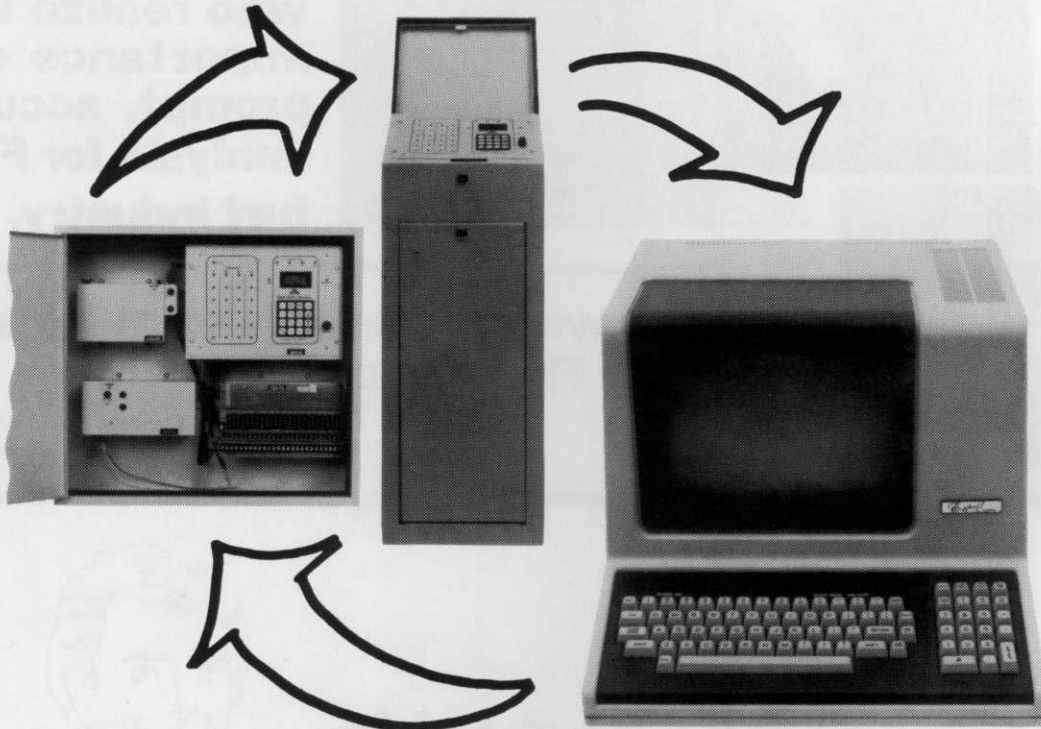
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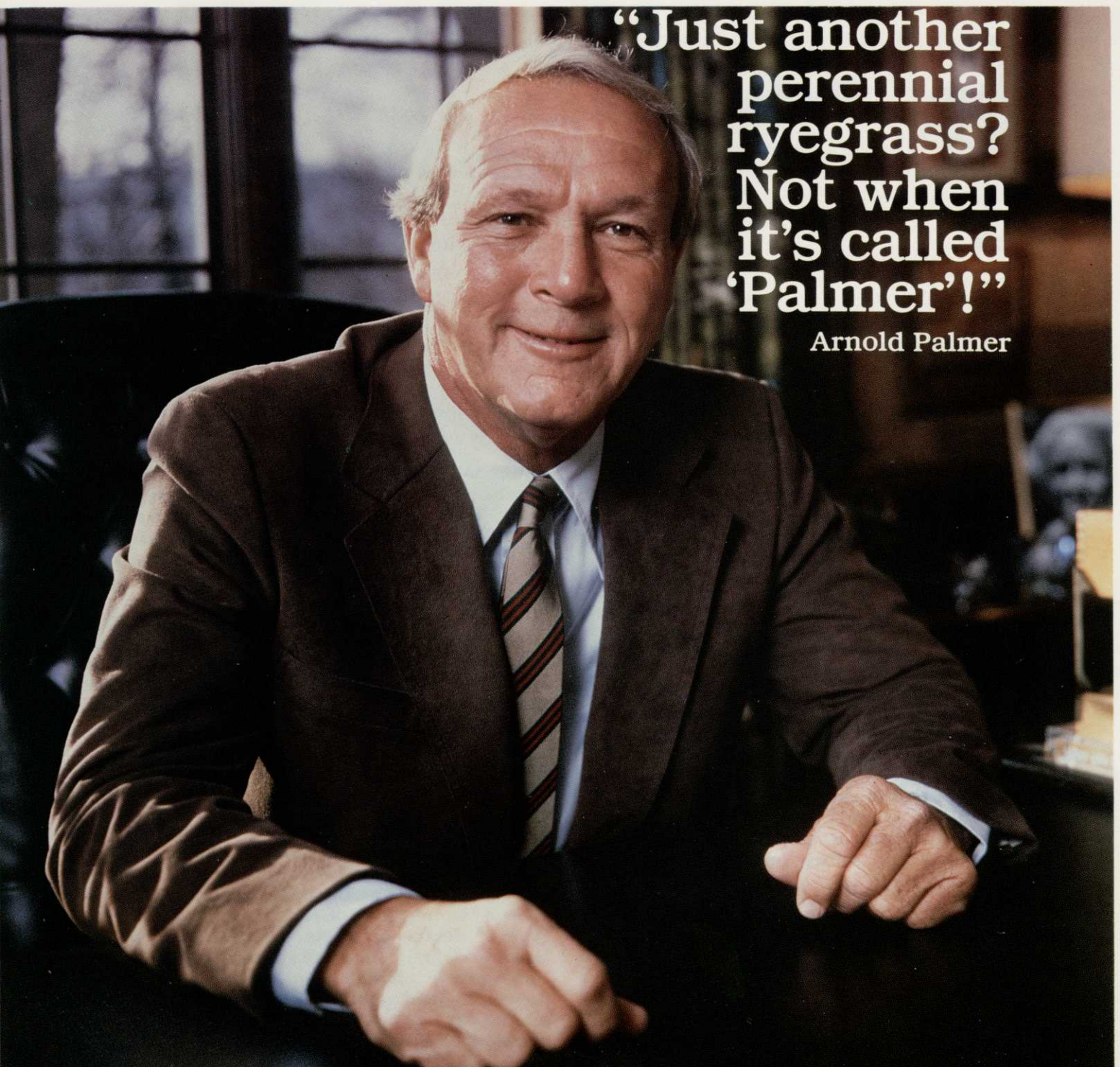
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Arnold Palmer

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Palm Beach Trade Winds



By MICHAEL J. BAILEY
Boca Greens Country Club

Those professionals outside the realm of the Golf Course industry fail to visualize the volatile position of a golf course manager. Just when you believe you have the golf course in the most superb condition within your ability, devastation strikes; disease, floods, frost or even a hurricane. What is perhaps the most immediate catastrophe which might occur? Answer: A fire to the golf course maintenance building complex! Many natural causes you can not control and you will just have to endure fate. Fire you can control! Fire safety is just a part of a good manager's complete program.

An insurance agent once asked me if I had a fire policy for the gas tanks, if they were to catch on fire? I said, "Yeah — run like Hell!" There is no way I would tackle a 3,000-gallon gasoline fire with a small fire extinguisher. I once witnessed the explosion of a 10,000-gallon gasoline semi-tanker on I-95. A massive eruption which was horrible to see as the driver could not escape; the truck remains were hauled away on just the back of a truck and a three-foot hole had burned through the pavement. The bottom line: respect fire, set up a realistic program to save lives and make sure you have performed as many safety precautions as conceivable.

Imagine if a fire was to destroy your maintenance building tonight. How would you cope with tomorrow? True, you might borrow some equipment from fellow superintendents, vendors would lend assistance and hopefully insurance would recoup the cost incurred, however, the ball is still in your court. Did you perform every safety precaution? To put up a few "No Smoking" signs just won't cut it. Installing several \$10.00 smoke detectors is hardly an improvement. Considering within a golf course maintenance building, fixed assets can exceed a half a million dollars, a complete fire alarm system should be a part of the basics, which can be monitored along with an alarm system by independent security companies, or better yet, an in-house security system, more commonly found on development projects.

Let us first examine the situation. Imagine the liability within the building. The basic necessities within will include dozens of petroleum combustible engines, gasoline cans, oil drums, flammable golf course pesticides, various items of general storage, the building structure itself, and

yes, the bomb outside — your fuel tanks! A thorough fire alarm system needs to accurately monitor the situation, notify appropriate authorities within a short period of time in order to remedy the problem before the situation is a total loss.

Upon my recent evaluations for a thorough fire safety program and a proper monitoring system, I contacted our local Boca Raton Fire Department. Fire Inspector Robert Diaz enlightened me upon the fact that fire codes are only a minimum standard set by law. "One should always consider exceeding the standards. Evaluate products on the market, consult your local fire inspector, and decide just how extensive you can afford to go. More than likely, the additional cost spent for safety devices will reap less expensive insurance rates. One can cut corners, however, the calculated gamble seldom proves beneficial."

The system should not only employ smoke alarms, but also heat sensors which fulfill a specific purpose. For example, a smoke alarm would commonly false alarm near the mechanics' repair area where welding and torches can produce misleading smoke trace. A "Rate of Rise Heat Sensor" mounted on the ceiling can monitor heat exceeding 132 degrees F. — a temperature obviously depicting a fire. This type of device operates exclusively upon the expansion of heat. As a fire spreads quickly, a sudden temperature change would occur. Just a normal heat sensor may false alarm under hot summer conditions, whereas a quick temperature change simulates a fire condition.

Smoke alarms would be very appropriate in offices where furniture and papers would quickly produce adequate smoke. Make sure all areas are monitored: offices, employees' room, restrooms, storage rooms, and the storage areas where equipment is stored. The best type of smoke detector is the photo-electric, which operates on the property of monitoring a pencil beam of light. This design is long lasting, and false alarms are uncommon due to the effective design. The ionization smoke detector can more commonly false alarm and are usually of a lesser expense and quality. A photo-electric smoke detector combined with the Rate of Rise Heat Sensors can provide an excellent monitoring system, if incorporated within their respective areas of best design for performance.

