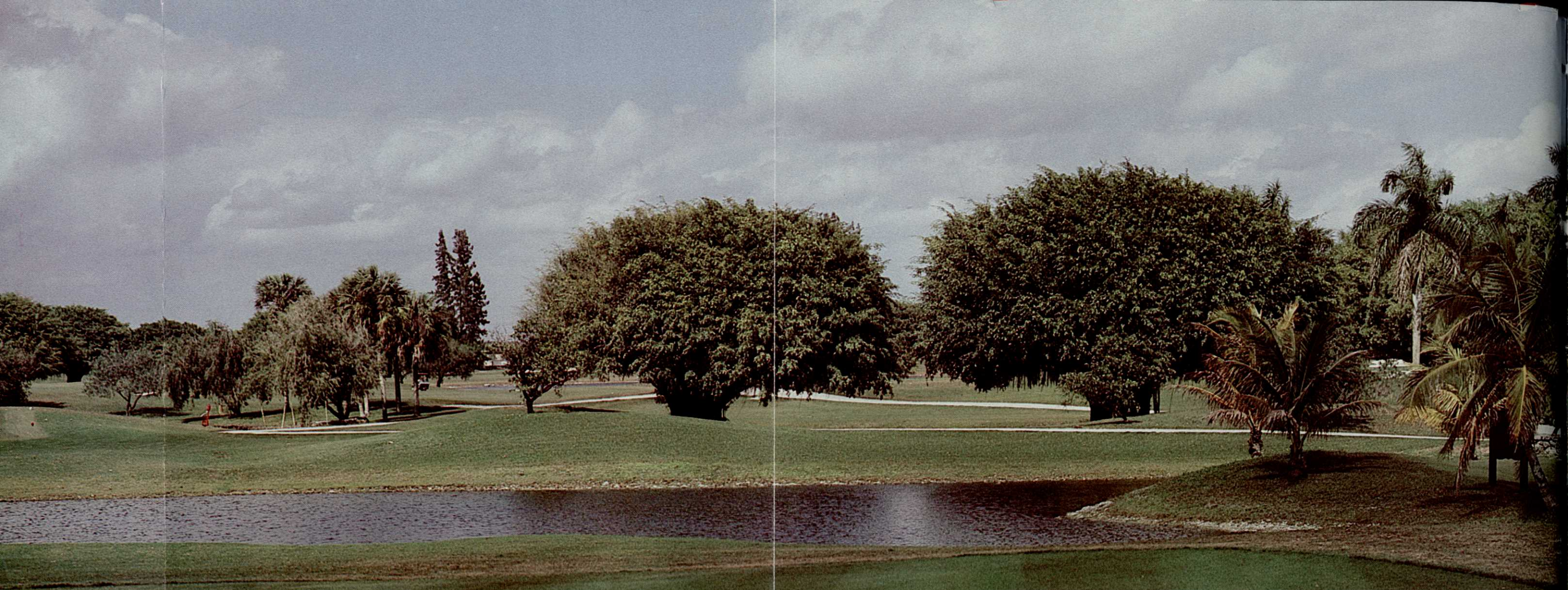




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LESCO Citation II + Pennfine Blend (50% Citation II Perennial Ryegrass, 50% Pennfine Perennial Ryegrass)	Putting Greens Tees & Collars Fairways	25-40 lbs. / 1000 sq. ft. 20-25 lbs. / 1000 sq. ft. 200-250 lbs. / acre
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**Daniel Zelazek**  
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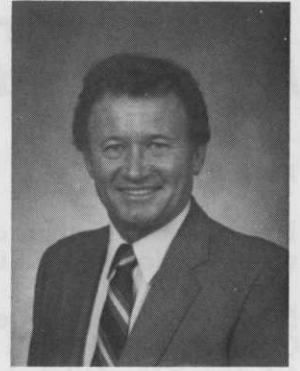
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# President's Message



Fifteen years from now, at the year 2000, Florida will have nearly 1500 golf courses. Will our membership be prepared? The answer is yes! We began preparing seven years ago at the founding of the FGCSA Unifying and Promoting Turf Management. The list of accomplishments during this period was listed in the last "Florida Green" president's message. The list was numerous. We have had a great beginning.

So, where do we go from here?

1. **UNITY** - All of our 9 chapters will pull more closely together, working as one unit recognizing the massive strength of unification.
2. **THE "GREEN SHEET"** - Our newsletter will become one of the finest Turf Management communication tools in all Florida and, perhaps, the country.
3. **THE "FLORIDA GREEN"** - is and will remain one of the finest Turf Management educational publications available.
4. **OUR MEMBERSHIP DIRECTORY** will become a valuable source of information on up-to-date membership locations.
5. **MEMBERSHIP RECRUITMENT** will relentlessly begin and continue to strive to acquire new members to accomplish professional unification and membership education.
6. **MORE CLOSELY ASSOCIATED** and working with allied associations, national organizations, universities and state environmental agencies to help overcome problems associated with the massive growth of golf and environmental problems.
7. **OUR EDUCATIONAL COMMITTEES** will assist local association educational programs. They will produce a large selection of educational seminars in various areas of the state. We will give continued backing and assistance on further education to the FTGA and GCSAA.
8. **GCSAA CERTIFICATION** - We will encourage and assist all members to gain GCSAA certification on the justification that if you aren't certified, you'll be on the outside looking in!
9. **FUND RAISING** - Efforts will continue to grow as the association grows. One day in the not-too-distant future the "Florida Golf Day" will grow in size and stature - proceeds annually will exceed \$100,000. Funds will be earmarked for research.
10. **PUBLIC RELATIONS** will continue as a never ending quest to promote all phases of Turf Management and the modern Golf Superintendent Golf manager and bring needed information to the media, golfers and the public.
11. **JOB REFERRALS** - The time is coming when a large percentage of clubs looking for a superintendent will contact the FGCSA for advice regarding applicants, qualifications and certification.
12. **GOLF** - Look to the day in the near future when nearly every FGCSA member will hold a current USGA handicap. Our local and state tournaments will be played using that handicap.
13. **THE PART TIME SECRETARIAL POSITION** now a reality, will turn into a full time position. Shortly after that, a full time Executive Director, then office and staff. It will be their responsibility to assist our Executive Committee and Directors with our publications, educational programs, fund raising and the many other happenings going on in promotions Turf Management and unity.

**IN SUMMARY:** It has been said we are dreamers. Yes, perhaps so. But we are also doers! Look back at our accomplishments over the past 7 years. We have come a long way, and we have a long way to go and, **WE ARE ON OUR WAY!**

Our goals are to promote Turf Management and Unify the Florida Superintendents and work towards the future of golf.

The forecasts of items listed above may be dreams perhaps, but with the desire and cooperation of all they will become a reality. With the advent of 1500 golf courses in the 21st century, the FGCSA will be prepared and in a position to fulfill its duties to all.

## Florida Green's Zelazek Recognized For Excellence

## Publishers Comments

Dear Irene:

I talked with you today concerning the cover of the 1985 winter edition, Florida Green Magazine.

Mr. Lee Lockhart, General Manager at the Grand Cypress Golf Club was very impressed with the beautiful shot of the 11th hole here at our Club.

Per our conversation, we are very interested in a layout of the shot which we may frame and put on display. I thank you for giving me the information on Mr. Daniel Zelazek. I will be getting in contact with him to find out if we may purchase the negative or series of photographs he took.

Thanks once again for your assistance and I'll look forward to hearing from you soon.

Sincerely,

Brenda Hutchins  
Administrative Assistant  
In Conference Sales

By: Dan Jones

During the past eight years I have seen many exciting changes take place with THE FLORIDA GREEN. The magazine becoming a state publication and winning many national awards are just a few of those exciting memories.

But nothing has excited me as much as the next two issues, Summer and Fall 1985, of our magazine. They are exciting both in concept and accomplishment. I'm not telling at this time what we are doing, but I am sure you will be as excited as I am when you see it.

The FLORIDA GREEN has had a great and award winning past. It has brought world wide attention to The Florida Golf Course Superintendent and to the many trail blazing accomplishments taking place within our state. Only with your help and input will it continue to set the place within our industry. ■

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# The Gator Growls



## **Boost Employee Morale With Motivation And A Better Golf Course**

BY: Sandra P. Carmouche

Pleasant Hills Country Club and Buzzard Gulch Golf Club are both 18 hole championship golf courses in a growing town. They are located on opposite sides of the same street and are each responsible for maintaining 120 acres of land.

Mr. Green, the golf course superintendent at Pleasant Hills, employs seven people and spent 330,000 dollars last year to maintain the golf course and surrounding grounds which was 20,000 dollars less than he had budgeted for.

Every other Monday, when the golf course is closed, Mr. Green and his crew play nine holes of golf in the afternoon, even though some of the personnel are not good golfers. (Mr. Green believes that his employees spot problem areas more easily while golfing than they do when they are working; besides, it's fun).

The members at Pleasant Hills all agree that Mr. Green and his staff do an outstanding job of keeping the golf course immaculate. That is why they have each donated ten dollars into a fund which will provide Christmas bonuses for the employees.

Across the street at Buzzard Gulch, the members are thinking of hiring a new golf course superintendent. They feel that Buzzard Gulch has the potential to be a better golf club than Pleasant Hills, yet it is always in terrible condition.

Mr. Brown, the superintendent at Buzzard Gulch, spent 380,000 dollars last year for maintenance, 30,000 dollars more than he had budgeted for, and has 12 people on his crew.

Of the 12 employees, he can only count on eight to show up for work on any given day, and their performance seldom qualifies as mediocre. He always has help wanted ads in the newspaper because the employees at Buzzard Gulch don't stay for any length of time.

Every other week when Mr. Brown sees the personnel at Pleasant Hills playing golf, he gets frustrated. He never has time to play golf because it takes him two days to accomplish what Mr. Green gets done in a few hours.

Mr. Brown knows he has a problem, but he has no idea

that his difficulties are the result of poor employee motivation. And although Pleasant Hills and Buzzard Gulch don't really exist, they are good examples of how the attitudes of golf course personnel can affect the condition and expense of a golf course.

Today, salary and fringe benefits such as hospitalization and life insurance are no longer stimulating enough to sustain high levels of performance. Employees must be emotionally satisfied or the quality and quantity of their productivity becomes poor.

It is therefore important that a golf course superintendent provide a variety of incentives for his crew members and that he structure work so that each individual can realize his full potential.

Cary Lewis, formerly of Windstar Country Club in Naples, now at the Vintage in Fort Myers, Wayne Lipold of the Forest Country Club in Fort Myers, and Buddy Carmouche of Fiddlesticks Country Club in Fort Myers contributed the following examples of how employee motivation works for them.

The first step to consider in employee motivation lies in hiring people who are suitable for the type of work required on a golf course. A person who dislikes working outdoors or doesn't enjoy physical activities isn't going to remain satisfied for any length of time on a golf course, regardless of the incentives a superintendent offers. And the individual who is dissatisfied with his work has a tendency to infect other crew members with his attitude.

Once the hiring is complete, job satisfaction becomes the next area of critical importance. If employees are to remain stimulated, the superintendent needs to be aware of what most advantageously affects their attitudes.

Cary Lewis gave a questionnaire to his staff to determine what had the most positive effect on their feelings of job satisfaction. Recognition of good performance came in first, followed by opportunity for advancement, with salary, or pay rate, placing third.

There are several different ways of letting an individual know that his work is appreciated, the most inexpensive of which is praise. Complimenting the person who, for

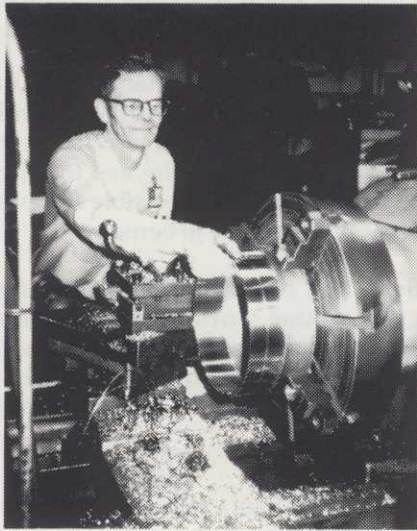
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(continued from page 12)

example, does an outstanding job of mowing greens raises his self-esteem and instills pride in his achievements. It also allows the superintendent to positively reinforce his policies regarding the quality of work he expects from his personnel.

Rewards are another way of recognizing good performance. A day off with pay, an employee of the month award, comp time (the employee gets time off for the amount of overtime he puts in), a free lunch, or a field trip to a superintendent's meeting are a few good examples.

Financial rewards such as sick leave or personal time also help stimulate motivation. For a predetermined amount of time that a person puts in, he gets a paid hour of sick leave or personal time which can be added to vacation time if desired. This type of reward prevents absenteeism and promotes dependability.

Pay raises and bonuses provide excellent incentives for personnel. Wayne Lippold evaluates his staff each year before Christmas and, because the individuals who have worked the longest in his service deserve special recognition, he gives bonuses for longevity as well as performance.

Allowing crew members the opportunity for advancement as higher level positions become available is an additional means of rewarding those who excel at their work. Promotions are great goal builders and employees without goals are seldom high achievers.

