

Unique design innovations combined with proven components give the LESCO 300 Greensmower and the LESCO 500 Fairway Mower the edge on tournament quality mowing.



- Rear wheel power steering.
- Automotive-style steering wheel.



- Back lapping while the cutting units are on the mower.
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Optional Thin-Cut Attachments

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- Groom greens as a part of the mowing operation.

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Extra Power

• Kohler Magnum, 18-H.P., 4-cycle, twincylinder, air-cooled, gasoline engine.

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- 9-gallon gasoline tank.
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Tournament Quality Cutting

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- · Large, lightweight grass catchers for

LESCO 500

Fairway Mower

Extra Power

- Onan, 24-H.P., 4-cycle, twin-cylinder, air-cooled, gasoline engine.
- · Diesel option available.

Minimal Compaction

- The only true lightweight fairway mower.
- Virtually eliminates scuffing or tearing of turf.

Excellent Traction

- Full hydraulic power to all three wheels.
- Unique, operator-controlled posi-traction prevents slippage while mowing slopes.

Tournament Quality Cutting

- · Five articulated cutting units.
- · Large, lightweight grass catchers for clippings.

Optional LESCO Thin-Cut Attachments to groom turf.



The LESCO 300 Greensmower and the LESCO 500 Fairway Mower are the new standards for tournament quality mowing. We'll prove it. Call us toll free to order or arrange a demonstration at your course. (800) 321-5325.



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THE FLORIDA GREEN

Summer 1988



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The Florida Green

The Official Bulletin of the Florida Golf Course Superintendents Association 1760 N.W. Pine Lake Dr. Stuart, FL 34994

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Presidents Message

REMEMBER - The boy scouts' motto - "Be Prepared"? As the hurricane season approaches, we as golf course superintendents and turf grass managers should be prepared. Prepared for the worst.

Unless you have actually been in a major hurricane, tornado, flood; witnessed the results of death and injury from lightning damage, or been in combat, it's hard to visualize the actual chain of events that happen, usually very quickly, and how you or other people around you will react.

Having experienced all of the above situations as a participant, I have great respect for the acts of mother nature. I'm also a strong believer in the motto "be prepared".

You can be prepared for almost any situation with some forethought in setting goals and realistic objectives for what you wish to accomplish.

In 1946 upon graduation from high school I enlisted in the United States Marine Corps. Almost all the young men and some young ladies joined various military services at that time. They didn't have to, but at that time in history we considered love of country and patriotism extremely important.

Looking back as I know many of my peers do that served in the military services, we were in most cases well prepared. I spent 16 weeks at Paris Island, So. Carolina in boot camp. I didn't always enjoy it but we were prepared. We even had training in hurricane preparations and procedures. From boot camp to Camp Pendleton Ca. and six weeks of advanced combat training and raider training at the conclusion of which we considered ourselves well prepared and had received the best possible training in the world available at that time. Most of this training was done by truly qualified professional N.C.O's. and "mustangs" those officers who rose thru the ranks, their advancement by being there and were recognized and promoted on merit and leadership abilities.

After two years of service, travel, training and more training, it was back home and off to college for more training and education.

I was fortunate to go to the Stockbridge School of Agriculture at the University of Massachusetts. When Professor L.S. Dickinson was actively teaching and training men for the future demands of golf course maintenance work, he often brought leaders of the profession to the class room to provide lectures and training to his students. The early conferences at the cage I'm sure are remembered by many who attended those early turf conferences. Geofrey Cornish was an instructor working towards his master's degree at that time.

In 1950 I was recalled to active duty in the Korean conflict. Eleven months later I was back in school for more training and education.

Enough about me, I only used my own experiences to emphasize my reasons for being prepared and a strong supporter for training. Training before the fact as it relates to almost everything we do. In the case of hurricanes -there is no valid reason not to be prepared as so much advance warnings are communicated to the public as are numerous excellent procedures as to what to do before, during and after the hurricane.

Surprisingly, though, too many people will ignore all of the above until the last moment.

I've been fortunate throughout my career as a golf superintendent to have worked at corporate owned or private country clubs that were highly safety oriented as relates to all their facilities and especially the club's number one asset, their employees. In all cases these corporations and clubs had safety committees made up of all levels of employees, line employees and top types of management to witness that good policy starts at the bottom where involved employees know what is actually going on.

I consider being on a safety committee an opportunity to learn, to share ideas, to work with and get to know your peers' concerns. Sharing experiences and knowledge prevents accidents and trains people how to react if an accident should occur.

If by chance you don't have a hurricane procedure plan call me or write our office and a plan will be forthcoming. Don't take a chance - be prepared.

Dick Blake

President, FL GCSA

Luck Blake



The 18th hole, Harbour Town Golf Links, Sea Pines Plantation, site of the MCI Heritage Classic.

This course was ready for the demands of the tournament.

It was overseeded with MARVELGREEN !!

A Marvelgreen overseeding blend was chosen by Superintendent Gary Wilder at this Hilton Head resort. He chose Marvelgreen for several reasons: It germinates quickly to provide an early cover of fine-leafed, dense, fairway turf. And on the greens, Marvelgreen promises a smooth, grain-free putting surface. It looks great

throughout the winter season, and provides an easy spring transition.

Marvelgreen blends contain just the right amount of the leading turf-type ryegrass varieties: Palmer, Prelude, and Yorktown II. Marvelgreen is used at some of the most prestigious courses in the country. And it performs long after the game is over.



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Letters to the Editor

Dear Ms. Jones:

I enjoyed reading your article titled "Bentgrass 101" in the winter edition of "The Florida Green." As a worldwide producer and marketer of many different bentgrasses, I found your story both educational and informative.

However, I would like to bring to your attention an oversight in your story. In your paragraph on redtop, you stated the use of redtop has declined. Quite to the contrary, redtop usage has increased substantially, with prices higher than they have ever been in previous years.

You also stated that few cultivars have been developed and none are commercially available. This is incorrect. We market a variety called "Streaker" redtop which is an improved redtop sold only as certified seed. A great number of additional acres are planted each year trying to meet the continued high demand. Streaker is primarily used in erosion, pasture and revegetation sites. However, the increased demand for Streaker has become prevalent in the Southern overseeding market (primarily Florida) where Streaker is used in overseeding dormant bermudagrass on golf course putting greens.

I would be happy to have an article authored by Dr. Doug Brede, formerly with Oklahoma State University, and currently Research Director, Jacklin Seed Company, for your publication. This article would include performance data and pictures of Streaker redtop in turf situations.

If I can be of further assistance in providing you with a redtop article, please don't hesitate to call.

Thank you for your time and interest in this matter.

Very truly yours,

Gayle Jacklin-Ward Jacklin Seed Company Dear Irene:

The funeral message wasn't in manuscript form before I delivered it, and we failed to tape it! So, the article was written from my memory of what I had said and I'm sure it wasn't exactly the same as the sermon preached from the pulpit.

Bill was the kind of person about whom you could say so many good things, so, for the funeral I had written down a few thoughts and elaborated on them.

Tell Dan hello.

Sincerely,

Bob Case, Minister The First United Methodist Church of Jupiter - Tequesta

Dear Dan:

Enclosed is an announcement for our Texas Turfgrass Field Day scheduled for August 10, 1988 at the Dallas Center. Please place the announcement in Florida Green or list the field day and date in the announcements for upcoming meetings.

I hope you will be able to schedule a trip to Dallas for our field day and I look forward to seeing you.

Your assistance is appreciated.

Sincerely,

James A. Reinert Resident Director of Research and Professor of Entomology

Dear Dan:

Just a quick note to thank you for your help at the Prayer Breakfast. The scriptures were good! From some of the comments I heard I think it went well. We'll be starting on next year's program soon, hope we can fit things together soon enough for the "Florida Green" this year. My regards to your family.

The Lord's peace to you.

John Ebel GCS Christian Prayer Breakfast Committee Dear Dan:

Thank you for The Florida Green. It could not have arrived at a better time. As I mentioned previously the growing conditions in the Emirates are similar to Florida. Discussions were in progress about the possibility of using Bentgrass for overseeding. The material in this issue gave the people here a much better understanding of the complexity of the overseeding operation.

The reading material enclosed, regarding my Club, might be of interest to you. Again, thank you for the magazine.

Yours truly,

Kerry W. Son Golf Course Superintendent Emirates Golf Club Dubai, United Arab

Dear Dan:

Enclosed please find results from an overseeding trial conducted by Dr. Dudeck. I thought you might be interested in seeing these results.

You may want to include a portion of it in your next issue of Florida Green.

Sincerely,

LOFTS INC.

Dr. Richard Hurley Vice President Director of Research & Agronomy

EDITOR'S NOTE

We are printing the article submitted by Dr. Richard Hurley and Gayle Jacklin-Ward on comparison of Overseeded Grasses for Putting Greens. The article can be found on page 70.



Do your sand traps look more like the Sahara Desert?

If they do, then you need the Smithco Super Rake,™ the most advanced sand trap raking system on the market today. The Super Rake features an exclusive adjustable hydraulic floating rake which actually follows the trap contours

resulting in a perfectly raked trap everytime.

The Super Rake has a 3-wheel drive system with hydraulic motors on each wheel. So you get all the power you need. And the unique attachments make sure you have the equipment you need to get every job done quickly, efficiently and economically. Attachments like an independent cultivator, disc edger, front mounted plow and drag mat. And for golf courses with less severe traps, the Smithco Easy Rider is an effective mechanical drive rake at an economical price. Exclusive 2-year warranty. No one offers a 2-year warranty except Smithco and DeBRA. It's just one more reason why you should consider the Smithco Super Rake.

So don't get trapped by inferior sand trap equipment. Get the Smithco Super Rake. And smooth out your wild deserts.



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"Run For Your Life"

by MIKE BAILEY
The Falls Country Club

OW many times in your life has 'Good Ol' Mother Nature' given you a real scare?

I distinctly remember a few.

Take this past summer, while vacationing in Bermuda, Hurricane Emily rudely blew through. She was packed with winds in excess of 120 mph! The eye actually passed over our seaside cottage. My wife Jenny, realized I was scared when I began to frantically pace the floor, while the wind was ripping off the cement tile roof above our heads. The damage was incredible. The sheer wind force distorted our wall mounted air conditioner into a parrellelogram. Roofs were destroyed. Trees uprooted. Downed power poles. No telephone. No electric. No water.

Yes, we're having fun now.

Thankfully, the beaches were great. I found a filling station operating on a generator and we motored throughout the island on our little red moped. A vacation that we'll remember forever.

We were very fortunate to be unharmed. The reality of a hurricane is often difficult to comprehend. The most impressive event during a hurricane is to experience the passing of the eye, the actual center of a hurricane. For a duration of twenty minutes, an eerie calm exists. The curious then venture out to access the damage, when all of a sudden. in a matter of only three minutes the back side of the hurricane comes blasting through, at a complete 1800 opposite direction. That's right, I was down at the beach, taking incredible pictures, when I ran for my life, dashing back to our cottage, until all was safe again.

More fearful than a hurricane, can be lightning, a phenomenon that can be totally unpredictable and occur without a moment's notice. I have experienced two lightning strikes that I shall never forget and perhaps more frightening than a hurricane.

Once, while playing golf with my brother David, just as he was taking a practice swing, I witnessed a zigzag white bolt of light come piercing down from a cloud, at a distance of only 200 feet away. A sharp, crackling sound cut the air and a puff of grev smoke appeared just above a nearby tree. We knew that was a close one. I remember just as David was going into his backswing when the bolt of lightning struck, David let go of the golf club and it whirled into the air, much like a thrown club. In reality, holding such a metallic device, your instinct is to immediately release the club. After the club came to rest, all four members of our group looked at each other, and without even saying one word, we jumped into our carts and headed back to the clubhouse. I don't think we even picked up our golf balls.

Being involved with the construction of the new Falls Country Club in Lake Worth, Florida from conception, I would like to share our input on the design and construction of quality rainshelters and restrooms. Being a private club, equity member owned from the very beginning, it has been the goal to construct high quality, safe and durable rainshelters and restrooms on the golf course, that will last for many years to come.

All too often, I tour courses with restrooms that appear too small, poor quality of materials and generally inadequate for the members' needs.

The following criteria was impleented for what we believe will provide excellent service and durability for many years to come, yet at a realistic cost of construction.

Only to my amazement, within the next year, I too would experience such a feeling. One summer afternoon, I was taking soil probes on the practice putting green. A rain shower passed overhead, so I casually walked over to the clubhouse to stay dry. I was resting underneath the roof overhang, when all of a

sudden, a lightning bolt struck. It occured so fast, I'm not exactly sure what happened. Within a split second, a white flash appeared. I was holding the soil probe in my right hand. I could feel a sharp tingle in my arm and hand. Without even thinking, I screamed and flung my arm upwards to throw the probe away. It scared me so, that my reflexes responded to get rid of the device as quick as possible. Soon afterwards, I settled down to realize the tingle in my hand was a result of the static electricity in the air.

- 1. Location is important: Structures should be located in remote corners of the project in order to provide protection where otherwise, you would be left out in the open.
- 2. Never play more than two holes without available shelters: Because of the physical layout of the project, 2 restrooms and 2 rainshelters were required, not to mention seeking available safety at the clubhouse maintenance building.
- 3. Easy accessibility and visibility: Structures are located between greens and the next tee along with paved cart paths therefore access and known locations are acknowledged.
- 4. Large enough to accommodate nearby golfers; all structures can house at least six (6) foursomes.
- 5. Constructed of cement block and concrete: Long lasting materials will provide far superior to wood.
- 6. Cement stucco finish: to provide excellent appearance along with ability to rinse down with garden hose for easy maintenance.
- 7. Epoxy coated paint: Far superior durability. Epoxy painted surface applied to walls (both interior and exterior), ceilings and floor.
- 8. Metal doors and frames: Most durable. Steel frames makes doors

Continued on p. 14

NO OTHER PLAYER APPROACHES THE GREEN WITH AS MUCH SKILL OR EXPERIENCE.

And nobody matches Jacobsen greens mowers for precision cut, balance or durability.

Over 65 years of powered greens care experience and innovation make Jacobsen walk-behind greens mowers the industry's standard. And they keep getting better.

The new front roller and no-rust aluminum drive roller are precisely machined to ensure mowing accuracy. With the recognized superiority of the Jacobsen designed reel and bedknife combination, this system delivers the smoothest, truest cut, down to 3/32".

And only Jacobsen uses a 2-cycle engine for longer

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life, less maintenance and reduced vibration. This smoother running engine is positioned for side-to-side, fore-and-aft balance, for the most precise cut possible.