(Continued on page 19)

(Continued from page 18)

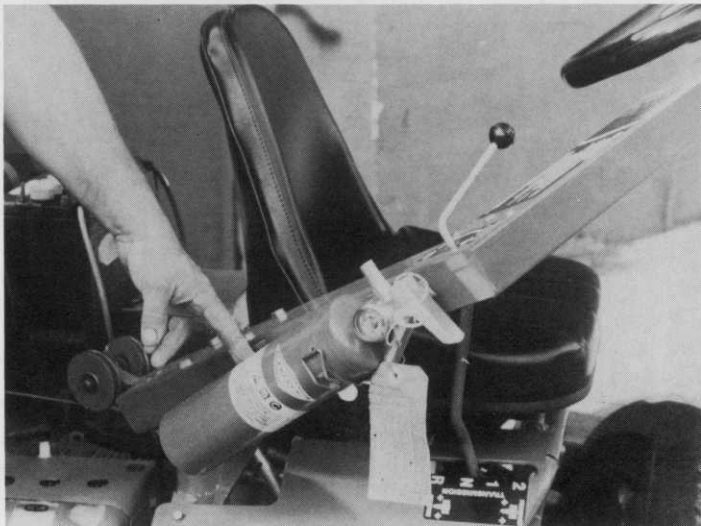
As for the outside bomb, the fuel tanks need an electrical emergency cut off switch, far away from the potential flame, so the pumps can be turned off in case of an emergency. This could aid in the prevention of spreading spilled fuel. Of course, the tanks should be buried underground and constructed of fiberglass rather than metal to prevent rusting and possible seepage. The fuel fill-up areas need proper ventilation, no smoking signs posted and strictly enforced within a 100-foot radius, and a fire extinguisher mounted within easy reach to put out a small machine fire. Once the machine's tank explodes, concede. Seek safety quickly, call the fire department immediately, and wait for the professionals. Mr. Diaz explains, "Your first response to a fire should be to call the fire department. The most common problem is the delayed tactic — a situation of being called too late. Most fires start small. If notified within a short period of time, most fires can be arrested. Once out of control, risk rises to unproportionate measures that can result in a total loss." Our most common thought is that I can put the fire out myself and I shouldn't bother the fire department for just a small little fire. The National Fire Prevention Code states by law, any "unfriendly fire" that occurs must be reported to the closest local jurisdictional fire department to be sure the fire is put out and recorded as being officially extinguished.

The fear of a fire is most commonly associated with the flame, however, more injurious to a person is smoke and its toxicity. Materials take on a different chemical make-up when being burned. This chemical reaction can transform somewhat non-fearful items into noxious fumes that can prove fatal. We often hear on national news of a railroad tanker car that has derailed, caught fire and nearby residents needing to be evacuated. Well, this is my same reaction with regard to our maintenance buildings. One of the most dreaded noxious fumes to inhale can be from the burning of Poly Vinyl

Chloride (PVC). Reactions to mucous membranes, lungs and the respiratory system can cause incurable symptoms, and can result in death. Because of this simple fear, if a maintenance building were to burn, I believe it would be best to totally clear the area, perhaps thousands of feet, in order to be totally clear of any possible noxious fumes.

Inspector Diaz explained a point to me with regard to the accidental burning of hazardous materials that brings a new wave of thought. A new concept of allowing a fire to burn itself out could very well change the design of maintenance buildings. The storage of such hazardous pesticides would be best stored in a separate building away from the center of the complex. For this reason, if a fire were to develop, rather than extinguishing the fire, it can prove to be far more economically sound to write off the fire loss rather than having to then deal with chemical clean-up. Inspector Diaz cited an instance where a chemical warehouse caught fire with a \$300,000 inventory. As a result Federal agencies required a total chemical clean-up which ultimately drove the company out of business. A high temperature fire can result in a clean burn-off, minimizing contaminated clean-up and prove to be economically more sound than trying to save the structure and its contents.

This past year I experienced a fire at the Clubhouse entrance sign. I ran into the Clubhouse whereupon I grabbed three extinguishers and I tried to put the fire out myself. I had already made the mistake. My efforts were in vain, as I thought I could put out the fire myself. I then had to go back to the Clubhouse to call 911. Within 7 minutes the fire department arrived. Within another 3 minutes the fire was extinguished. Wow, did I ever look like a fool. The sign was a total loss. True the fire wasn't my fault, however, a quicker phone call might have saved the situation. The next time you need help — call the professionals, but I hope it is your local golf pro and not your local fireman. ■



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Proclamation

State of Florida
 Executive Department
 Tallahassee

WHEREAS, the Sunshine State enjoys a climate compatible with many outdoor sports activities; and

WHEREAS, the beauty of Florida's golf courses is a great asset to the continued success of tourism and related development in our State; and

WHEREAS, Florida is a showcase for some of our country's most beautiful and challenging golf courses; and

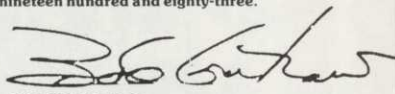
WHEREAS, the Florida Golf Course Superintendent's Association, representing over 415 individuals who are involved with the management of Florida's golf courses, is responsible for educating its members in all aspects of golf course conditioning and management;

NOW, THEREFORE, I, Bob Graham, by virtue of the authority vested in me as Governor of the State of Florida, do hereby proclaim May 5, 1984, as

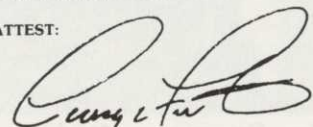
Golf Day

in Florida and encourage all citizens to take advantage not only of our beautiful climate, but also the opportunity for competitive sports activities.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Florida to be affixed at Tallahassee, the Capital, this 3rd day of October in the year of our Lord nineteen hundred and eighty-three.

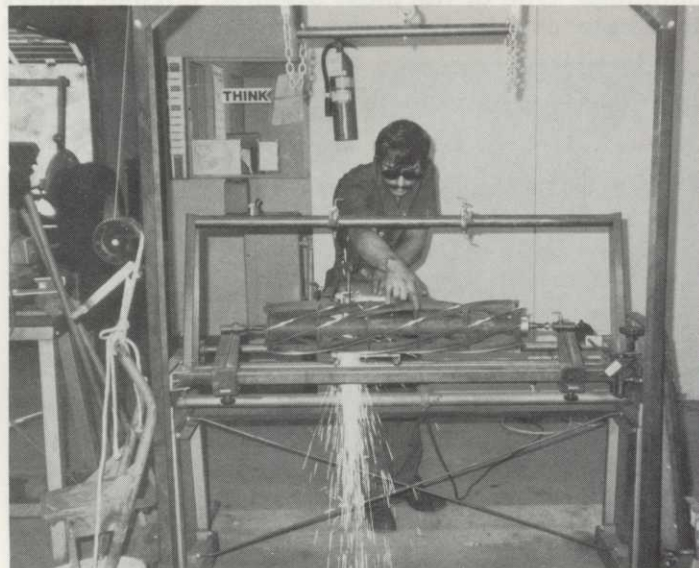

 BOB GRAHAM, Governor

ATTEST:


 GEORGE FIRESTONE, Secretary of State

MECHANICS MEET FORM ASSOCIATION

Last year the Everglades GCSA formed the first and now Palm Beach GCSA has followed with what may be the nation's only two organized associations for golf mechanics. Monthly education meetings are set with topics and speakers at the course shop building. For dates and times contact officers of the two chapters.



Recent Palm Beach meeting discussed reel grinding.

Support



"Florida Golf Day"

SAT. MAY 5, 1984

Proclaimed by Governor Bob Graham

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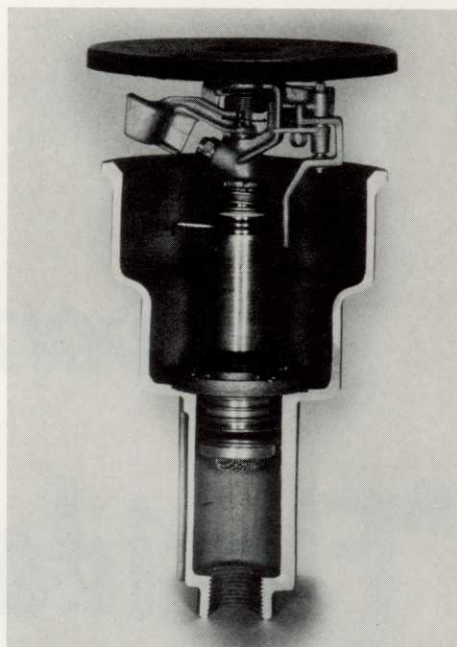
*Under normal conditions, two bags of Chipco 26019 are sufficient to treat an average size green for 365 days.

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Because the sprinkler was designed to operate between 40 and 80 PSI, the reverse mechanism is totally new to handle the higher water pressure. A dirt and grit brass screen is a standard feature of this Royal Coach/Buckner sprinkler.

Other than the spring loaded bearing washer stacks, all component parts of the Model 17091 are bronze brass or stainless steel. Optional equipment includes a black rubber cover and a break-up nozzle. Standard nozzle size is 1/4".

For additional information contact: Mel Canterbury, Vice President Marketing, Royal Coach/Buckner, 4381 N. Brawley, Fresno, CA 93711, (209) 275-0500.

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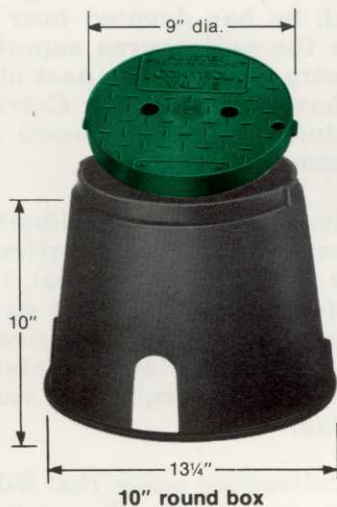
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FT-GA's Most Prestigious Award Presented to Bill Wagner

At the October annual meeting of the Florida Turf-Grass Association, a surprised and humble, Bill Wagner, accepted the Wreath of Grass Award from out-going President Mike Swanson, along with the gavel representing the beginning of his term of office as President of the Association.

The Wreath of Grass Award is the highest honor the Association can bestow on a person, and is presented to one who has made a significant contribution to the turfgrass industry.

Bill was born in Philadelphia and grew up in Quakertown, Pennsylvania. Moving to Florida in 1959, he operated his own service station, candy and tobacco business. Being in the auto mechanics business with an interest in agriculture, he was eventually led into the golf course business, to which he has devoted over twenty years. He has been the golf course superintendent at Tequesta Country Club for the past nineteen of these years. He has served on the Curriculum Advisory Commission for the mechanics program at Lake City Community College.

While serving as President of the Florida Golf Superintendents, Bill effectively organized the state association so that it became a powerful political influence in the national association. He has also been very effective working very closely with the South Florida Water Management District in establishing rules for restrictive water use in Florida.

