

## GREENS CHAIRMAN

(Continued from Page 30)

"Sounds like the whole family is demented," I said.

"Probably so," he answered, "but you don't have to be to get into this business because it'll drive you there soon enough. You'll find out. Lot's o' luck."

The new Superintendent arrived two weeks later, on the first of the month. We toured the course together. "Do you think we have any nematodes?" I asked.

"Well," he said, "I don't want to hurt your feelings the first day on the job but it looks to me like this is the international headquarters for nematodes and I'd say right now they're holding their annual convention."

"We have some weeds, too," I said, weakly.

"Yeah, and bermuda mites."

"Let's go back to the barn," I said. "Maybe we can contrive a plan to deal with the whole problem."

We poured ourselves some black coffee from a pot that simmers all day on the far corner of a workbench. Then we sat down to drink coffee, argue, make notes, and draw sketches until late into the afternoon. I knew what the members wanted, or at least I thought I knew. To translate that into a golf course that would make them happy we decided to retain a recognized golf course architectural firm. This would assure us the needed course changes would be done professionally. Fairway bunkers, from years of raking and maintenance work, had become uninteresting, round, cavities, and the shape of the greens had lost their character. The lethal yellow epidemic had taken a toll of over 700 coconut palms, so there was plenty for an architect to do.

Then we decided to retain one of the leading agronomists in the Southeast to make monthly visits of inspection. Our abundant crop of goosegrass and other assorted irritants added to the nematode and bermuda mite population gave him plenty to do, too.

My assignment was to hold the membership at bay and to persuade the Board of Governors to supply the funds we needed to do the job. Being Vice Commodore and a member of the Board helped some, but it's not easy to explain to an owner of a super market chain a criminal lawyer, a C.P.A. from Detroit, an industrial architect, a business consultant turned college president, and a vice president of marketing for an international oil company, why it costs so damned much to mow the lawn!

"Ye GODS!" they'd cried in unison, "All you gotta do is mow some grass, rake some sand and kill a bunch of weeds! How in hell can that cost a quarter of a million dollars?" So I, too, had plenty to do. When I asked for (and finally got) \$50 an acre to kill the nematodes they almost accused me of personally infestating the course.

"We never heard of nematodes before you took this job."

My first victory over the Board came when I pried a Triplex greens mower, and 100-gallon sprayer out of them in spite of their claim that I already had more equipment than the Florida State Highway Department. Sand to refurbish all the fairway bunkers, \$6,500 worth, came a little

easier. I delayed my request for \$10,000 to install a liquid fertilizer system until the House Committee Chairman planned a request for new chairs for the country club dining room. We formed a coalition and maneuvered both through successfully.

But the big problem still lay ahead. Golf course beautification doesn't come cheap, especially when an extensive tree planting program is a part of it. Using reverse strategy, when it came my turn to make the Greens Committee report at the November meeting I stated, simply, "The Greens and Grounds Committee makes no request for funds." I received a standing ovation.

Meanwhile, thanks to my Greens Superintendent, the nematodes were gone along with the bermuda mites. The crowfoot was dead and so was creeping charlie and there was a thick carpet of bright green grass on the fairways. The greens were smooth, putted true and were newly shaped. Some of the bunkers had been rebuilt and there was fresh sand in them and in all the bunkers around the greens.

So, in the December meeting I hit them for \$40,000 to beautify the course. There was hardly a whimper.

I'm the Commodore now, so I appointed myself to the job for another year. I know goosegrass when I see it; in fact it haunts my dreams at night. I can distinguish between dollarweed and dichondra. And I know what MSMA will do and why, sometimes, we add a little 2-4-D. After we spike the greens, if I see a little brown grass around the hole I know there is a tiny worm down in there just awaiting evening so he can come up and feast on those tender leaves of Tiftwarf. So I'm gonna apply for the job again next year. After all, I wouldn't want all that hard earned knowledge to go to waste. Besides, it's easy . . . when you've got a top quality Greens Superintendent calling all the shots.

But I still hate yard work.