To assure personnel that they are being treated fairly, establish a written policy and don't deviate from it. Included in the policy should be proper attire, care of equipment, break and lunch times, safety rules, and reasons for dismissal.

Keeping files on individual crew members and recording their attendance along with specific information with regard to job performance also assures employees of fair treatment. If, for example, an individual is passed over for promotion because of poor attendance, the superintendent won't have to guess how often the person was absent, he'll know. The files can also help the superintendent justify his reasons for firing an employee or giving large pay raises to some and small raises to others. Personnel should be permitted access to their respective files so they'll know where they stand and there won't be

any disputes over the superintendent's remarks or comments.

When negative feedback becomes necessary, calm, rational reprimands made in private get best results. Yelling at a person who has made a mistake while other crew members are present can generate negative feelings that are irreversible. And delegating the task of approval to an assistant or foreman helps to maintain comfortable communication between staff and the superintendent.

Communication is essential to any productive work force and staff meetings can provide an opportunity for the superintendent to clear up any misunderstandings or problems before they create negative attitudes. Staff meetings also give personnel a chance to make suggestions, which gives them a feeling of contribution while increasing their job involvement.

Buddy Carmouche believes that the key to employee involvement lies in delegating authority and giving more responsibility to crew members. With that in mind, he permanently assigns two employees to nine holes of the golf course who are then responsible for everything from repairing divots to mowing greens.

Not only does this program help prevent the boredom caused by repetitious work, it creates competition between crew members for the best nine holes out of 36. The work is more interesting for the employees and they are permitted to make some decisions regarding their particular nine holes.

As a final suggestion, golf course superintendents should assign the most demanding tasks in the morning when employees are fresh and motivation is highest. Pushing crew members after lunch can be frustrating and the beginning of poor work habits.

Good employees are hard to find and the golf course superintendent should make every effort possible to keep them. As was illustrated by Mr. Green and Mr. Brown, motivation plays an essential role in the productivity of personnel. It is an internal need of every individual and the superintendent who can create a positive work environment for his staff will have a better golf course, with fewer problems, at a lower cost. ■

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# Water Quality On The Golf Course

By Lynn Griffith

Golf Course Superintendents apply many things to their grass in order to establish and maintain a quality playing surface. Fertilizers, wetting agents, pesticides, fungicides, herbicides, and nematocides are all applied regularly to turf in order to accomplish these goals. If you think about it, however, a golf course superintendent applies far more water to his course than anything else. Water quality is often overlooked and only occasionally thought of by most turf professionals, but all things considered, it can lead to a significant difference in turf quality between your course and the one down the street.

Water quality affects performance in various and subtle ways. It can affect soil pH, moisture stress, pesticide activity, buffer capacity, disease pressure, nutrient requirements, and a number of other surprising, seemingly unrelated parameters. How water chemistry interacts with turf performance is the subject we will cover here.

Probably the most important thing to consider is the pH of the irrigation water. Soil pH is significantly affected by the pH of the water applied. In fact, at lower fertility rates, soil pH often takes on the irrigation water pH, especially in sandy or poorly buffered soils. Golf courses in central and southern Florida often irrigate with water

of pH 7.2-7.6, even approaching 8.0 in some areas. Inland areas in central and northern Florida have water which runs 6.6-7.2, although there are many exceptions to these averages. When alkaline water is a problem, trace element availability in the soil can be a problem. Chelates may be necessary in these cases where high pH tie-up hinders uptake of non-chelated metals.

High pH water have been shown to adversely affect pesticide performance in a number of instances. The organophosphates can be especially sensitive to high pH hydrolysis. With the cost of chemicals today, it makes sense to consider acidification of the spray tank water. The amount of acid needed to place alkaline water into a good pH range (say about 6.0) varies with water pH and the buffer capacity of the water. As a general guide, however, a shot glass of 75% food grade phosphoric acid (available at most chemical supply houses listed in the yellow pages) will put 200 gallons of spray tank water into and acceptable pH range.

Another major water quality criterion is the amount of dissolved salts in the water, as measured by electrical conductivity. The higher the level of dissolved salts in the water, the more electricity it will conduct. In fact, total dissolved solids is a direct calculation from the elec-

*(continued on page 16)*

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(continued from page 15)

trical conductivity reading. When using water containing high soluble salts, risk of burn from pesticides and soluble fertilizers is substantially increased. Conductivity ideally should be less than .75 millimhos (about 500 ppm) for golf course irrigation. If it is much higher, the grass will be more sensitive to water stress, especially in areas subject to winds or elevated berms and tee slopes.

Most Florida ground water contains only minimal amounts of the major plant nutrients - nitrogen, phosphorus, and potassium. Those who inject soluble fertilizers into lines where drinking water is taken from the same well should be sure that fertilizer does not enter the drinking water. Levels above 45 ppm nitrate can affect the health of infants under six month of age.

Most coastal and southern Florida irrigation water contain high levels of calcium. High calcium can affect water pH. At the same time, magnesium availability in turf soils can be a problem when high calcium waters is used. Staining of fixture can also be troublesome.

Carbonate and bicarbonate ion content is also very important. In addition to contributing to the staining problem, large amount of these ions will, upon drying in the soil, precipitate calcium and remove it from the soil. This can result in a net deficit of soil calcium over time, leading to pH or nutritional problems. Carbonate ion will not be present unless the water pH is above 8.0. Bicarbonate levels can be a problem above 120 ppm, and are especially troublesome in southeast Florida.

Iron staining can be a serious problem for some golf courses. When water contains high levels of calcium and bicarbonate, and has more than 0.1 ppm iron, staining often results. The iron dries on plant and soil surfaces as

iron hydroxide. The sunlight oxidizes this to iron oxide, or rust. If rusty water is a problem from wells, it is best prevented by the use of filters or injection of chelating agents. Lake water with rust can be improved by aerating the water, which will precipitate some of the iron in the lake itself.

Salt intrusion can be a serious obstacle to turf maintenance. Areas around Melbourne and the Bradenton Sarasota area are especially affected. The high sodium in the water tends to "crowd" the potassium out of the soil solloids. The grass plant tends to run deficient in potassium, causing abnormal water stress and sensitivity to wear. The golf ball may not stand up well in the grass. Salt intrusion can also add excess levels of boron to irrigation water.

Varying the depth of a well can significantly affect water quality. These wells can be high in iron and sulfates. Deep wells may yield very good or very bad water. Tendencies vary from region to region. One way to combat salty well water is to dilute it by pumping into a lake to mix with rain water.

During drought periods, water quality deteriorates noticeably. There is less water to dissolve everything in, and the water travels farther to get to the well point. Thus, any existing water problems become magnified in a drought. Rain water is far more pure than ground water, and quality is improved when rain replenish the ground water. The purity of rain water and the oxygen dissolved in it often "linen up" turf more than an equal amount of irrigation. This response to rain is a classic example of the benefits of good water quality.

Pesticide and herbicide residues are not frequent problems with well waters, but may be significant in lake and canal waters. Detection is difficult, and chemicals must usually be analyzed individually or by the class of compound. Superintendents sometimes ask to have the water tested for "chemicals", but this can only be done if a specific type of chemical is suspected.

Plant disease causing organisms may sometimes be present in irrigation water. Water from ponds, lakes, or canals are more likely to contain pathogens. Bacterial pathogens and the water mold Pythium are the most likely to occur. This is not a common problem, but if pathogens are suspected, water samples can be baited for disease causing organisms.

As you can see, water quality has many facets, and any of them can affect turf production in unexpected ways. If you are having problems that other fellow superintendents are not having, even though their cultural practices are similar, water quality might be the hidden cause. Bad water problems must first be identified, and then appropriate measures taken. Sometimes a superintendent just has to live with bad water quality, but if he knows what the specific problem is, he can compensate for it more intelligently.

Your turf gets more water than anything else. Good water quality can make production of superior turf much easier. Keep it in mind. ■

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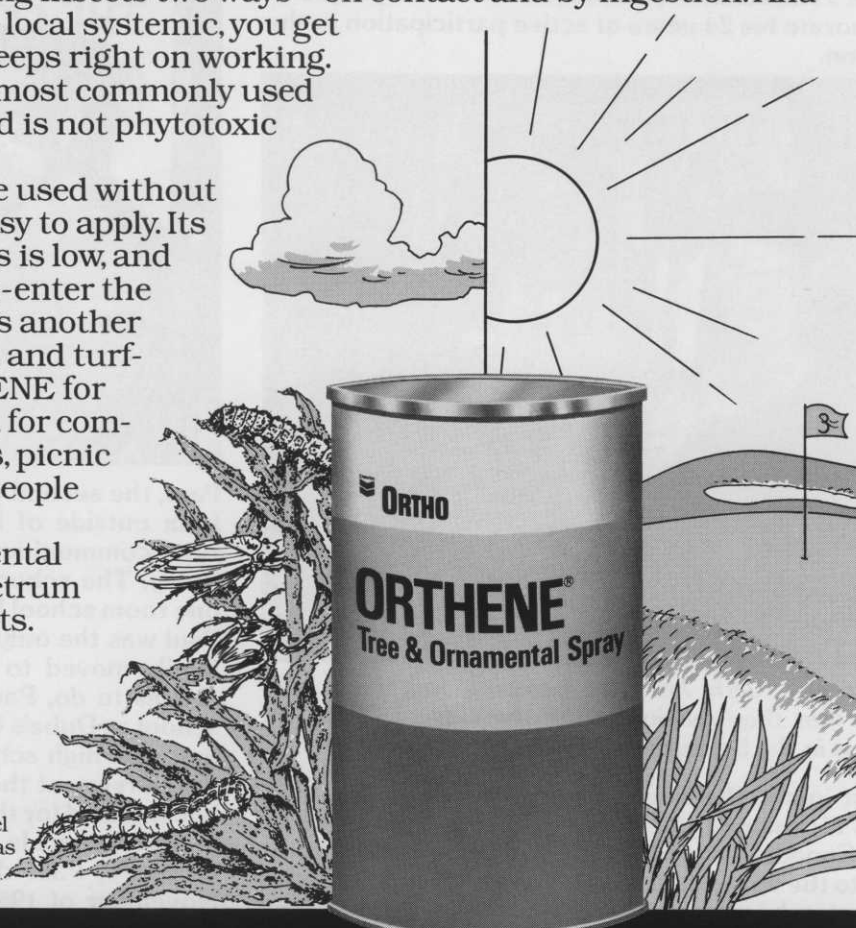
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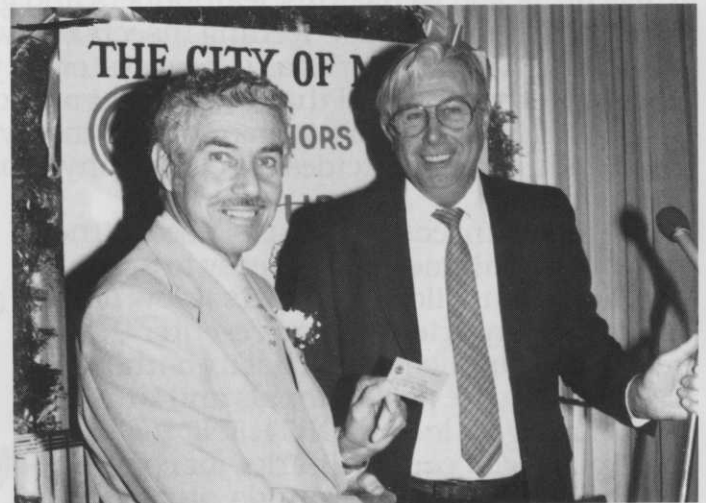


## South Florida Honors Paul Turcotte

By: Alan Weitzel

On January 8, 1985, the South Florida Golf Course Superintendent's Association honored one of its long time ACTIVE members, Paul Turcotte. The meeting was held at Miami Springs Golf Course, one of two city of Miami golf courses that Paul supervises. This was also the last time Paul will host a meeting since he will be retiring from the city of Miami after 31 years of service on January 25, 1985. The South Florida Golf Course Superintendent's Association presented Paul with a plaque to commemorate his 24 years of active participation in the associaiton.

missed one of their national conventions in the last 23 years. Paul has been a member of the Florida Turf Grass Association for 20 years serving as a director in the early 60's. In 1978, Paul was approached by several municipal golf course managers from central Florida to help form a municipal golf course association. In 1981, Paul became the third president of this associaiton.



*Paul Turcotte with his wife showing matching gold watches that they received from the City of Miami. Al Howard is in the background making the presentation.*

Paul first joined the South Florida Association in 1960 and was nicknamed the "Frenchman" as a result of his French Canadian ancestry. Several years later, he was elected to the board of directors. In addition to his duties as a director, he also served as treasurer, vice president, and finally in 1970 became president. The following year he accepted the presidency of the State Association. Ten years later, Paul was again asked to serve when the South Florida Association was looking to fill the newly created position of external vice president.

