“Weeping May Endure For A Night”  
by Virgil Robinson  
Superintendent, Burning Tree Club

The rest of the quote for the title of this article is “but joy cometh in the morning.” As many of you know, this is a direct quote from Psalms 30:5. I would like to apply this quotation to a subject that is close to my heart and very common to our profession, a subject that most superintendents never broach, that causes many sleepless nights and many bleeding ulcers. That subject: personal trials or afflictions.

As bona fide members of the human race, as golf course superintendents, we are quite willing to talk about our personal triumphs, our accomplishments, our successes. But, what about the real building blocks (a seemingly paradoxical statement) of our character, of our personhood—our failures.

Because of an experience in 1977, a “failure” if you will, and to other personal trials that are even now upon me, I believe I qualify as a specialist, an authority on the subject of failure. I make that statement out of thankfulness and humility, not regret or boastfulness. By relating that experience and what I obliquely learned, I hope to show that probably more is gained through our failures than our successes. In looking back eight years removed from that “failure” I consider it one of the most valuable experiences of my life; at the time, I was asking, not demanding, why me, Lord?

1977, of course, was my first year at Burning Tree; I had reached a personal goal of mine, a tournament course or very fine private club, fully seven years before I could even dream of such a possibility. At a beautiful club, steeped in tradition, I was going to provide the first conditioned golf course on the East coast. After three successful years at Andrews AFB that seemed to be a reasonable goal at the time.

By August of that year the golf course-tee, greens and fairways—looked as if someone had done a poor job of spraying Round-up herbicide; the only thing consistently green were the leaves on the trees and they turned brown early that year. What happened? I still do not know. When things started going down in May or June, I certainly overreacted with certain management practices but not to the extent that the course was suffering.

If the turf was suffering, I was more so. My personal pride was being ripped out of the roots. For the first time in my life I realized I did not have control over my job situation or my personal destiny. That realization is both sobering and humbling. At the time and during those four months, I slept a maximum of two hours per night—the other 4-6 hours were spent endlessly tossing and turning and worrying; I did not share any of what I was going through with anyone, not even Karen. By the end of the season I was a basket case, even though I managed to put on a good front. Within myself, I got consolation from the fact that I probably would never take my own life since I hadn’t already.

For those of you who may go through a similar experience, for those of you who may be having problems, trials or afflictions not necessarily of your own making with green chairmen, committee chairmen, or members in general, for those of you who may be having personal problems, what did I learn from ’77 that might possibly encourage you?

First of all, make certain your priorities are in line. What is most important to you? If you do not know what is most important, look to see where your time is spent; that is a pretty good barometer of your priorities. Do you pass up vacations with the family because the course would founder without you? Do you work seven days a week even though your wife would like you to visit relatives or go to church with her? Do you not participate in your children’s activities because you have to work till 6 in the evening or on Saturday morning?

For me, I learned my priorities were totally out of kilter. Because of my total personhood, who I was as an individual was tied up in my job at that time. Because my course was going under, I was going under also, as an individual. Out of 1977 came a realignment of my priorities. For me, faith in my Creator and trusting in him became numero uno, my family second, and job, third; everything else fell below each of these. This does not mean that my job is unimportant to me, that I do not give 100% that I do not care; it does mean that it is in perspective to other areas of my life that I consider important. I believe that because of this I am even more valuable to my employer now.

Secondly, if you are having difficulties, open up to others and share your problems with them. As you do, it is amazing, absolutely amazing, how many other people have had or are having similar problems. The more you open up and expose you inner being, your thoughts, your feelings, your hopes, your dreams, your prayers to others, they in turn feel the freedom to open up to you. That ten ton weight of “bricks” or “baggage” suddenly becomes five tons when shared with another. That problem does not necessarily go away but it does become manageable; it is brought into perspective.

In the “summer of ’77” I did not do this. I kept everything within. My pride would not allow me to share my problems; I was internally exploding. Death, truly, would have been a welcome relief.