Choose the 22" unit for the finest tournament-quality cut. Or select the 19" Championship greens mower for an

unmatched cut on highly undulating greens. Attach the exclusive Turf Groomer™ for faster, truer. healthier greens.

Team either Jacobsen greens mower with the Turf Groomer greens conditioner for the finest greens grooming system available.

Proven on tournament-play courses across the country, this system increases putting speeds up to 20% without lowering your height of cut. And it cuts those horizontal grasses and surface runners other mowers miss, to reduce grain. For healthier, better

> looking greens. Greater uniformity from green to green. And truer putting.

Ask your Jacobsen distributor for a free demonstration. Attractive lease and finance plans available. Or contact: Jacobsen Division of Textron Inc., Racine, WI 53403.

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19" Championship model

Continued from p. 12

virtually indestructable for years of maintenance free service.

- Automatic spring loaded door hinges: Provides doors to close automatically in order to keep insects outside providing a cleaner environment.
- Skylights in ceilings: Provides adequate interior light, even on cloudy days, to reduce needs for interior electrical lighting.
- Spring loaded timer light switches:
 If lights are desired, timer automatically shuts off within 15 minutes.
- 12. Employee Restroom: This sole factor alone can pay for itself within two years eliminating the inconvenience of employees tracking back to the maintenance building.
 - Another benefit: Employees using their own restroom can virtually reduce the liability of causing a disturbance for the member's restroom.
- Urinal and toilet in Employee Restroom: This can create a far superior cleaner environment.
- 14. Concave floors with drains: Interior drains allow for hosing down of

- of interior for easy maintenance.
- Hose bib and hose rack: Provides ability to water down and clean interiors.
- Men's restroom with both urinal and toilet: Creates a cleaner environment, along with ability for usage of two members at one time.
- 17. Ladies' restroom with two toilets:
 This allows for two laides to use restroom at one tome, which can greatly speed up play.
- Counter top at sink: This allows ladies to set purse next to sink for make-up etc.
- Cement tile roof:Provides long lasting durability, less maintenance and a structurally sound roof for added protection.
- Exterior sidewalks: around all four sides of building, allows golfers to seek protection on opposite side of strong blowing wind and rain.
- 21. Concrete pillars: Excellent structural strength. No wood here.
- 22. Wall recessed for water cooler: Wall mounted unit recessed away from

- cart path travel eliminates potential of cart ripping water cooler off the wall.
- Emergency Telephones: A must! Communications can literally save a life.
- 24. And last but not least Lightning Rods! Another must for all rainshelters and restrooms. There are no short cuts here. Proper length of lightning rods, routing cable and ground rods along with properly secured clamps can literally be the most important item of all.

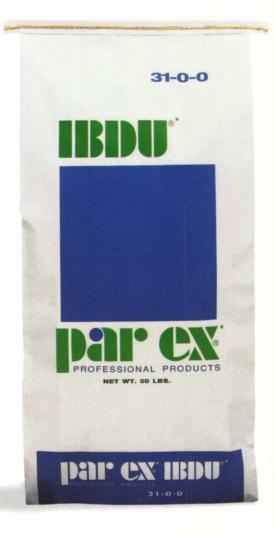
Perhaps you might consider these options extravagant. Perhaps you might elect to modify a few of the options. I already have received criticism. The structures are too large. There is too much cement. They are too expensive.

I can guarantee this.

Someday, if you ever have your hair stand on end, goose bumps tingle from you head to your toes and the lightning bolt is so loud and bright, you literally scream for safety, you'll be glad to seek a safe rainshelter, because a good restroom or rainshelter has no price tag - if it saves your life.



Think Of Us As Turf Insurance.



We pack peace of mind into every pound of Par Ex.[®] And we call it IBDU.[®] It's pure nitrogen and it's 100% available to your turf in the space of a single growing season.

You're in charge.

Ordinary slow release nitrogens are temperature activated. They depend on bacterial activity or coating thickness or other factors which are out of your control. When activated by hydrolysis, nitrogen from IBDU becomes available to your turf. Normal soil moisture is all you need; excessive moisture will not adversely affect IBDU's performance.

Nitrogen efficiency - the IBDU key to quality turf.

A nitrogen source is efficient if most of the applied N is absorbed by the plant and not lost in the environment by leaching past the root system, volatilization, or other factors. Studies have shown that IBDU trickles slowly

past the root system, increasing total N uptake over time, resulting in better nutrient efficiency and less nitrate pollution of ground water when compared to soluble N sources.

Late season fertilization - the IBDU advantage.

Studies have shown IBDU to be a superior slow-release nitrogen source for producing excellent turf in the spring, after application the previous fall on cool season grasses. IBDU is also superior on over-seeded Bermudagrass in southern areas.

Sure, you can buy cheaper fertilizer. But run into a turf problem or two, then check your costs. There's a good chance they'll be rising as fast as your blood pressure. So why take the risk when,

for a few pennies more, you can take control with IBDU.



The Ryan Touch.



Quality equipment for outstanding results.

Combine your turf care expertise with Ryan turf care equipment, and it's a little like working magic on your course. Our complete line comes with a long history of low-maintenance and high performance. In fact, the only one who works harder to keep your turf looking good season after season...is you.

The new Greensaire® 24 is the latest example.

No other aerator on the market

lets you do the job as effectively with less maintenance for as many years as the new Greensaire 24. Only with its crank and cam action do tines go vertically in and out to virtually eliminate side compaction and a ridge around each hole. The result is a smoother putting surface and better root development.

Seals, shafts, and slide and guide bearings have been improved to give you at least three times the normal operating life. Push rod bearings are now internally selflubricated to eliminate grease fittings and routine maintenance. So, you'll reduce your downtime while saving service time between the greens — getting golfers back on the course quickly.

Ryan tackles the big jobs, too.

The Ryan Renovaire® is the only proven tractor-drawn aerator on the market that has full floating action to completely follow the contour of the land. Each pair of tine wheels is independently mounted. High spots, as well as low spots, get deep, even penetration over a six-



foot swath at speeds up to 10 mph. Add weight trays which can carry up to 200 pounds each, and you'll get maximum penetration in even the most heavily compacted areas.

The Renovaire will adapt to various soil conditions by doubling the tines, or by changing tines: coring tines for regular soil, slicing tines for drier soil, and open spoon tines for areas needing renovation. So, you can use your Renovaire throughout the year, and take the Ryan touch to every part of your golf course.

A full line of Ryan reliability.

The Ryan line of dependable, work-proven performers also includes the Greensaire 16; the durable Jr. Sod Cutter; the Ren-O-Thin® III and IV with interchangeable reels, perfect for breaking up cores and dethatching greens and tees; and the Mataway® heavy-duty power rake, now with an Overseeder, lets you dethatch or deep slice, overseed, or do both at the same time. All are designed to provide years of heavy use with few repairs. All are backed by a name

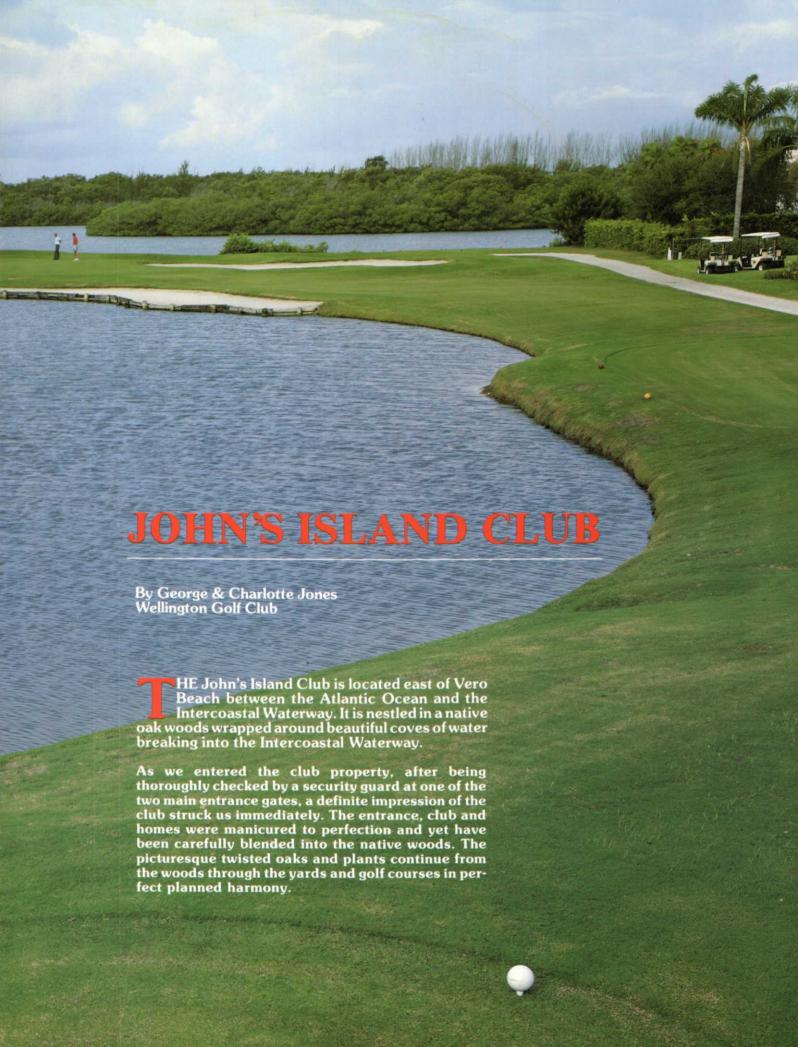
synonymous with great golf course maintenance.

Ryan. The company that's been bringing out the best in golf course superintendents around the world for over 30 years.

For more information or a free demonstration of the Ryan Touch on your golf course, contact the Ryan dealer nearest you today. Or call toll-free: 1-800-228-4444.

BUILT TO LAST





The John's Island Club is directed by General Manager, Trevor Wright. The Club Professional is David Marad, the Golf Course Manager is Tim Hiers, and the Greens Committee Chairman is Bud Morrison. There are three courses available to the private membership. The original North and South Courses and the newly opened West Course.

The North and South Courses were designed by Pete Dye. The North Course has Tifdwarf Bermuda greens and the South Course has 328 Bermuda greens. Both courses have 419 Bermuda fairways. During winter the greens on both courses are overseeded with Bent grass.

As we traveled the courses we noticed many wild birds, including a large hawk sitting on top of a tall tree and screeching perhaps a warning or mating call. Tim Hiers said he would like to continue to improve the natural areas, irrigation, drainage, and cart paths. Especially the drainage since both courses are only a few feet above water level.

To keep the North and South Courses in top shape there is a crew of 29 headed by Superintendent Chuck Calhoun. His assistant is Chuck Green, Foreman is Tim Noland and Head Mechanic is Pete Luedtke. The maintenance area is well organized, very clean, and safety markings and equipment are ample.

The new John's Island West Course is actually an extension of the original club. It is located about five miles northwest and has its own clubhouse, maintenance, and driving range. But it has no homesites and is for the use of the east club and its members.

The first impression is that the terrain is like Jupiter Hills. The course has its own identity though and has up to 60' elevation according to Tim. The architect is Tom Fazio and the shaping was done by Tom Fazio's group and Central Florida Turf. Central Florida Turf also did the irrigation. The greens are, Tifdwarf Bermuda overseeded with Bent grass. The fairways are 419 Bermuda.

Al Batog was the project manager overseeing the construction of the golf course.

The course is in a 215 acre plot that is very hilly and placed very carefully to leave the woods and native foliage undisturbed. There are only three buildings in this large site: the clubhouse, maintenance area and a small house-like pump station.

Continued on p. 22



West Course, Hole No. 15, Par 4 looking from green to tee.

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Continued from p. 20

Tim pointed out large stands of trees that have been left untouched where wild life can flourish. He noted there are many native plants and trees growing here that are unseen in other developed areas, and the wildlife is plentiful. As we looked around we noticed the lack of undesirable trees such as Brazilian Pepper, Australian Pine and Melaleuca. All of which have been introduced in Florida and have smothered out many native plants and animals in other areas.

Because of the terrain, much of the rough areas are large bunkers of sand ranging up to 30 ft. in depth. The sand ranges in color from golden orange to gold to Ortona white around the greens and puts outstanding emphasis on the beauty of the native land.

There are 20,000 linear ft. of concrete cart paths, but because of the unique design, the only path you see is the few feet you're on. The fairways capture the



L. to R. Jay Gratton, Tim Hiers and Chuck Calhoun

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beauty of the natural hills and pitfalls and make the course a challenge for even the best players. The driving range tee is the largest we have ever seen on a private course. It is divided into three long tears on a hillside. This makes it much easier to control the tee area so maintenance can be accomplished.

The irrigation is complete and absolutely controlled. Woods areas are not watered, even if they jut into the fairway or lay between tees. One green is down in a crevice and yet has good natural drainage.

The maintenance facility was designed by Hod De-Hays and is extremely modern and functional. Tim said they took many of the best ideas from other courses and implemented them.

The Golf Professional for the West Course is Greg Kelly and the Superintendent is Jay Gratton. A crew of 15 maintains this fine course.

Tim Hiers stated that because of the unique terrain and the outstanding course that Tom Fazio has carefully designed into it, he hopes in the future superintendents can perhaps meet here and experience this superb golf course.

As we left John's Island, we had a good feeling. The knowledge that the people at John's Island are living the good life and keeping their environment natural and undisturbed around them. Man and nature in harmony.

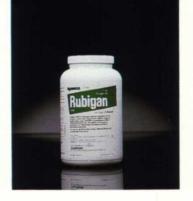
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BEHIND THE GREENS

Tim Hiers, Golf Course Manager John's Island Club

By George & Charlotte Jones
Wellington Golf Club



Charlotte Jones pauses while writing an article as Tim talks to Dan Jones to decide which of his profiles would be best for a picture.