Paul also has been very active in other professional trade associations. He joined the Golf Course Superintendents' Association of America in 1962, and has only

Paul, the second youngest of six children, grew up on a farm outside of Lewiston, Maine. Public schooling in rural communities such as Lewiston was different than today. The school which Paul attended consisted of a one room school house in which from first to sixth grade Paul was the only one in his class. In sixth grade Paul's family moved to the city. Since there were no more chores to do, Paul immediately got himself a job after school at Dube's Nursery. Six years later, after graduating from high school, Paul became general manager of the nursery at the age of 18. Five years later, Paul was hospitalized for three weeks when an over accumulation of the insecticide, Pyrethins, left him paralyzed. After his recovery, Paul decided it was time for a change. In November of 1952, Paul, his wife and three month old son, headed for Miami. Paul worked approximately nine months with Exotic Gardens before accepting the horticulturist position with the city of Miami. In 1959, Paul took a cut in pay to work on the Melreese Golf Course (formerly LeJeune Golf Course). It was his first exposure to golf course maintenance. In June of 1960, when the golf course opened for play, Paul was superintendent. In 1968, with the retirement of Woody Laughinghouse, Paul took over the maintenance of both city golf courses. As

*(continued on page 20)*



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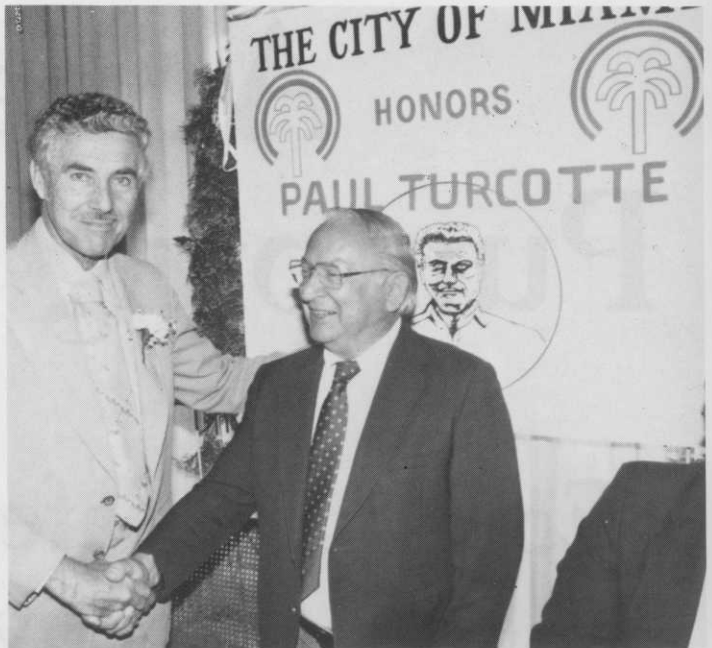
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(continued from page 18)

Paul's knowledge grew in turf, so did his responsibilities. In 1973, he was promoted to assistant director of parks, and took on the maintenance responsibilities of the city's 92 parks. During this era, Paul became involved in a number of different projects. The first documentation of Lethal Yellow Diseases in Miami occurred ten blocks from the Melreese Golf Course. Paul worked extensively with the University of Florida to try to find a cure to the dreaded disease which eventually took the life of 1,500 palm trees on his golf courses. Paul also was involved in the installation of the Prescription Athletic Turf System in the Orangebowl.



What effect has all this volunteer work had on Paul's home life? What sort of wife would tolerate a husband who spends all his time helping others? Well, fortunately, Paul has a wife who is equally as generous who he met 40 years ago as a teenager in Lewiston, Maine. They have two lovely children who are now grown and seem to have been influenced by their father's example of helping others. His daughter is a registered nurse, and his son who has a Ph.D. in psychology heads a program for the rehabilitation of people with drug, alcohol, and emotional problems.

It is hard to believe that Paul would have time for other outside activities when one considers the amount of time he puts into his job and professional trade associations. For 12 years Paul worked with the Boy Scouts — ten of those years as a scoutmaster. He eventually became the overall chairman of the scouting program in this area. In 1966, Paul approached the leaders of his church about setting up a support group for the prisoners of Dade County. Through his efforts, five programs have been established in Dade County. For 18 years, Paul has spent two days per week, one evening, and one Saturday morning trying to help prisoners find a purpose in their lives. He is very active in his church serving as president of the Saint Vincent DePaul society.



So it is only fitting that in a time when many associations are experiencing apathy from their membership, that the South Florida Golf Course Superintendents' Association honors one of its members for being ACTIVE for 24 years. Paul has set an example which if many of us would follow, would not only make our association stronger, but also enhance our personal lives. ■

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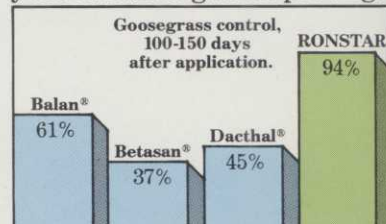
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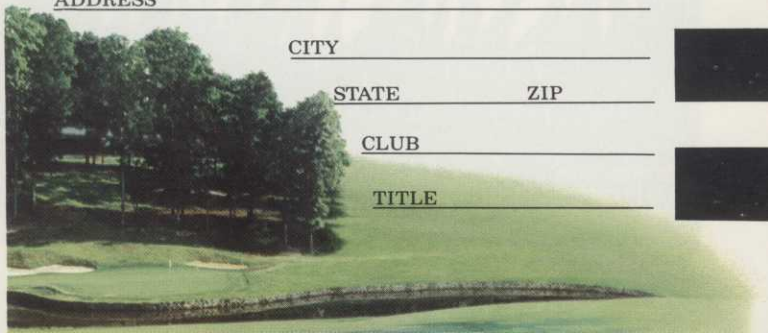
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# Treasure Coast "Tide"ings

## Employee Morale And Motivation

By: TODD MILLER  
Heritage Ridge Golf Club

While payroll generally burdens more than 50% of a golf course's operating budget, the efficient use of this expenditure is usually given less thought and attention than lesser items such as fertilizer or pesticides. Superintendents are continually reviewing the efficiency of preventative maintenance programs, fertilizer and pesticide strategies. Employee motivation strategies should be, continually reviewed and improved on as well.

Perhaps the words programs and strategies are too specific. Motivation is an inner drive that can only come from ones self. The employer can only help this inner drive to appear.

The most elaborate motivation strategies, consisting of bonuses, high salaries and other incentives, can produce poor results if the working environment is not also made more conducive to a higher degree of motivation.

To check your working environment ask yourself "why are these people working for me?"

According to the late Professor A.H. Maslow, "Everyone wants to work." This is necessary to keep one supplied with food and shelter, but this is the lowest form of motivation and does little to improve a golf course. This is where the manager comes in, it is his responsibility to encourage employee motivation from this point.

Motivation will only flourish when a person feels a sense of security, importance and belonging in his job. Job security is the first responsibility of the superintendent. Once employees have been trained in their job it is important that they understand that quality work will insure their job security and help in job advancement. It is important that this is not an idle promise. It will be easy for them to see from others on your crew if quality and job security do not run hand in hand.

After employees are reasonably sure of their employment stability, motivation will usually falter if a sense of importance and belonging have not been developed.

If employees are properly trained in their jobs, they will generally improve work methods and techniques on their own. These new methods will become a source of pride and give them a sense of importance in the overall operation. It is tempting for the manager to stop employees from experimenting with new work methods, but is generally more advantageous to allow them to experiment and discuss the pros and cons of the new methods afterwards.

The days of totalitarian management are past. Due to electronic and printed media, employment is relatively easy to find and an employee will not tolerate harsh treatment and lack of respect for his or her accomplishments. Fear will cause many employees to work harder, take care of the course and machinery only while the supervisor is there. The cost of employee turnover and equipment abuse must also be taken into account.

With the high cost of labor and the problems caused by employee turnover, it is imperative that today's golf course superintendent be more attentive to the needs of his staff. He must recognize that the small expenditure of time given to employee needs today will reap large benefits to the whole operation tomorrow. ■

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## The Making Of A Super

By Tim Deutscher  
Asst. Super. Mesa Verde C.C.

Assistant superintendents, who are they, what do they do, what should they do? Certainly every superintendent has his own set of answers to these questions. However, one thing is certain, every assistant superintendent should, as his title suggests, assist the superintendent.

There are many factors which influence the amount of assistance each assistant can and should provide. These including the background, abilities and goals of the assistant as well as the requirements and desires of the superintendent. A well qualified assistant should, if the superintendent wishes, be able to assist the superintendent in all areas of golf course management. Additionally, if the superintendent believes in the theory that two heads are better than one, he'll welcome any additional input he can get, and chances are his assistant knows more about his golf course than anyone but the superintendent himself.

One of the most important benefits the assistant can provide is perhaps to schedule and supervise the crew in a manner which assures the superintendent that every member of the maintenance crew is continually doing his job efficiently and satisfactorily at all times. This can include everything from ensuring that all chemical applications to the greens are properly calibrated to monitoring the length of lunch and coffee breaks, to making sure there's always water in every ballwasher.

As you know, all too often its the little things that get all the attention. Water in ballwashers, debris on cart paths, unfilled divots, and so on. By relieving the superintendent of many relatively minor worries the assistant allows the superintendent additional time to give to major problems such as, well, you know what they are.

To these ends the superintendent should keep the assistant well informed about all matters, large and small which concern maintaining the course. In turn the assistant should bring all matters large and small to the attention of the superintendent. This process will give both individuals a better conception of what's actually being accomplished on a daily basis.

In order for the assistant to perform he must first be there, on time, ready to go everyday. He must know and be willing to perform the jobs of all members on the crew and the standards which the superintendent requires. This should include knowing the proper operation and maintenance of all equipment and machinery. And, he must be out there, on the course, observing, training, helping and reporting it back to the superintendent.

The assistant is, or should be, out there to learn. He may desire to one day become a superintendent himself. So as long as he's out there learning all he can he might as well be assisting all he can. ■

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Stahl also said "the registration of Chipco Ronstar WP will give Turf Professionals, who are not geared to use the granular formulations, the opportunity to benefit from the preemergent control of goosegrass, crabgrass and other weeds that Ronstar provides. Unfortunately, the timing of the registration will not allow us to market Chipco Ronstar WP until 1986. However, we will use 1985 to demonstrate the excellent preemergent weed control of Chipco Ronstar WP to the Turf Professionals."

For more information on Chipco Ronstar WP, write to Rhone-Poulenc Inc., Agrochemical Division, P.O. Box 125, Monmouth Junction, N.J. 08852.

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## Locating Hydraulic Tube Leaks

By J. Douglas Rothwell  
The Royal Ottawa Golf Club

A common spring startup problem associated with automatic irrigation systems is, locating hydraulic tubing leaks. My Assistant, Rheel Ladouceur, devised a simple device to locate these leaks, that proved very successful last spring, saving time and labour.

The widget (see diagram) is essentially a reservoir that holds red food dye coupled at one end to a portable compressed air tank (40-60 psi) and at the other to the hydraulic tubing. \*We found leaks within several minutes and from as far away as 100 feet or so. In some cases it was necessary to refill the reservoir. The undiluted red dye was readily visible at the grass surface.

### List of Materials and Assembly

1. Air valve stem - solder to copper pipe
2. 1/2 inch copper pipe
3. Brass adaptor (1/2 in. slip x 1 in. thread) - solder to copper pipe.
4. Brass hose adaptor 1 in.
5. Hydraulic tube connector - fit and solder to hose adaptor.

### TO OPERATE

Unscrew at hose adaptor, add dye and reattach. Couple air valve stem to compressed air tank and hydraulic tube connector to hydraulic tubing and pump dye to locate leak. ■ Credit: "Greenmaster" — 4/84

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Four dollars an hour, six thirty till three, same seat, same piece of equipment, hot in summer, cold in winter; is this all there is? Nothing can be more detrimental to a working attitude than the feeling of one being locked in with nothing else to look forward to in ones work.

This type of attitude can be found on every golf course even if the money is good and the conditions are excellent. A trend in the North Florida area has created new attitudes and renewed job interest among golf course personnel.

More and more service managers or course mechanics are becoming assistant superintendents with ambitions of learning more about the golf industry and eventually becoming superintendents. With this trend, superintendents are able to promote personnel "in-house" and create a vehicle for upward mobility within a club or organization that before was stagnant. After the service manager is promoted to assistant, the assistant then trains a fellow member of the crew during a transition period to fill his job. This sets about a logical progression for those qualified or willing to be trained and allows

them to acquire new responsibilities and direction in their work.

This type of in-house promotion saves time and money by having personnel already familiar with the golf course and instituted programs. Training and transition time are shorter and smoother with personnel already familiar with replacements.

By structuring ones labor force and giving an upward direction for personnel to pursue, a healthier and more challenging working environment is created. If a situation arises where positions do not readily become available in-house, a crew member being multi-talented may seek employment at a club or course having better salaries or benefits; there again creating opportunity for others to advance.

Many superintendents in the North Florida area have tried and are trying this type of labor force structuring with a great deal of success. It has been exciting for the superintendent and the personnel they work with in bringing a more positive attitude to their jobs. ■

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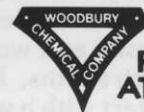
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# West Coast Buccaneers



By: Charles Miller  
Lakewood Country Club

## “Crew Motivation”

The Golf Course Industry has been far behind other businesses in the area of company policies which motivate employees. Key tools in motivating employees such as wages, bonuses, vacation, group insurance and advancement all leave a lot to be desired. This being the case, it is often up to the individual Golf Course Superintendent to initiate and establish policies that will put a desire into his crew to remain in his employ and to do a good job each day.