Third and lastly, I feel that the “failure” eight years ago started me on the way to becoming a “people person”. Not that I have arrived in this area of my life, far from it, but I’m on the road. It behooves each of us to take the time to listen, truly listen, to what another is saying. He may be asking or crying out for our help and yet we are not really hearing his need; he may need a kind word of encouragement, a helping hand, a thank you or a please. Are we really listening?

In summing up, I would say that personal trials, afflictions and failures throughout life are going to come our way. How we choose to handle them, what we learn from them goes a long way toward our own personal happiness, contentment, and well-being. “Weeping may endure for a night, but joy cometh in the morning.”
Communication is of paramount importance to the golf course manager. The ability to communicate plans and programs to both superiors and staff many times present a challenge.

The ever-expanding world of visual aids via the use of aerial photography is a concept every Superintendent should be familiar with today. Communicating daily work plans for property covering several hundred acres to a dozen or more individuals will test the best golf course managers. Many superintendents are aware of horror stories when daily work orders were misunderstood by crew members: areas to be watered were not; areas not to be sprayed were; and in some extreme cases, wrong trees removed! Volumes could be written on this subject, some humorous; some not.

The communication challenge centers around taking ideas first conceived in our mind and which must then chronologically follow several steps to reach a point where they are finally translated into the finished product in the field. When I came to Innis Arden in 1977, we had an aerial photo of the course which, at that time, was three years old. I promptly placed it in a prominent location in the crew's quarters and began to use it in conjunction with the daily work orders. This helped in the orientation of staff members to the exact area in which they were to perform a particular task.

1983 brought many changes to Innis Arden due to the major renovation work completed under the direction of Jeff Cornish and Brian Silva. We realized that our existing aerial photo had heard of some courses outlining their irrigation system on the ground before having a new aerial photo flown. The idea sounded like a good one, and I began making plans to paint all sprinkler heads and outline all greens and fairways before having the new aerial photo taken.

Making the arrangements for a flyover under the proper conditions is easier said than done. In some ways, it is not unlike the space shots from Cape Canaveral which require a certain "launch window" or limited time frame in which the launch can proceed.

The flyover should take place at a time when the following conditions have been met:

1. The course is clean of fallen leaves and other debris.
2. There is no snow or ice cover.
3. Trees are in their dormant stage without leaves or buds which would impair visibility.
4. There are minimum shadows. Ideally, flyover should take place at high noon.
5. Clear weather conditions exist.
6. There has been adequate lead time for proper painting of the course.

In mid-March of 1985, all plans were set in motion and Keystone Aerial Photo of Philadelphia photographed the course at a cost of $550. The new aerial photo came out perfectly thanks to the careful preparation ground work done by Dave Kerr, then Assistant Superintendent and

(continued on page 53)
Mark Angerosa, our current Assistant. The scale used was one inch to eighty feet. All sprinkler heads were painted with six foot by six foot “x’s” and all perimeters of greens and fairways were outlined with broken white lines prior to the flyover. Our local power company located the underground electric lines leading to our pump house and maintenance shop and these too, were painted.

In addition to the instantly improved orientation of crew members for daily work assignments, it was obvious that additional visual aids could be made and utilized in conjunction with the photo. The idea of designing different “overlays,” incorporating various maintenance programs, proved to be invaluable. The photo was framed with wood raised somewhat higher than the actual cover glass itself. A dozen pieces of clear plexiglass were then purchased, each designed to fit precisely within the frame and over the photo. To date, the following “overlays” have been designed and are in use at our Club:

Overlay for Tree Inventory and Maintenance Record

All major trees on the course are identified on this overlay and its corresponding inventory record with a number and letter combination. The number identifies the hole on which the tree is located and the letter identifies the tree species. For example, the inventory record explains that tree “1A” on the overlay is White Oak on hole number one. It also records a complete history of all maintenance work and related costs relative to that tree.

Overlay for Wilt Areas

All areas susceptible to wilt are colored red on this overlay. This helps in the training of new irrigation personnel.