His colleagues agree that Bill is a quiet *force* in the turfgrass industry. Congratulations, Bill, for your accomplishments and receiving this distinguished award! ■

Meyers Wins National Title

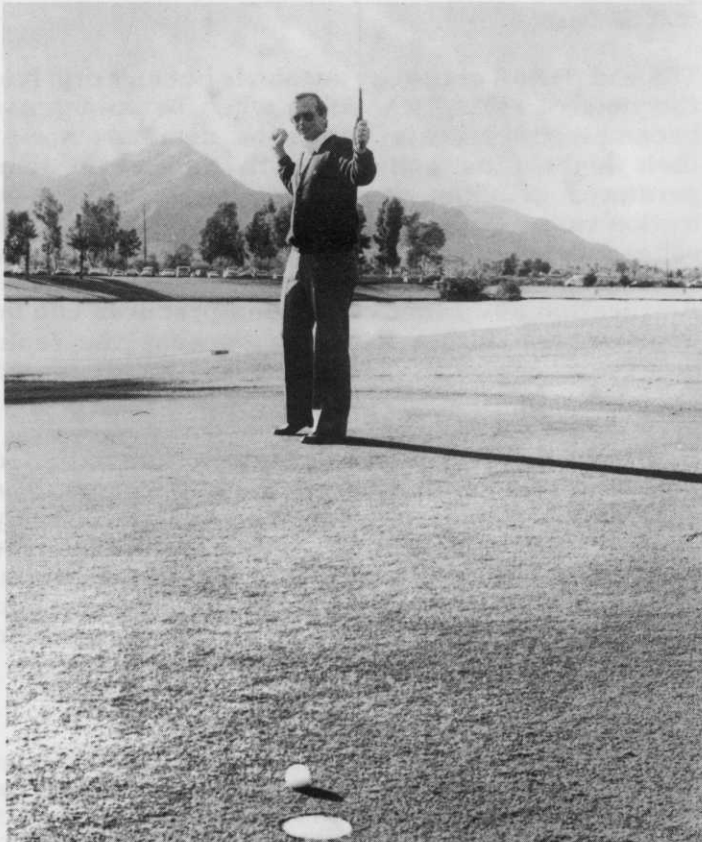
Dan Meyers, CGCS, Carrollwood Village C.C. in Tampa won the G.C.S.A.A. annual golf tournament. The event was held in Scottsdale, Arizona at the McCormick Ranch and Phonician C.C.

The individual championship was the third title for the Florida West Coast member. His past wins were posted in 1979 at Sea Island, Georgia and 1981 at Anaheim, California. His two day score of one over par tied with Chip Ramsey of Colorado. the victory was earned with a par on the first hole of the playoff.

Results in the 4-man team chapter event were not as sweet yet the finish was good. The team event has gained great acceptance in recent years as nearly fifty chapters competed. The Florida team finished 8th. This year's team consists of Dan Meyers; Joe Ondo, Winter Park; Mark Henderson, West Palm Beach, and Steve Pearson, West Palm Beach. The team chapter title for the second year goes to the Carolina GCSA.

Joe Ondo won the long drive contest. His "poke" traveled 287 yards and was rewarded with a nice three foot trophy.

Champagne flowed at the Florida table during the awards banquet. As the toast was given by our champion plans were underway for a fourth title next year at Hilton Head. ■



36 holes of play ended in a 1st place tie.



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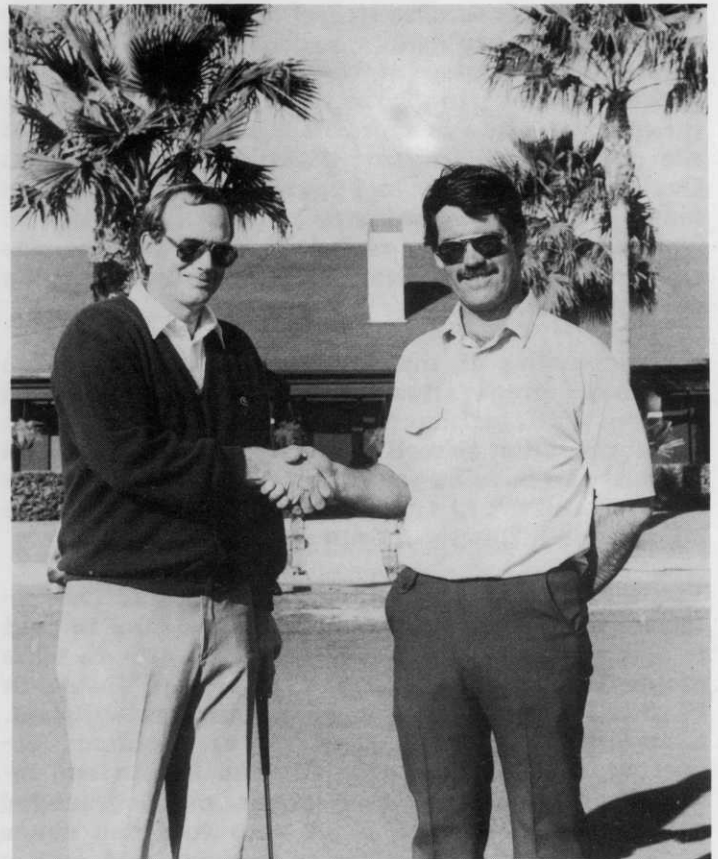
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1st hole playoff victory gave Dan Meyers his 3rd GCSAA title.



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GOLF TURF NEWS

BRUCE J. AUGUSTIN
Extension Turf & Water Specialist
AREC Ft. Lauderdale

CHARLES H. PEACOCK
Extension Turf Specialist
Gainesville

Growing Turf in the Dry Season

By BRUCE AUGUSTIN

The dry season in Florida occurs during the winter and spring. It is roughly the time spanning from the conclusion of one hurricane season in mid-November until the next hurricane season begins mid-June. On an average during these seven months only one-third of the yearly rainfall occurs. There are three periods during the dry season with which a turf manager has to deal: (1) the end of the wet season, (2) the cool, dry winter, and (3) the hot, dry, spring. Each of these periods has unique challenges for the golf course superintendent.

The beginning period of the dry season is a transition period when the turf goes from a predominantly wet state from frequent rainfall to a dry state that requires irrigation. It is a time when many disease problems occur because of repeated wetting and drying of the thatch which causes fungal spores to form and spread. Helminthosporium often is a problem at the beginning of the dry season. The turf disorder, Bermudagrass Decline, also begins to appear. It is a time when many of the other problems previously masked by frequent rain appear, especially poor root systems caused by nematodes, diseases, or improper management.

The beginning of the dry season is the time to complete preparations for the winter golfing season. Fall fertilization programs should have been completed as well as nematode control so that the turf can have as good a root system as possible going into the dry season. Overseeding should be completed during the month of November.

The middle period of the dry season is characterized by relatively little rainfall and cool to cold temperatures. The bermudagrass growth has stopped in north Florida and slowed in south Florida. Overseeding has become established. Generally there are a few major problems occurring, although isolated attacks by various insects and diseases can occur on overseeded grasses. Pythium and other root rots can cause severe damage if weather is warmer and wetter than normal. Because of slow bermudagrass growth, traffic can result in major damage if not

properly directed to cart paths or roughs. Any turf damage during the middle of the dry season will take a long time to heal over.

A major cultural problem that begins to appear during the middle of the dry season are localized dry spots. These are caused by hydrophobic soil conditions which have developed as soil dried out.

Dry spots are very difficult to rewet by regular irrigation. Best solution to eliminate these spots is a non-ionic wetting agent. Use these materials at labelled rates and soak the dry areas. Exceeding wetting agent label rates and frequencies can cause a yellowing of the turf. Never use laundry detergent as a turf wetting agent! While these detergents are good for cleaning clothes they will cause serious turf damage.

The end period of the dry season is hot and dry. It is the time of spring transition when bermudagrass becomes active again. Irrigation demands are at their highest as active growth and warm temperatures combine to produce high evapotranspiration rates. Mole crickets activity returns with a vengeance and many other insect pests need to be controlled to prevent serious turf damage. Aerification and other cultivation practices can be implemented during this time because the rapid growing grass will quickly cover the disrupted areas.

In all, the dry season in Florida is a time of varied activities and challenges on the golf course. The severity of deviation from the average monthly rainfall and temperatures often determine the success or failure of a turf management program. However, careful implementation of fertilizer and irrigation practices can be extremely efficient and produce excellent turf during the dry season. ■

NOTICE: Anyone wishing to take the G.C.S.A.A. certification or recertification exams, Bruce Augustin is available in south Florida and Charles Peacock is available in north Florida to proctor the tests. Superintendents should contact the national G.C.S.A.A. office regarding details.

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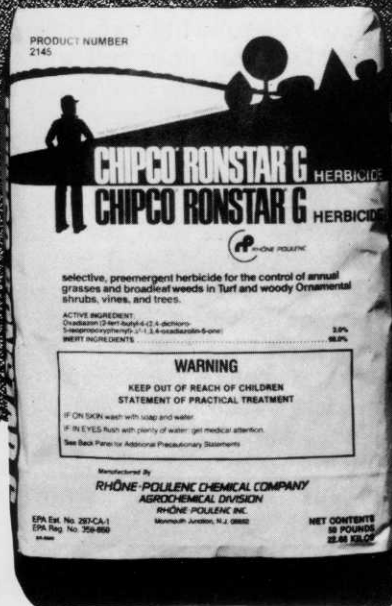
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The Gator Growls



By HANK MAUS
President, Everglades G.C.S.A.
Superintendent, The Dunes Golf & Tennis Club
Sanibel Island, Florida

What's a Golf Course Superintendent Worth?

Budget time is here, coming up, or has just gone by for every Superintendent. No matter your salary, small or large, you still face the same basic problems as your fellow Superintendent.

Let's assume you are not happy with your present salary. Have you personally discussed your wages with whomever you are responsible? Have you distinguished the significant value of the Superintendent and of the many fields of endeavor in which you must have reasonable expertise just to perform your duties? Do you yourself even know how to figure your worth in dollars and cents to your employer? I doubt it! You take it for granted they already know. Most Superintendents just take a percentage over the present salary, add a cost of living allowance or in some cases, it's always handy to pull a figure out of the blue and hope it passes approval. Many have never offered pictorial or verbal proof of their value during the past year and just hope the present conditions of the course, at budget time, merits a wage increase. In the majority of the business world, it doesn't happen that way. Proof of our increased value must be shown by special project reports, accomplishments resulting in either less monies spent or an increase in values to the assets of your club, but significant end results are required to merit additional value salary-wise.

This way the Superintendent is not taken for granted by upper management and this also shows extreme professionalism.

Regardless, whether you agree or disagree, I am a respected person in my field and among my peers. I grow and maintain golf turf for a living. I love it and it's what I enjoy doing best. I am proud of what I do and of my accomplishments now and in the past. Things might not always be easy, restricted personnel, budgets, old equipment, adverse weather, insect problems, fungi attacks, or whatever, all tend to make our jobs difficult, but we always come through with usually acceptable results. In essence, we are problem solvers and we do get the problems solved.

I don't know about you, but I wear many hats in my profession. I am an electrician, plumber, carpenter, surveyor, drainage expert, irrigation specialist, landscaper, soils expert, pool maintenance specialist, tennis court expert, purchasing agent, personnel director, machine operator, salesman and a half-way mechanic. (I know I have left something out but by now I think you are getting the idea.) I am also expected to solve problems of the unexpected that can arise daily without any outside help. Yet, my position of Superintendent is probably the least secure of any known profession today.

(Continued on page 29)

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Just take any fifteen of these hats, put on an annual salary each of \$10,000 per year, except for the mechanic, 'cause I am only half as good at that, we will give him \$5,000 per year and you have a yearly salary of \$155,000. I'll grant you this may sound absurd, but if there is a Superintendent in the country making a base wage of \$155,000 or even half of it, \$77,500, I have never heard of him or her and know of no one else who has.