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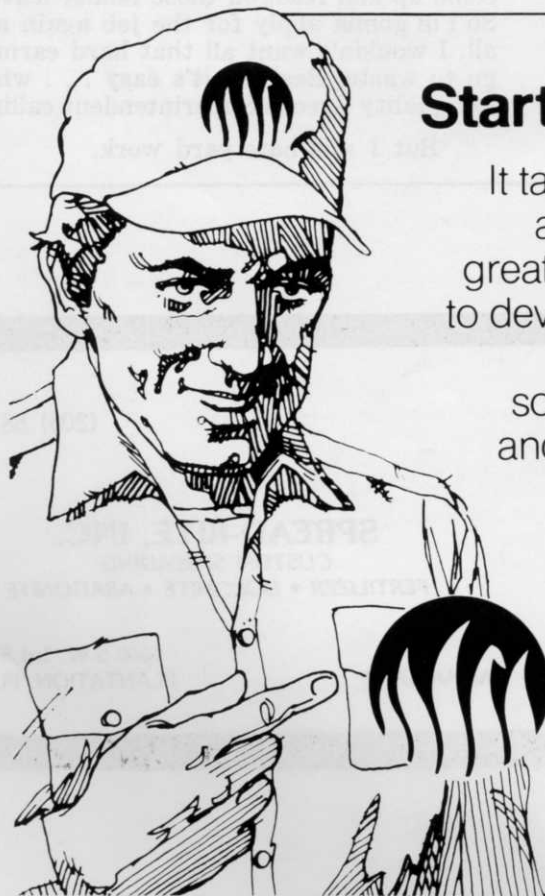
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# IRRIGATION SYSTEM INSTALLATION

AT GULFSTREAM GOLF CLUB

by STANLEY A. CARR

This article is similar to a talk given at the 1977 South Florida Golf Course Superintendent Meeting. The information that I shall give is not totally my own. Moreover, we would not have the fine system that we have today had our general manager, Jim Briggs, not done a lot of research and worked closely with me. These comments and recommendations generally refer to an installation on an existing golf course.

Gulfstream was built in 1921 on approximately 140 acres, of which one hundred acres are irrigated.

It is of utmost importance that a superintendent employ or have on his staff a representative to work with the irrigation contractor. It is virtually impossible for the superintendent to closely monitor the installation of the system and run the course operations at the same time. This representative should have a basic understanding of plumbing, pumps, electric controls, etc., with the prospect of being the irrigation specialist after installation of the system has been completed. Many clubs are reluctant to employ such a representative just to oversee the work done but when you think of buying a quarter million dollar system, it is very inexpensive insurance indeed. This representative should see that no pipe is placed into the ground without his inspection and that no deviations from the blue prints or specifications are made without direct consultation and approval from the superintendent. As our club president once said, "the superintendent has to marry the girl." Basically, this is what we did at Gulfstream Golf Club, and I feel we have one of the finest systems available.

Listed below are some suggestions and recommendations that might prove helpful to anyone installing an automatic irrigation system:

- 1.) Determine the amount of acreage to be irrigated.
- 2.) Have a topographical map made of entire area to be irrigated.
- 3.) Check and select the source of water to be used.
  - a.) pond
  - b.) well fields

The water supply is of extreme importance and should be studied thoroughly.

- 4.) Have a colored aerial photograph of the course taken and keep in the superintendents office to be used for reference work between the superintendent and the contractor.
- 5.) Take soil samples of the types of soil and or rock to determine possible problems on installation by the contractor.
- 6.) Check for prevailing wind directions and favor location of sprinkler heads toward wind.
- 7.) Determine the number of hours the course is available to irrigate.
- 8.) Can any part of existing manual system be used in order to reduce costs. At Gulfstream I decided to abandon the old system completely.



- 9.) Determine spacing of the heads, whether they are to be installed in triangular or square spacing, a more even distribution of water will usually be accomplished with a triangular placement.
- 10.) Decide upon an electric control system or a hydraulic system. Electric usually has more problems in this area due to electrical storms and will cost more to install.
- 11.) If your course has a course architect on a retaining basis it will probably pay to seek his advice.
- 12.) Specify electric wiring for control clocks to be installed on right hand side of the irrigation pipe and the hydraulic tubing to be installed on the left side of the irrigation pipe. This will help in locating tubes and wires in case of repairs.
- 13.) Specify depths of all installations
  - a.) consider pipe size.
- 14.) Specify color coating for electric wiring.
- 15.) Identify locations for all field satellites being sure to have the ability to see the heads operating and if possible to be kept from the sight of golfers.
- 16.) Future expansions should always be considered at the time of installation.
- 17.) Specify **poured concrete** thrust blocks at all dead ends and tee-joints.