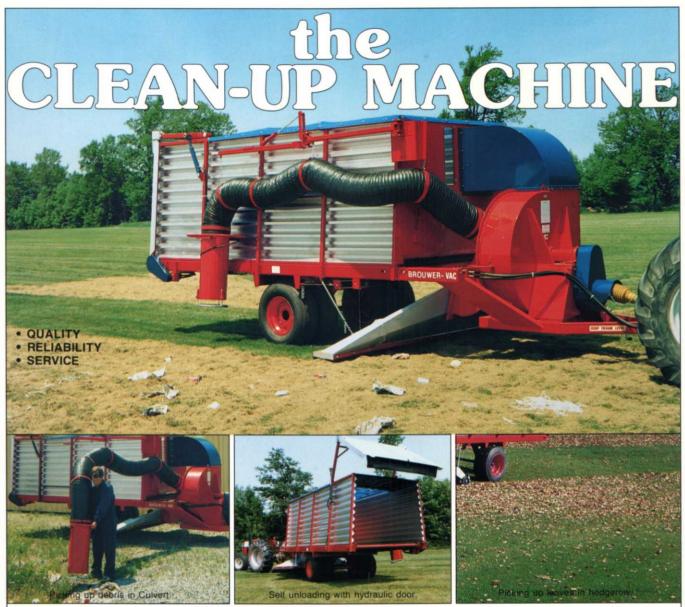
L. to R. Greg Kelly - Pro West, Trevor Wright - General Manager, Al Batog -Project Manager for construction of golf course, Tim Hiers - Golf Course Manager, Bud Morrison - Greens Committee Chairman.

FTER talking with Tim Hiers for a while you can tell there is no other place he would rather be than at John's Island Club. As he completes his third year he says, "I feel lucky! The attitude of the membership and management is that they want to do things the best they can and give 100% cooperation and make it easy to do the job."

The image one perceives of Tim is that he could have been a prominent attorney or an executive of a large corporation such as I.B.M. He treats his job with the same professionalism, respect, and attention to detail.

Let's back up and start at Tim's beginning. He was born in Macon, Georgia. The family moved to New Smyrna Beach, Florida in 1960. His father was a Junior High School Coach and encouraged Tim's interest in the game of golf. In High School, he played on the golf team and became good enough to become a scratch golfer. With high hopes of becoming a pro, he went to Daytona Community College on a two year scholarship majoring in business. After the two years at Daytona he realized he was not quite good enough to play on the University of Georgia golf team and become a pro. So, he opted to go to Lake City Community College and stay with his love of golf by learning to be a golf course superintendent. A choice he has never regretted.

Continued on p. 26



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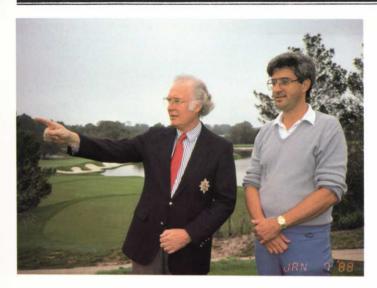
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Tim discusses operation of Golf Course with General Manager Trevor Wright.

Continued from p. 24

Tim graduated from Lake City in 1976, and became superintendent at Sun Tree Golf Course in Melbourne, Florida, September 13, 1976 at 22 years of age. During his five years at Sun Tree he hosted the Crowfoot Open twice and gained much experience. Tim enjoyed his job and was active in many organizations and at one particular time was President of the State Association, Vice President of the Central Florida Chapter, Chairman of the Crowfoot open, Chairman of the Florida Turf Grass Scholarship and Research Golf Tournament, on the Board of Directors for the Florida Turf Grass Association and belonged to the Optimist Club. Tim stated: "Being single I was able to spend a lot of time in association activities."

In July 1981 he joined the staff at Quail Ridge Country Club and was there for about four years. He became very busy improving and making changes in their two golf courses. Tim married Angie two months after he joined Quail Ridge. Just before leaving to go to John's Island their Daughter Ashley was born on March 3, 1985 and weighed almost ten pounds. Now they were a family of three.

Their move to Vero Beach brought them closer to their families. Tim states, "We love living here. There is no other place we would rather be. The school system is excellent. Although the community is growing, regulations are fairly strict. It's a little bit of what Florida used to be like." Another influence on his accepting the position was John's Island Club's plan to build a new golf course.

Tim's hobby as all his friends know, is trains. His love for trains started as a baby in Georgia. His family lived near a train depot and his father would take him to watch them. Many hours were spent this way and the fascination stayed with him. The tradition is being passed on to his daughter Ashley as he takes her to watch the trains. On one occasion Tim remembers taking Dan Jones to one of his favorite places in Boynton Beach. They talked to the engineer and watched as he operated a train with three engines and 201 cars. The engineer was having trouble getting the train moving because he was under horse-power. The wheels were spinning on the third engine and sparks were flying ten feet in the air making a spectacular display in the night.

Fond memories at Quail Ridge are many including all the fine people he worked with from member, management and maintenance crew. "There is a tradition I picked up at Lake City, that any time someone leaves they get wet. That means getting sprayed or dunked in water. Having done this to some of my people when they left, I knew during my last week at Quail Ridge my turn was coming and figured my last day, Friday, would be the day. Wednesday, two days prior to Friday the General Manager Dick Kopplin was being unusually talkative. Looking back in hindsight I know now Dick was stalling for time. Also as chance would have it, I invited David Bailey, Mike Bailey and Dan Jones for lunch. Ed Heathcock. John Gallager and a few others were there. I should have pieced it all together. Then, suddenly, the door swung open and in comes my crew. There is no reasoning with a mob. I'm a lame duck and can't threaten to fire them. They just picked me up bodily and I knew what was going to happen next. The maintenance complex is built like a courtyard or arena. All the doors are closed and there is nowhere to go. As tradition goes you get thrown out there like a lion. There are three two-inch pressure hoses at 120 lbs. per square inch. Dave Bailey was on the roof taking pictures and in the pictures you can't see me for the water. It was a cold day, so, when the water was turned off there I stood. A cold, wet, drowned rat. They got me good, with Dave, Mike, Dan, Dick, John, the crew, and others laughing. Believe it or not this is a fond fair-

Continued on p. 28



I told you we should have given Tim a raise.



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Continued from p. 26

well for people well liked leaving Quail Ridge. My only salvation was while John Gallager was laughing at me, his truck was being put up on blocks. When he left to get in his truck, there it was with blocks under its axles. Having a sense of humor helps in this business. I have made a lot of friends, especially in Palm Beach County."

"Dan Jones, Mike Bailey and Dave Bailey have a propensity to make me feel foolish. I've done some minor things to them, nothing like they've done to me. In 1986 we had a superintendents' meeting at John's Island, Dan, Mike and John Gallager all drove up together in Dan's car. Really, I was too busy to come up with a joke. They arrived and parked the same time as our guest speakers, Whit Collins and Brad Johnson. Whit noticed that Dan had a flat tire and Whit in his southern accent said to Dan, 'Do you know you have a flat tire?' Dan just looked at Whit and said, 'Sure.' and walked on into the club house. Dan, expecting a joke on my part, thought this was part of it. When I greeted Dan, Mike, and John, I thought they were acting a little strange, and I had no idea what Dan meant when he asked me about the flat tire trick. Whit, being the guest speaker, made Dan even more suspicious. He thought I put Whit up to it. The ironic part of this whole thing is Dan did. indeed have a flat tire. My mechanic took the tire downtown, had it fixed and put it back on the car. Dan never saw the flat tire. To this day I don't think Dan believed he ever had a flat tire. I guess that's the best trick I never had to pull on him.'



You're going to print that about Tim??!



Tim asks Mike Bailey if he can hold for a minute while he talks to George.

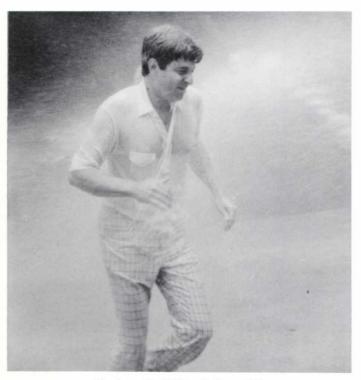
At one point while Tim was taking care of business, we had an opportunity to talk to Pete Luedtke the Head Mechanic and asked him about Tim. Pete stated, "He tries to take the latest in golf course equipment and the latest technology and work with it and not only make it better for the golf course but also for the workers. And that also goes for the management part of it, people relationships and so on. I've never worked with anyone better than he is, as a person and as a boss." This was the general consensus with everyone we talked to.

Tim is thankful to all the people that have influenced him along his travels toward his career goals. He speaks fondly of his mother and father, Toye and Will Hiers for their constant encouragement. Joe Lee and Lloyd Clifton, Golf Course Architects; Marvin Harvey the Golf Pro at New Smyrna Beach; Dan Jones, friend and confidant; and many many more too numerous to name.

Tim and his wife Angie work with young people at church, and are very busy with church activities. "I enjoy playing tennis for the exercise and try to play golf every other week so I can see the golf course from the player's view point. Amelia Island is one of our favorite vacation destinations. A beautiful golf course, beach, good food, very relaxing, and it doesn't take long to get there. My favorite food is seafood."

Continued on p. 30





Tim leaves Quail Ridge C.C. gracefully.



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Tim looks out over the natural beauty of Hole No. 9 on the West Golf Course of the John's Island Club.

Tim's looking forward to Angie taking up golf. They try to do things as a family. Most of their activities revolve around their daughter Ashley, now three years old. You can tell by the way he talks about her, she is the apple of his eye. He is very proud of his wife and daughter.

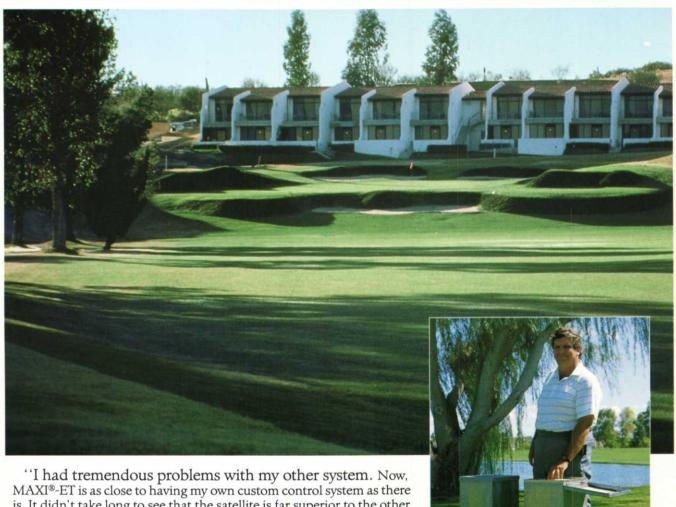
He's been inactive in associations these past three years. Priorities made it impossible while getting the job established. Improving the existing 36 holes and the new golf course under construction just kept him extremely busy. "I plan to get active again in the association, and hope someday Superintendents can visit and see the John's Island West Course."

Tim Hiers is the man behind the greens at John's Island Club. ■



Tim Hiers ... The master of organization, a superintendent's superintendent, husband, father, friend. My brother by choice. Editor.

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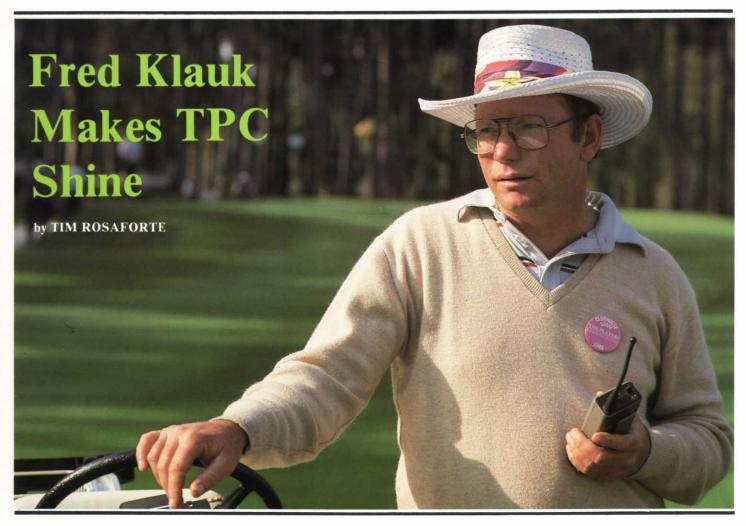
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Fred is in constant touch with his key personnel

HEN Fred Klauk was hand picked by Deane Beman, the bent-grass putting surfaces on the Players Club greens had become a joke.

"You can't read dirt," was Lee Trevino's description in 1985.

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"They were mostly dead," Klauk remembers

Beman would have none of this. This was his landmark course. It was an agronomic atrocity. So the PGA Tour Commissioner called on the superintendent he kept his eye on since working wonders with the TPC-Eagle Trace in Coral Springs, a man who knew Florida grasses, climate, and its terrain.

Fred Klauk grew up in North Palm Beach and came back in 1985 to finish runnerup in the Palm Beach County Amateur Championship. So he is more than just a turf management man. Klauk is a player, and he thinks that's the most important credential in his rise through the ranks of America's golf course superintendents. Beman now calls him the best in the business, and while that's subjective opinion, it certainly comes from a qualified source.

Beman was sold on Klauk after his work on the TPC-Eagle Trace course drew rave reviews from the Tour pros during the 1984-85 Honda Classic tournaments. But it was also Klauk's background that first got him hired with the Tour.

Klauk's first job after graduating from the University of Florida with an ornamental horticulture degree was the grassing and maintenance of the John's Island course in Vero Beach. Now 38, he worked with Pete Dye on that project, and then moved on to Pine Tree, where he interviewed with Sam Snead before he was hired to the exclusive club in Delray Beach. So besides having the experience of working under Dye (MD) who de-

signed both the Players Club and Valley courses on the Sawgrass property (MD) Klauk could handle the pressure of working for a demanding course like Pine Tree.

Those factors got him hired for the job as TPC-Eagle Trace course superintendent in 1983, and they would ultimately lead Klauk to the Players Club-Sawgrass; first as a consultant and presently as the man in charge.

Continued on p. 34



Fred oversees final grooming as the tournament gets underway.

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"I'M NO MIRACLE MAN," KLAUK SAID. "I JUST HAVE A GOOD STAFF. PLUS, I THINK IT HELPS THAT I'M A PLAYER, AND I KNOW WHAT THESE GUYS (TOUR PLAYERS) WANT."

Continued from p. 32

Beman has the final say, but much of it is intrusted in Klauk, who has a staff of 38 working for him. "I've got Deane's ear when it comes to agronomy." Klauk said at the recent Players Championship, won in a tournament record by Mark McCumber. It is no coincidence that the scores in the Tournament Players Championship have been lower since Klauk has given the players something to putt on.

"The golf course is finally playing the way it was intended to be played when Pete Dye designed it," Beman said. "It's in absolutely perfect condition now."

Klauk didn't have any time to sit back and enjoy the compliments during this year's Players Championship. A Saturday deluge flooded the golf course and postponed most of the third round, but Klauk's crew had it back in perfect playing condition by Sunday. Just your typical four-alarm fire in the life of a golf course superintendent.