I grant the figures quoted may seem funny to you but really the joke is kind of on us. We have proven our worth in all of these fields to our employers. Also granted, is that we are not top experts in all of these endeavors, and our employees help with most of these functions, that is what makes them so valuable to us, yet, we are knowledgeable enough to be the responsible employee of our employer and therefore the quoted values are not so ridiculous, are they?

The number of formally educated Superintendents in the field, the millions of hours of on-the-job training, special workshops, seminars, local, state, regional and national educational meetings, reading materials, day to day contact with our peers, are all facts that requires us, as the Superintendents, to take a back seat to no one. Again, I repeat, we have earned the right and proven our worth. We support and are supported by memberships in local, state and regional associations and in the G.C.S.A.A. Our December meeting showed us in black and white slides where we have been and where we might possibly be going in the next twenty-five years; gentlemen, the days of black and white are gone. We are living in the wonderful world of vivid color. I don't want to know the past and don't really care about the twenty-five year plans for the future. I want to know about NOW!!! What does G.C.S.A.A. expect from us and us from them? Why are we so powerless as to even have honorable mention of the host club's Superintendent name mentioned on televised events of the U.S.G.A., P.G.A., and L.P.G.A. tournaments? Television people always seem to mention the host P.G.A. pro. If the G.C.S.A.A. has a promotional department, why can't they get it done? If money is the answer, let's get it! If it is just a matter of work, let's get busy! Let's tell the golfing world who we are and what we do all in living color.

These past six months as President of the Everglades Chapter, I realize now there is hardly enough time to get your feet wet. There is hardly enough time to initiate a project much less ever see it through locally; but just imagine what all of us together, working with our successors on a continuing basis could accomplish. Let's strive to make the golfing public aware of the Superintendent and his love of and value to the game of golf. Our chapter has an excellent promotional committee which monthly sends newsletters to the media and is promptly printed in the Fort Myers News Press. The Florida G.C.S.A.A. with its new public relations committee, led by Past President Kevin Downing,

has already gotten a commitment for a State-wide recognized Florida Golf Day, May 7, 1984, from Governor Bob Graham, with special events throughout the state, all because of a few Superintendents who are working together.

Well, now we know our worth. All we have to do is sell it, but that is not really hard to do because we are the problem solvers and we know our worth. ■



SUPERINTENDENT HONORED

Dan Delaney, left, president of the North Florida Section of Superintendents, presents Bardmoor CC superintendent John Luper a special plaque during awards presentations following the JCPenney Mixed Classic at the Largo course. Luper received the plaque for his outstanding work in the overall upgrading of the Bardmoor layout and for his efforts to get the course into excellent playing condition for the annual PGA-LPGA tournament.

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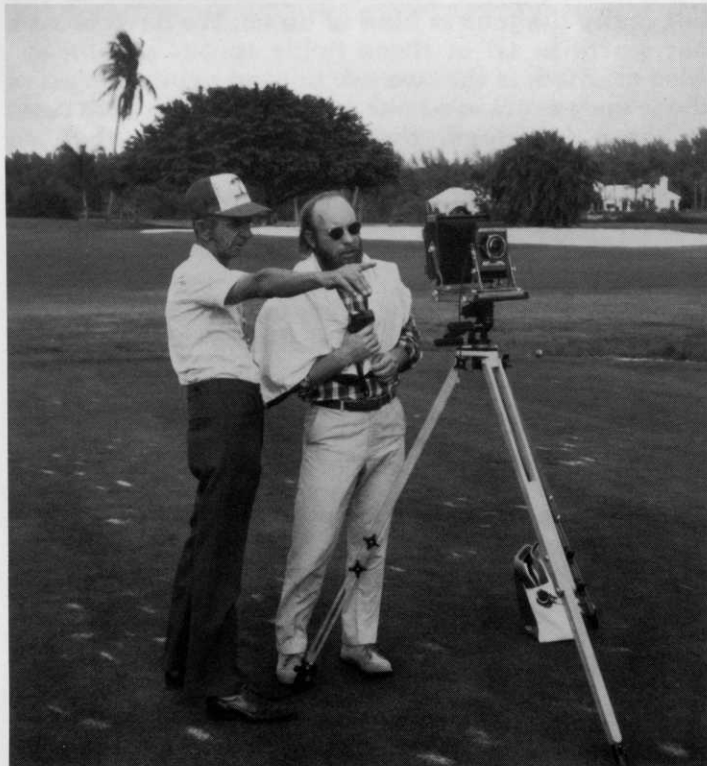
cover photography

Daniel Zelazek has been our cover photographer the past three years. A University of Florida graduate he received his technical photography training at Brooks Institute in California. He is employed in the photography department at Pratt & Whitney Aircraft, West Palm Beach. His assign-

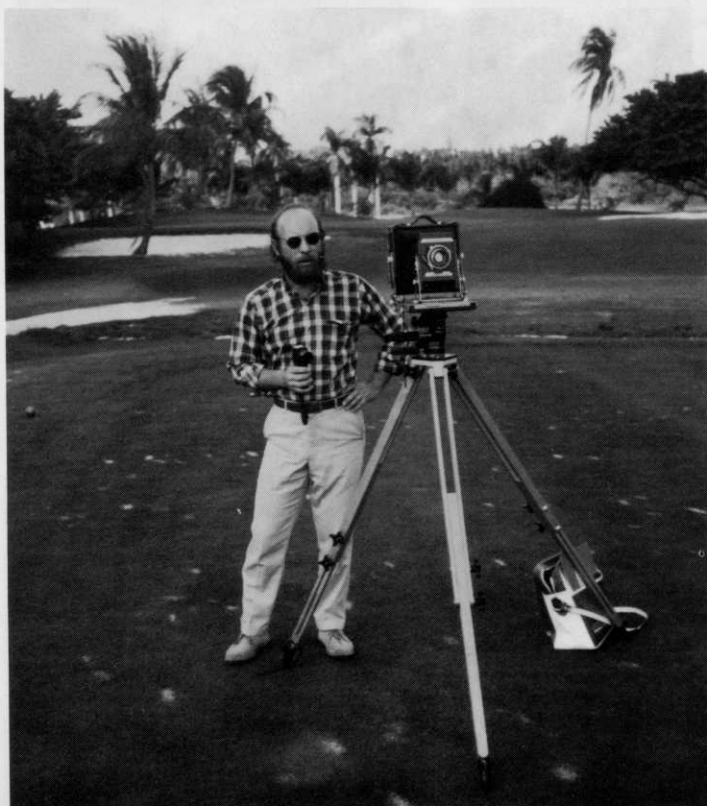
ments vary from jet engine propellers to movies for the armed forces. A award-winning nature photographer, his prints hang in art galleries and museums nationwide. The fact he is an avid golfer and a close friend of the staff helps us secure his talents! Long weekends are part of the job.



Course selection is done months in advance and reviewed with course superintendent. Multi visits are needed for finished product.



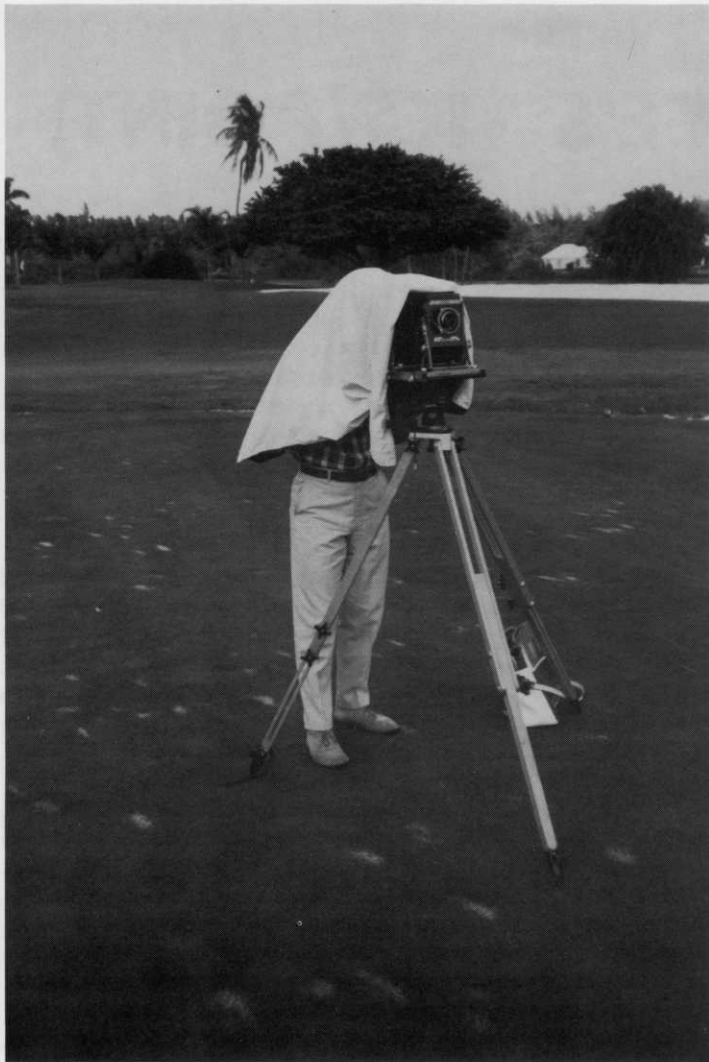
All turfgrass, trees, bunkers are reviewed so they will be peaked for set date. Verticut surprises are a no!



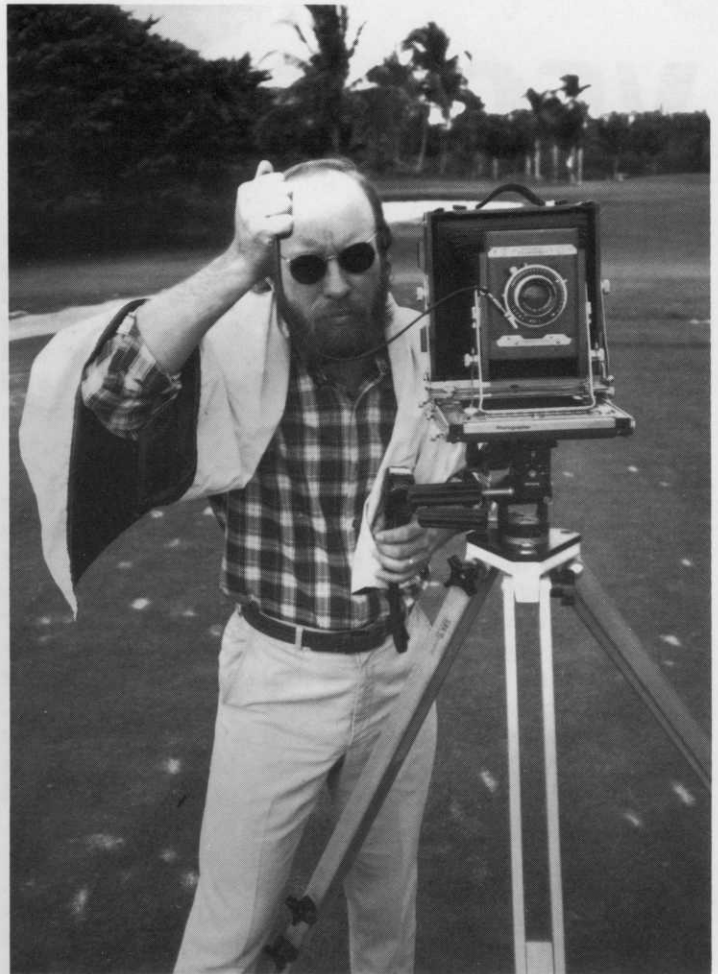
Light is critical factor. All work is done either the first or last two hours of day. Advance trips reveal if shot is an AM or PM sun angle. Note precise hand-held lightmeter.