Generally speaking some contractors place CBS blocks at these connections, however, I personally feel that poured concrete should be insisted upon.
- 18.) Divide your course into sufficient zonal areas so that certain areas can be taken out of service for repairs without interruption of main irrigation system.
- 19.) Include a rock clause for both the contractor and the club.
- 20.) Provide lightning arrestors on all satellites.
- 21.) Consider the installation of the rain gauge coupled with a shut off relay to cancel the central control.
- 22.) Be sure to specify types of satellite
  - a.) Zero to 30, or zero to 60 minute timings.
  - b.) Automatic and manual operation.
- 23.) Establish sequence of clocks to operate from greens back to tees.

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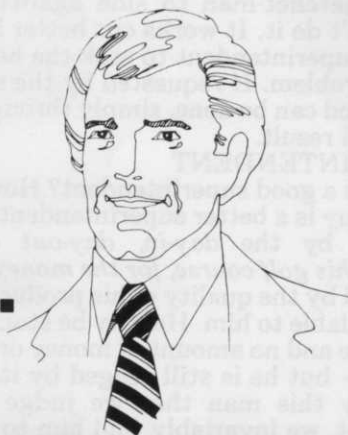
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- 24.) Specify that no wiring, tubing, or piping shall cross over one another.
- 25.) Have contractor install snap valves at the back of each green and at the back of each tee.
- 26.) Use clay valves to regulate pressure in lines.
- 27.) Specify to speed heads in problem areas and have circle heads for perimeter irrigation.
- 28.) Do not allow any splicing between controllers and be sure to use scotch-locks for electrical connections in satellites.
- 29.) When gluing, specify all joints be glued **one** day before installing.
- 30.) Make sure that all piping is installed with slight curves to allow for expansion and contractions.
- 31.) All swing joints and risers should be prefabricated in a clean working area and not on the field.
- 32.) Specify that no more excavation or trenching is to be done in a day that cannot be restored.
- 33.) Specify electric wiring feeding satellites be in conduit for a minimum distance of six feet from satellites (this will protect wiring entering controllers from mechanical damage).
- 34.) Specify twelve (12) inch concrete pads for satellites.
- 35.) Determine the need for a filter system to ensure clear water from source of supply.
- 36.) Decide on sprinkler head types — gear or impulse drive.
- 37.) Establish work commencement and completion dates of installation and decide upon penalty of performance (bond posted).
- 38.) If applicable check into the cost of hook up to city water.
- 39.) Request contractor to specialize his crew so that the same man is responsible for the same function throughout the installation.
- 40.) Demand a performance bond.
- 41.) Demand insurability and certification of contractor.
- 42.) Set up reasonable progress payment schedule retaining 10 percent for performance insurance.
- 43.) Designate responsibility for restoration of underground utilities damaged by installation.
- 44.) Require an "as built" drawing showing all locations of heads, controllers, valves, wiring, piping, drains, etc., to be brought up to date each week. This "as built" should be precise using bench marks for ease for identification and location. This is extremely important and vital and in many cases a failure of some installers.
- 45.) Require a one-year warranty and guarantee on all parts, equipment and workmanship.
- 46.) Demand balancing and adjustment of the system in the field to yield the greatest uniformity of irrigation. This is to be done by contractors in the presence of the course superintendent.
- 47.) Specify location for central control — suggest superintendent's office (in some cases under superintendent's bed).
- 48.) Specify adequate instructions of golf course personnel and use of new system.

I hope that this information will be helpful to those contemplating installing a new irrigation system.

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# Role of the Golf Course Consultant

By MAX A. BROWN, Ph.D.



This article presents to you what I feel to be the present and future role of the golf course consultant. These thoughts are based on my experience as a consulting agronomist in all parts of this country and around the world for the past fourteen years.

An effective "cop-out" for me would be to present one picture to you — a group of golf course superintendents and another picture to golf course owners, managers and greens committee members. I won't do that; what I say here is my objective appraisal that I would tell to golf course superintendents, owners, managers and greens committee members alike.