Overlay for Crabgrass and Goosegrass Areas

Areas that have been problems in the past are highlighted on this overlay which helps in targeting next year’s pre-emergence herbicide program.

Overlay for Wet and Soft Areas

Because an overly wet springtime at our sea level course can prove disasters for maintenance equipment getting stuck, in a Wet/Soft Area overlay helps new staff members avoid problem areas of this kind.

Overlay for Weed Whip Work

All weed whip areas are on their own overlay allowing summer help to quickly identify areas to be cut prior to going out to their field assignments.

These are but a few programs which we have “maintenance mapped” through the use of overlays so far. I am sure there are many other programs which would be appropriate for “maintenance mapping” and I would appreciate hearing about any new ideas you may have.

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Computers - A Must!

Jim McLoughlin, Met GCSA Executive Director
Guest Columnist

Few subjects today occupy the attention more of Golf Course Superintendents than that of computers and how they might fit into the world of golf course management. Speculation and rumor both encourage and confuse the most interested. Systems that have been recently marketed generally do not address the comprehensive needs of the golf course maintenance industry - and often lack quality control support.

The good news is that the help and answers everyone is looking for are not very far away. We can realistically expect solid products to surface within the marketplace in 1986. To be in a position to take full advantage of this coming opportunity, the Golf Course Superintendent should begin his preparations now.

The first realization that must be dealt with is that any number of hardware systems will get the job done. The key to the successful use of computer systems within the field of golf course maintenance is the quality of software programs developed specifically for this purpose.

The very real challenge of selecting one hardware system from many has been somewhat simplified within the golf industry of late. Many software writers and vendors are designating IBM hardware. For example: the USGA with its national handicap system; and Toro, Royal Coach and Rain Bird in the golf course irrigation area. Meaningful software now being considered for the golf course maintenance field will, in all probability, make a similar decision favoring IBM hardware. Theoretically, a club should find it difficult to justify the purchase of any hardware other than an integrated IBM system, or an IBM compatible system, for the reason that computer standardization is desirable within a club and the industry itself.

The American system of free enterprise, however, challenges this premise. Very sound and presently available software packages in the fields of accounting and data base management, for example, have been designed to be used with various hardware systems and are being marketed vigorously. It is not unlikely that a club could commit to a computer system for the clubhouse - without knowing that it does not readily accommodate golf course maintenance needs.

This circumstance would place the Golf Course Superintendent in the awkward position of having to justify a secondary computer system within the club for its purposes. More than likely, he would also be subject to some criticism for not alerting the club to the problem beforehand. Clearly, the Superintendent needs to become familiar with developing computer system options within the industry and to communicate this information to his club - in the very near future. It is essential that a club commit to a computer system only when it has firsthand knowledge of what specific software programs are available and which apply universally to both the clubhouse and golf course maintenance areas.

Further good news worth noting is the scope and depth with which computers will address needs of the Superintend - beyond our best expectations. Following is a brief listing of the application areas where computer system will make the Golf Course Superintendent a more informed and better manager of people, equipment, natural resources, monies and terrain: (1) word-processing for report writing and filing; (2) data base systems for storing, sorting and analyzing on-site information and data; (3) an informational network capability to share information and data with national data base operations; (4) labor hour management and ananlysis; (5) equipment inventory management and depreciation scheduling; (6) a cross-reference inventory generic versus brand name equipment parts and materials; (7) budget development, tracking and analysis; (8) chemical applications-computations, cost and effectiveness comparisons within a data base environment; (9) irrigation and pump system management; (10) graphics; (11) publication & literature inventory listings and cross referencing; (12) diagnostic inquiries and research; and (13) landscape design.

It is difficult at this time to pinpoint the anticipated cost of the computer systems that would deliver the above capabilities. Preliminary studies, however, suggest the total cost of the hardware and software system would be recoverable within a year's time - before consideration is given to the many intangible benefits that will accrue to the Superintendent and his club from computer usage. Should appropriate hardware already be positioned within a club, these costs would be significantly less.