This is the current cover photograph.



When all variables are set the master is ready.



The camera is a Deardorff 5x5. Because of two page cover format a 5" x 7" film is used. Greater detail is achieved because of large size. A 35mm camera would never be used.



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VEGAS: (A WIFE'S VIEWPOINT)

I'm sure most of the superintendent's wives were as excited as I was when the time for the Las Vegas Convention was drawing near. But this also brings about questions or uncertainties for some of us. For example, can we get time off from work, who will keep the children or pets, additional air fare and other concerns that have to be considered when a trip is planned.

We made reservations to fly out of Ft. Lauderdale on January 29th at 6:15 a.m. We boarded the plane on schedule but once on board, the servicemen had problems fueling the plane. We were not able to depart until 7:45 a.m., which made us late for our connecting flight in Atlanta. We did not know if we would be able to get another flight to Las Vegas that day, but fortunately they held the connecting flight. As we were preparing to land in Atlanta, the plane lunged straight up to avoid another plane on the runway hidden by the heavy fog. Everyone breathed a sigh of relief as we touched solid ground.

The scenery to Las Vegas was breathtaking, especially to someone who had not been out west before. Enroute to our destination we flew over the Rocky Mountains, the Continental Divide and Lake Mead. We also got a good view of the Grand Canyon as our pilot tipped the wings of the plane for us.

Inside the Las Vegas airport, the atmosphere was set early with the slot machines and the clanging of the coins.

We then went to the MGM Grand Hotel where we had reservations. Seeing all of the bright lights, slot machines, blackjack tables and the crowds of people was an appropriate initiation to Las Vegas.

After settling into our room, we began to make plans for our activities. We decided to visit the Hoover Dam on Sunday. The drive through the desert-like terrain and rocky hillsides, was definitely a change from Florida. We took the tour under the dam where we learned a lot about its actual construction. For example, it was scheduled to be built in six years, but was completed in four years. There is enough concrete in the dam to build a highway from San Francisco to New York City eight inches thick. They say the estimated cost to replace the concrete today would be 240 million dollars. The water is approximately 500 feet deep. There is enough water in Lake Mead (created by the dam) to sustain the natural flow of the river for two years. The turbines that drive the dam (approximately 12-14 of them) are seven stories tall and the two pipes that supply the water for the turbines are 30 feet in diameter. The water travels through the pipes at 45 m.p.h. and a three-story

house on a train could fit inside them.

With the exception of the Hoover Dam, the activities I shared with my husband had to be planned in and around his conference schedule. Since Tim was the voting delegate for the state of Florida, most of our nights were spent interviewing candidates or fulfilling his association duties. His days were very busy attending conference sessions, the equipment show and carrying out his association activities.

In the meantime, I managed to squeeze a day of shopping in at the Fashion Mall. Shopping is one of my favorite hobbies so I felt right at home. Tim and I had agreed that we wouldn't spend any money on shopping but somehow, in a beautiful mall, that was soon forgotten. I did bring back some unusual souvenirs, which I hope to have a long time.

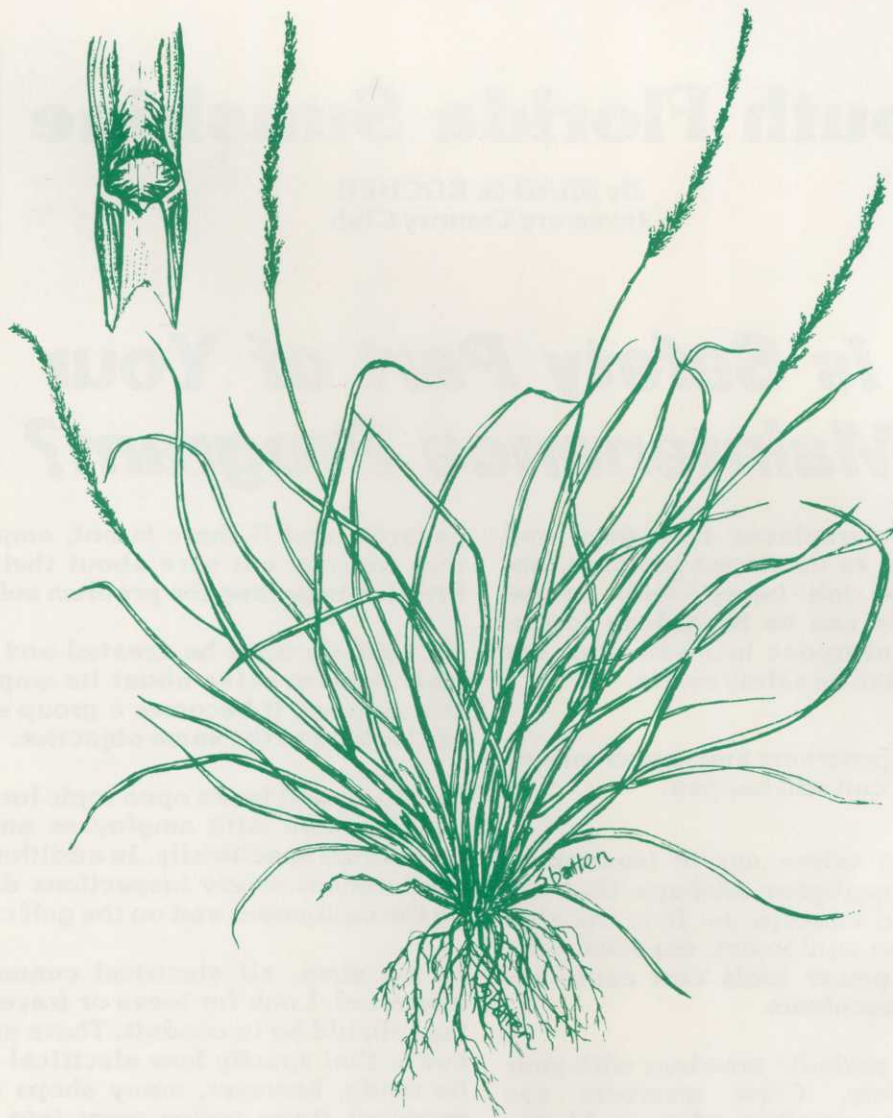
Something else I enjoy doing, that I'm sure most women do, is dining out. We had dinner at Barrymore's inside the MGM. It was a very enjoyable evening and mid-way through dinner we looked over to the table next to us and saw Dom Deloise and Ava Gabor. We also had dinner at Caruso's which was a delicious Italian restaurant.

We wanted to go to a show while we were there, so we decided to see Siegfried and Roy's Magical Show. It would be hard for me to describe in words just how amazing this show was. People and things literally disappeared before our eyes. They did all sorts of exciting magical illusions. They say people go there time and time again to try to figure out how exactly they do these illusions.

One of the most amazing sights was driving down the strip of the old part of Las Vegas at night. It was as if it was day with all the bright lights. They say it is the only place where you don't have to have a flash on your camera at night.

Also mixed in with all the fun was going to the equipment show and attending some of the seminars. Participating in these functions, allows me to become more involved with my husband's career. I really enjoyed attending and being a part of these educational programs because they were interesting and informative. Being the wife of a golf course superintendent is not always easy (with all the pressures and responsibilities that they have), but taking an interest can assist in understanding the daily routine of being a golf course superintendent.

We enjoyed our stay in Las Vegas very much, and though we were sad to leave, we were glad to get back home to Florida. ■



SMUTGRASS

(*Sporobolus indicus* (L.) R. Br.)

By STEVE BATTEN

Smutgrass is a perennial weed introduced into the United States from Asia. It is commonly found in rough areas on golf courses in the Southern United States from Virginia to Texas. It is also common to South America as far south as Argentina. Smutgrass has even been found on a ship's ballast in Oregon.

The black smut on smutgrass is the result of a fungus which is often present on the seed head. If golf players rub their slacks or equipment against the seed head, a black streak will occur which of course makes the weed extremely objectionable. Since it is a bunch type of grass with wiry thin leaves, then it also becomes an unfortunate natural hazard if a golf ball were to come to rest next to it.

A vigorous seed producer, Smutgrass can bloom all year in South Florida. If it is allowed to grow without mowing, it is less likely to form a branched growth habit. Close mowing at frequent intervals is one method of control.

The most common methods of control in the temperate climatic regions of the United States are fall applied applications of Dowpon or Atrazine over bermudagrass turf at higher mowing heights such as golf course roughs. It has been reported that metribuzin (Sencor) at labeled rates for bermudagrass will provide some control.

One of the most effective controls is the application of non selective herbicides such as glyphosate (Roundup) with a sponge or rope wick applicators. Many golf course superintendents have designed their own applicators with wick booms on wheels 3-5 inches above the soil surface. This allows selective placement of the herbicide onto the Smutgrass and off of the surrounding bermudagrass.



South Florida Sunshine



By BRAD G. KOCHER
Inverrary Country Club

Is Safety Part of Your Maintenance Program?

Each year corporate workplaces lose days and weeks of worktime due to employee sickness, absenteeism and on the job injury. Golf course maintenance operations can be hazardous to employees' well being if everyone involved does not make a conscious effort to be safety aware.

Despite diligent safety programs and conscientious employees — accidents can still happen.

It is the accident that arises out of inadequate safety programs, the negligent mishaps that are preventable and should concern us. It is the slippery floor, bald tires on equipment, exposed belts or lack of shields on power tools that cause accidents — preventable accidents.

It is important to have periodic meetings with your crew concerning safety. Crew members are generally the first to see pending safety problems, and if we have an open line of communication with our employees and encourage them to report safety violations or hazards, our accident losses will be minimized.

Even more important is that management follows up on any and all observations made by employees. Employees have to know that we will do something about safety problems — and do it quickly. There should be a sense of urgency about rectifying

hazards, and if there is not, employees will sense that we may not care about their safety, or are a little lax in getting the problem solved.

An attitude must be created and perpetuated that management cares about its employees' safety. In this manner, it becomes a group effort and all eyes are looking to the same objective.

Safety should be an open topic for discussion at any meeting held with employees and should also be mentioned specifically. In addition, there should be semi-annual safety inspections done in the shop, on the equipment and on the golf course.

In the shop, all electrical connections should be inspected. Look for loose or frayed wires and wires that should be in conduit. There are city and county codes that specify how electrical connections must be made, however, many shops were built before many of these codes went into effect, and even though your shop may not be governed by some of the newer requirements an update should be performed.