## DEFINITIONS

Let's begin our discussion by defining a few terms so that we all are talking about the same things:

First of all:

1) Consultant: one who gives professional advice or services,

2) Consult: a) to ask advice or opinion, b) to deliberate together: confer. Therefore, a golf course consultant is one who is asked to give advice or opinion on golf course maintenance. Also, he must deliberate together or confer with a person. This person should be the golf course superintendent; too often it is with the golf course owner or manager, at the exclusion of the superintendent.

Many times I have been called upon by people other than the golf course superintendent to review a maintenance program. It is obvious that their purpose is to call in a hatchet-man to side against the superintendent. I don't do it. It works out better if management requests the superintendent to seek the help or guidance to solve the problem. If requested by the superintendent much more good can be done, simply through the cooperation which will result.

## THE SUPERINTENDENT

What makes a good superintendent? How do you judge and say this guy is a better superintendent than the other guy? Simply by the *day-in, day-out condition and playability of his golf course, for the money spent*. He can only be judged by the quality of his product in view of the resources available to him. He may be stuck with a "dog" of a golf course and no amount of money or skill can make it look good — but he is still judged by it.

If we study this man that we judge to be a good superintendent, we invariably find him to have the three following qualities:

- 1) Well organized.
- 2) Technically, well founded in a) turf requirements, b) equipment, c) irrigation, etc.
- 3) Dedicated man, continually studying and learning. He is a man who openly admits he doesn't know all the answers. He remembers the old definition of an educated man as one who doesn't necessarily know all the answers but knows where to find them.

The better superintendents, in this game of musical chairs we see around us, seek to improve themselves professionally and financially by taking better jobs as they come along. We have seen in recent years that many of the highest paying jobs, with the highest maintenance budgets, are with golf complexes with two, three, four or more golf courses.

The man in charge of operations like this finds it necessary to hire people to work for him who are in actual fact the superintendents on the individual golf courses. He no longer has the time to study each blade of grass on a daily basis. He finds himself conferring with his superintendents, giving advice and opinion. He finds himself to be almost a (shudder) consultant.

## CONSULTANTS

A good superintendent has many sources of information at his disposal. With a legal problem he can call his lawyer, a medical problem his doctor, a financial problem his banker or accountant. For technical information on his golf course he can consult text books, or periodicals. He can ask a respected superintendent, call the county agent, one of the state turf extension men, or a USGA Green Section agronomist. Irrigation equipment manufacturers strongly recommend using a qualified irrigation consultant for irrigation problems. A professional golf course consultant is simply another source of information. Used properly, all of these sources of information are good forms of *insurance against a small problem becoming a major calamity*.

All of the above listed sources of information are technically consultants. Some you pay for by tax funds, others you pay for by private funds.

The important factor is that you know your sources of information and use them to *your* best advantages.

The role of the private golf course consultant has varied over the years in this country. In Florida, with its tremendous number of golf courses, the need for technical information has been particularly acute. Florida has had one of the strongest turf research and extension programs of any of the states and it's had a wealth of the best superintendents and best conditioned golf courses in the country. But the demand for perfection has been greater in Florida than in any other region of the country.

Private golf course consultants have come and gone over the years in Florida. Often, they have created bad impressions with the industry. We could blame several things for this: personality reasons, spreading too thin, too little knowledge, and various and sundry poor approaches to the business. But we cannot deny that a tremendous demand for turf consultants has existed, and the demand in the industry is obviously increasing.

What does an individual need, or what should you expect in a turf consultant?

1) Must be independent with no binding ties or axes to grind.

2) Must keep constantly abreast of latest technical information (pest control), equipment, managements, irrigation, etc. a) read literature, b) attend meetings and conferences c) visit courses and superintendents over a wide area.

3) Must know golf, and the relationship of turf to the game. (Grain, moving heights, footing, body, etc.)

4) Must be aware of maintenance practices and requirements of all types of golf courses over as broad an

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## Role of the Golf Course Consultant

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area as possible. Although conditions are different we can sometimes benefit by procedures used in Maine or California. Innovations are made by individual superintendents all around the world and he must be aware of these.