Policies vary between private and public courses. City owned courses have unions, this usually helps to keep experienced employees but it does not motivate the crew in general.

A lot of private and semi-private clubs have initiated policies to help the Superintendent hire and keep good employees. Still the real key to getting employees to give 120% on the job is largely up to the Superintendent.

The first step in crew motivation is for the Superintendent to have a positive attitude. No one can be a good leader without this. A positive attitude is contagious.

The second step is to treat each crew member equal regardless of their job assignment. It is important that crew members realize that each job has to be completed and that all phases are of equal importance.

The third step is to have regular meetings and to keep the crew informed as to what is going on. They should be made to feel that they are a part of what's happening. At these meetings it is important to give praise along with constructive criticism.

The fourth step is not to babysit the crew. The Superintendent should be a leader, he should show and explain why the job must be done and how to get it done. One of the most important factors in motivation is good communication.

In conclusion, crew motivation is based on the attitude of the Superintendent, the leadership example he sets and how he communicates with the crew. To get 120% out of crew members the Superintendent himself must give 120%.

## “Crew Motivation”

By: Reed LeFebvre  
Plant City Golf & Country Club

Motivation can probably best be described in two words, money and pleasure.

The biggest motivation for most people seems to be of a financial nature, witness the “anything for money” show on T.V. The same holds true for the work crew on a golf course. A person who is being paid adequately, generally is content even if some of his jobs during the course of the day tend to get a little rough.

Pleasure is also a motivating force, and is many times overlooked by management personnel. By pleasure I don't mean recreation all day, but the pleasure I refer to is the pleasure a person gets from doing a job he enjoys doing, and has pride in the finished product.

It has been my experience that to get the most from an employee, I try to tailor the job to the employee rather than the employee to the job. Each person is an individual with his or her own strong and weak points, and by utilizing your employees strengths, I feel we all gain. Using this approach, you start with a worker who can be a real asset from the start, and as time goes along and you strengthen their weak areas so you end up with an excellent employee all around. Even if a workers weakness

can't be brought up to what you feel it needs to be, you still have a productive employee who enjoys what he or she is doing and that adds up to a lot more output per hour as compared to the disgruntled employee who just drags everything out and does only what has to be done to get by.

Taking an interest in your employees on an individual basis is also a must. How do you know when they are happy at what they are doing if you have no communication with them. If you show an interest in a person, they are much more likely to come to you if they have a problem, and it can be solved before it turns into something big and possibly the loss of that employee.

Being fair will all who work under you is extremely important. Nothing will loose a good employee quicker than to show favoritism. If there is an occasion where an act could be taken as showing favoritism, explain why the person was chosen for the task, so at least the others will know why and possibly try harder next time.

In summary, if your employees are being paid adequate wages, and are doing a job they enjoy doing, your turnover rate will be nil and you are probably getting 99% return for your wage dollar.



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# Problems With Difficult People?

## Learn To Take Control

By Nick Adde  
Special to the Times

Everybody gets along with somebody, but nobody gets along with everybody all the time. Often, two people just can't seem to coexist at all.

When somebody constantly rubs you the wrong way, the easiest thing to do is ignore that person. But that isn't always possible. Conflicting personalities often must work in the same offices, ride the same buses, attend the same social functions — regardless of choice.

Robert Mumford, a retired Navy captain who spent part of his career conducting management training courses, doesn't claim to have a universal solution for personality conflicts. But he does have a workable model to follow, for people who want to reach detente with constant adversaries.

Mumford, who lives in Gaithersburg, Md., teaches a course called "Handling Difficult People." The objective of the one-day, five-hour session is to establish enough self-confidence to positively redirect a sticky relationship.

He states from the first that he is no psychiatrist. When discussing difficult people, Mumford talks about practical ways of dealing with them. He spends a little time speculating on why a person chooses to be difficult.

A difficult person, for the sake of the course, is described by Mumford as someone who is "probably difficult to most people, most of the time. That person probably won't change. Situations sometimes change, but not always. "How you react will determine how much change will take place.

Mumford's main tool for dealing with difficult people is a technique called transactional analysis (TA). He credits several books on TA and his own experiences in coping with difficult people with helping him formulate his ideas. But, he says, about 40 percent of the ideas he puts forth in his class are his own.

Mumford describes TA as a method for understanding communications, in both family and work situations. TA preserves the dignity of the individual: There are no good guys or bad guys.

In Mumford's scheme of things, the personality is broken down into "ego states," a system of feelings and behavior patterns. The three categories of ego state — parent, adult and child — are similar to but simpler than the Freudian ego, superego and id.

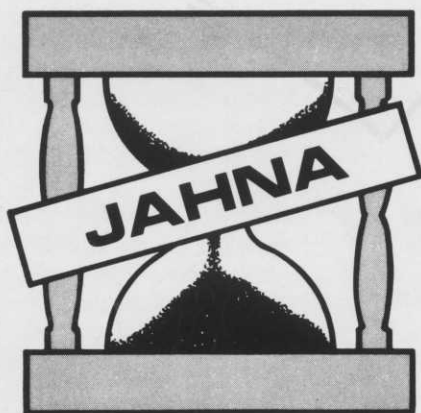
The parent ego state is subdivided into two more categories: the critical parent, who is opinionated and moral and sees error, and the nurturing parent, who is sympathetic and understanding.

The adult ego state is the processing part of personality. It is completely analytical.

The child ego state is also subdivided, this time into three categories.

The first is the natural child, who is uncensored and uncontrolled. Basic emotions — joy, love, anger — exist in the natural child in their purest forms.

*(continued on page 33)*



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(continued from page 32)

Then there is the adopted child, whose behavior has been modified by authority figures. A negative modification would be procrastination; a positive one, courtesy.

The third is the "little professor" who takes care of the creative, intuitive and manipulative instincts.

After discussing the three ego states and their subdivisions, Mumford then defines three interactive processes characteristic of a difficult person's behavior: stroking, stamps and games.

"Stroking is any act implying recognition of another's presence. It can be verbal, eye contact or touch. Stroking can be positive or negative. Saying hello to a person at the bus stop every day is a stroke, probably a positive one."

Everybody seeks a minimum amount of strokes each day, says Mumford. And they will do what ever is necessary to get them. If a person can't get a positive stroke, he will settle for a negative one. Difficult people have learned to seek negative strokes, says Mumford.

Stamps are unexpressed feelings people collect in the child ego state. They are "pasted" into a book, like trading stamps, to be "redeemed" for guilt-free behavior that expresses emotion. X amount of stamps might be redeemed for a good cry, for example.

Instead of amassing a big stamp collection, a healthy person expresses emotion at the time, says Mumford.

Games take place when emotions are regulated — in a working situation, for example. On the surface, a game may seem plausible or rational. But there is always an ulterior transaction taking place. These games are not fun, says Mumford. The payoff is always negative because games avoid intimacy and openness.

Mumford lists some "caveats" in dealing with difficult people. It's tough to change behavior, he says. He also warns class participants never to use TA tactics to "consolidate or win." The upper hand, he says, cannot be maintained. Finally, don't expect miracles. "Nothing works all of the time."

## TA IN ACTION

People who have taken Robert Mumford's course in handling difficult people say they have come away enlightened. Transactional analysis is not modern-day voodoo; it is a practical tool which can be used to diffuse tense situations.

Peter Kern, who analyzes data for a sheriff's department, says, "Now, when confronted by a difficult person, I not only know what to use, I know what not to use."

Mumford course made Doug Pray, a college student who works part-time in a ski shop, recognize faults within himself.

Bill Henning had his interests in TA whetted enough to

pursue the matter further. He has since read several books on the subject, he says.

The three men took Mumford's class with 14 other people, on a cold, blustery Sunday.

At that time, Kern says, he was taking the class only as a matter of interest. He had no specific difficult person in mind when he registered. "But the very next day, when I went back to work," says Kern, "a person in the office began giving me a hard time about the way I was dressed. I think he was just looking for a reason to make fun of me."

Instead of becoming defensive or getting angry, Kern responded by asking his would-be prosecutor analytical question. "I asked him why what I was wearing bothered him, using plenty of what/how questions," says Kern. "By doing this, I avoided giving him the payoff he was really after." That person, says Kern, isn't bothering him anymore.

Rather than direct any what/how questions to anyone in particular, Doug Pray took the points Mumford expressed in another direction — inward. "Everybody in some way is guilty of being difficult — in the terms Bob illustrated," he says.

Pray pointed out that even though Mumford didn't go into that facet, "If you're under a lot of pressure, you can help yourself with the same analytical approach." Pray works with most of the other 11 people in the ski shop on a "peer level." But, he says, "Some — myself, my peers and my superiors included — don't always take criticism well." Kern thinks he found a way to come to terms with his own and his peers' emotions.

Bill Henning, who is an oceanographic engineer, says he uses what he learned "both at home and when dealing with customers." One particular customer Henning encountered since taking the course was particularly livid — and rightfully so. "The problems he had were our fault."

"But he was so upset, there was no talking to him for quite a while." Finally, Henning was able to "get into what was actually going on" by responding analytically rather than emotionally. "We got past the anger," says Henning, "and into the matter of discussing what was needed to correct the problem." ■

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# Rebuttals To: The

## A Rebuttal "The Municipal Golf Course"

By  
Gurn Weaver, Adviser  
Golf Course Advisory Commission  
City of St. Petersburg

The article in the Fall 1984 issue of *The Florida Green* is full of erroneous and, at times, ludicrous, generalities which are an affront to the many dedicated golf course superintendents and operators of the so-called municipal golf courses. It is an unwarranted put-down of all municipal golf course operations which, as evidenced by the many successful operations in the State, provide a much needed opportunity for thousands of golfers in the communities in which they are located. Some support for this opinion can be found in practically every paragraph of the article.

For example, the opening statement in the second paragraph - "Municipal courses are usually very crowded", and the reasons supporting this observation. How many courses, privately owned, municipal, or private (except the very private) are not "crowded" especially during the winter season. And isn't that what the game is all about - providing more and more facilities so that more and more people can enjoy their favorite pastime? If not, why the steadily increasing number of the the above classes of courses? And what about the tourists, not all of whom come to Florida to lay on the beaches or visit Disney World? In addition to the other millions of dollars they bring into the State, the tourists creates 65 to 70% of the total yearly revenue for daily-play courses.

"Early tee times do present some maintenance problems" - a very astute observation! Does the one hour difference in starting times between daily-play courses and private courses create insurmountable problems in the maintenance of a course? Most golfers will patiently wait for operators of greens and fairway mowers to perform their duties on all classes of courses and most of these operators are cooperative, considerate and dedicated to the performance of these duties.

As for the statement regarding the standards of maintenance between municipal and private facilities, obviously most golfers would prefer to play on a highly manicured course if it were economically possible. Unfortunately, not everyone who enjoys the game can afford the exorbitant initiation fees, the sky-rocketing monthly dues and the frequently unexpected year-end assessments which are becoming more and more a part of the private course operations. Golf is fast becoming a pas-

time which, were it not for municipal courses, many could not afford. And, in spite of the implications to the contrary, there are many well-kept municipal courses which provide this opportunity at a reasonable rate while still operating on a no-loss basis. Not all private courses are in first-class condition and many would welcome more revenue from outsiders.

Is the governmental bureaucracy referred to in the article too much more complicated to deal with than a membership of 300-400 people whose only experience is maintaining their own lawns (heaven forbid) and a Board of Governors, each of whom are agronomical wizards and have their own expert opinions about how high the greens and fairways should be cut and where the greens budget should be spent - on the golf course or on the clubhouse grounds so they can impress their business associates and friends?

How the golf course superintendent gets the job done is related very slightly to whether or not an employee is carrying a union card. As long as time tested human relations principles are applied in the supervision of all employees and accurate and complete records are kept for employees there should be no basis for "strained relationships" between employees just because one is a member of a union. Normal discharge proceedings can generally be followed in eliminating the so-called "bad" employee with a reasonable time period.

Budgets - Is there a great deal of difference in preparing a guideline for anticipated yearly revenues and expenditures for a municipal, a daily-play public, and private golf course? Certainly not. And don't many golf course superintendents at the private course have many of the same problems justifying the selection and purchasing of their choices of equipment when, perhaps, some members of the club and/or Board of Governors have their own preferences as to which piece of equipment should be purchased and from whom, very often at a higher price than would be spent for equally good or even superior equipment from a reputable distributor?

Finally, most county and city governments do not become involved in enterprise agencies such as golf courses to compete with other public golf course operations. In many cases they have done so to make recreational use of a site which was either not suitable for residential development, such as a sanitary landfill, or land which was donated for recreational use only. Unfortunately, in many cases such facilities have been constructed by a governmental agency and subsequently leased to a private individual or group. The result is usually higher daily fees at the expense or the elimination of privileges for the ones the facilities were built for in the first place.