Finally, it is suggested that the Superintendent begin now to acquire “hands-on” experience with a computer. One sure way is to acquire access to a Personal Computer through the club, or personally, with relatively inexpensive word-processing, home accounting and data base software programs. Any reasonable effort to get some golf course and personal business done on the PC will afford the Superintendent and his family a comfortable way to become computer oriented and ready for more critical tasks - in the near future.

It is important that the Golf Course Superintendent begin to take the initiative with computers soon - as developing circumstances within the golf industry expand this opportunity and offer every chance for the turfgrass manager to excel. An entire industry is preparing to take a big step forward with computers. It is imperative that the Golf Course Superintendent be prepared to join in and contribute to this advance. The alternative is obvious. The Met GCSA is ready to help its members in this regard.

Reprinted from Tee to Green.
In southeastern Florida there is a unique opportunity for students to earn a Bachelor of Science degree in Ornamental Horticulture. A new program at the IFAS Fort Lauderdale Research and Education Center has been initiated which will enable students to earn this degree without the need to relocate to Gainesville. The program is cooperative, making use of many courses already available at local colleges and universities, in addition to the horticulture course taught by the Institute of Food and Agricultural Sciences.

Area community colleges traditionally offer both Associate of Arts and Associate of Science degrees in Ornamental Horticulture. Both Curricula are designed for completion in two years. The curriculum of an Associate of Science degree provides "hands-on" training in horticulture, while the curriculum of an Associate of Arts program provides limited horticultural training but is structured to accommodate additional academic study at a university leading to a Bachelor of Science Degree.

The additional academic training needed to obtain a Bachelor of Science degree can be earned in Fort Lauderdale at the IFAS facility, in cooperation with Florida Atlantic University and Florida International University. The goal of this program is to offer all of the courses necessary to complete the requirements for a Bachelor of Science degree in Ornamental Horticulture. In this program, course work taken at Florida Atlantic University and Florida International University includes chemistry, plant physiology, physics, biology, English, and mathematics. Technical courses required for a major in Ornamental Horticulture are taken at the Ft. Lauderdale Research and Education Center.

Courses in this program are also available to individuals who wish to enroll in selected courses, but are not interested in pursuing a degree. These courses may be taken either for credit, which means that the student is tested and graded on the material covered; or audited, which means that the student is provided with all of the same information and materials, but is not required to take exams and does not receive a grade. Courses audited provide the opportunity to learn, but do not accrue college credits toward a degree. Many key people within business organizations find that auditing courses periodically through this program is a convenient way to stay abreast of the latest developments within the industry, as well as to become aware of future trends.

Several agricultural courses are currently in the curriculum at the Fort Lauderdale Research and Education Center including Cultural Factors in Ornamental Plant Production, Environmental Factors in Ornamental Crop Production, Foliage and Nursery Production Laboratory, Plant Propagation and Laboratory, Turfgrass Culture, Special Projects in Horticulture, General Soils, and Principles of Entomology. Enrollment in these courses is strong, with a high number of students employed in the horticultural industry seeking to continue their education by working toward a Bachelor of Science degree. With continued interest, additional courses will be added in the future.

Courses available in the fall 1986 semester include Environmental Factors in Ornamental Crop Production, Turfgrass Culture, General Soils, and Special Projects in Horticulture. For more information regarding the program of course availability, please contact:

Dr. Stephen Verkade, University of Florida - IFAS, Fort Lauderdale Research and Education Center, 3205 College Avenue Fort Lauderdale, Florida 33314, Phone Number: (305) 475-8990

Dr. Stephen Verkade is an Assistant Professor and coordinator of the B.S. degree program in ornamental horticulture at the Fort Lauderdale Research and Education Center, IFAS, University of Florida. His research focuses on the mycorrhizal interactions of horticultural crops.
Space Age Technology Benefits Turf Industry

By Sandra P. Carmouche

Imagine the savings in chemical expenditures if a pocket of mole crickets could be spotted before they overran a golf course. Suppose pythium could be found before its effects became visible. Consider the improvement in drainage that would be possible if the historical flow of water across a golf course was known.