5) Must be able to work recommendations into the maintenance program, not simply make the recommendations. Anyone can tell a man what chemicals to use to control weeds in a green, in a lake or around trees, but how can he work it into the program if the crew is short and equipment is old?

### TRENDS OF GOLF TURF INDUSTRY

1) Greater demand for perfection. Very little tolerance of imperfection.

2) Better men are increasingly becoming responsible for multiple golf course complexes, and for more than one independent course.

3) Top superintendents are increasingly budgeting funds each year for obtaining emergency help when and if necessary, and for a periodic review of their total operation. The funds are considered an investment in better golf turf and insurance against major problems. The greatest problem is finding the man or organization who is qualified, whose judgment you can trust and respect. If a problem arises it is better for the superintendent to solve it himself than to have management go outside for help. When management goes outside for help it seldom works. Complete acceptance and cooperation is required between the superintendent and the consultant or the time and money is wasted.

## Schmeisser Scholarship Awarded

At a recent meeting of the Florida Turf-Grass Association Scholarship and Research Foundation Board of Directors, action was taken to create a scholarship at the Lake City Community College in memory of the late Hans C. Schmeisser, the "Grand Dean" of golf course superintendents.

This scholarship, named The Hans Schmeisser Memorial Award, will be made annually to the Lake City Community College student, enrolled in the Golf Course Operations School, that most exemplifies the qualities that Mr. Schmeisser possessed during his long, and most honored, turf career. This award carries a \$1,000.00 cash compensation.

Mr. Schmeisser, who passed away in October, 1980, had been superintendent of Forest Hill Golf Course, West Palm Beach, for the past 15 years. He was a consultant, golf course designer and builder and superintendent for nearly all of his 88 years. He was made an honorary member of the FT-GA in 1976 and a posthumous confirmation of the Golf Course Superintendent's Association of America "Distinguished Service Award" was made at their 1981 Annual Convention.

One of his sons, Otto, is a member of the FT-GA and is superintendent of the Everglades Club in Palm Beach. His other son, John, is associated with Robert Trent Jones, the noted golf course architect. ■

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# Reunion Becomes Surprise Birthday Party



TOP ROW, Left to Right; G. C. Horne, Roy Baer, Ralph White, Joe Konwinski.  
BOTTOM ROW; Jim Ousley, Sr., Al Witherspoon, Jimmie Blackledge, Gene Nutter.

In 1958 the FTGA membership committee had a meeting at the "Famous" Restaurant in Lake Worth. The six member committee agreed to have a reunion twenty years later to discuss changes in the industry. September 8, 1978 they were reunited and used the opportunity for a surprise birthday party for Jimmie Blackledge.

The reunion location was different since the Broz family moved their restaurant to the Bohemian Garden in Lake Worth. Also two new guests were invited. Those attending were Ralph White, Joe Konwinski, Al Witherspoon, Jim Ousley Sr., Dr. Gene Nutter, and guests Dr. G. C. Horn and Dr. Roy Bear.

The eight member group has a composite total of 249 years turf experience. Because of the vast experience, a background of each person will help new members to our association. The group is lead by Jimmie Blackledge. Jimmie started in 1930 as the Superintendent at the Indian Creek Country Club in Miami. He is past president of our association and served on the board of directors for twenty years. Jimmie is currently a turf consultant for Southern Turf Nursery. Dr. Jean Nutter started in 1948. Gene is a past professor at the University of Florida and Lake City Community College. In both instances he started the turf programs at each school. Gene now is a Vice President with Chem Lawn Inc. Gene flew in from Atlanta just for the reunion. Ralph White started his turf career in 1953. He has been a professor at the University of Florida and is now working as the Vice President of

Southern Turf Nursery, Tifton, Georgia. He also came to town just for the gathering. Al Witherspoon has been working with turf since 1954. A University of Florida graduate Al has been superintendent of numerous south Florida golf courses. Al is now in charge of the Wellington Polo Fields. Jim Ousley Sr. is the founder of Ousley Sod Company. His turf experience dates to 1946. He is the leader in the development of certified turf in Florida. Joe Konwinski started working with turf in 1945. Joe is a past president of our association and served as the Secretary-Treasurer for fourteen years. He was the Superintendent of the Lake Worth Country Club for thirteen years. Joe is currently a turf consultant and instructor of turf classes at Palm Beach Junior College. Dr. G. C. Horn is a past professor at the University of Florida and is now a statewide turf consultant. Dr. Roy Bear started his turf career in 1945. Before the current University of Florida Plantation Research Station was established the research was done by Dr. Bear in Belle Glade. He is now a turf consultant.