Fire is one of the major safety hazards that can be prevented. Ask for an inspection by your local fire department. They will tell you if you have enough fire extinguishers, if they are properly marked and

(Continued on page 35)

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spaced, and if they are the right type. They also will look at electrical connections, flammable liquids and potential hazards from sparks, and give a written recommendation.

A lot of people may be reluctant to have a fire inspection and feel that all of their recommendations may cost a great deal of money. Granted, deficiencies may cost one hundred dollars or a thousand. Add the price of all the equipment that is in the shop on a given day, plus all the mechanics tools, and shop equipment that you would be without if you had a fire, and you will see it is well worth it. There are several golf course maintenance operations that have experienced a devastating fire and I am sure that replacing the equipment was the easiest problem to solve after the fire.

Equipment should also be inspected at regular intervals. Operators should check their equipment for potential safety problems daily. Mechanics should include a safety inspection when they perform weekly or monthly fluid or filter changes.

Bald tires, steering problems and inadequate brakes are areas that can be the most hazardous to operators and even to innocent bystanders. A piece of equipment that goes out of control can end up in a lake or injure people in nearby golf carts. Our equipment frequently travels many of the same paths as the golfers and a sudden breakage of equipment could be disastrous.

Other equipment problems to look for are worn or frayed wires that could spark near the gas tank or ignite excess oil on the engine block. Buildup of oil or grease on the engine not only is a fire hazard, but decreases engine life because the engine runs hotter.

On the course, safety hazards not only involve employees, but also golfers. Low hanging branches have hit many people in the face or eyes and have also damaged exhaust pipes and golf cart roof tops. Look at golf cart and equipment routing. Are there blind spots? Patchwork should be done on worn cartpaths to prevent tires from dropping into ruts and losing control.

Safety should be an ongoing program. Too many times we fix problems after accidents happen. It is good that we respond to problems quickly, but too often the problem has existed long before the accident happened.

Most of our maintenance programs on equipment include preventative maintenance. Frequent greasing and oil changes are part of a good preventative maintenance schedule. Maybe we should also add a preventive safety maintenance program to our maintenance vocabulary. It can only help to make everyone safety aware. ■

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Watching Your Tees & Q's

By STEVE BATTEN AND BUD WHITE
United States Golf Association-Green Section
Southeastern Region



Don't Bury Your Head in the Sand

Excessive rain and above average soil temperatures have caused a loss of overseeded turfgrasses late this fall in South Florida. Many golf course superintendents have been victims of weather conditions that have been more favorable to the optimal growth of the bermudagrass than to the establishment of overseeded turfgrasses. Natural conditions such as these can often make growing turfgrass difficult. A few golf courses were having problems with Pythium on overseeded grasses during the warm weather period in December. Like so many disease and insect problems, the Pythium was observed on different golf courses during the same week when environmental conditions were favorable for its appearance. One golf course superintendent who had a Pythium problem ordered additional seed the last of December and was told by the seed supplier that he was the tenth person to order additional ryegrass seed that particular week.

This means that there were a lot of untold problems with overseeded greens at approximately the same time. The superintendent that is referred to in this story was able to detect the disease problem in time to correct it before all of his overseeded ryegrass was lost to disease. He enlisted the help of two turfgrass consultants, a professional diagnostic laboratory, and a Florida Turfgrass research pathologist. But what about the other untold stories? Did they correct their overseeding loses in time? How many golf course superintendents buried

their heads in the sand?

Growing turfgrass under warm humid conditions can often present more questions than there are answers. In Florida there are over 750 golf courses with many of these concentrated into small areas. There is a wealth of information available about local turfgrass conditions at any one time from neighboring golf course superintendents. Sharing this information over a telephone or a neighborly cup of coffee can put out a large amount of these daily fires.

Anytime a turfgrass pest problem exists, the superintendent should try to enlist the help of an outside professional. Documentation of these problems on paper whether they are nematodes, insects, or disease can help to explain the problems to the owners and or membership of a golf course. The hardest problems for the membership to understand are the unseen turfgrass pests such as nematodes or soil born disease.

There are many sources of help available. One of the best sources is through the County Horticulture Extension Agent. The County Horticulture Extension Agents have access to professional non bias research and extension turfgrass personnel who need to know the scope of any present turfgrass pest problem in existence during any one period of the year. Turfgrass consultants, such as the USGA Green Section can provide a consultation service

(Continued on page 43)



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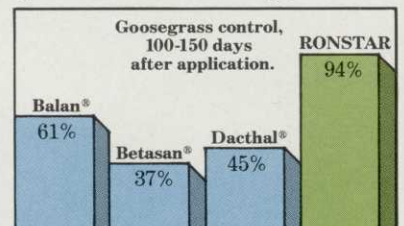
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Treasure Coast "Tide"ings

By JAMES P. CALLAGHAN
Rio Mar Country Club

Playing It Safe at Martin Downs

Working on a golf course maintenance crew is very often taken lightly from a safety standpoint which can be very dangerous and extremely costly to your club. Higher insurance rates, lost man hours and possible lawsuits can result from unsafe working habits. As golf course superintendents, we have a responsibility to initiate and carry out a sound safety program that will avoid injuries and other major catastrophies.

At Martin Downs, an expansive development with 36 holes of golf in Stuart, operation and employee safety have been given top priority. Bill Mangold, Golf Course Superintendent, regularly holds employee meetings and safety is usually a major topic of conversation. I have invited Bill to share his safety program, which includes employee safety, equipment safety, chemical safety and fire hazards, with the readers of THE FLORIDA GREEN.

Employee Safety

Bill opened our interview by stating, "An employee's safety is sometimes the hardest thing to get through to him. They will come up with all kinds of excuses on why they cannot conform to the rules. In most cases, that's all they are; excuses — with no real merit." Bill handles excuses firmly by stressing the importance of safety to all of his employees.

At Martin Downs, workers are required to wear hard toe shoes at all times. Sneakers, sandals and similar types of unsubstantial shoes are not permitted to be worn. Wearing rings, watches and bracelets are discouraged when they could catch on equipment and cause injury. Bill recommends that shirt-tails be tucked in and that pant legs be tucked

in boots or tied when working in situations where snagging of clothing is hazardous. Likewise, long hair is to be tied back to avoid snagging and obstruction of vision.

During regular employee meetings at Martin Downs, workers are constantly reminded safety — even things like the danger of cables or chains snapping when pulling out disabled equipment that may seem tedious, but could cause severe personal injury. Employees are encouraged to report any unsafe procedures or acts of other employees so that they may be put to rest for everyone's protection. Bill commented, "If you can strive to emphasize that the most important facet of safety is COMMON SENSE to your employees, accidents will be few and far between."

Equipment Safety

Most accidents on the golf course involve equipment — either by mechanical failure or some fault of the operator. When asked to give his opinion on this fact, Bill Mangold replied, "Many times accidents happen when a new employee is put on a new piece of equipment for which he has not been properly trained. We cannot afford to take it for granted that he knows enough about a piece of equipment to operate it. We must go over it with him from head to toe and point out all features, especially those that pertain to safety." Bill continued, "After an accident occurs, it's very easy to blame the employee, but in fact it is our fault for not training him properly."

Some safety points that Bill stresses are: shut down equipment when fueling it, make sure not to overfill



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and spill fuel on equipment, make sure equipment is in neutral when starting, operate at a safe speed, shut off and apply brakes when getting off equipment, do not put hands or feet near moving parts and **REPORT ALL EQUIPMENT MALFUNCTIONS TO THE MECHANIC SO THEY CAN BE REPAIRED PROMPTLY!** Properly running equipment can be a very useful production tool; improperly it can be hazardous and costly.

In the event of an accident, always follow up with a detailed report to find the cause and follow up with guidelines to prevent future occurrence.

Chemical Safety

Bill Mangold feels that the most important item in chemical safety is in the storage of chemicals. All golf courses should have a proper chemical storage room conforming to state regulations. It should be well ventilated and have an emergency shower in case of accidents. The chemical storage room should be marked as a restricted area and kept locked when not in use.

The superintendent should stress to the employees that they should not eat, smoke or drink when handling chemicals. Basic safety standards such as wearing respirators, gloves and boots, depending



Fueling Island at Martin Downs with approved fire extinguisher.



Periodically checking over equipment first hand with your mechanic will result in fewer mishaps due to failure.

on toxicity, are to be adhered to. Washing of employees and equipment after use are to be carried out.

Bill stated that any employee who handles pesticides on a regular basis should be State Certified. A certified employee will have more respect and use more care with chemicals. With all the bad publicity about chemicals lately, this is one area we must continue to monitor on a continuous manner.

Fire Hazards

Fire has the potential for being the most devastating consequence of poor safety practices. Over the years, golf course superintendents have produced a good track record with respect to fire. Usually we hear of serious fire that has devastated clubhouses, but loss of maintenance buildings or equipment to fire is not as common. However, fire prevention must continue to play an integral part of overall golf course operations safety.

Fire extinguishers should be mounted on all large tractors and mowing units. A large buildup of dry grass in the radiators or behind shields is potential for fire that could result in loss of an expensive piece of equipment.

Also, fire extinguishers should be mounted by the chemical room, by the fuel pumps, and in the mechanic's work area. Another good practice is to strategically place extinguishers throughout the maintenance area in case of an emergency to contain fire before it can get out of hand.

Bill said that an important thing to keep in mind is that a fire extinguisher is no good to anyone if it is empty or if an employee does not know how to operate it properly. Make sure all employees know how to operate each type of fire extinguisher on hand and check them periodically to make sure that they are fully charged.

All flammable liquids should be kept in a safe place and all fuels stored in marked safety containers. A first aid kit with burn ointment should be readily available when needed. One should display phone numbers for emergency services and a doctor.

In closing our interview, I asked Bill if there was anything else that he would like to add to our discussion. He did have one more important item to dwell on — and that is the use of alcohol or other drugs during working hours. At Martin Downs, it is company policy to terminate any employee who is caught drinking or working under the influence. This policy has been adopted with employee safety in mind because accidents will happen if an employee's senses and judgment are impaired.

Bill reminded me that we have only covered a small percentage of operations safety. Safety is something that can never be put to rest or dwelled on deeply enough. As we continue to upgrade our operations, we will always spot something that needs attention from a safety standpoint. ■

Central Florida Crowfoots



By RICK KAISER
Employee on Maintenance Staff
Bay Hill Club

Golf Course Maintenance Safety . . .

In any type of employment, there are safety measures required for particular hazards. While working in golf course maintenance, many levels of safety have to be acknowledged and practiced. In order to perform a particular job, consideration has to be made on the degree of hazard and all safety measures taken first. Equipment operation, facilities, chemical awareness and use are categories on a golf course that safety has to be part of the job.

EQUIPMENT OPERATION

The first step in operating equipment properly is to read and understand all directions and safety measures attached to the machines. Any further safety tips will usually come with the parts and repair manual. Toe guards or steel-toed shoes should be worn when operating any walk mowers. Many accidents occur when mowing steep slopes, so precautions should be taken to protect the feet.

Goggles play a major role in safety when operating small hand equipment. This is especially important when using a weedeater, edger, or electric trimmer. Flying debris can sometimes cause permanent damage to the eyes. In some cases, a full face shield would be an ideal safety measure against large particles.