"I'm no miracle man," Klauk said. "I just have a good staff. Plus, I think it helps that I'm a player, and I know what these guys, (Tour players) want."

Klauk got into this end of the business almost by default. When he went to the University of Florida, it was just about impossible to make the golf team. This was the NCAA championship era when the players included Andy North and Woody Blackburn.

Klauk was good (MD) but not that good. He loved golf, saw the demand for new courses and qualified superintendents, and went a different route. Rather than playing the game for a living, he decided to learn about providing playing surfaces for the toughest critics in the world.

It's a move Klauk doesn't regret at all, although he's playing less now than ever. Beman has him doing consulting work on other TPC courses, all the greens at the Players Club are being replanted this summer with Bermuda grass, and there's the matter of getting the Valley course ready for the 1988 Senior Tournament Players Championship.

The Valley course is really Klauk's baby, he's been on-site since the ground breaking in 1986. Knowing that the new Sawgrass Marriott was expected to multiply resort business play on the two TPC courses, Klauk sold Beman on the more durable Bermuda grass. With all that traffic, Bermuda was a necessity, and Beman liked it enough to go in that direction on the Players Club, closing down June 15 to rebuild the greens.

The Valley course wraps around behind the Players Club, and has shot up in no time. The first sprigs of Bermuda were planted last summer, but under the direction of assistant Bob Clarkson, Klauk is pleased with its progress and knows it will be tournament ready by June 9.

The Valley is certainly in a lot better shape than Fred Klauk's golf game. Last year, he won the club championship at Oak Bridge, a residential course across the street from the Players Club. With Klauk averaging 12 hours a day on the job, it's doubtful his golf game is up to the same standards as his golf greens.

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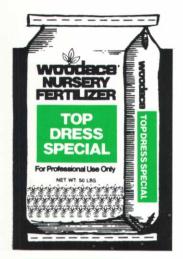
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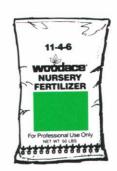


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STANDARD GOLF Province

Bentgrass: Have We Created A Monster

HAT have we superintendents in South Florida done to ourselves?

Why do we let less than five percent of our members dictate our course of action even though it may not be agronomically sound?

Why do we overseed anyway?

Why do we use bentgrass?

These are a few of the questions I ask myself every year around overseeding time. Sure, a good overseeded bermuda green is beautiful and plays great, but at what cost?

Don't misunderstand what I'm saying here. I can understand the need for overseeding in central and north Florida and other parts of the South; places where frost occurs regularly during the winter months.

But here in South Florida frost is rare. Even in an unusually cold winter the maximum amount of time that bermuda might be dormant is about 30 days, and that is really stretching it. What is the worst we can expect to happen on those

speed of the green. It's going to increase but not to a great extent; because, let's keep in mind, those 30 days aren't going to be back-to-back. A cold snap might last a couple of days and then there will be a few warm days and nights. The greens will have time to recover their health and stamina.

Now compare that to the amount of time that play is difficult due to overseeding. First you have two weeks to a month of slow greens prior to establishment after overseeding. And that's provided that nature is cooperative, which she seldom is.

Last year many superintendents in our area had to overseed twice due to an extremely warm November and December. The bentgrass was dying from the vigorous growth of the bermuda which never went dormant. And of course there is always the torrential down-pour that occurs just after you've finished overseeding, leaving the bentgrass in puddles that dot the greens.

Now take into consideration the two to four weeks of transition from bent to bermuda. You've lost a lot more quality playing time overseeding than you have without overseeding.

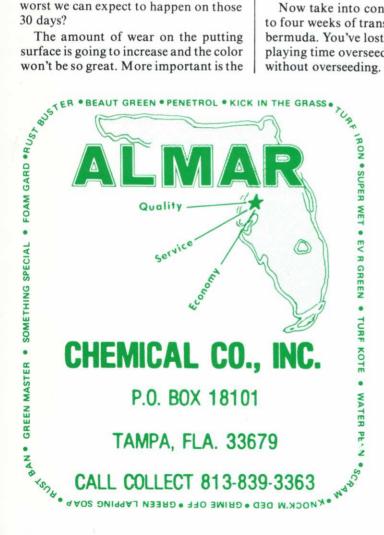
Who cares? you say. Your members aren't here during the growing in and transition stages.

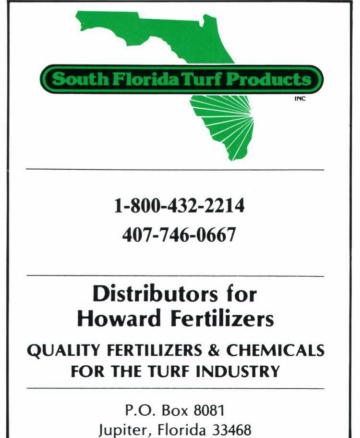
Not true. Every year our winter guests are coming earlier and staying later. Many of them come and spend several weeks in the summer and many more are making Florida their permanent yearround residence. These people feel like second-class citizens because they have to suffer through poor playing conditions due to overseeding.

Still none of this takes into consideration the money spent on seed, chemicals and labor. Not to mention that a green that shares its growing space with two different types of turf isn't going to be as healthy as the green that only has to support one turf type.

I have been overseeding with bent and saber over the past seven years and have had excellent putting surfaces for five of those seven years. I feel certain that I could have achieved the same results without overseeding.

Toward that end I would like to see all the superintendents in Southern Florida go back to one grass year-round. I think that in our quest for excellence we may have created a monster in the form of overseeding.





Streaker Redtop...

For over fifty years redtop has been successfully used as a component in overseeding mixtures designed to provide winter cover for dormant bermuda-grass on golf course putting greens.

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- As a member of the bentgrass family Streaker Redtop has a high seed count with approximately 6 million seeds per pound.
- Streaker Redtop has better seedling vigor, while providing a faster rate of establishment compared to Penncross, Penneagle, Emerald or Seaside Creeping Bentgrass.
- Streaker Redtop will springtransition earlier compared to Penncross, Penneagle, Emerald

"Streaker is the Redtop that will enhance your winter overseeding mixture."

M

N

or Seaside bentgrass. Streaker will produce a winter turf with bentgrass qualities without the typical problem of bentgrass persisting through mid-summer.

- 1. Supplement ryegrass, ryegrass/fescue or ryegrass/fescue/Poa trivialis overseeding mixtures with Streaker Redtop. Performance of these mixtures can be enhanced by applying 2-3 lbs./1,000 sq. ft. of Streaker Redtop in addition to your regular overseeding mixture.
- 2. Streaker Redtop is compatible for use in mixtures with other bentgrass varieties. If you want similar quality provided by 100% bentgrass overseedings, mix 50% Streaker Redtop with 50% Penncross, Penneagle, Emerald or Seaside bentgrass. Recommended seeding rate 5 lbs./1,000 sq. ft.



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Turfgrass Field Day - Dallas, Texas



EXAS Turfgrass Field Day-1988 will be hosted by the Texas A & M University Research and Extension Center in Dallas on August 10, 1988. Scientists and specialists from throughout the state involved in Turfgrass research and extension will be available for discussion of your turf concerns.

Information will be provided through individual field tours on water-use rates of existing and newly developed turfgrass cultivars, fungicide trials on the control of brown patch on 'Raleigh' St. Augustinegrass, chemical and biological control studies on white grub on St. Augustinegrass and other turfgrasses.

Soil fertility will be discussed for the establishment and maintenance of the major turfgrasses of the Metroplex and Southwest. In addition, the breeding, development and evaluation of zoysiagrasses, bentgrasses, buffalograsses and St. Augustinegrasses will be discussed.

Formal presentations will be made on root zone modification techniques, the latest in weed control, and root observation techniques used in Texas and other research locations in the United States.

August 10, 1988 Registration 9:00 AM No Host Lunch



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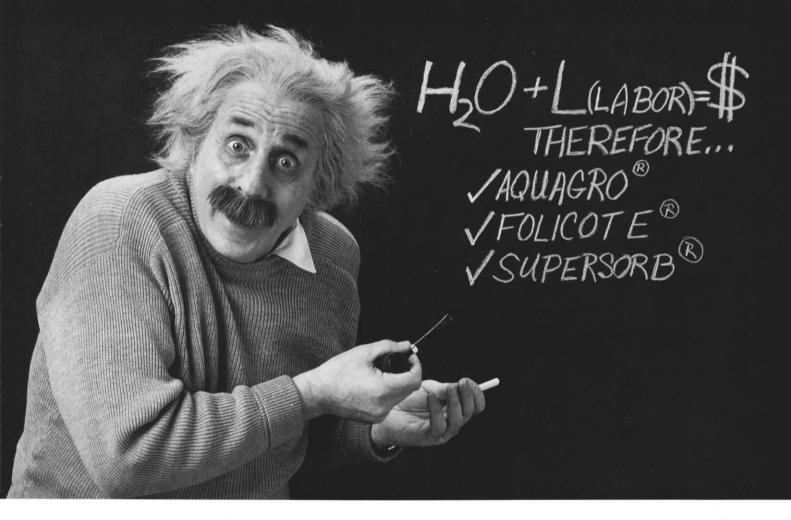
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Bentgrass in Florida Year-Round

by SCOTT WAHLIN Miami Lakes C.C.

do not believe that bentgrass as a year-round putting surface in Florida should be promoted by the Florida Golf Course Superintendents. I believe the use of bentgrass in this manner will hinder the consistency of putting greens in Florida, develop additional disease and control problems, and put unreasonable demands on the industry.

Many times I have heard people speak in terms of percentage of bentgrass in overseeded greens. If a green is 50% bentgrass, does this mean that each square foot of that surface is approximately 50:50 bentgrass to bermudagrass? This has certainly not been the case in the bentgrass greens I have seen. In these greens there was definitely a much higher percentage of bermudagrass in wear areas (areas where pins are frequently located). Bentgrass that was persisting was spotty. Is it possible to get these two creeping

grasses to form a uniformly blended community? I believe putting quality would have been more consistent on these greens if they had been 100% bermudagrass. Another factor concerning consistency relates one green to another on the same golf course. Most courses have individual greens that behave better than others. I believe this problem is compounded when bentgrass is added. Percentages of bentgrass from green to green on a given course will vary.

The pests and control measures associated with bentgrass in Florida are confusing. The spray regimens which have been discussed seem excessive to me. I know there are other superintendents who feel the same. We deal with these chemicals all the time. How are these spray programs going to sound to someone who is already upset with pesticide use? I believe we are looking for real

trouble in this area. Allow me to relate growing bentgrass in the Florida summer to raising cattle in the desert. It makes about as much sense to me as to blame *Pythium* spp. for the death of a bentgrass plant in the Florida heat and humidity as blaming the buzzard for the death of the cow in the desert. Killing the buzzards is pointless.

I think our industry is in an exceptional position to look towards the future. We have an outstanding product to offer. It is my opinion that the use of bentgrass year-round in Florida is unnecessary and will eventually hinder the growth of our industry in Florida. It was said at the Bentgrass Seminar on October 9th that the very wealthy will demand and have the best possible playing conditions. I know this is true, but I have a feeling that in Florida they will be putting on bermudagrass in the summer.



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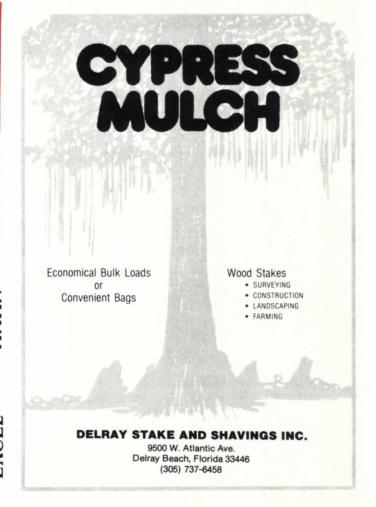
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Electronic Bulletin Board for The Turf Industry

LAWRENCE, KANSAS March 18, 1988

URFBYTE, the first computer accessible bulletin board for the turf industry opened its doors this month for anyone desiring to take part in a new and unique way of communicating. Centrally located in Lawrence, Kansas, it offers the turf manager a way to gain valuable information and insight through the sharing of experiences from across the country for the price of a phone call.

The use of electronic bulletin boards to trade information among persons of similar interest is on the increase nation wide. No longer just for computer experts, telecommunications is now common in all professions, and the use of bulletin boards offer a renewed sense of community in a world which has grown too large to easily assimilate. It is reminiscent of the old time "party line" concept which kept the neighborhood together through a bit of harmless eavesdropping. With bulletin boards, everyone is encouraged to listen in and participate in the discussion, though not necessarily at the same time. Being able to join a discussion at one's convenience is the real value of this type of communication and a reason for its rapid growth.

TURFBYTE evolved from an idea presented in the November, 1987 issue of Golf Course Management on telecommunications by Jon Scott, Valhalla Golf Club, and Bill Spence of The Country Club at Brookline, site of the 1988 US Open. That article interested Duane Patton of the Lawrence (KS) Country Club. With the guidance of Dale Gadd, founder of his own computer bulletin board, TURFBYTE was created. At present, Duane is the system operator, or "Sysop" in computer jargon, and runs the service on his office computer at the club. Duane, and the others using TURFBYTE, welcome all newcomers to the board, and encourage anyone with a computer and telephone modem to sign on and become a regular contributor.

"Connecting to TURFBYTE is as easy as dialing a number," says Scott. "All you need is a computer modem and some type of communications software. When a connection is made with the bulletin board, simple, friendly instructions quickly get you signed up and communicating."

A typical visit takes five to ten minutes once one becomes familiar with the system. First visits are slightly longer, but a few extra minutes reading instructions and bulletins pay off in faster visits. Messages from other users are read on command and replied to or commented on at will.

"The real value of the bulletin board concept depends on the user's participation in a discussion," Patton offers. "One subject may have as many comments or suggestions as there are users," he continues. "Messages to specific individuals

can be addressed and sent very much like letters, and can be either private, seen by only the receiver, or public, shared by all. Whole text files and public computer programs, called shareware and public domain, can be sent to the board for all to download and use. Industry announcements are posted in the "Bulletins' section for all to read on sign-on. Messages can be left requesting a return phone call at a specified time eliminating the need to play phone tag.

Patton and Scott feel the uses of the board are varied and many, depending on the expertise and needs of the visitor. "It does not take long to get started," says Scott. "The greatest fear I had was the idea that the phone meter was running, and I'd see a big bill cross my manager's desk. Now I am spending less total time on the phone than before and able to make my call when the rates are lower. That is saving money, and at the same time I am gaining valuable information I might otherwise miss."