In 1958 there were 125 golf courses in the state. Now there is more than that total just in Palm Beach county. The growth of the turf industry has exceeded even these leaders. Now the state total of golf courses nears the 700 mark.

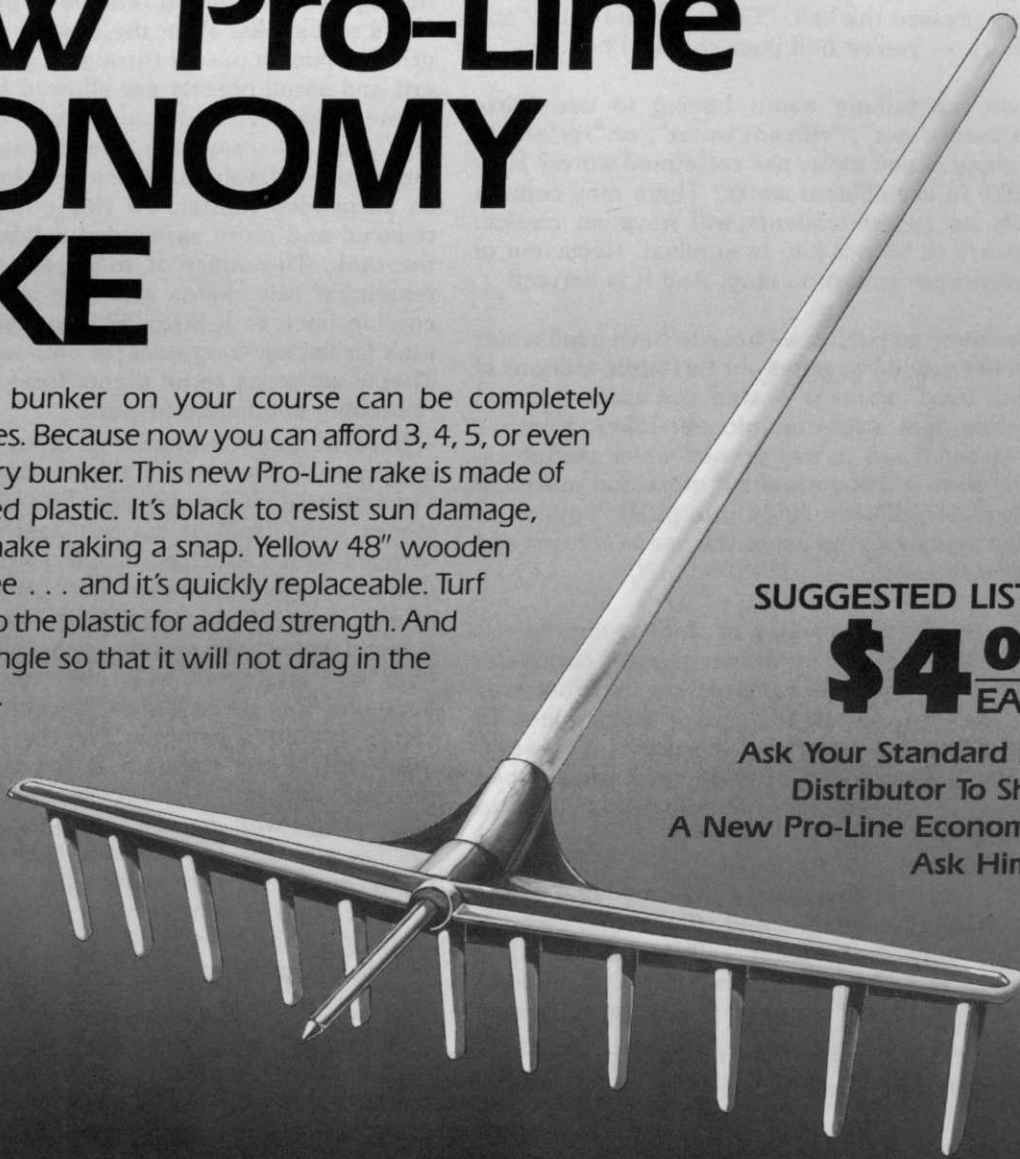
The party night was closed at the Polish Club in Lake Worth. While Ralph White was dancing alone the other seven members were planning for 1998.