For some reason or another, many operators shrug the idea of using a hard hat. It may be uncomfortable during summer heat, but this precaution is directly for the operator's benefit. One purpose in utilizing a hard hat is to protect the head from flying golf balls during the use of large equipment — (gang mowers, tractors, etc). Many times the operator finds himself or herself directly in the line of play and the individual should take precautions against injury.

Seldom do we acknowledge that small safety measures should be taken daily on all operating equipment. Inspections should be made on all

machines to check for loose nuts, bolts, screws, or any moveable parts. It is proper not to dress with loose clothing or jewelry that could become caught in moving parts of a unit. Do not remove a fuel tank cap while an engine is running. Ignited fumes can cause serious damage. Do not use equipment when you are tired or sick. Not only are you endangering yourself, but you're endangering workers and players around you. Always store fuel properly and designate areas where sharp tools are to be placed.

There are many preventive safety measures to become aware of and new personnel should be properly trained to handle any equipment that can be hazardous.

MAINTENANCE FACILITIES

In general, most accidents that occur in or around the maintenance facility, happen in the repair shop. Golf course maintenance can be dangerous when you consider the large amount of reel and rotary mowers that have to be sharpened or repaired. It is a good practice to utilize heavy gloves when sharpening and lapping reels or blades. Obviously, maintenance mechanics cannot wear gloves to work on engines, but safety gloves should be available when needed. Excess grease, debris, or worn parts should be checked on a scheduled basis to prevent machine hazards from occurring when equipment is in operation. Operators and mechanics should work very closely, making sure all safety conditions and methods are used with equipment.

All maintenance buildings should be constructed of relatively fire-resistant materials. There is an abundance of materials used in golf course maintenance that are fire hazards and you have to obtain proper storage. For example, all pesticides should be stored in a well ventilated room. There should be good lighting, enough insulation to prevent chemical freeze or overheat, and the storage room should have a lock on the door. Chemical labels will

have proper storage requirements and should be read when received. Pesticide poisoning is one of the worst safety hazards that can occur in golf course maintenance. Maintenance facilities should always have on hand current first-aid supplies which are properly stored and approved by a physician. Any pesticide applicator should tell his doctor which chemicals the individual uses; the doctor can study the symptoms, and treatment with antidotes can be readily available.

CHEMICAL AWARENESS AND USE

When a chemical contains ingredients that can cause injury, labels are attached to the container to provide information on toxic levels and designate safety measures to prevent poisoning. Special labels indicate the level of safety to be taken. DANGER and POISON on the label indicate the highest degree of toxic material, WARNING indicates a moderate toxic level, and CAUTION has a slightly toxic level which still should be treated with utmost care.

All accidental pesticide contamination is contracted by consuming the product, inhaling, or poisoning through the skin. There are many state and federal laws regarding restricted pesticide safety and use. That is the reason why golf course applicators have to be certified. Applicators learn safety measures used by the Environmental Protection Agency and to recognize symptoms of chemical poisoning. Preventive safety measures such as checking for the smallest hole in rubber gloves can prevent contamination. The following list of safety equipment should be readily available

for pesticide applicators.

- | | | |
|--------------|------------------|-----------------|
| 1. Coveralls | 3. Rubber Gloves | 5. Respirator |
| 2. Hat | 4. Goggles | 6. Rubber Boots |

Caring and safety ride very close together in golf course maintenance and every crew member should take pride in his job performance. ■

Tees & Q's

(Continued from page 36)

that will provide a program to help avoid these problems in the future. Neighboring golf clubs have a local common interest in the sharing of any turfgrass information. The entire turfgrass industry in Florida can use any segment of turfgrass pest management to help assemble much needed information on turfgrass management.

An example of sharing information is the cooperative efforts of the University of Florida Turfgrass Research Personnel, turfgrass consultants, equipment and turfgrass suppliers, the FTGA, the FGCSA, and concerned golf course superintendents to try to assemble more facts about Bermudagrass Decline. This particular disease problem has enlisted more friendship and cooperation among industry leaders than any one turfgrass management item within the last couple of years. So be a leader and don't be afraid to discuss local problems experienced on your golf course. Just remember that we are all in the information sharing business. ■

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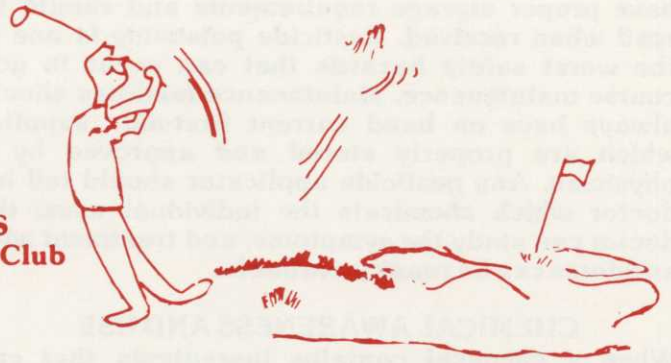
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By **EDDIE SNIPES**
Selva Marina Country Club



'Flirting With Disaster?'

The number of times superintendents pass in and out of their maintenance facilities in a day would probably stagger the imagination. The same old walkways, entrances, storage areas take on a mesmerizing affect as the daily routine drags on. We are conscious but unconscious to situations that lurk off our beaten path. What will make one take notice of potential disasters to be; a lost finger, an eye put out, severe burn or a maintenance facility destroyed in the night?

But wait, I have been in the business 25 years, no such thing has happened to me. Why all the fuss and bother?

Have you ever stopped and thought why local, state and federal agencies spend millions of dollars a

year for something called SAFETY? Are these people crazy or is there a justified need for fingers, eyes, legs and life?

When we determine as professional managers how safe our maintenance facilities and programs are, we in essence have put a value judgement on human life. Sound a bit dramatic? Life and Death sound more than dramatic to me.

How does one know when and if he is flirting with disaster? Compiled in this article is a list of questions partially taken from HEW Publication No. (NIOSH) 75-119 pages 67-84 that I feel pertain to the golf course industry environment. Use them as an aid to help you look for potential disaster areas.

Let us collectively take pride in our industry by showing to our peers, members, and staff that safety is of utmost concern.

(Continued on page 45)

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1. Are all places of employment kept clean and orderly?	<input type="checkbox"/>	<input type="checkbox"/>
2. Are floors, aisles, and passageways kept clean and dry and all spills cleaned up immediately?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are floor holes, such as drains, covered?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are permanent aisles appropriately marked?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are wet surface areas covered with non-slip materials?	<input type="checkbox"/>	<input type="checkbox"/>
6. Are platforms, storage lofts, balconies, etc., that are more than four feet above the floor protected with standard guardrails?	<input type="checkbox"/>	<input type="checkbox"/>
7. Are all doors that must be passed through to reach an exit always free to access with no possibility of a person being locked inside?	<input type="checkbox"/>	<input type="checkbox"/>
8. Are all exit routes always kept free of obstructions?	<input type="checkbox"/>	<input type="checkbox"/>
9. Are eye wash fountains and safety showers provided in areas where chemicals, such as caustics, are used?	<input type="checkbox"/>	<input type="checkbox"/>
10. Are all containers, such as vats, storage tanks, etc., labeled as to their contents?	<input type="checkbox"/>	<input type="checkbox"/>
11. Are employees required to wear personal protective equipment when handling hazardous materials (gloves, eye protection, respirators, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>
12. Are flammable liquids kept in closed containers when not in use (e.g., parts cleaning tanks, pans, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>
13. Are all spills of flammable or combustible liquids cleaned up promptly?	<input type="checkbox"/>	<input type="checkbox"/>
14. Is combustible waste material (oily rags, etc.) stored in covered metal receptacles and disposed of daily?	<input type="checkbox"/>	<input type="checkbox"/>
15. Are gasoline and other flammable liquids stored in approved containers?	<input type="checkbox"/>	<input type="checkbox"/>
16. Do storage rooms for flammable and combustible liquids have explosion-proof lights?	<input type="checkbox"/>	<input type="checkbox"/>
17. Are LP-gas storage tanks guarded to prevent damage from vehicles?	<input type="checkbox"/>	<input type="checkbox"/>
18. Are storage cabinets for flammable and combustible liquids labeled "FLAMMABLE-KEEP FIRE AWAY"?	<input type="checkbox"/>	<input type="checkbox"/>
19. Is personal protective equipment provided, used, and maintained wherever it is necessary?	<input type="checkbox"/>	<input type="checkbox"/>
20. Is eye protection available where debris or flying objects could be a hazard?	<input type="checkbox"/>	<input type="checkbox"/>
21. Is the proper respirator in use for the hazards present? (For example, dust masks do not protect against solvent vapors.)	<input type="checkbox"/>	<input type="checkbox"/>
22. Are respirators provided where necessary?	<input type="checkbox"/>	<input type="checkbox"/>
23. Is the user instructed and trained in the proper use of respirators?	<input type="checkbox"/>	<input type="checkbox"/>
24. Are respirators cleaned and disinfected after use?	<input type="checkbox"/>	<input type="checkbox"/>
25. Are restrooms and washrooms kept in clean and sanitary condition?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued on page 46)