There are not too many municipal golf courses and these courses do provide an affordable opportunity for thou-



# Municipal Golf Course

sands of low income people to enjoy the game. But it is possible, and it should be imperative that such courses be operated on a self-supporting basis and not be an added burden on non-golfing tax payers.

The answers to the questions posed at the conclusion of the article are readily available from the National Golf Foundation or, more readily, from the Florida Municipal Golf Course Association. ■

Dear Editor:

The article "The Municipal Golf Course" written by Brad Kocher which appeared in the Fall Issue of *The Florida Green* is representative of the uniformed mentality that plagues golf course operations.

Municipal golf courses are crowded, and for good reasons. The municipal golf courses provide a service to the faction of golfers that the private sector obviously chooses to forget. If the private sector addressed the needs of the limited income golfer, who cannot afford the outlay for exorbitant annual or daily fees, the need for municipal golf courses would be eliminated.

The majority of the municipal golf courses in the state operate as an Enterprise Fund. Basically this means that the golf course must operate on a self sustaining basis *Totally* supported by users fees. We receive no general funds or tax revenues and in fact, return to the city coffers substantial payments for administrative services performed by other City departments as well as payments in the lieu of taxes. In many cases golf course revenues are used to subsidize facilities that are not self sustaining thereby, somewhat relieving the tax burden for those persons who do not utilize the golf course.

Budgets for the City of Orlando are prepared only six months in advance and reflect anticipated increases in materials and supplies. Most municipal golf course budgets include contingency funding that allow for weather, insects or other unforeseen problems that may arise.

The lead time required for purchasing of maintenance materials is greater than that of private clubs. This requires the superintendent to do advance planning in order to provide the purchasing agent with sufficient lead time. However, superintendents are only human, and at times, may forget to order an item or through no fault of the superintendent, conditions may change rapidly creating an immediate need for a special fungicide or insecticide. On occasions such as these, most municipalities have emergency provisions in which items can be obtained immediately. The purchasing procedures, though somewhat cumbersome, does not have the crippling effect that is presented in Mr. Kocher's article.

Capital expenditures for equipment are handled on a bid basis, however, contrary to Mr. Kocher's observations, municipal superintendents can specify brand names or specific manufactures when requisiting equipment. The bid procedure requires the superintendent to be very

familiar with the specifications of particular equipment in order to justify the brand of mower etc. he wants. If the superintendent does his homework, he will get the piece of equipment he wants.

The competitive bid process also provides substantial savings on equipment from vendors desiring to do business with cities.

The purchasing procedures for municipalities are established to insure that tax payers' money is spent wisely and impartially resulting in the City receiving maximum benefit from the money it spends. I believe that when membership assessments become necessary at private clubs, some members wish that better fiscal management existed at their club.

Mr. Kocher's article appears contradictory when in one paragraph he cites that municipal employees are not motivated financially due to the lack of overtime and in another paragraph points out that municipal employees make higher salaries than private clubs.

Of the 20 municipal courses responding to the Florida Municipal Golf Course Association's Annual Survey, 17 courses have overtime on a scheduled basis with the average budget for overtime being \$4,724 per year.

It is true that municipal employees are paid better than the private clubs. Its also true that municipalities benefit packages are excellent. However, rather than being a burden on my operation, I feel this salary package helps add stability to the maintenance operation by aiding in the recruitment and retention of quality employees.

Labor Unions are a fact of life with municipal operations. They provide employees with protection and insure that employees are treated fair and impartial. Unions set strict procedures in which disciplinary action is administered and superintendents are bound to follow these procedures. However, when it becomes necessary to discipline and/or terminate an employee, it can be done almost as quickly as most private clubs. I do not follow the belief that good employees are losers when it comes to Labor Unions. It's a general consensus among our crew that the union protects them from being terminated for minor mistakes as well as removing personality conflicts from disciplinary action.

In closing, it is my opinion that Mr. Kocher's article presents an inaccurate, one side view of municipal operations. many municipalities are striving to eliminate the stigma associated with municipal golf courses by providing a quality golf facility at affordable prices while operating on a self sustaining basis, so as not to be a burden to the tax payer. Most municipal courses are successful and will continue to be as long as the private sector chooses not to serve the needs of the low to moderate income golfer.

Raymond W. Weaver, Manager  
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*This is for anyone wanting to learn more about computers and their uses in agriculture. At this meeting there will be five different brands of computers available with some of the agricultural software that runs on them. Come on and get in on the exchange of computer related information. This group meets the last Thursday of each month.*

**Calendar Of Events**

- June 24** TROPICAL FRUIT FESTIVAL,  
1-5 p.m. Extension Office  
531 North Military Trail  
West Palm Beach.
- June 28** AGRICULTURAL COMPUTER  
7:30 p.m. USERS GROUP (see above)
- July 2** CORE EXAMINATION FOR  
9:00 a.m. PRIVATE PESTICIDE  
APPLICATORS LICENSE  
Cooperative Extension Service Office  
531 North Military Trail  
West Palm Beach
- July 3** FLORIDA LANDSCAPE AND  
7:30 p.m. GROUNDS MAINTENANCE  
ASSOCIATION, Monthly Meeting.  
Cooperative Extension Service Office  
(address above)
- July 18** COMMERCIAL PESTICIDE  
8:30-4:30 APPLICATOR'S EXAMINATION  
(core plus ornamentals and turf section),  
Belle Glade Extension Office
- July 18, 19** INTERIORSCAPE SEMINAR  
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# Bermudagrass Decline

by T. E. Freeman and B. J. Augustin\*



Florida Cooperative Extension Service / Institute of Food and Agricultural Sciences / University of Florida / J. T. Woeste, Dean

In recent years, a localized disorder of bermudagrass has been observed on golf greens (Fig. 1). The condition has been declined. Since its first occurrence in the early 1970s, the disorder rred to as bermudagrass has become progressively more severe and in 1982-83 was one of the most troublesome problems facing golf course superintendents in Florida.

## SYMPTOMS AND CAUSE

The symptoms of the disorder first appear as chlorotic (yellowish) patches 8 to 24 inches (20 to 61 cm) in diameter (Fig. 2). The grass then begins to thin and a bare spot usually develops in the turf (Fig. 3). It is common to see green shoots of grass next to chlorotic ones in the area around the edge of the patch (Fig. 4). Plants in the affected areas have a very poor root system characterized by short brown roots and an absence of feeder root and root hairs. In addition, there are usually no rhizomes present and very few stolons (Fig. 5). If diseased roots are examined microscopically, coarse brown threads of a fungal growth are virtually always present in and on the root surface (Fig. 6). Therefore, the disease is considered to be a root and stem rot.

The cause of the disorder has not been definitely established. However, the observed brown fungus is believed to be involved in some manner. Due to the sterile nature of the fungus as it occurs on the plant, no positive identification has been possible, but it is believed to belong to one of two genera of pathogenic fungi, either *Gaeumannomyces* (*Ophiobolus*) or *Leptosphaeria*. It should be noted that other secondary plant pathogenic fungi, especially *Curvularia* spp., are frequently found on declining grass.

## OCCURENCE

Bermudagrass decline occurs throughout the Florida peninsula, but is most acute along the lower east coast of the state. It usually appears from late summer to early winter following periods of overcast, warm-wet weather. It is most often noted on greens where changes in turf quality are more evident than on tees, fairways, and roughs. However, it is very likely the disorder also occurs in these latter areas. All of the bermudagrass varieties used on golf courses are affected, but contaminate grasses may be more severely affected than pure stands of the improved varieties. Grass stressed by other pests, such as nematodes, and physiological imbalances is more severely affected. The decline is more likely to occur on older greens where there is a high organic matter content in the soil and a thatch problem exists.

## CONTROL

To date, there is no recommended chemical control for bermudagrass decline. Currently, the best control is achieved by following certain cultural practices. Aerification is extremely important to open up the soil and allow oxygen into the root zone (Fig. 7). Aerify as frequently as possible - every 3-4 weeks during the growing season. Use an aerifier that will penetrate the soil deeply. Use large tines (5/8 inch) for each aerification until thatch and layering problems are reduced. After aerification, topdressing should be applied and worked into the holes. Topdressing material should be a medium sand with up to 30% organic matter. This material will work into the green easily and help cover any remaining stolons for enhanced rooting. Topdress lightly each week to cover the affected areas. Topdressing also has the benefit of helping mask

\*Professor, Plant Pathology Department, IFAS, University of Florida, Gainesville, 32611, and Assistant Professor, Ornamental Horticulture Department, AREC, Fort Lauderdale, FL 33314, respectively.



Figure 1



Figure 2 (Left) and  
Figure 3 (Right)



Figure 4



Figure 5

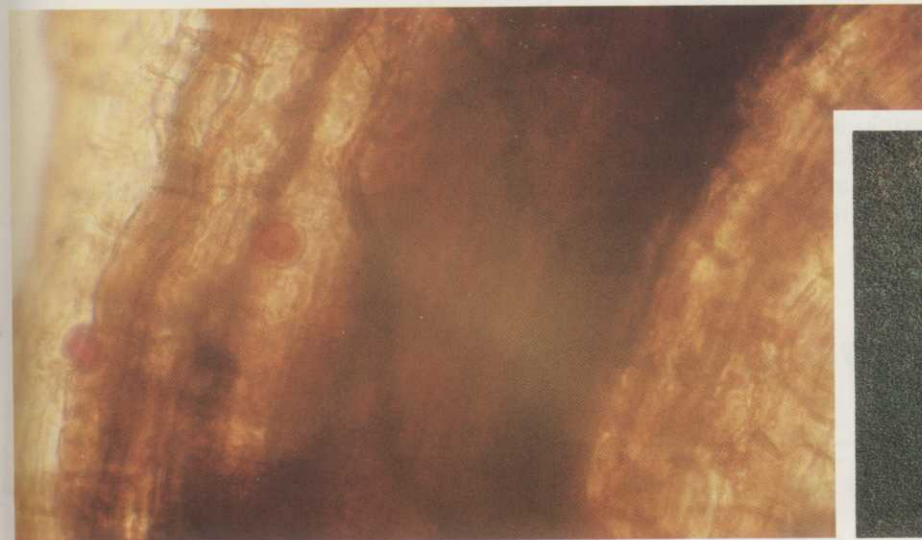


Figure 6



Figure 7

- Figure 1. A golf green severely affected by bermudagrass decline.
- Figure 2. An early symptom of bermudagrass decline is chlorosis of the grass in distinct patches.
- Figure 3. Thinning of grass due to bermudagrass decline.
- Figure 4. Edge of decline patch showing mixture of green and chlorotic shoots.
- Figure 5. Bermudagrass affected by decline. Note lack of rhizomes and the decayed root system.
- Figure 6. Stands of brown fungal growth on roots of declining bermudagrass. Also, note presence of doughnut-shaped *Pythium* oospores.
- Figure 7. Response of declining bermudagrass to aerification. Note green grass growing back in aerification holes.

(continued from page 37)

some of the damaged areas until the grass can recover. Application of a non-ionic wetting agent is important to help water penetrate into the soil, especially if there is a thatch layer. Temporarily raising the mowing height by 50% is also of benefit. This practice increases the photosynthetic area of the plant which helps it recover from the decline. Double cutting at right angles, can be used to maintain putting speed and provide a smooth surface despite the higher height of cut. If spots are severe, it is important to increase fertility to encourage rapid growth

to cover affected areas. Fertilize with a 1-0-1 ratio fertilizer at 1 pound nitrogen per 1000 square feet per week. Ammonium sulfate is the suggested nitrogen source.

By following these practices when the chlorosis symptom first appears, it is frequently possible to check the decline development. However, if bermudagrass decline is a reoccurring problem, these cultural practices should be followed throughout the growing season. ■

## NGF Projects Another Golf Boom

NORTH PALM BEACH, Fla. -- According to the National Golf Foundation, the long, slow fuse of golf's sluggish growth in the 1970s could lead to a major explosion igniting golf's third and possibly largest boom in growth. The NGF projects that by the year 2000, there could be as many as 21.2 million golfers in the U.S.

In 1980, there were approximately four million golfers in the 35-54 year age group. By 1990, there will be approximately 5.2 million, and by 2000 that group will swell to over seven million, representing a 75 percent increase in just 20 years.

Although NGF statistics did show an increase in golfers during the last decade, the percentage of the growth of golfers averaged just one to two percent a year. But by examining census data and other demographic statistics, the potential for golf's growth becomes evident.

The Foundation is planning a number of new promotional projects intended to increase the percentage of golfers by the turn of the century.

"Golf, like so many other areas, is likely to feel the effects of the 'baby boom' generation," said NGF Director of Research Dr. Joseph Beditz. "Participation in golf is highest in the 35-54 year age group. If current participation rates remain constant, there could be a very large increase in the number of people who play golf because so many more people will enter this age group in the next 15 years."

"Our statistics tell us that the greatest potential market is with the relatively young adult age group," explained NGF President David B. Hueber. "If the percentage of players in that group could be increased over the next five years, which is one of our goals, it would generate a substantial multiplier effect as they moved into the older age categories.

"A small growth in the percentage of young adult golfers could result in 25 million or more players by the year 2000."