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# EFFLUENT — New Water Style

By ROBERT L. SANDERS, C.G.C.S.

The superintendent stood at the golden gate. His head was bent low. He merely asked the man of fate which way he ought to go. "What have you done," St. Peter said, "to seek admittance here?" "I maintained a Country Club on earth for many and many a year." St. Peter opened wide the gate and gently pressed the bell. "Come in," he said, "and choose your harp — you've had your share of hell."

And now we are talking about having to use "dirty water", "once used water", "effluent water", or "reclaimed water". How many of you today use reclaimed water? How many would like to use effluent water? There may come a time when we, as superintendents will have no choice. Recycling appears to be our key to survival. Recycling of many of our resources is here to stay. And it is correct!

There is absolutely no reason we have to have fresh water pumped out of the ground to water our turf while millions of gallons of "once used" water is wasted and allowed to run down dry washes, into rivers or into our lakes. First we must recycle in order not to use up our water resources. Second, federal laws will soon make it more and more difficult to simply waste effluent. And third, public opinion as to ground water pumping may cause the use of effluent and this could happen to you.

In early 1976 the city of Tucson, had plans to construct a Robert Trent Jones course. The drawings were complete, land was purchased and the construction contract was signed. Public opinion caused the mayor and council to stop construction the day it started. The reason was water — the use of one million gallons per day of fresh pumped ground water and it cost the city of Tucson \$250,000 not to build the course.

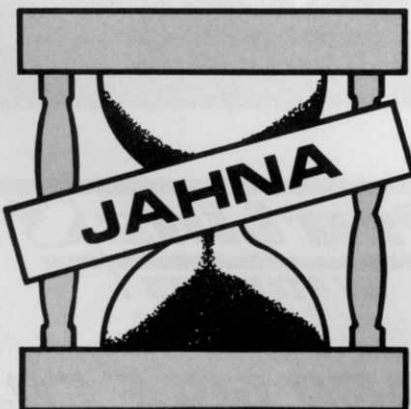
To my knowledge, golf courses are the only legal use of effluent at this time. All this talk about effluent and we have not determined exactly what effluent really is. Effluent is the liquid that comes out of a sewage treatment plant after completion of the treatment process. A sewage treatment

plant is basically a big water cleaning machine. It consists of a series of tanks, screens, filters and other devices to separate out the wastes in sewer water.

As raw sewage enters a plant for treatment, it flows through screens which remove large objects such as rags, rocks and sticks. Then the sewage passes through a huge grinder. Next it passes through a grit chamber where sand, grit and small objects are allowed to settle to the bottom. Some suspended solids also settle out here. After the grit and etc. are removed, the sewage still contains large amounts of dissolved organic and inorganic matter as well as suspended matter. At this point the speed of flow is reduced and more suspended solids sink to the bottom of the tank. This mass of solids is called raw sludge. Now remember raw sludge and how we got it because we are coming back to it later. This sludge is removed from the tank for further treatment (as with milorganite) or disposal. This is as far as some plants treat sewage and the liquid remaining is pumped for turf.

If secondary treatment is to be, there are two main methods of treatment: 1. the trickling filter process and, 2. the activated sludge process. The trickling filter is a bed of stones from three to ten feet deep over which sewage is sprayed so it can trickle down through the layers of rock. Bacteria from the sewage collects on the rocks and consumes most of the organic matter in the sewage. The cleaned water flows out through pipes at the bottom of the filter and is treated with chlorine to kill the remaining bacteria. This water is now discharged from the plant and can be utilized for plants. The activated sludge speeds up the work of the bacteria in sewage by mixing sewage, recycled sludge (full of bacteria) and huge amounts of air. The sludge with its load of bacteria is mixed with the sewage and air. The bacteria then consumes the organic matter in the mixture as it sits for several hours. Then the mixture flows to another tank where the solids are allowed to settle to the bottom. The cleaned water is chlorinated and discharged. Some sludge is activated with additional

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## Your Sand Man

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