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|--|--------------------------|--------------------------|
| 26. Are all outlets for water that is not suitable for drinking, clearly posted as "UNSAFE FOR DRINKING, WASHING, OR COOKING?" | <input type="checkbox"/> | <input type="checkbox"/> |
| 27. If employees are permitted to eat on the premises, are they provided with a suitable space for that purpose? | <input type="checkbox"/> | <input type="checkbox"/> |
| 28. Are employees prohibited from eating in areas where toxic materials are present? | <input type="checkbox"/> | <input type="checkbox"/> |
| 29. Are first aid supplies readily available, inspected and replenished? | <input type="checkbox"/> | <input type="checkbox"/> |
| 30. Is at least one employee on each shift currently qualified to render first aid in the absence of a nearby clinic or hospital? | <input type="checkbox"/> | <input type="checkbox"/> |
| 31. Are medical personnel readily available for advice and consultation on matters of employee health? | <input type="checkbox"/> | <input type="checkbox"/> |
| 32. Is there a first aid kit easily accessible to the work area? | <input type="checkbox"/> | <input type="checkbox"/> |
| 33. Are emergency phone numbers posted? | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. Where employees may be exposed to injurious corrosive materials, are they provided with quick-drenching and flushing facilities for immediate emergency use? | <input type="checkbox"/> | <input type="checkbox"/> |
| 35. Are extinguishers selected for the types of combustibles and flammables in the areas where they are to be used? | | |
| Class A. Ordinary combustible material fires | <input type="checkbox"/> | <input type="checkbox"/> |
| Class B. Flammable-liquid or grease fires | <input type="checkbox"/> | <input type="checkbox"/> |
| Class C. Energized-electrical-equipment fires | <input type="checkbox"/> | <input type="checkbox"/> |
| 36. Are extinguishers fully charged and in designated places? | <input type="checkbox"/> | <input type="checkbox"/> |
| 37. Are extinguishers locations free from obstruction or blockage? | <input type="checkbox"/> | <input type="checkbox"/> |
| 38. Are extinguishers located along normal paths of travel? | <input type="checkbox"/> | <input type="checkbox"/> |
| 39. Have all extinguishers been serviced, maintained, and tagged at intervals not to exceed one year? | <input type="checkbox"/> | <input type="checkbox"/> |
| 40. Are air tanks drained regularly? | <input type="checkbox"/> | <input type="checkbox"/> |
| 41. Are pulleys and belts on compressors and motors completely guarded? | <input type="checkbox"/> | <input type="checkbox"/> |
| 42. Is the pressure-relief device and gauge in good operating condition? | <input type="checkbox"/> | <input type="checkbox"/> |
| 43. Is battery charging on electric units performed only in designated areas? | <input type="checkbox"/> | <input type="checkbox"/> |
| 44. Are "NO SMOKING" signs posted near electric battery charging units? | <input type="checkbox"/> | <input type="checkbox"/> |
| 45. Are chain hoists, ropes and slings adequate for the job? | <input type="checkbox"/> | <input type="checkbox"/> |
| 46. Are motorized vehicles and mechanical equipment inspected daily or prior to use? | <input type="checkbox"/> | <input type="checkbox"/> |
| 47. Are goggles or face shields always worn when grinding? | <input type="checkbox"/> | <input type="checkbox"/> |
| 48. Are jacks checked periodically to see if they are still in good condition? | <input type="checkbox"/> | <input type="checkbox"/> |
| 49. Are tools and equipment (both company and employee-owned) in good condition? | <input type="checkbox"/> | <input type="checkbox"/> |
| 50. Have employees been instructed that the use of compressed air to blow debris from clothing or body is prohibited because it can enter the body and cause serious harm? | <input type="checkbox"/> | <input type="checkbox"/> |
| 51. Have deteriorated air hoses been replaced? | <input type="checkbox"/> | <input type="checkbox"/> |
| 52. Have employees been made aware of the hazards caused by faulty or improperly used hand tools? | <input type="checkbox"/> | <input type="checkbox"/> |
| 53. Are cylinders secured and stored where they cannot be knocked over? | <input type="checkbox"/> | <input type="checkbox"/> |
| 54. Are cylinder protective caps in place except when the cylinder is in use? | <input type="checkbox"/> | <input type="checkbox"/> |
| 55. Are only instructed employees, who are judged competent by the employer, allowed to use oxygen or fuel gas equipment? | <input type="checkbox"/> | <input type="checkbox"/> |
| 56. Is welding always conducted at a safe distance from flammable liquids? | <input type="checkbox"/> | <input type="checkbox"/> |
| 57. Are all compressed gas cylinders legibly marked for identifying the content? | <input type="checkbox"/> | <input type="checkbox"/> |
| 58. Have exposed wires, frayed cords, and deteriorated insulation been repaired or replaced? | <input type="checkbox"/> | <input type="checkbox"/> |
| 59. Is all metal fixed electrical equipment grounded? | <input type="checkbox"/> | <input type="checkbox"/> |
| 60. Do storage rooms for flammable and combustible liquids have mechanical or gravity ventilation (at least six air changes per hour)? | <input type="checkbox"/> | <input type="checkbox"/> |

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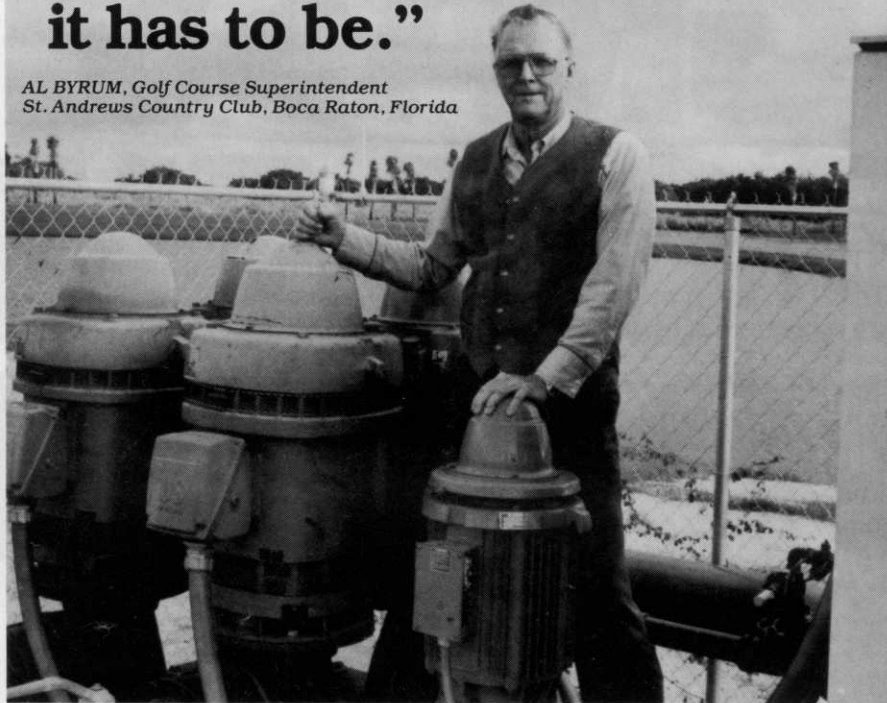


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Beauty of Par 3, 12th hole, shows environment of golf course.

jupiter island club

Jupiter Island Club, Hobe Sound, Florida. Even the name wears the correct address. Probably the states' most private and secluded island hideaway, is the seasonal winter home for a truly select few. All the island social activities revolve around the club of which the golf course has a rich heritage.

Nathaniel Reed, greens committee chairman, explains some of the past. "Some of our old timers believe a golf course had been cleared from the island jungle as early as the 1890's, but all documentation has been lost in time. Our records indicate that the Jupiter Island Golf Course had been constructed by 1912. Visitors to the Mainland Inn, owned and operated by a British holding company, took a ferry across to Jupiter Island and played an interesting compact course of 9 holes which featured 3 holes that have actually disappeared into the sea. In 1922 the then financially revitalized Olympia Beach Company had sufficient funds to expand the course. The jungle was cleared for the sweep of holes 4, 5, 6. The greens were

modified and improved. New fairway and greenside bunkers were constructed and irrigation water was brought to each of the 9 greens. The fairways remained sandy. If you could find a lie, it was made of a mixture of rough bermuda and sand spurs. The sand spurs were so prolific that they were raked by a mule-pulled drag to the side of the fairways and burned."

Today this short yardage course is one of the states' most enjoyable to play because of its natural tropical beauty. Because of his longtime interest in botany Nathaniel Reed says, "I decided that our course would become a tropical garden sanctuary with a collection of palms, tropical trees, and now citrus, avocados, mangoes, flowering trees and vines, hibiscus, and a water lily pond. Our membership has supported my concept with zeal."

Bob Hurst, golf course superintendent, is the force behind these ideas. He has held his current position for over 23 years. Bob came to Jupiter Island in

1936, as a lad of 16, looking for work at the height of the Florida depression. He was trained as a landscape nursery man and adapted to the course perfectly. Nathaniel Reed said about Bob Hurst, "I have had the privilege of working with Bob for 23 years; our friendship has never waivered and I hold him in high respect."

Ray Goodman is the assistant golf course superintnedent.

The course was expanded to 18 holes under Bob Hurst's time with several course architects adding their influence. Earnest Smith did the early work. Pete Dye rebuilt 9 greens including the 12th hole which is one of the first southern golf holes built with railroad cross ties; the year was 1966. This issues' cover-hole, the 14th, was rebuilt last summer with the Fazios. Nathaniel Reed says, "I wanted the green to be "in" the Indian River." When you stand on the tee you know the goal was achieved. ■



Bob Hurst inspects greens overseeded with bent and saber on Tifgreen 328.



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Editorial

Today's golf course construction and maintenance is an expansive proposition. During the stages of planning and construction the foundation is laid that will imminently determine the character of the golf course and the amount of money it will cost to properly maintain it.

The scenario of poor greens on new and older courses is not uncommon. In many cases the greens have to be rebuilt at astronomical cost. Ask any number of golf course superintendents to evaluate their irrigation system and you will probably ascertain that: (1) The system is not totally adequate; (2) It wasn't built exactly to specifications; (3) The as-built isn't completely accurate; (4) It is expensive to maintain.

The majority of maintenance complexes traditionally are referred to as barns and they look like it. Devoid of proper design, their lack of efficiency and storage space adds greatly to the cost of maintenance and ultimately affects the condition of the golf course. What then is the solution to these and other problems? To circumvent these costly errors an experienced qualified golf course superintendent should be hired and involved with the construction of the new golf course. Included among the superintendent's duties would be the following:

- (1) The superintendent would be the owners representative for contracts concerning the golf course.
- (2) The superintendent would oversee the design and construction of the maintenance complex.
- (3) The superintendent would oversee the design and construction of the irrigation system.
- (4) The superintendent would oversee the construction of the greens, tees, fairways, drainage, etc.

The golf course architect can be very instrumental in obtaining these job objectives. He is usually the first contact a club has when they are seeking to build a golf course. Because of his professional image and rapport with his clientele, he is in a position to recommend the hiring of a qualified golf course superintendent before construction begins. Through the architect's contacts he knows several qualified applicants and by ensuring the superintendent's early involvement, he does a service for the club and himself. Many new golf course owners rely on the architect to over see all construction details but the architect will be the first to tell you he can't be there on a daily basis. The club needs someone other than a contractor to ensure their course will be built exactly to specifications. No much in greens, no buried tree stumps in fairways, no shortcut on the irrigation system. The superintendent will not leave the job when it is completed. He, the architect and the owners *have* to live with the results.

Today a few architects have already implemented the procedure of hiring a golf course superintendent before construction. As natural resources continue to dwindle, fuel cost remains unstable and water becomes a more precious commodity — the necessity for a well designed and efficient golf course is of paramount importance. For the future success and continued growth of golf, let's hope the architects communicate these points to their clientele. We will all be the better for it.



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Marvelgreen is also being used at the PGA TOUR Tournament Players Club, Ponte Vedra Beach, FL, Allan MacCurrach, Agronomist; Bobby Weed, Superintendent.



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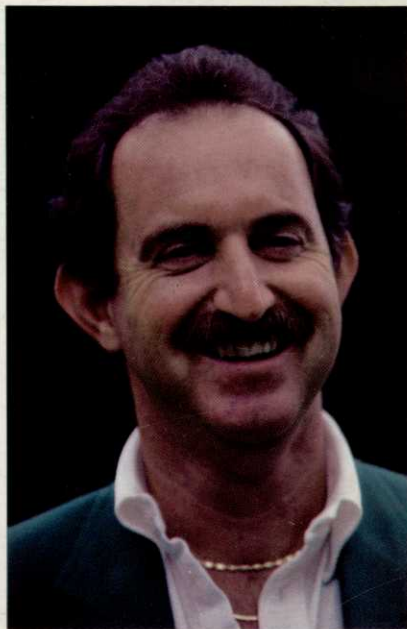


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