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# Gulf Coast Sun Beams

By CHARLES BRASINGTON JR.  
Golf Superintendent  
Tiger Point Golf & Country Club

## Employee Motivation

Does money have any bearing on how hard you work? Sure it does. It plays a key role in everyone's motivation. However, money or pay is only one influence on our incentive to work harder. Other influences are: Having a positive environment; creation of interest; praise for jobs well done; and the feeling of being important.

Since most of you reading this article are managers of a golf facility, you are, more than likely, self-motivators simply by the position you hold. Unfortunately, our employees are not always motivated. Therefore, we, as managers, must constantly search for ways to keep them happy with their jobs and themselves.

One of the first things I did when I took over as a manager was clean up the crew quarters as well as the entire operations center. Later, the company bought first class uniforms. The idea was to create a healthy, positive environment.

After a good environment is established, you must get your employees interested in their job. One way we can interest the crew is by educating them on what end product we are after, how to get there, and encourage them to give ideas of their own. Then, when someone does have a good idea, use it and it will send the moral sky high. Rotation of jobs is another useful tool in keeping

interest high. This will add some variety to their daily routines.

Accordingly to Haimann-Hilgert, authors of the book "Supervision", the feeling of being important and receiving praise for a job well done ranks higher than pay, on crew moral. Posting letters or articles, with positive comments concerning the golf course or club, in the crew quarters is a way we can praise our crews, as well as giving "pep talks".

Most, if not all, of the more successful business organizations have an employee of the month. Golf businesses can implement this idea at no cost. This can be done by installing drink machines and using the profit as an award each month to the Employee of the Month.

The most important aspect I've learned as a manager of people is to screen out people with negative attitudes during the interview. If there are employees with bad attitudes, try to work out the problems with them and if all fails, terminate them. One negative person can grow into ten negative people.

Remember, if your club cannot pay enough money to motivate your employees, create a good environment, praise the crew for their performance, when due, and make them feel important. Positive actions create positive results. ■



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# Seven Ways To Increase Your Personal Productivity

## PERSONAL PRODUCTIVITY

Increasing your personal productivity does not mean working harder or longer, it means working smarter. Here are 7 ways to accomplish more of what's most important to you with less time and effort.

**1. MANAGE YOUR TIME THE WAY YOU MANAGE YOUR BUSINESS.** A successful business budgets, controls, and regularly evaluates its use of its assets. To increase your productivity, you must manage your most important asset - your time - in a similar way.

The first step is deciding what your most important goals are. Ask yourself: What do I most want to accomplish for my employer - and myself - in the next several months? Concentrate on the most important goals.

Next, you should outline, in writing, the steps you must take to accomplish these goals. Again, focus on the most critical steps. Also try to set out a timetable for completing each of these steps.

Re-evaluate your goals frequently. Get in the habit of asking yourself: Is this still the best use of my time?

**2. FOCUS EACH DAY'S ACTIVITY ON YOUR IMPORTANT GOALS.** Each day, you face a collection of things you have to do, would like to do, want to avoid, can't forget, and so forth. How do you sort these out?

An effective way is to list these activities and rank them according to how much they help you accomplish your important goals. You can categorize it: A, if it is urgent or a significant step toward achieving your goals; B, if it is of lesser value; and C, if it can be postponed.

Use your list to manage your discretionary time. Try not to work on any B's or C's until you have finished all your A's. At the end of the day, you can use the list to evaluate how effectively you spent your time.

**3. AUDIT YOUR PERSONAL ACTIVITIES FOR SEVERAL DAYS.** Like many busy executives, you may be unsure of where the time goes each day.

The first step in the audit is to make a simple chart and record how you spend your time throughout the day. Try to account for all your time - "missing time" is often wasted time.

At the end of each day, review your chart and see how much time you spent on your important goals and tasks. Ask yourself questions like these: What kept me from spending more time on my A and B activities? What was my most frequent distraction or interruption? How can I avoid it in the future? What steps can I take tomorrow to spend more time on my A and B activities? What activi-

*(continued on page 45)*

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(continued from page 44)

ties could I have delegated, postponed, or dropped completely?

4. **LEARN FROM MISTAKES.** You can turn mistakes to your advantage by trying to learn from them. Take whatever you think was your biggest mistake in the last week or month and ask yourself: What should I have done differently? What can I do now to prevent the mistake from recurring?

A less painful way to learn from mistakes is to learn from the mistakes of others. When you do this, ask: Could the same happen to me? What can I do now to avoid having the same problem?

5. **BE CAREFUL ABOUT TAKING WORK HOME.** Sometimes you have no choice but to take work home with you. But don't forget that the possibility of working at home can be a crutch that keeps you limping through the day. It's easier to fritter an afternoon away if you think, "I'll do my important work tonight". Try to work for a week on a no-homework rule. If you can't do that, set a limit on the work you do at home.

6. **DON'T OVERCOMMIT YOURSELF.** There is a limit to what you can accomplish in a day or a week. Don't commit yourself to handle more than you can successfully handle.

7. **OVERCOME MENTAL BLOCK.** Many people are occasionally hampered by mental blocks that keep them from starting some important work. You can often overcome these blocks by analyzing them. Here are some examples :

Do you lack facts? Then start with some research.

Is the task overwhelming? Then divide it into smaller tasks and begin with just one of these tasks.

Are you tired? Take a break.

Are you afraid of something? Figure out what you fear. You'll often find that it doesn't merit your concern.

Do you lack conviction? Think about what you're trying to accomplish and be sure it's really worthwhile.


Make a habit of productivity. These 7 ways of increasing your productivity will work if you use some of them every day. Making them part of your work habits will improve your production, which will benefit both of you and your employer. ■

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"The only thing necessary for the triumph of evil is for good men do do nothing."

Edmund Burke

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# Employee Communication Sources

By DR. KARL KEPNER  
IFAS, Food and Resource Economics

Where do employees currently receive communication about their job, work, and company? From what sources would they prefer to receive this information? What is the relationship between these actual and preferred communication sources? The answers to these important employee communication questions may provide management and supervision with some significant insights into how to more effectively communicate with employees.

## BUSINESS COMMUNICATION

Employees need communication from two sources:

1. Job related information from immediate supervision
2. Total business information from top management

If the grapevine is the basic information source, then there is too much distance between the firm's decision makers and employees. Under these circumstances, too much communication distortion occurs. The result is that employees believe that the company discourages openness. This increases the gap between organizational and personal goals, thereby reducing employee commitment and productivity.

Ineffective communication is the most important factor causing less than optimum employee-management relations and contributes greatly to low employee productivity. Therefore what is your strategy and your firm's strategy for improving the communication process?

## COMMUNICATION TIME BY COMMUNICATION TYPE

Written	10
Reading	15
Spoken	35
Listening	40

Total 100%

How much time have you spent in the last six months thinking conscientiously about ways to improve your communication effectiveness?

## WHAT IS COMMUNICATION?

Communication is a transfer or exchange of facts, ideas, opinions, rumors, and/or expression of feeling between two or more persons so that a mutual understanding results. It is a fact that the message must be received and understood or there has been no communication. The basic elements of communication include:

1. The sender - the originator
2. The message - information to be transferred
3. The channel of transmission - spoken, written, action
4. The receiver - person receiving the message
5. Understanding - message comprehension by the receiver.

(continued on page 48)

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(continued from page 47)

### EVERY EMPLOYEE WANTS TO KNOW?

• Do nearly all employees want to know what is expected of them? Yes \_\_\_ No \_\_\_

• Do nearly all employees now know what is expected of them? Yes \_\_\_ No \_\_\_

• Each employee wants to know -

1. What is my job?
2. What is a job well done?

• You may think that your employees know quite well what is expected of them and how they stand with you. Yet, research shows that many employees do not know or have only a vague idea of what is expected. Research also indicates that employees have only a vague idea of when a job is performed well.

• When assigning work activities and tasks, have you made clear:

1. The results you want?
2. Why it needs to be done and what it will accomplish?
3. When it should be completed?
4. The possible difficulties that might be encountered?

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5. Tips for doing it and where to start?

6. Where to get help and what to do when through?

• Employees want to see the overall pattern and how their tasks fit total firm operations, objectives, accomplishments, etc.

NURSERY NOTES  
June 1984

### THREE GREATEST COMMUNICATION BARRIERS

1. People are not all alike. They have different backgrounds, experiences, education, etc. that impact the communication process. To understand communication, one must therefore understand individual differences.
2. Failing to recognize the problems with one's current communication skills. Many business managers identify communication as the number one business problem, yet in most instances the manager is thinking about the other person who can not communicate effectively rather than himself/herself.
3. Taking communication for granted because of its commonness. The commonness and intimacy of communication may cause us to forget that it is the basis for all human progress and accomplishment. Effective communicators do not permit the commonness of communication to degrade it but rather let it emphasize its importance.

### SOME BASIC COMMUNICATION PRINCIPLES

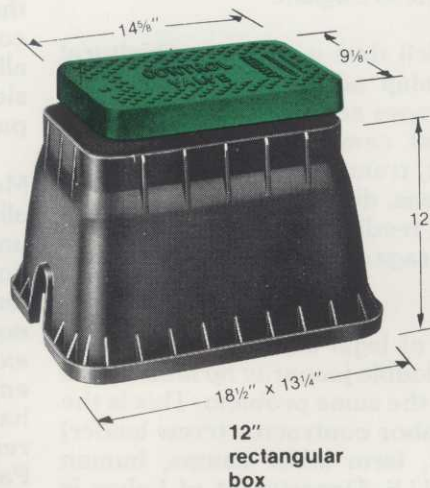
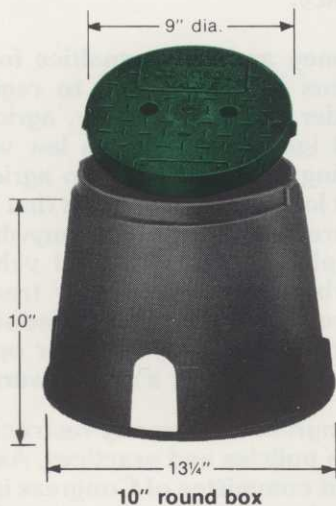
1. Understanding can only occur when there is common knowledge.
2. There must be common sharing of the meaning of words before understanding can occur.
3. The more subjective the message, the more difficult it is to achieve understanding.
4. There is always feedback from any message that is received.
5. A good message is not only understood, it also achieves the desired response.
6. When the purpose of the message is emotionally important, it can usually be achieved most successfully by personal contact.
7. Communication becomes more effective as more of the senses are involved.
8. To insure most successful understanding, keep it simple, keep it short.
9. When there is not understanding, there is quite apt to be misunderstanding.
10. All messages need to be sent with the knowledge that the receiver will interpret it as he/she sees it, that is, as a unique human being. ■

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# Recent Developments In Labor Regulations

Charles D. Covey, Ph.D.  
Extension Economist

Increasingly agricultural employers are being brought into the mainstream of the total U.S. labor market. In many agricultural jobs the needed skills are indistinguishable from non-agricultural employment. Hardly a legislative session, state or national, goes by without some of the traditional differences between agricultural employment and non-agricultural employment being reduced. As most nurserymen know there are some benefits which accrue from this process but at the same time it increases the cost of doing business.

The growing profusion of laws and regulations which face farm employers, particularly smaller employers who cannot afford a labor relations or labor management specialist, makes it difficult if not impossible to stay abreast of the labor laws and regulations which govern their relationship with their employees.

Since 1976 when the first "Handbook of Regulations Affecting Florida Farm Employers and Employees" was published, IFAS has attempted to provide a ready reference and guide to the employer's responsibilities under each of the several state and federal laws which affect farm employers. More than 20,000 copies of this publication are distributed every two years.

Most labor related laws and regulations are enacted to protect the health and welfare of agricultural workers. In order that agricultural workers who do not understand English have access to the provisions of the laws designed to protect them, the "Handbook of Regulations Affecting Florida Farm Employers and Employees," is published in Spanish as well as English.

Laws and regulations which deal with the agricultural employer-worker relationship address such issues as safety in the workplace, wages and working conditions, child labor, unemployment compensation, terms and conditions of employment, transportation and housing of farmworkers, illegal aliens, discrimination, field sanitation and drinking water, medical and health care and several programs to encourage employers to hire certain disadvantaged groups.

In several of these areas of legal concern agricultural employers are faced with double jeopardy by federal and state laws which deal with the same problem. This is the case in child labor, farm labor contractor (crew leader) registration, illegal aliens, farm labor camps, human rights, and currently the U.S. Department of Labor is developing Field Sanitation and Drinking Water regulations which would duplicate Florida law.

Probably the most significant recent development in agricultural employment was the implementation on April 14, 1983 of the Migrant and Seasonal Agricultural Worker Protection Act of 1983 (MSPA). Prior to this date

many of the relationships between agricultural workers and registered crew leaders (labor contractors) were governed by the Farm Labor Contractor Registration Act (FLCRA). Many agricultural employers were required to register as labor contractors under FLCRA and most growers felt this was an overly vigorous enforcement policy by the Department of Labor.