TURFBYTE currently supports 300 and 1200 baud modems with parity settings of 8 bits, No parity, 1 stop bit. The phone number is 913-842-0592 and the hours of operation are from 4:30 pm to 7:00 am Central Time daily. Patton is available during business hours for voice communications by dialing the same number. Jon Scott can be reached at 502-245-1715 for further information on accessing TURFBYTE. ■

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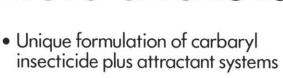
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Grooming Reel Guide

by HELMUT ULLRICH
The Toro Company

1. INTRODUCTION

As you know, grooming is an old technique, but the "groomer" is relatively new. It is associated with the golfer's desire for faster, truer and healthier greens. There has been much discussion among superintendents, and articles have been written in trade publications concerning the actual benefits this tool provides. Because this management practice is so new, there has been little, if any, scientific research conducted to determine the longterm effects of grooming. It is difficult, therefore, to make precise recommendations on the use of a grooming reel. This is further complicated by the many variables which play a major role in achieving desired results. Some of the variables which must be considered are:

- General condition of the green
- Variety of grass on the green
- Season of the year
- The turf-management program
- · Variation in traffic
- Stress periods, especially heat and humidity

All of these vary from golf course to golf course, and usually from green to green on the same course. The use of the grooming reel, therefore, requires a thorough understanding of agronomic aspects of the turf on the green which, in turn, determines the depth of setting and the frequency of use. It is recommended strongly that the superintendent experiment S-L-O-W-L-Y to achieve best results.

It is also recommended that the following tips be used for best results on the playing surface:

- Frequent, close, visual inspection of the green to determine the depth and/or frequency of grooming.
- Vary the degree of grooming in accordance with the need for each green. This will help to ensure constant ball speed on all greens of the golf course.
- During stress periods, it may be necessary to reduce, or even eliminate, use of the groomer.

2. WHAT A GROOMING REEL DOES

- Grooming is performed above the soil level. It cuts runners (stolons) and grass blades at less-aggressive depth settings; but, at more frequent intervals than is done with the traditional methods of verti-cutting.
- Grooming promotes the vertical or upright growth of grass and eliminates grain by cutting horizontally growing grasses and runners.
- Grooming, in essence, removes more leaf area.
- Grooming provides some of the same benefits as verti-cutting. The main difference is that the cutting blades are spaced closer than on traditional verticutters, and the grooming reel is used more frequently.
- The more frequent use removes more grass and helps to control thatch build-up, especially during periods of maximum growth. For this reason, care must be exercised during periods when grass growth is reduced for whatever reason.
- Grooming, in addition to routine turf management techniques, like aerification and topdressing, may permit one to raise the mowing height without sacrificing green speed.
- By maintaining a higher cutting height, the effective rooting depth of the turfgrass is increased and the grass is in a more healthy state. Also, it is better able to withstand wear, as well as environmental stresses.

3. WHAT A GROOMING REEL DOES NOT DO

- Grooming is not verti-cutting in the traditional sense; it is for use above soil level. It is similar to light verti-cutting. It provides for a frequent cutting of those elements that contribute to grain.
- Grooming has the potential to replace verti-cutting, depending on the overall management program.
- Verti-cutting will continue to be used for deeper penetration into the soil, for renovation purposes or preparation of overseeding.
 - Grooming does not necessarily

achieve, in all cases, increased ball speed. Ball speed is dependent on other factors, i.e., height of cut, frequency of cut, the number of daily mowings, health of turf, grass variety, etc. Some of these factors may make a bigger impact on ball roll than grooming itself.

• Grooming can cause adverse effects, if used too frequently at aggressive settings (especially during environmental stress periods, i.e., heat, high humidity or traffic).

4. GROOMING REEL ADJUSTMENTS

A word of advice on grooming reel adjustment procedures. When adjusting a grooming reel, the following steps are recommended for optimal results:

First: Set the desired height of cut.

Second: Set one grooming reel in raise/disengage position. Set one flush with the rollers and set one 1/32-inch above the height of cut.

Third: Make several passes, preferably over the practice green or nursery, before using the unit on a regular green.

Fourth: Judge the amount of grass in the basket of number one, two and three, and readjust accordingly.

Fifth: Visually inspect the results and decide which setting to use for the best job. Make further adjustments if necessary.

Sixth: Set all grooming reels to the same desired depth.

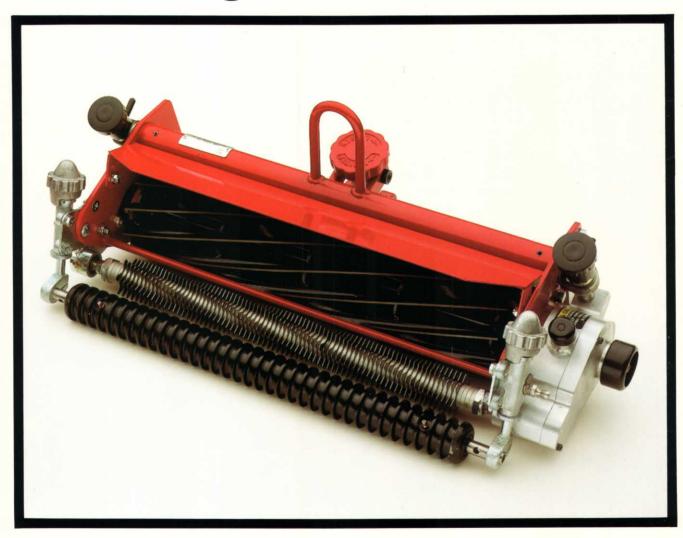
CAUTION: A 1/32-inch depth setting can make a very substantial impact on grass removal and, more importantly, on the variety of grooming.

The user must be aware that the groomer may cause adverse effects if used frequently at an agressive setting. This is especially true during environmental stress periods, i.e., heat, high humidity or heavy traffic.

In summary, the grooming reel may be the best tool available to the superintendent for managing the greens precisely and in accordance with the desire of the golfer. However, timing, frequency of use and depth of setting must be managed properly!



The New Toro Grooming Reel for the Riding Greensmaster.



The Most Universal Tool Available for Grooming and Conditioning Your Greens.

MICRO ADJUSTMENT KNOB

Grooming Reel

Model No. 04455

The Grooming Reel is the most universal tool available to the superintendent for managing the greens precisely to the desire of the golfer.

Its application requires thorough understanding of agronomic aspects of the turf on the green, along with correct usage of the grooming device. There are many factors influencing the results, such as depth, frequency of use, growing season, variety of grass, variations in traffic, heat spells, etc. Generally, groomers have been promoted for speeding up greens and healthier looking turf. Those results are undoubtedly desired but may vary from green to green, because of the many factors mentioned above.

Toro has designed a Grooming Reel which allows the superintendent to tailor its application precisely to his individual requirements. The many features offered by Toro makes the Grooming Reel easy to use and adaptable for achieving the best results on your putting green.

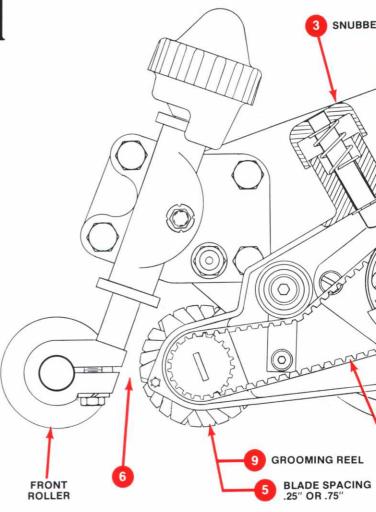
The most important feature is the ability to easily monitor and control your grooming frequencies and working depth.

1. "Quick Up" and "Quick Down"

This exclusive Toro feature allows the Grooming Reel to be raised or lowered easily without losing the depth setting, providing you with a choice to use or not to use it, depending on your precise need. You decide when to groom or when not to, and therefore avoid overuse and undue stress on the grass.

2. Easy, No Tool Depth Adjustment

The Toro Grooming Reel lets you make depth adjustments without tools. That means you can tailor your grooming depth day to day, much more easily.



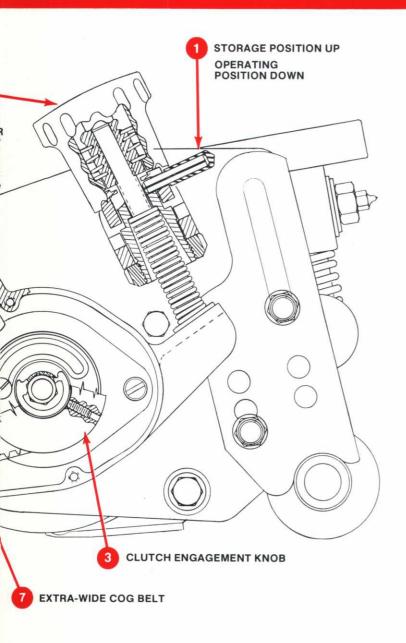
You can take into account changes in the growing season, heat spells or variation in traffic. Each notch lowers or raises the Grooming Reel by .007 inch.

3. Easy, Safe Engage and Disengage

The Toro Grooming Reel has a snubber button which when depressed will hold the belt to allow easy and safe engagement or disengagement of the grooming reel. This means that both hands are required to engage or disengage the grooming reel, safeguarding the operator.

4. Height of Cut Uniformity

The Toro Grooming Reel is part of the free floating cutting unit design with baskets riding independent of



the cutting units. The baskets are filled more quickly and heavier with clippings, debris or sand stirred up by the grooming device. The Toro cutting unit suspension system maintains uniformity of cutting height despite heavier baskets.

- **5. Optional Grooming Reel with Wider Spacing** Toro offers a choice of blade spacing of .25 inch and .75 inch for greater flexibility and better results tailored to individual customer's needs.
- a. The grooming reel with .25 inch blade spacing is recommended for fast growth periods (spring, early summer).

- b. The grooming reel with .75 inch blade spacing is recommended for slower growth periods (late summer, fall).
- **6.** Grooming Blades Do Not Interfere with Rollers The Toro Grooming Reel's blades run independently of the front roller, allowing a full complement of roller options; Wiehle, Swaged and Full Roller. Secondly, should a grooming blade bend it will not damage the roller.

7. Durable Belt Drive for Heavy Loads

The Toro Grooming Reel is driven by an extra wide cog belt specially designed to carry more power than conventional timing belts to handle different depths or work loads, including tough Bermuda and other southern grasses.

8. More Power Availability

The Toro Grooming Reel has more power available thanks to the higher capacity, higher pressure hydraulic system of our Greensmaster traction unit.

9. Grooming Reel Blade has Longer Life

The Toro Grooming blades are slightly thicker for longer wear life and are less likely to bend. The Grooming Reel can be reverse mounted after one side is worn down to extend its use even further.

10. Grooming Reel Retrofits Older Cutting Units The Toro Grooming Reel fits the whole range of Greensmaster cutting units (8 and 11 blade) from the late '70's...including our single point cutting units.

Notice: Due to the general perception that Groomers are the ultimate device to achieve faster and healthier turf, we recommend that superintendents experiment with the application of the Grooming Reel to achieve the best results on their green. Gradual usage in frequency and depth are recommended to achieve desired results. This procedure will allow the superintendent to fine tune the application to his turf conditions for best results.

Grooming Reel Specifications*







Grooming Reel Belt Drive

MODEL 04455 (Set of Three)	
BLADE SPACING STANDARD	.25 inch (6.35 mm) (76 blades/reel)
(OPTIONAL) P/N 65-9440 (Set of Three)	.75 inch (19.05 mm) (26 blades/reel)
BLADE THICKNESS	.028 inch (.71 mm)
BLADE DIAMETER	2.125 inch (53.9 mm)
BLADE MATERIAL	Heat treated spring steel
REEL SHAFT DIAMETER	.875 inch (22.2 mm)
REEL INSTALLATION	Reversible
REEL PENETRATION (MAX.)	.18 inch (4.57 mm) below setting of cutting unit
COG BELT DRIVE	1.18 inch (29.9 mm) width (76 Teeth)
BELT DRIVE HOUSING	Cast aluminum
RPM	3200 rpm
QUICK UP — QUICK DOWN FEATURE	Allows cutting unit use without grooming reel
QUICK UP POSITION	Raises grooming reel .25 inch (6.35 mm)
MICRO DEPTH ADJUSTMENT	.007 inch (.18 mm) increment/notch
DRIVE CLUTCH	Cam actuated, spring loaded, pin type, engages and disengages grooming reel
DRIVE CLUTCH ENGAGEMENT KNOB	Round, smooth
SNUBBER BUTTON	Easy, safe clutch engagement

^{*}Specifications and design subject to change without notice. "Toro" and "Greensmaster" are registered trademarks of The Toro Company, 8111 Lyndale Avenue South, Minneapolis, Minnesota 55420.

COMMERCIAL PRODUCTS



The Pressure of The Job

by BRUCE SHANK Reprinted from Sportsturf

S a young golfer, I always pictured the Superintendent's life as serene. The superintendent of the course I used to play lived in a small house on the grounds, went home for lunch and could be reached easily by his wife or kids if they needed him. The course was home to his family, not a remote workplace that they had to compete for his attention. It seemed like the superintendent and his family had a nearly perfect existence.

As I grew up and had to pick a career of my own, I started to realize the flaws of my image of a superintendent's life. He faces the same pressure to change as everyone else. In a society driven by progress, the thought of staying in one comfortable spot for an entire career is unrealistic. Upward mobility requires moves to bigger and more prestigious courses. To gain independence and a competitive salary, the superintendent is doing what he has to do, move off the course so he can market his skills to the highest bidder. It's hard to negotiate with a club when it owns the house you live in.

Moving off the course has apparently worked. Salaries have risen to the point that a career as a superintendent is more attractive. Some of the brightest college students are choosing golf course maintenance as a career.

The modern superintendent applies the latest turf management techniques to achieve standards previously considered unrealistic—with crews smaller than ever before. As a result, competition among superintendents for the high-paying jobs has become pretty fierce.

Superintendents, striving to compete for positions at elite courses, are working seven-day weeks during much of the year. It's not unusual for a Superintendent to become so preoccupied with is job that he loses touch with his family. Unfortunately, when some superintendents reach their cherished goal as a well-paid superintendent at a premier course, thay have lost their families along the way. It's a personal price paid by some top superintendents that is often overlooked.