Sound futuristic?

In fact, Jon Seid, of LaBelle, is currently working with golf course superintendents, using infra-red photography which is capable of producing the above results.

With a degree in Electrical Engineering, Seid has applied his knowledge in electronics to infra-red filming techniques. Photographing golf courses from a plane, he is able to determine conditions that affect turf at both surface and subsurface levels.

Seid's expertise lies not only in the specialized field of infra-red photography, but also in his ability to interpret the film he shoots.

In order to understand the difficulty of interpretation, it is necessary to understand the basic principles of infra-red photography.

An ordinary photography is a reflection of what the eye sees. Infra-red film is a picture of the reflection of infra-red rays, something which human vision is unable to detect.

In plants, the infra-red rays are reflected by the chlorophyll during the process of photosynthesis. As Seid explains, "Chlorophyll is the blood of the plant. When anything occurs in a plant, whether it is nematodes, a freeze, or a pathogen, the first thing affected is the chlorophyll. There will be a change in the reflectance and only experience can tell you what that change is and what's causing it.

Seid's fascination with the field was acquired during the Korean War when he was attached to Strategic Reconnaissance in the Strategic Air Command as a flight crew member.

Since the war, he has worked extensively throughout the Midwest and California with many universities and state and federal agencies as a private business, photographing as much as 50,000 acres of farmland a week and diagnosing the diseases and infestations that affect agricultural crops.

More recently, he has worked with the Institute of Food and Agricultural Services, an extension of the University of Florida, in detecting citrus canker.

Seid's interest in golf courses came about when he was approached by Cary Lewis, Director of Golf Course Operations for the Vintage and Fiddleticks in Fort Myers.

Lewis had been in LaBelle when he overheard a group of farmers talking about the photographs Seid had been taking of their crops. He questioned the farmers and was given Seid's name, whom he contacted for more information.

After speaking with Seid, Lewis had him fly over and film the Vintage and Fiddleticks.

The results, according to Lewis, were impressive.

"It gave me a feeling of confidence," said Lewis, with regard to problem areas on the courses that he knew existed, but were hard to define to members.

He presented the film at a greens committee meeting and added, "It's an easy way to justify your chemical and fertilizer expenditures."

(continued on page 57)
The photographs also picked up drainage problems, diseased pine trees, and bad sprinkler heads.

To date, Seid has also filmed Hole-in-the-Wall, Royal Poinciana, and Lely in Naples.

At Hole-in-the-Wall, he was able to help Buddy Carmouche, the superintendent, with drainage problems.

According to Carmouche, "I had an area where the drainage system was developed to be consistent with the slope of the land, but that wasn't working. This spot was always wet. Then John showed me that the water underground flowed in a direction opposite to the slope. So I redesigned the drainage in that area to be compatible with the underground water flow and that took care of the problem. In fact, a member told me this is the first time he's seen that area dry in 30 years.

Clint Smallridge at Royal Poinciana had a different problem. "This course is inundated with Brazilian Peppers. I needed a way to monitor them for removal...to get an idea of how many there were and which areas to attack."

In addition to pinpointing the Brazilian Peppers, Seid's photographs picked up underground rock formations and located spots where drainage was needed. "It saved me hundreds of hours," said Smallridge, who is also convinced that infra-red film is useful as a diagnostic aid in determining areas of turf that are under stress.

At Lely, Dan Hall is in the process of building two courses. "I wouldn't attempt to do this without infra-red," he says.

Because Hall contracts his services for maintenance and construction at Lely, cost-effectiveness is a top priority. Guesswork is eliminated in designing the irrigation and drainage systems since the photographs locate underground rock formations and water flow.

Hall was aware of the benefits offered by infra-red photography because he had seen it work in World War II. At that time, he was in the Marine Corps and helped to build a golf course on Paris Island. Because the golf course was being built on swampland, infra-red was used to distinguish salt water areas from fresh water areas.