MSPA eliminated most of the registration requirements for agricultural employers but at the same time it imposed on almost all agricultural employers the same requirements that were reserved only for labor contractors under the earlier FLCRA. As a result, with some few exceptions, any agricultural employer who hires 500 man-days of labor during any calendar quarter of the preceding calendar year is subject to the provisions of MSPA.

500 man-days during a calendar quarter is the equivalent of approximately seven full-time employees working five days per week.

At the time of MSPA implementation on April 14, 1983, the U.S. Department of Labor (USDOL), Wage and Hour Division announced a "Year of Grace" for farm employers to study, understand, and comply with MSPA. Now the USDOL has made it clear that the "Year of Grace" is over and the summer of 1984 will be a summer of enforcement. Agricultural employers should be particularly careful in the following areas: (1) Vehicle safety when transporting workers, (2) housing which is not in compliance with federal and state safety and health standards, (3) disclosure to employees of wages, hours and other conditions of employment, and (4) maintaining proper records.

If you employ a labor contractor, under most circumstances MSPA makes you a "joint employer" hence jointly liable if the labor contractor does not comply with the provisions of MSPA. If housing is owned by you as an agricultural employer, you are responsible for meeting the appropriate standards and seeing that the terms and conditions of occupancy are posted, including any and all charges associated with the housing. The USDOL considers meal charges to be a term or condition of occupancy.

Money and civil penalties for knowingly hiring illegal aliens is limited only to registered labor contractors under MSPA. However, agricultural employers should not ignore the Florida law which prohibits knowingly hiring illegal aliens. Also agricultural employers should not lose sight of the fact that the U.S. Border Patrol has extraordinary powers anywhere in Florida to arrest employers and impound vehicles in connection with harboring, concealing or transporting illegal aliens. A recent Supreme Court decision confirmed the Border Patrol's authority to enter open fields and interrogate workers without a search warrant.

Congress is currently restructuring America's immigration policies and practices. As this issue goes to press a joint committee of Congress is working out the differences between the House and Senate versions of the Simpson-Mazzoli Bill.

(continued on page 51)



(continued from page 50)

As a nation we have become dependent upon a large group of illegal aliens (estimated as high as 12-13 million by some, but no one knows for sure). These people make hotel beds; cook, serve and wash dishes in restaurants; sew clothing in garment factories and harvest fresh fruits industry, in fact, produces a much larger favorable impact on Florida's economy than might be realized.

The Immigration Reform and Control Act (IRCA) of 1983 currently passed by both Houses of Congress would place the employer as the principal enforcer of the nation's immigration reform policy. By making it unlawful to hire, recruit or refer for employment any illegal alien, and establishing heavy fines and jail terms for employers who do violate the act, it is felt that the economic attractiveness of jobs in the U.S. will be eliminated. The rationale is that if there are no jobs in the U.S. for illegal workers because employers are afraid to hire them, illegal workers would not come to the U.S.

Other provisions of the IRCA call for increased resources for the Immigration and Naturalization Service to provide for increased border enforcement; amnesty for illegal workers who "have resided continuously" in the U.S. since a specified date; worker identification which is nontransferable, difficult to counterfeit and applicable to all workers; substantial reform of the H-2 program which permits the importation of foreign workers to perform seasonal agricultural labor when American workers cannot be found; and finally a three year transition period to allow U.S. agricultural to convert to a legal workforce.

Dependence on an illegal workforce has negative consequences for farmers, for workers and for society. Farmers are vulnerable to crop losses as critical harvest workers disappear when Border Patrol raids scatter workers destroying crops in the ensuing chase. Illegal workers are particularly vulnerable to exploitation by unscrupulous employers or third parties trying to gain an advantage over employers who conform to legal labor standards. Furthermore, illegals are reluctant to report crimes against them and often pay exorbitant prices for credentials, transportation and housing.

Immigration reform is a reality. By the time this publication reaches you, it will probably be the law of the land. As employers of agricultural labor you need to be aware of how to assure that your work force is legal. Employers of seasonal and even full-time workers should begin now to prepare for the time when acceptable numbers of legal workers will be available only under conditions of strict labor standards and enlightened personnel management practices. Do you have your house in order.

Dr. Charles D. Covey is Professor of Food and Resource Economics and Extension Economist in the University of Florida, Institute of Food and Agricultural Sciences. Dr. Covey joined IFAS in 1963. He received his BS and MS degrees from the University of Florida, and a Ph.D. degree from Louisiana State University. Dr. Covey's areas of responsibility include Agricultural Policy and Labor Relations. ■

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## Do You Recognized These Folks?

**NICE GUYS** — This type of person is at his or her most difficult when procrastinating or vacillating. Wanting to a fault be helpful, he or she will withdraw to a state of passive aggressiveness when feeling frustrated. When confronting this person, acknowledge that things are not perfect. Then seek positive directions for this person to channel energies.

**NEGATIVISTS** — They tend to be cynical and discouraging, trying to tap feelings of despair in colleagues. Seek alternatives, but don't argue point by point.

**WHINERS AND CRYERS** — They will try to put you on the defensive, saying that any action on a given issue should come from somebody other than themselves. Sometimes, the complaints are accurate. When confronted by a compulsive griper, seek solutions. Never let a whiner go over the boss' head with a problem.

**BULLDOZERS** — They are impetuous, intimidating and probably insecure people, wanting to overwhelm with a position of power. A bulldozer will respond to assertiveness, but don't challenge his authority. Maintain eye contact when talking. Seek mutual understanding rather than revenge.

**PUT-DOWN ARTISTS** — They are sources of snide remarks, sarcasm, usually in public. Mumford's advice: Respond to comments immediately. Bring the situation into the open by saying something like, "That sounds like a put-down. Is it?"

**WALKING TIME BOMBS** — They will blow up in unexpected circumstances. The timebomb is probably frustrated, feels powerless, perhaps threatened psychologically. When a person throws a tantrum, give him or her a chance to cool off. ■

## Chipco Packaging Redesigned

**MONMOUTH JUNCTION, N.J.** — Rhone-Polenc Inc., Agricultural Division, announced today that some of the product packaging for the Chipco line of turf maintenance products has been redesigned for 1985. The products displaying the newly designed packaging are Chipco 26019 fungicide, Chipco Ronstar G (preemergent crabgrass and goosegrass) herbicide, Chipco Turf Kleen (postemergent) herbicide and Chipco Microgreen Liquid (micronutrients).

Dan Stahl, Chipco Product Manager, said, "that the Chipco product line in addition to being a leader in the golf course turf market has gained wide acceptance in the lawn care industry, landscaping and ornamental production. We felt that a new nonspecific turf package design was needed to reflect the expanded uses of the Chipco line."

Two additional products, Bucril herbicide and Mocap nematocide-insecticide are scheduled for package redesign in 1986. They will be available in the Company's agricultural package design for 1985.

For more information on Chipco turf maintenance products, write to Rhone-Poulenc Inc., Agrochemical Division, P.O. Box 125, Monomouth Junction, N.J. 08852. ■



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# Turtle Creek Club

Mr. Tom Burrows  
Grounds Superintendent  
Turtle Creek Club  
Club Circle Drive  
Tequesta, Florida 33458

Dear Tom:

In view of the questions surrounding the grass certification program in Florida, you asked for my comment about the importance of golf course quality. My guess is my thoughts might be somewhat different than yours or those of other superintendents.

I know you and your crew members work very hard to produce high quality playing surfaces for the golfing members of our club, because you want to meet your responsibility for doing a good job. And you are justifiably proud of the results of your labor and your expertise. Thus, to you, and I'm sure to the hundreds of other golf course superintendents in Florida, it is an end in itself to provide quality playing conditions and the consequent pleasure that gives to all golf club members.

But to me, as a golf course user, course quality is a necessity. If the quality is poor, I wouldn't be here, and I believe there may be tens of thousands of golf club members in Florida who feel the same way.

Also, I realize you are aware of the very large and very favorable effect the golf course maintenance industry has on the economy of Florida. With 815 golf courses, and 6,000 people employed in this industry in Florida, it is, as you indicated, a 200 million dollar industry. But you may not have taken into account the "multiplier" effect. Many studies have been made of this effect, the most conservative one being made by U.C.L.A. some years ago. That

study indicated that for every such employee (plus their family members), 1.2 more employees are hired in other businesses to service them — in drug stores, gasoline stations, banks, automobile agencies and repair shops, grocery stores, etcetera. So the golf course maintenance industry, in fact, produces a much larger favorable impact on Florida's economy than might be realized.

As impressive as these effects may be, the major economic impact comes from the people who use these courses, well over two hundred thousands of them. If the golf course maintenance business is a multi-hundred-million dollar industry, then the golf course users constitute a multi-hundred-billion dollar "industry."

Many, if not most, Florida golf courses are the centers of housing or resort developments designed to attract winter residents from the North, or year-round resident retirees, or tourists. There are some renters, but most buy homes. The multiplier effects of these purchases and residential statuses is enormous — on the home and other construction businesses; on service trades such as grocery and drug stores, gasoline stations and repair shops, lawn and building maintenance businesses, and banks; and, of course, on payment of millions of dollars in property taxes, gasoline, and sales taxes.

Although Florida's climate is very important in attracting these hundreds of thousands of residents and visitors, it is not the sole reason. For there are other places like California, Arizona, Nevada, and other southern states where the climate is as good or almost as good as it is in Florida. For tens of thousands of part-time or full-time residents, the other most compelling attraction is the existence of so many attractive, quality golf courses.

The existence of quality golf courses, as well as the construction of new ones, is dependent on many factors — such as proper use of chemicals, fertilizers, and pesticides, good equipment, and expertise in maintenance techniques. But like the old saying — "You can't make a silk purse from a cow's ear" — golf course quality is first

*(continued on page 54)*

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"Keeping Golf Courses Green"

(continued from page 53)

dependent on the use of quality grasses. If the grasses are contaminated, or weak, or disease ridden, no amount of money or expert care can change such grasses into quality playing surfaces. Instead the surfaces will be weedy, thin, and not conducive to gaining pleasure from playing golf.

Most Northern part-time and retiree full-time residents who play golf are affluent; can afford the cost, and demand quality playing surfaces. If quality courses are not available, they will not move to Florida in the first place, or if the quality deteriorates, many of them will move to another agreeable climate state where quality courses are available.

In this respect, golfers are somewhat like boaters. Various governmental agencies have spent and are spending many millions of dollars to provide facilities (like drawbridges) and services to make boating safe, convenient, and pleasurable for the tens of thousands of boaters who visit or move to Florida from the North.

It is money well spent, for the boating industry, along with the users, provide an enormous favorable economic impact on the state of Florida, as well as huge tax incomes for various government entities. But the boating industry, too, like the golfing industry, is greatly dependent on quality facilities.

Of course, it cannot be claimed that all boaters and all golfers would leave or not come to Florida if the quality of

facilities and services is allowed to deteriorate. But it is a certainty that any such deterioration would have devastating adverse economic and tax effects on Florida.

As stated earlier, in the case of golf courses, quality starts with quality grasses. Unlike boaters, golfers receive very little governmental help in the establishment and maintenance of their facilities. So it would seem to me that at least a sufficient amount of dollars should be spent by the state to help insure the availability of quality grasses through a certification program, and thus help to protect the economy of Florida and provide for the pleasure of many of its citizens and visitors.

Very truly yours,

Vernon A. Johnson  
14 Turtle Creek Drive  
Tequesta, FL 33458

Note: *Before retirement, the author of this letter was a Senior Vice President of the Lockheed Aircraft Corp., with offices in Washington, D.C. He spent 10 years on the Board of Congressional Country Club, including several years each as chairman of the golf and greens committees, and was in charge of building what is now the 2nd. nine of Congressional's championship course. He also served as President of the Burning Tree Club, after several years as a member of the greens committee and as chairman of the golf committee. At Turle Creek, he was chairman of both the greens and golf committees, and served two years as President of the club. ■*

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# GOLF TURF NEWS

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

CHARLES H. PEACOCK  
Extension Turf Specialist  
Gainesville

## **Turf Research: The South**

by  
Dr. Charles H. Peacock  
Extension Turf Specialist

The south provides some unique problems and challenges in growing and maintaining quality turfgrass for recreational areas. A long growing season and moderate climate bring increased demands on recreational area use. Turf research at land-grant institutions will continue to require strong support from the turf industry to provide management techniques needed to maintain adequate turf quality. Pest management will continue to play a key role in turf maintenance and evaluation of chemical and biological pest control, as well as pesticide fate in the environment, will be a major topic of research. This is a report of some of the current research at universities in the south.

### ESTABLISHMENT

Florida has reported on a comparison of sod-soil type and fertilization during establishment. Mineral sand grown sod had superior rooting over organic (muck) grown sod of St. Augustinegrass. Fertilization on the sod surface was more effective than applying fertilizer to the sodbed surface before laying sod.

### CULTIVAR EVALUATION AND RELEASE

Oklahoma has released a new seeded bermudagrass variety called 'Guymon'. It has a texture similar to common and will have uses primarily in low maintenance turf situations. A new centipedegrass has been approved for release by AL. Labeled as 'Centennial', it is a dwarf variety with high leaf density, short internodes and short seedheads. It also has a darker green color than common centipedegrass.