I am concerned about the number of successful superintendents who are separated from their families. One of them recently kidded me that an abbreviation should be established to follow the names of superintendents who are divorced. Instead of C.G.C.S. (certified golf course

superintendent), their initials would be D.G.C.S. (divorced golf course superintendent). Being a superintendent will never be as simple as it used to be. The job has gotten bigger and more complicated. As the cost of constructing golf courses pushed through the \$10 million level, the owners require superintendents with more expertise. High tech has come to the golf course ... and with high tech has come high pressure. Competition for the plum jobs has increased.

It's easy for greens committees who meet a few times each month or club managers who work normal hours to make demands on the superintendent. How often do they say, "The superintendent should do this right away," without truly understanding the amount of planning and work involved? It is precisely this kind of pressure that demands additional time and turns superintendents' hair white.

I admire and respect the superintendent who has a total commitment to his profession and his job. Maybe greens committees and club management could have a little more compassion for his private life.

Jim Watson Receives Fred V. Grau Award for Turfgrass Science

AMES R. WATSON, vice president and agronomist for the Toro Co., and adjunct professor in the University of Minnesota's Department of Horticulture and Landscape Architecture, has received the Fred V. Grau Turfgrass Science Award. The award, presented for significant career contributions in turf science, was made at the annual meeting of the Crop Science Society of America, Nov. 29-Dec. 4 in

Atlanta. The principal criteria are the significance and originality of research, teaching effectiveness, implementation of programs in extension and/or industry, administrative effectiveness, and total impact on turfgrass science.

Throughout his career, Dr. Watson has lectured and consulted both internationally and domestically on turfgrass care and management, and has made significant contributions to the development of equipment used in maintenance of all turfgrass facilities. His fellowship for graduate study was placed at Pennsylvania State University by Dr. Fred V. Grau, who was director of the U.S. Golf Assn. Green Section at the time. It was the first fellowship specifically designated for support of an advanced degree in turfgrass science.

The Golf Course Superintendent

by MAUREEN KOOYER

S wives of golf course superintendents I'm sure most of us know the pleasures and pains of the profession. One of the biggest pleasures for me is to see Don enjoy his work the way he does. It is not a job-it is an integrated part of his-and our-lives.

Most superintendents I have met and have come to know are the most satisfied career people I have ever met. True, they have many aggravations-what job doesn't?-but they seem to be truly happy with their lives.

To me that is amazing! Being up at the crack of dawn, digging in muddy ditches, fighting insects, and mowing continuously just doesn't sound like a thrilling time. And that says nothing of trying to please tens of thousands of golfers every year.

I think that most superintendents must have an amazing sense of humor. To put up with such outrageous demands in the workplace certainly takes a unique personality.

Job changes are another factor to deal with in the superintendents profession. I believe that I've heard superintendents change jobs on the average of once every 3 years. While this is a national average and definitely not true of all of us, it does show a field full of range.

When job changes involve a new city or state, I truly believe the superintendent's family has the toughest end of the deal. The superintendent has a job to slide right into. Wives have to job-hunt, register kids in new schools, find doctors, dentists, babysitters-the list is endless. And all of this must be accomplished

solo as the husband is busy orientating himself at the new course. Meanwhile, you have kids who are unhappy with leaving their friends and familiarity behind, and it seems as though all the pressure is put on you. I've found that with time, patience and perseverence, all works out well. It is a challenge to me now-to find a house, schools, a new job. But I also find the older I get, the more I would like to be settled somewhere. I wonder if that is possible in this profession?

Along with all of this comes the constant need for the superintendent to stay on top of his career through education. The profession is rapidly becoming a competitive market. Twenty years ago a superintendent was much more likely to have on-the-job training. The trend these days is college. No longer is it true that

Continued on p. 48



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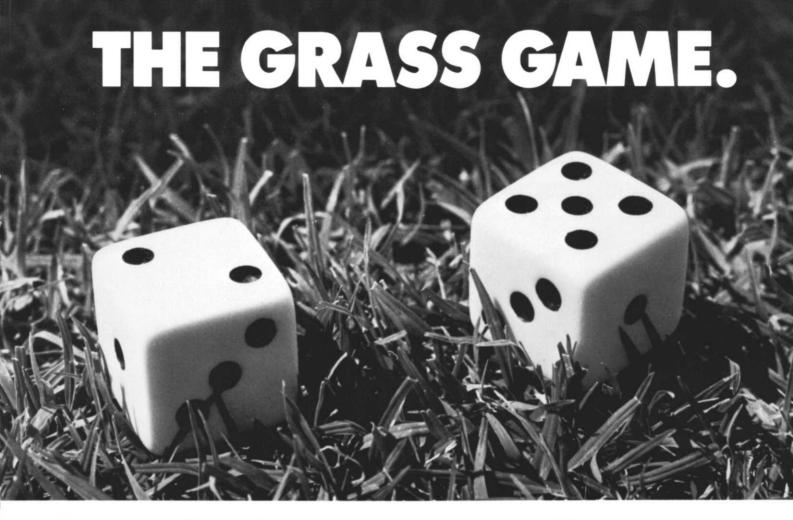
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WOODBUR

THE MORE SATISFIED HE IS AT WORK—THE MORE SATISFIED HE IS AT HOME. I CAN TELL BY HIS MOODS WHETHER HE HAS HAD A GOOD OR BAD DAY AT WORK.

sons follow their fathers by learning on the course. Boys who wish to follow their dad's footsteps now attend college with many more earning degrees every year.

Being a certified superintendent is another feather in the cap of a superintendent. Along with the most difficult certification test, to remain certified means following up on it constantly. There are conventions to attend, with classes held at the conventions. All of this is an important part of being a superintendent. That is not to say that those who are not certified are any less professional. That is simply not true! It is up to each individual to decide the importance of the certification for themselves. It was important to Don to be certified, and it has done well for him. He knows many more superintendents that are not certified than are and all are doing equally well with their careers.

I don't always understand the intensity with which Don approaches his livelihood-he sometimes seems possessed by golf courses-but I do try to encourage and understand. The more satisfied he is with work—the more satisfied he is at home. I can tell by his moods whether he has had a good or bad day at work. Many times at night or on the weekend he's gone out to the course to "check something out". All a part of life as a superintendent!

I have noticed an interesting thing with superintendents. We attended the annual N.F.G.C.S.A. Christmas party at Ponce de Leon Lodge in December. It was more formal than the usual parties and the men were in suits and ties. Most of them looked uncomfortable in their suits-outdoor men just don't dress up! I'm sure there were many sighs of relief when the ties came off!

Life is never dull as a golf course superintendent-as the wives and families all know. But it is an interesting and changeable life that keeps us all happy!

For anyone considering this profession as a career, it seems to me to be a rewarding one. Just bring along your knowledge and patience! You'll be happy with it I think.

Year-round Sunglasses Use Urged

In preparation for summer, sun worshippers usually update their beach-going equipment, including buying a new pair of sunglasses when necessary.

Experts in the eyewear field advise us that sunglasses should be part of our outdoor life year-round, not just during the bright and sunny summer months.

"The basic reason (to wear sunglasses) is for the protection of the eyes against burn or cataracts and to make you more comfortable (by reducing the amount of light reaching the eye)," said Phillip L. Kaufman, vice president of the Illinois Optometric Association and a practicing optometrist.

The spectrum of light consists of different wave lengths ranging from ultraviolet at one end to infrared at the other, with a visible range in the middle, Kaufman said.

"The two types of light that do damage to your eyes are the ultraviolet and the infrared. What most (non-prescription) sunglasses will filter out is the visible spectrum, but not the infrared and ultraviolet. In order to get both the infrared and ultraviolet, one has to wear optically manufactured lenses with special dyes for tints that block out the harmful rays."

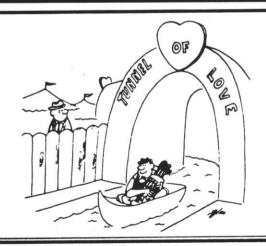
Another problem with buying over-the-counter sunglasses at the local drug or variety store is that many of the lenses are distorted.

"Hold up a pair of real cheap sunglasses, about a foot away and see for yourself," said Kaufman. "If the line of the lens is not perfectly straight from top to bottom and right to left (or the edge distorts, sways, curves or moves), that lens has some distortion in it and can make you uncomfortable. However, the human visual system is so miserably adaptable that patients learn to adapt to them."

Sunglasses have become very fashionable, Kaufman said.

"And they (consumers) are exposing themselves to conditions for fashion's sake and getting away from the protective value of sunglasses, and that is not good."

(Reprinted from the Palm Beach Post-Times and The Chicago Sun-Times.)



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Starting and Stopping

by DON KOOYER, C.G.C.S.

Willow Lakes Golf Club Baymeadows Country Club

OULD it happen to you? Nobody really thinks it will happen to themselves. Fortunately, I can let my friends know how much it meant to me that you helped when it was important. There was no slogan when I was a teenager "just say no to drugs and alcohol". I remember standing around in the pool hall smoking a Lucky and drinking a Hamms beer just "being cool". Now, I just didn't stand around and drink, I was set up boy. Not only did I get fifty cents an hour but good tips and a good rack of 9 ball would get a pack of smokes from the winner, and sometimes a beer. Believe it or not, the first greens I worked on were on the 8 greens in the hall with leather holes on each side and ends. The better the grooming of the greens, the better the reward. Each night after brushing and grooming the green covered slate, Leon, the owner, would let us hustle our own game for free and reward our good job with a few free beers until the smoke settled in the joint and we had to close. On the way out we could buy a sixer to go, the laws not being too strict. I guess they were long necks too. While riding around in my brother's '58 Ford convertible listening to Chuck Berry, Elvis, and Gene Vincent rocking and rolling, my friends and I and our chicks were out of booze. Now our town wasn't the smallest in America but we did have what most American small towns had in the 50's; five churches and 16 bars-at least it seemed like it! I pulled around in back of the Spot, opened the back door and looked through the smoked filled card room. The sweet odor of tobacco, snuff and beer drifted throughout the bar—a smell I will never forget.

Willie is stacking the poker decks and emptying the spitoons. I wave and he nods and comes out back and talks to us. Willie is a graduate of the pool hall at maybe 22 years of age. We haven't made it to his stature yet. The girls seem to think he's the greatest. Willie is our supply line for more refreshments. For

\$1.19 each we can get as many six packs of Budweiser as we can drink plus 50¢ each to the supplier. All of the guys in school saw Willie throughout our senior school years. Willie is probably still dealing cards at the Spot, charging \$5.50 per six pack, waiting for a wave from the back door.

As I sat in the barracks at Fort Leonardwood, Missouri, drinking a Budweiser some years later, I didn't need a backdoor man, just had to have a quarter to drop in the converted coke machine and a G.I. could drink his whole pay check if he wanted to. Getting back to the barracks and sitting on my bunk reading a letter from my brother back home with a news clip (six die in car wreck) speeding and booze take lives of, well, you know, my friends. I thanked God I was where I was and had a beer for my departed friends. It didn't dawn on me that I had the same bomb in my hand. When do you stop? Continued on p. 52



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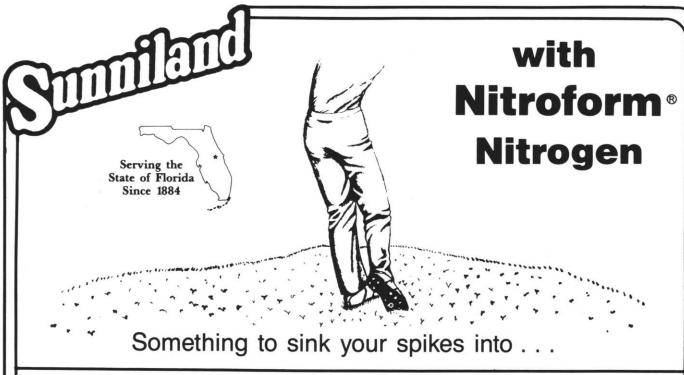
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LAMAR SAPP

5500 S.W. 3rd STREET PLANTATION, FL 33317 Continued from p. 50

When I was in the service if you didn't, go to the E.M. club or the N.C.O. club for drinks and conversation you sat in the barracks and looked at the wall. More pool and drinking with the guys. I had been drinking for 10-11 years by now. Believe me, that is a lot of hangovers, headaches, upset stomachs and bad driving. Don't drink and drive! I shudder to think how many times I have driven when I shouldn't have. I remember when we (my wife and I) were out at parties and she would tell me that she should drive. I wouldn't let her when I should have. My wife never was a drinker and I couldn't figure out how she could have any fun at parties without drinking. She used to tell me that I could have just as much fun without drinking but I wouldn't believe her. That was how I started drinking, with a crowd, and I really thought if I didn't drink, my friends wouldn't talk to me. Believe me, that is not the case, as I have found out.

When I first married the couples that we ran around with either belonged to the band that we played in or were groupies that we partied and drank with. Again, playing in bars and at parties all night then loading equipment up and going home at 2 a.m., or to another gig down the road driving half drunk and tired. Fortunately I left the music business and moved into the turf industry some 20 years ago. When I left the group I slowed down my alcohol consumption and have since quit.

One more news release has come into my life since I quit drinking and driving. The lead guitar player and I sat down when our band split and talked about our future with our families and careers. We both were drinking beers at the table and said we would stay in contact every few years and see how each of us was doing. Well, my friend is a certified public accountant but he lost his family by divorce. His ex-wife said drinking caused it (when do you stop?). I couldn't believe it was the booze, even though I think it caused a shaky situation in my own marriage a while back. I thank the Lord again it wasn't me. As I write this article. I hold this news release (accountant runs man down, cited for driving while drunk) -one week later-(man dies, accountant faces 3-5 years in prison). When do you stop? You can quit-I did and I don't want to loose any more friends.

JUST SAY NO!! ■

The Greatest Show in Turf is Coming Tampa, Site of 1988 Conference & Show

LANS are finalized for the Florida Turfgrass Annual Conference and Show, Sunday through Wednesday, October 9-12, Tampa, Florida. This annual event is one of the largest warm season turfgrass conferences in the southeast.

A patriotic theme will abound in the exhibit hall 3 days. Over 200 exhibitors will display the latest turfgrass equipment and products. Wednesday's Show admission will be free.