Seid acknowledges that his services, "don't eliminate the superintendent from going out and doing his job. It allows him to utilize his time more effectively." He adds, "The whole success of this program is based on a cross-feed of the photographs and the land conditions."

(continued on page 58)
information. The superintendent has to take the time to sit down and talk with me about the film."

It is also important to note here that, although Seid is able to pick out areas of turf that are under stress, he cannot at this point, determine its specific cause.

The reason for this is simple. Seid has only recently begun working with golf courses and is not wholly familiar with the pattern that diseases and infestations make.

For example, Seid states, "I can spot nematodes in tomatoes. But nematodes look different in grass than they do in tomatoes, and they look different in citrus. In fact, the patterns will change from here to Orlando because the soils are different.

He is convinced, though, and so are many of the area superintendents, that very soon he'll be able to diagnose nematodes and mole crickets from a photograph. "Once I see what these things look like on film, then I'll know what to look for in the future. There's no question in my mind that I can, for instance, find a spot of pythium."

Even more exciting is Seid's hope of being able to prognosticate diseases and infestations. "I want to emphasize that this has not been documented," says Seid, "but it has been my experience that over 95% of the time, where we find insects or the movement of pathogens, they were prefaced by a former stress. For that reason, we can forecast which area will be attacked."

Since he must have a series of photographs before he can determine what changes are taking place in the turf, Seid has decided, after speaking with superintendents, that four photographing sessions per year would be the ideal.

"If you know the time of year that nematodes are going to come in and I have a history to go by, then I can predict where those rascals are going to show. I've done it in agriculture."

With the ever-increasing costs of chemicals and fertilizers, the financial savings for golf courses could be enormous. Less time and effort would be needed while the quality of turf would be improved.

The possibilities are limitless and, many superintendents believe, services like John Seid's are the wave of the future.

"A man is always stronger while he is making a reputation than after it is made."

— Josh Billings

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“Love what you do!” This, according to golf course superintendent Mark Black, is the most essential ingredient for success.

The simple philosophy has paid off for Black, who began his third year as a golf course superintendent in February of this year.

Bonita Bay, the 18-hole championship golf course that he maintains, was ranked 19th in the annual “Florida’s 50 Best” by Florida Golweek magazine. This is exceptionally noteworthy because the course was less than one year old.

Since it received the highest ranking among first-year courses in 1985, Bonita Bay’s golf course architect, Art Hills, was awarded “Architect of the Year” by Florida Golweek.

These are impressive achievements for a superintendent who discovered the profession “completely by accident”.

“My original intention was to go to the University of Florida and get a degree in Ornamental Horticulture,” says Black, a native of Lake Wales, Florida. “I had five years experience in the nursery business which led me in that direction.”

“In 1975 I moved to Orlando,” he continued. “I was looking for work when I drove past a sign that said Arnold Palmer’s Bay Hill Club. I didn’t think they needed any help, but I turned around, went in and got a job with the golf course maintenance staff. And I just fell in love with it.”

A year later, Black went on to receive his Associate of Science degree from Lake City Community College where he majored in Golf Course Operations. In 1980 he landed his first position as assistant superintendent for Dan Hall at Imperial Golf Club in Naples.

“I was very fortunate, being so new in the business, to get a job with Dan,” he remarked. “He is a very knowledgeable man.”

Black spent four years at Imperial before accepting his present position at Bonita Bay.

“It’s very ironic. At one time I entertained thoughts of moving back to Lake Wales. This piece of property (Bonita Bay) reminds me very much of that area.”

Located in Bonita Springs, midway between Naples and Fort Myers along U.S. 41, the Bonita Bay community encompasses a unique variety of topographical features. Pine ridges, reminiscent of those found in north and central Florida, give way to marshlands and soughs as the property slopes from 13 to two feet above sea level.

Three separate bodies of water border the project; Spring (continued on page 61)