A new ST. Augustinegrass variety has been approved for release in FL called 'Floralawn'. It is resistant to chinch bugs and SAD virus, is tolerant to sod webworms and can be identified from other St. Augustinegrass varieties by enzyme analysis and morphological characteristics. Increased need for salt tolerant turfgrasses is a topic of much research in FL. A new variety of Seashore Paspalum labeled FSP-1 is being evaluated for cultural requirements and pesticide tolerance. It has superior density to 'Adalayd' and 'Futurf' and excellent salt tolerance.

### CULTURAL PRACTICES

A thatch accumulation study in AL on bermudagrass found that four topdressings per year with sand reduced thatch accumulation more than a single topdressing. Neither monthly aerification nor biweekly vertical mowing provided more thatch control than twice yearly treatments of either one. Turf quality was not correlated with thatch depth. They found that activated sewage sludge produced superior turf quality, although more thatch was produced than when ammonium nitrate was applied. Thatch decomposition by white-rot fungi and topdressing treatment was studied in FL on four turfgrasses. The fungus *Phebia gigantea* reduced cellulose content of bermudagrass and centipedegrass thatch while *Coriolus vericolor* reduced the lignin content. Topdressings of sand and colloidal phosphate significantly reduced the cellulose and lignin contents of thatch although the addition of colloidal phosphate did not increase the decomposition rate.

Thatch accumulation was also studied in FL as influenced by acidity. Approximately twice as much thatch accumulated below pH 4.0 as above pH 5.0 except where addition Ca was applied. Supplemental Ca apparently aided thatch decomposition at a low pH.

The influence of growth regulators on common bermudagrass was studied in TX. A number of growth regulator including Embark Surflan, Dual and malic hydrazide were evaluated for residual effects, water use efficiency, and physiological and growth responses. There were no residual effects from growth regulator application the year before. They found that seedhead production between treatments was erratic and there was no trend due to treatment. Growth response was varied with Embark producing less wet and dry weight early in the season. Soil water content was unaffected by treatments. They concluded that future studies should include effects of multiple applications during the growing season.

Fertilization continues to be a major topic of study especially concerning evaluations of nitrogen sources. Texas reported on a study comparing a number of old and new nitrogen sources on turf quality and growth of 'Tifgreen' bermudagrass. Comparing ammonium sulfate, ammonium nitrate, urea, activated sewage sludge (Milorganite™), IBDU, ureaformaldehyde, and sulfur coated urea to the experimental material oxamide, they found a close association between shoot growth and turf quality for most of the materials. However, the granular form of oxamide produced favorable visual turf quality without

(continued on page 56)

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promoting excessive vertical shoot growth. This response was sustained for 13 weeks.

Studies in FL found similar results for the oxamide materials. Additionally, nitrification inhibitors were found not to increase N availability to bermudagrass during the warm season. Another experimental material from Japan also maintained adequate turf quality without promoting excessive growth.

Irrigation studies in TX have focused on determining evapotranspiration rates, effects of irrigation frequency on turf water requirements, and an evaluation of home lawn sprinklers. They found significant variation among grass species for evapotranspiration rates. 'Tifgreen' bermudagrass and common centipedegrass had low rates while 'Texas Common' St. Augustinegrass, 'Argentine' bahiagrass and 'Adalayd' Seashore Paspalum had high rates. Few differences were noted in relative ratings as soil moisture became limiting. The exception was bahiagrass which had a low evapotranspiration rate under progressive water stress conditions, in contrast to a high rate under nonlimiting soil moisture conditions. All grass species exhibited higher evapotranspiration rates when maintained at optimum nitrogen fertility and cutting height than when at lower fertility. Water use varied by up to 50% between turf species maintained under equivalent cultural conditions. Sprinkler irrigation studies showed that the best time to irrigate lawns is between 12 midnight and 8 a.m. Water losses are 50% or less of those obtained during midday. This is the period during the day of lower wind speeds and evapotranspiration and decreased temperatures and higher humidity. In comparing types of sprinklers including oscillating, traveling, impact, rotating, stationary (buried head) and drip line, they found that many of the sprinkler applied water at a rate which exceeded the long term infiltration rate of many agricultural soil types except sands. Considerable runoff could occur with certain sprinkler types on heavy soils making it necessary to carefully match sprinkler type to soil type.

Salinity studies in FL have found cultivar differences in St. Augustinegrass. 'Seville' was found to be superior to 'Floritam', 'Floratine', and experimental line FA-108 (to be released as 'Floralawn') in growth responses to salinity in solution culture. Seashore paspalum studies have found an experimental variety FSP-1 to be more salt tolerant in solution culture than either 'Adalayd', 'Futurf', or another experimental line, FSP-2.

## NEMATODES

Ethylene dibromide (EDB) has been banned for agricultural applications in the U.S. and is no longer available for nematode control. Organophosphate materials are available for use but at a higher cost per application unit. A study in AL looked at plant parasitic nematodes on bermudagrass as influenced by cultural practices. Top-dressing, vertical mowing, or core aeration treatments had no consistent effects on nematode populations. Lower populations were noted where acti-

(continued on page 58)



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vated sewage sludge was used as the N source compared to ammonium nitrate. However, differences were only noted for one sampling period.

## INSECTS

Much of the insect research continues to focus on the biology and control of mole crickets. Southern mole crickets (*Scapteriscus acletus*) have been found to not be a major turfgrass pest like the tawny (*S. vicinus*) or short-winged (*S. abbreviateas*) species (FL). Studies on chemical control in FL have found Oftanol™ at 2 lb ai/acre to be an effective long term material if applied prior to egg hatching (mid-May) for north and central FL. Cibe-Geigy 12223 to be called Triumph™ as also effective for long term mole cricket control.

Southern chinch bug (*Blissus insularis*) biology and control by insecticides was studied in FL. Resistance has been shown by the southern chinch bug in south Florida to chlorpyrifos, diazinon, isofenphos, primiphos-ethyl, propyl thiopyrophosphate, and trichlorfonl). The only alternative insecticide registered for control is propoxur.

Studies in TX for control of white grubs includes application timing and insecticide efficacy. In the tests, only the isofenphos EC spray was consistent in performance. Further work related to formulations and application timing is needed to determine optimum benefit from other materials.

## WEEDS

Continued emphasis on weed control included studies on turfgrass tolerance, herbicide efficacy, and application timing. Studies in GA found that combination treatments of 2,4-D, mecoprop, and dicamba applied to bermudagrass cultivars in August, September, or October injured the grass immediately after treatment. Normal rates (1.0 - 0.5 - 0.08 lb ai/acre) did not affect winter survival. A triple rate delayed growth of 'Tifgreen' and 'Tifdwarf' more the following April than 'Tifway' and 'Ormond'. An additional study found that putting greens were generally intolerant to twice yearly applications of oxadiazon and that napropamide and prosulfalin reduced root growth. Of the preemergent materials tested, bensulide delayed early spring growth less than the others and did not adversely affect turf quality during the growing season.

Crabgrass (*Digitaria* sp.) and goosegrass (*Eleusine indica*) control is a common problem. Johnson (GA) found napropamide equally as effective as bensulide throughout the summer. The single application granular application of napropamide was better than the wettable powder. Application in February or March followed in two months by a second application controlled goosegrass satisfactorily regardless of formulation. He also found that atrazine at 2 lb ai/a combined with bensulide at 10 lb ai/a applied in late February to dormant bermudagrass controlled crabgrass as effectively as separate applications in February and April.

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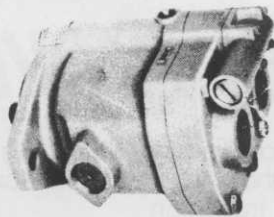
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(continued from page 58)

Work in AL has found that sulfometuron methy (Oust™) gives excellent control of bahiagrass in centipedegrass. They also tested a number of diphenyl ether materials for common bermudagrass eradication and none was better than glyphosate. Tank mixtures of herbicides were evaluated on common bermudagrass (GA). Glyphosphate at 0.25 lb ai/a mixed with DCPA at 10 lb ai/a was most effective for parsley-piert (Alchemilla microcorpa) control. Bensulide at 10 lb ai/a was more effective in controlling large crabgrass (*Digitaria sanguinalis*) when applied alone than if mixed with either paraquat, or 2,4-D plus mecoprop plus dicamba.

Annual bluegrass (*Poa annua*) control in overseeded bermudagrass putting greens continues to receive a lot of research attention. Fenarimol gave 90 percent preemergent control in February and at least 75 percent control in April in a TX study. This was based on six one-half ounce per 1,000 sq. ft. applications at 2-weeks intervals. Fenarimol is currently registered for use as fungicide and more studies are planned to evaluate herbicidal activity.

In a GA study ethofumesate satisfactorily controlled annual bluegrass when applied at 1.0 lb ai/a in October and again in November but not when applied in February and March. The October and November applications reduced the quality of the overseeded perennial ryegrass but the turf recovered fully. The transition from ryegrass back to bermudagrass turf was good in the spring regardless of the ethofumesate treatment.

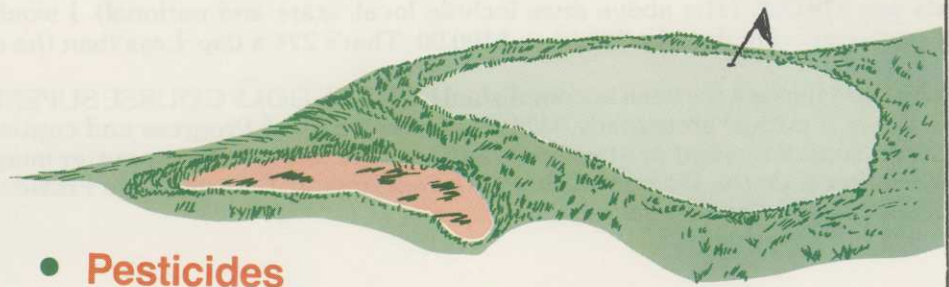
Johnson in GA evaluated postemergent herbicides for grassy weed control around the base of woody ornamentals. He found that of MSMA, MSMA - metribuzin, and acifluorfen materials at various application numbers and rates, only flowering dogwood was affected, and this was the only to MSMA. Andorra juniper, dwarf burfordi holly, Japanese holly, Yaupon holly, red tip photinia, pyracantha and flowering cherry were unaffected by herbicide treatments when spray was kept from drifting onto the foliage.

## DISEASES

Tests in FL on chemical control of Rhizoctonia brown patch is St. Augustinegrass found few differences among the fungicides in checking disease advance. The tests indicated that where microelements may be limiting, a turf response from a component of the fungicide may be noticed. A similar test in FL found that Pythium specific fungicides including propanocarb, methyl amino propanoate, ethazol, and metalaxyl will significantly reduce damage when applied at the time of ryegrass seeding. Broad spectrum fungicides including triadimefon, chlor-thalonil, methyl thiophanate, iprodione and buffered formaldehyde (Form-A-Turf™) were not effective in reducing disease damage.

## TURF AND VERDURE July 1984

Editor's Note: This is reprinted from the July 1984 Parks Maintenance



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# Editorial

By: Dan Jones

## "You Only Get What You Pay For"

There is an old saying that nothing in life is free. I don't know where it originated from but I do know that it applies right now to the current status of The FGCSA. GIVEME - GIVEME - GIVEME - BUT DON'T ASK ME FOR ANYTHING. LET THE NEXT GENERATION PAY. Does that sound familiar?

After reading Tom Burrow's Presidents Message in the Winter 1985 issue of The Florida Green I am struck with this reality: How can we get so much and accomplish so many things on dues of \$10.00 a year? It is incredible what The FGCSA has started and completed over the past few years.

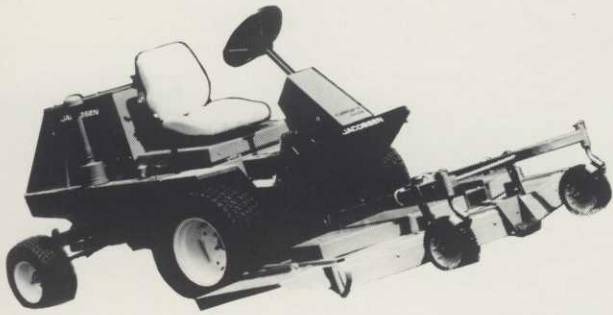
We have now reached the point where we are asking our elected officers to perform the impossible. The work load is too great for volunteers. Do we continue to move forward or do we reduce this organization to a state of apathy and stagnation. There is no way to continue on our current course.

The yearly dues for the PGA are \$295.00. The dues for the CMA are \$300.00. The dues for Golf Course Superintendents are \$181.00. (The above dues include local, state and national). I would like to see our Board of Directors increase our state dues by \$90.00 to \$100.00. That's 27¢ a day. Less than the cost of a soft drink.

Many good things have been accomplished FOR THE GOLF COURSE SUPERINTENDENT over the past five years. We are at a critical crossroads. Which way do we turn? Progress and continue to upgrade the image of The Golf Course Superintendent or stagnation back to "the foreman, grass cutter image". The decision for the future of our association is yours. Do you really care? Talk to your External Vice President. Better yet, first go back and read Tom's Message again. It said it all.

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