Dr. Glenn Burton, Renowned Re-

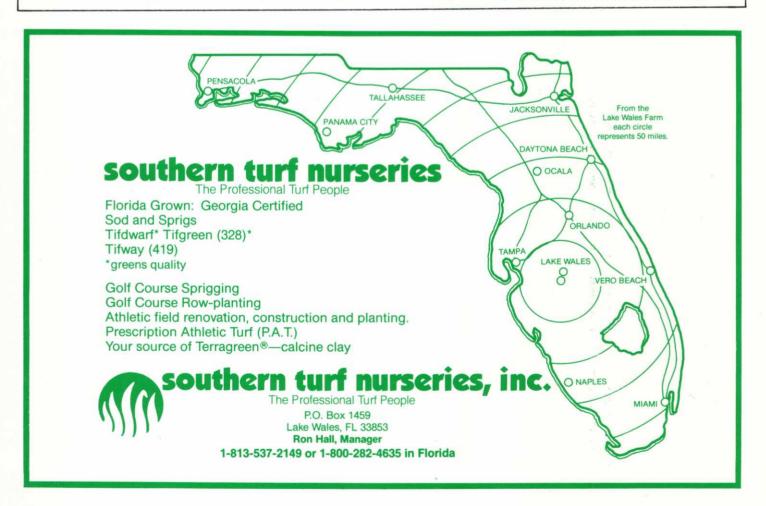
searcher in Turfgrass Breeding will address the General Conference Session Monday.

Educational opportunities include 4 Major Educational Seminars. Golf Turf, Principles of Turfgrass Management, Lawn and Commercial Turf on Tuesday morning at the Hyatt Regency Hotel. And Turfgrass Production on Wednesday afternoon at Curtis Hixon Convention Center.

Workshops available for members with advanced registration are *Identification*

and Control of Turfgrass Diseases, Basic Soils for Turf Managers, Elements of Turfgrass Nutrition, Managing Your Labor Force, and Nematode Management in Turfgrasses.

Other activities for members and their guests are the Sunday Golf Tournament and Neff Machinery Corn Boil, Spouse Program, Awards Luncheon, Presidents Reception, and Bill Wagner Memorial Prayer Breakfast. For registration and schedules contact Florida Turfgrass Association, 302 S. Graham Ave., Orlando, FL 32803, 407-898-6721.





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Dr. Glenn Burton, Renowned Researcher in Turfgrass Breeding

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Golf Tournament Neff Machinery Corn Boil Bill Wagner Memorial Prayer Breakfast President's Reception Spouse Program



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and IORO present...

The First Annual South Florida Turfgrass Workshop and Exposition

by SCOTT WAHLIN Miami Lakes Golf Resort

T is with a tremendous amount of pride in this industry that I am pleased to announce this event was a resounding success. There had been some reservations concerning the ability to draw Turf Managers to a purely educational and informative field day. The only reservations we should have next year should be for seats in the class, booths and exposition spots.

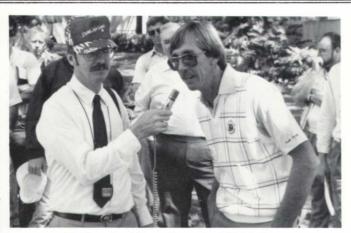
The event was co-sponsored by the SFGCSA and IFAS. The cooperation and energy put forth by the sponsors certainly makes them worthy of com-

mendation. Ray Hansen suggested this to the SFGCSA Board as an event that was very successful in the north. The idea is that turf equipment companies spend a great deal of money demonstrating equipment at individual clubs. Why not bring them together with as many prospective buyers as we can muster? Where else can you demonstrate your equipment line for over 100 buyers? The final goal is to have the grounds maintenance supply people see this as being so valuable to them that they become even more active in the planning and preparation to insure a successful outing.

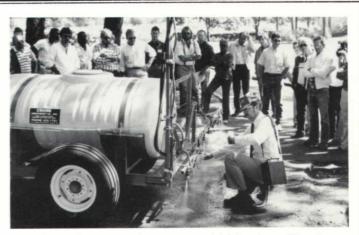
There should be no doubt that this year's South Florida Turfgrass Workshop and Exposition was a success. It was a very productive day for those who were fortunate enough to attend.

Bud Nolder and the Rolling Hills Golf Resort made sure we had excellent meeting facilities and exposition space. We were able to use one of their actual playing holes which was closed for the demonstrations.

Dr. Wayne Curry conducted the workshop. He was very informative and enter-



Calibration Team Captain Bill McKee.



A variety of spray equipment was used for the calibration exercise.



"First Annual South Florida Turfgrass Workshop and Exposition" The Workshop drew 162 participants.



Dr. Curry demonstrates the effects of nozzles and spacing on precision coverage.

taining although he was somewhat sarcastic when it came to the level of precision he had encountered in the field. He demonstrated the effects of nozzle spacing and various nozzles with regard to even coverage. He also discussed various other spray equipment and methods of sprayer calibaration. The second part of the workshop consisted of hands on sprayer calibration. Team captains were assigned and participants were divided into these teams. A variety of spray equipment was made available by the dealers. All teams were successful in calibrating their equipment. I spoke with a representative from the Parks Department in Hillsborough County after the workshop. He said he had just transferred to that department and was very impressed with Dr. Curry's presentation. He told me he felt he needed to attend more seminars like this and asked how he could join the SFGCSA. I told him we would be glad to have him as a member, but steered him towards membership in the FTGA.

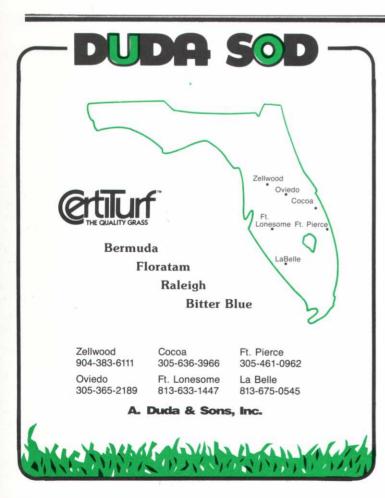
Displays and lunch were in the clubhouse from 11:30 to 1:00. I spoke with several suppliers who were well satisfied with the exposure they received.

Equipment demonstrations began promptly at 1:00. Each company had three minutes to get on, discuss, get

off and shut off all the equipment they offered in a given category. DeBra offers several manufacturer's brands in the category of riding rotary mowers including Jacobsen, Cushman, Steiner, Heckendorn and Hustler. They were able to do all of the above within the three minute time limit. The equipment companies demonstrated equipment at three minute intervals for 31/2 hours with only one short break. The logistics of the show were almost as interesting as the equipment. The cooperation and consideration exhibited by the equipment companies towards each other was admirable as well as critical to the success of the show.









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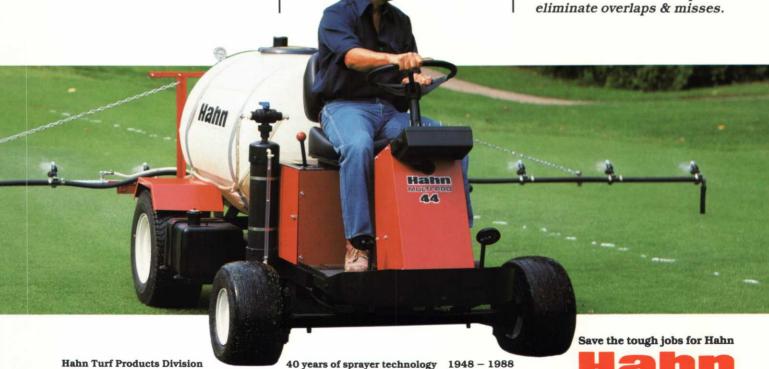
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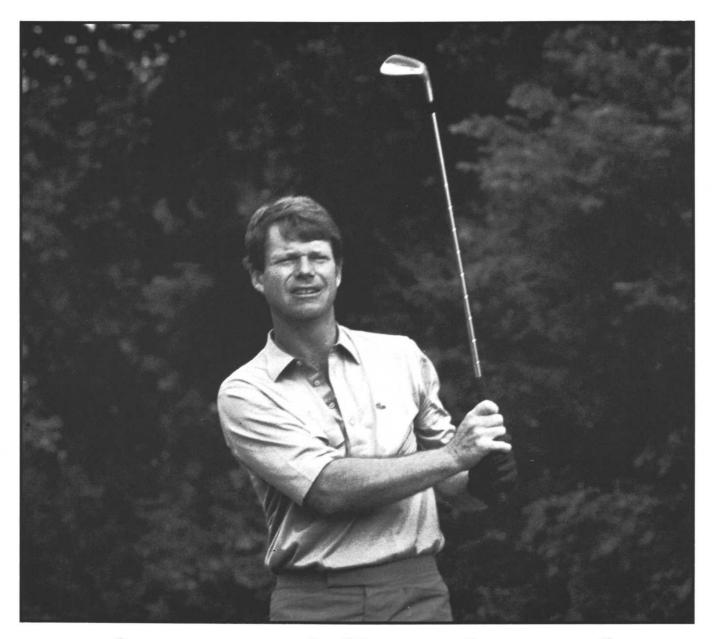
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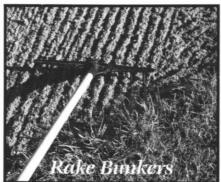


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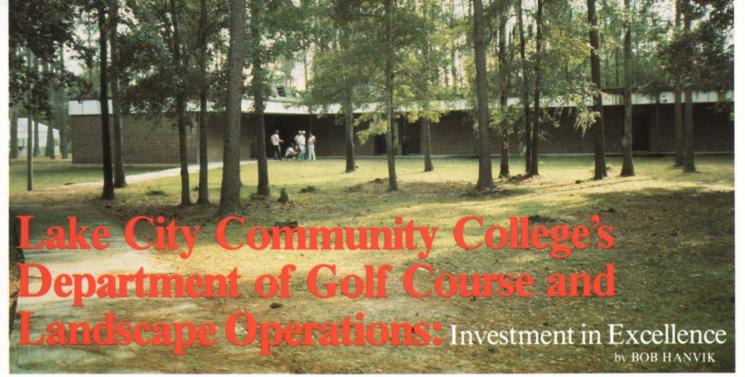


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Complex where Glo Classes are taught.

FF of Highway 90, right next to Lake City's airport, is a seemingly quiet, winding country road. From the highway, all you see is a sign announcing the existence of Lake City Community College ... somewhere down the road. As you drive down "College Road," though, you begin to realize the size and scope of the community college that soon comes into view.

Lake City Community College (LCCC) currently serves the needs of about 2,600 students, and is one of only two Florida community colleges that provides oncampus residence facilities. The college comprises 23 campus buildings, and its district includes 2,682 square miles—twice the size of Rhode Island—although many students come from outside the college's mandated district.

LCCC comes from humble beginnings, however. It was founded in 1947 as the Columbia Forestry School. At that time, the college's classrooms and labs were housed in structures that remained from a World War II air base (some of those buildings are still used today). Fifteen years later, the state of Florida created Lake City Junior College on the site of the old forestry school, with approximately 400 students enrolled. The school's name was changed to its current form in 1970.

LCCC provides programs in the liberal arts and sciences, as well as vocational programs such as business administration, computer programming, cosmetology, criminal justice, electronic technology, forest engineering technology and allied health.

One of the college's proudest and most successful departments, though, is its department golf course and landscape operations.

School of Golf Course Operations

The School of Golf Course Operations at LCCC is the only program in the nation offering a three-year, 128-semester-hour curriculum. The accredited program is designed to develop total golf course operations professionals. Program graduates are qualified to enter their careers as assistant superintendents, with many opportunities to advance to superintendent, golf course construction supervisors or specialists in related areas of turf management such as sod production and athletic field management.

The program is divided into two phases. Phase I includes a year of study of golf course mechanics, with classes that were developed in response to industry needs and demands. Other classes included in Phase I are math, reading, communications and typing (these classes are known as the Mechanic Core Curriculum). After completing these first two semesters, students are eligible for the first of two summers of paid, on-the-job training (OJT) at a selected golf course within a 500-mile radius of the college. When they've finished Phase I, including their first OJT, students receive a certificate qualifying them as turf equipment service technicians (or golf course mechanics), a fast-growing field within golf course operations.

Phase II of the program consists of

coursework in management, plant materials, landscape design, soils and fertilizers, pest control, turfgrass management systems and the second summer OJT. Upon successful completion of Phase II, the student receives an Associate of Science degree in Golf Course Operations.

School of Landscape Operations

Landscape Operations graduates are qualified for positions such as designers, salespeople, installation and maintenance foremen and interiorscape specialists. Graduates may also work in nurseries, lawn and garden centers, pest control services and other related areas of landscaping and ornamental horticulture. For experienced graduates, advancement opportunities in landscape contracting are possible.

Course emphasis is placed on exterior design, installation and maintenance; interiorscape concepts are also discussed. The curriculum includes courses in plant materials; soils and fertilizers; pest control; irrigation and drainage; landscape construction; and landscape design, installation and maintenance. Upon successful completion of the two-year program, the student receives an Associated of Science degree in Landscape Operations.

The Department's Success

Each year, the number of available positions in the fields of golf course and landscape operations exceeds the number of graduates from LCCC's department of golf course and landscape operations. In addition, Lake City graduates are among

Continued on p. 62

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Lake City Scholarship Winners:

(Left to Right)

Iris Davis, Mike Stemm, Jeff Elwood, Eric Krahn, Frank Yaun, Al Smith, Dr. Muriel Kay Heimer (Pres., LCCC), Paul Meredith, Jennifer Moore, Dan Adams, Roy Clark, Chris Claus, Steve Fairtrace, Wade Hartsfield

Continued from p. 60

the most sought-after in the industry.

There are several reasons for this, according to John Piersol, chairman of the department, but a primary reason is the college's emphasis on the practical aspects of the industry. "We teach our students the importance of the day-to-day tasks of industry professionals," said Piersol, "from maintaining and repairing equipment to handling the paperwork that will eventually become part of the graduates' jobs."

Another important reason for the department's success, according to Piersol, is its close ties to industry members. "Without our strong relationships with the companies like Toro, Jacobsen and Nor-Am Chemicals, we wouldn't be able to have the good, up-to-date supplies that really help prepare our students," he said. "We wouldn't be able to afford them."

The department's success manifests itself in other ways as well. One of the most important gauges of the department's success is the quality of students who enter it. Many of them enter after having received undergraduate or even graduate degrees, and most of the students have some experience in the field before entering Lake City.

For example, Mike Stemm, a golf course operations student, holds a bachelor of science degree in agronomy from Colorado State University. Just prior to entering LCCC, he was the manager of a Pillsbury dried-bean plant in Nebraska. "I didn't feel fulfilled," said Stemm, 36, "and I decided that I needed a change." So, he decided to go back to college for his mas-

ter's degree in agronomy. When he visited the University of Florida, however, the head of the agronomy department advised Stemm to get a degree in golf course operations instead of his master's degree. "At first, I was disappointed at this supposed step back," said Stemm, "but now I realize that I owe that professor a lot. Without him, I wouldn't have attended Lake City, and I wouldn't have learned the professional attitude and the good, practical bank of information necessary to succeed in the industry. I also wouldn't have gotten the great job I've got lined up for after graduation."

An Awards Ceremony

Stemm's is only one of 150 stories in the department of golf course and landscape operations, however. There are many students who come to Lake City from far-flung destinations such as Finland, England, Canada and Bermuda because of the department's reputation. There's the woman with the master's degree in business administration who decided to change careers and go back to school. There's the dentist who quit his practice of seven years to work on the grounds crew of a golf course so he could get the experience he needed before enrolling in LCCC's department of golf course and landscape operations. But at an awards banquet held at Lake City Country Club in April, it was easy to see that each of the students appreciated the education they received in their fields from LCCC. It was more like a football awards ceremony than anything. Cheers and standing ovations followed each scholarship awarded and each instructor introduced.

Chairman John Piersol opened the ceremony by listing the amount of scholar-ship money used within the department. It totaled over \$30,000 from many sources, and another \$5,000 went begging in the area of service technicians alone because of the small number of students entering this field. Dr. Muriel Kay Heimer, president of LCCC, also attended the ceremony. She said that the department of golf course and landscape operations was a leader on campus because of its strong ties to industry and because of its wide scope, with students coming from every state in the union.

Scholarship winners were: Chris Claus (landscape operations) and Mike Stemm (golf course operations), \$500 each from The Toro Company, Minneapolis; Steve Fairtrace (landscape) and Paul Meredith (golf course) \$500 each from QAE Services Inc., Tampa, FLa.; Roy Clark (landscape) and Al Smith (golf course), \$250 each from Nor-Am Chemicals, Wilmington, Del.; Wade Hartsfield and Frank Yaun (both in landscape) \$200 each from Post Landscape, a division of Post Properties, Atlanta; Iris Davis (landscape) \$300 from Glen Saint Mary Nursery for outstanding achievement in 1988, Glen Saint Mary, Fla.; Dan Adams and Jennifer Moore (both in landscape) from LCCC Landscaping Club, Lake City, Fla.; Debbie Bergeron (landscape), \$500 from the Northeast Chapter of the Florida Nurserymen and Growers Association; and Eric Krahn (turf equipment service technology), \$800 from Stovall and Co., Inc., Atlanta.

Jeff Elwood received the prestigious Robert Lassett Memorial Award for the student who most exemplifies the qualities of Robert Lassett, an LCCC student who was killed while still attending the college. Elwood donated the \$500 scholarship to the Golf Course and Landscape Operations Endowment Fund, which is currently being built up to support programs that the department's regular budget cannot allow for, including scholarships, equipment, materials and others.

Finally, the Ed Combest Scholarship for Excellence in Service Technology was announced. Named for the current driving force behind the service technology program at LCCC, it is to go to the service technology student who most exemplifies Combest's ideals of professionalism and performance.



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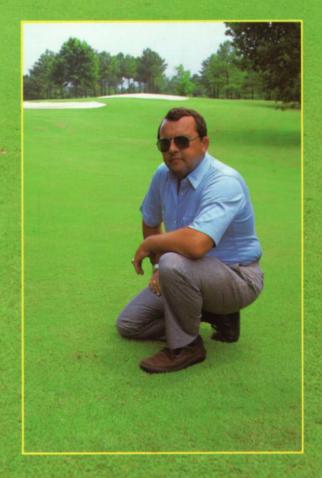
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Lightning A Flash in the Sky

by CHARLOTTE JONES

F we lived during the time of the Ancient Romans, we would believe that thunder and lightning were the weapons of the god Jupiter. Ancient Romans thought that such powerful and deadly weapons could belong only to the greatest of gods. Thunder and lightning was one of the great mysteries of nature.

Now the mystery is solved. We know, through scientific study, that lightning is really a flow of electricity, formed high above the earth. One thing that has not changed over the years is it can make us quake in our boots and raise our heart rate with the anxiety of seeing a bolt of lightning and waiting to hear the crack of thunder. Before you can say, "YIPES!", your pet dog has run under the bed or found some place to hide. All creatures great and small have an instinctive respect for lightning.

Do you know how lightning produces thunder? As lightning travels, it heats the air in its path. The sudden heating causes the air to expand violently. The cool air farther away is pressed into a smaller space. This process starts a great air wave that results in THUNDER.

Before you hear the thunder, flashes of lightning take place between a positively charged area and a negatively charged area. These may be different parts of the same cloud, different clouds, or a cloud and the earth.

A spark between a cloud and the earth may measure as much as eight miles in length. It may travel at a rate of 100,000,000 feet a second. Lightning that reaches between oppositely charged clouds may have a length of 20 miles. Photographs of lightning obtained by radar indicate that some cloud-to-cloud lightning strikes may measure 100 miles in length.

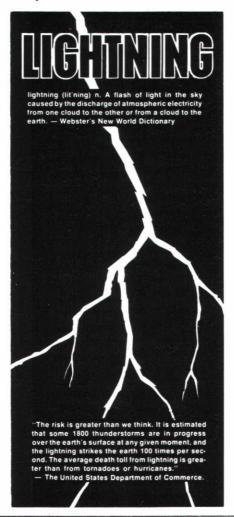
Lightning between clouds does not cause any damage on earth, because the electrical energy is dispersed in the air. But lightning between a cloud and the earth often causes loss of life and property. A bolt of lightning can kill a person or start a forest fire. Scientists have found that one stroke of lightning usually measures more than 15,000,000 volts.

There Are Different Kinds of Lightning

All lightning strikes are basically about the same. But they appear to have different forms, depending on the position of the observer.

FORKED, ZIGZAG, OR CHAIN lightning is a chain of brilliant light that appears to zigzag. It actually follows a winding path, like a river. The single streak of lightning often breaks into several branches or forks.

SHEET lightning has no particular form. It is usually a bright flash that spreads all over the horizon and lights up the sky. Sheet lightning is really light from a flash of chain lightning that takes place beyond the horizon.



HEAT lightning, often seen on summer evenings, is the same as sheet lightning, but the flashes are fainter. Thunder usually does not accompany them. The lightning occurs too far away for thunder to be heard.

BALL lightning seems to consists of balls of fire, as small as walnuts or as large as balloons, that last about three to five seconds. They fall swiftly from the clouds until they strike the ground and explode. Sometimes they roll slowly along the ground and do not explode until they hit an obstacle. Ball lightning is the least understood of all forms of lightning. Many meteorologists even doubt that it exists. They think it may be an optical illusion. However, so many reliable witnesses have seen it, that scientists have begun to study it. They have produced ball lightning in the laboratory. This kind of lightning does not appear to be dangerous.

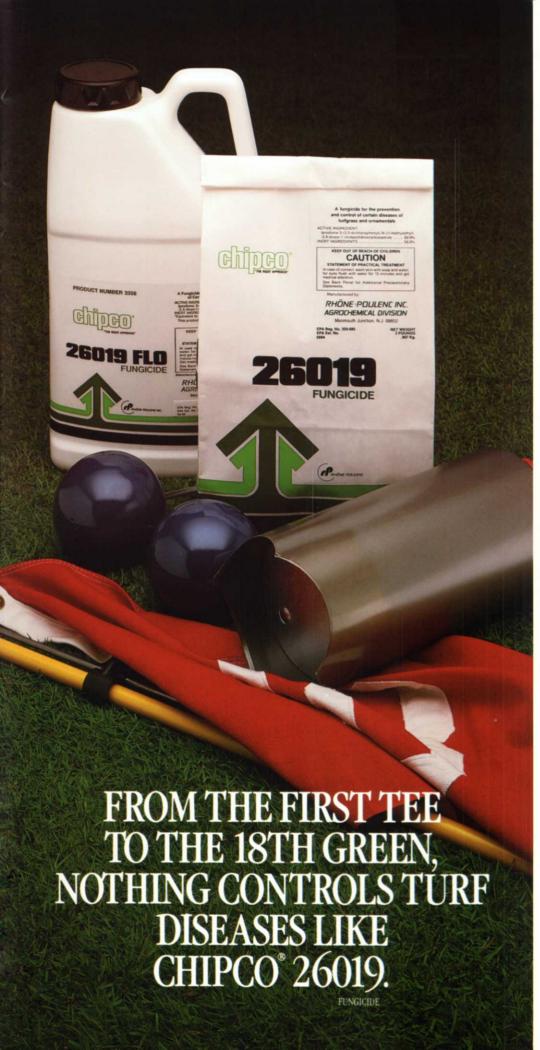
According to the United States Department of Commerce: 1800 thunderstorms are in progress over the earth's surface at any given moment, and the lightning strikes the earth 100 times per second. The average death toll from lightning is greater than from tornadoes or hurricanes.

Normal household current usually contains around 200 amps whereas lightning can contain up to 200,000 amps. Don't be mislead by amperage. A person can be killed with as little as 3 amps of electricity.

Lightning also poses another threat. Heat is a problem with lightning strikes. A person struck by lightning can be burned with temperatures as high as 15,000 degrees farenheit. Lightning presents three initial problems:

- 1. High Voltage
- 2. High Amperage
- 3. High Temperatures

These three things can inflict serious damage to a person. Continued on p. 66



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Please read label carefully and use only as directed. CHIPCO® is a registered trademark of Rhone-Poulenc. Florida with its tendency for surprise afternoon storms make the golfer and golf course employees a likely target. No one likes to think about getting struck by lightning. Perchance you find yourself in the midst of a surprise storm, keep these precautions in mind:

Keep away from trees. Lightning generally strikes tall objects such as trees, posts, poles, etc. By being close to these objects you may become a target and get shocked.

Stay away from water. Water is an excellent conductor of electricity and you may get shocked even if you are a distance away from the lightning strike or standing on wet grass. Do not seek shelter near a lake, river, etc.

Stay away from metal huts. Lightning, as with all electricity, is conducted through wet surfaces and metal.

Seek shelter. Get inside a building or inside a closed car. Do not seek shelter in a small partially enclosed building. Many outdoor "huts" still get wet floors.

Open area. If you are in an open area such as a fairway, crouch down or lay on the ground.

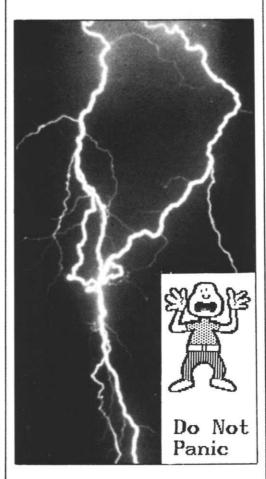
If skin tingles, duck. Static electricity will build just before a lightning strike. If your skin starts tingling, this is an indication of an impending strike. Get onto the ground quickly.

Because Flordia's weather can change from beautiful sunshine to a torrential downpour in a matter of a few hours, use common sense and get back to the club house or safe shelter before lightning strikes.

How to Treat A Victim Struck By Lightning

Above all do not panic. Nothing gets done in a panic.

 Before leaving the safety of a building, call Rescue. If possible, have someone watch for Rescue to guide them to your exact location. Time is



- of the essence. Resuscitation needs to be started as soon as possible after the lightning strike.
- Check the victim: If cardiac arrest, perform CPR. Keep working on the victim until Rescue arrives.
 - There may be burns on the skin or burns inside the body. As electrical current passes through the body, it burns the tissues. From the entrance into the body until it leaves the body through the exit wound, the current damages the tissues in its path.
 - Victims are usually thrown into the air, landing several feet from their original position. This landing may have caused broken bones and more importantly, it may cause a broken neck. A broken neck, if not handled properly, can cause permanent paralysis.
 - Other people near the victim can be injured, too. Golfers play in groups from two to four. Anyone in the group standing too close or standing on damp ground can receive a serious shock. You may be treating more than one victim.
 - Unless there is a severe threat to your life and the lives of the people around, you, do not move the victim. Do Not be tempted to put the victim into a golf cart and make a run for the clubhouse regardless of what the people around urge you to do Remind people around you not to panic!

Lightning is an unpredictable act of nature that makes a mighty and sometimes deadly statement of force. True respect of this force is to *know* the rules for safety and to *follow them*.



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LIGHTNING — THUNDERSTORM SAFETY RULES FOR GOLF COURSES

WHEN A THUNDERSTORM IS APPROACHING:

DON'T play the next shot: Get off the course IMMEDIATELY.

DON'T seek shelter under an isolated, unprotected area.

DON'T hold on to metal shafted clubs.

DON'T use an umbrella with a metal shaft.

DON'T be naive and play the odds and think you will never be affected by lightning on a golf course.

DO get off the course AT ONCE.

DO seek refuge in a large building or a rain shelter or other small building equipped with approved lightning protection or under a tree equipped with a certified lightning protection system.

DO get off high terrain - you are safer in a ditch, gully or depressed area or lying flat on the ground.

REMEMBER:

YOU DON'T HAVE TO BE HIT BY A DIRECT STROKE OF LIGHTNING TO BE SHOCKED, INJURED OR KILLED. THERE IS A POSITIVE CHARGE OF ELECTRICITY IN THE GROUND EQUAL TO THE NEGATIVE CHARGE IN THE THUNDERHEAD AND LIGHTNING CAN ENTER YOUR BODY FROM THE GROUND UP CAUSING SHOCK, INJURY OR DEATH ESPECIALLY WHEN WEARING METAL SPIKES OR HOLDING A METAL SHAFTED CLUB.

— Courtesy of

The Florida Golf Course Superintendents Association

Florida Has Most Lethal Lightning, **Finds** Study

The Associated Press WASHINGTON

LORIDA had more fatalities due to lightning strikes over the past 24 years than any other state, a study reveals.

The National Weather Service has compiled statistics showing that 2,430 Americans were killed by lightning between 1959 and 1982, with fatalities occurring in 48 states.

Only Hawaii and Alaska were free of lightning deaths during that 24-year stretch.

Here is a state-by-state roundup of lightning deaths from 1959 to 1982:

Alabama, 61; Alaska, 0; Arizona, 35; Arkansas, 90; California, 12; Colorado, 64; Connecticut, 12; Delaware, 8; District of Columbia, 3; Florida, 235; Georgia, 59; Hawaii, 0; Idaho, 18;

Illinois, 63; Indiana, 62; Iowa, 54; Kansas, 40; Kentucky, 59; Louisiana, 90; Maine, 16; Maryland, 99; Massachusetts, 19; Michigan, 68; Minnesota, 37; Mississippi, 66; Missouri, 67;

Montana, 18; Nebraska, 35; Nevada, 3; New Hampshire, 5; New Jersey, 44; New Mexico, 57; New York, 90; North Carolina, 125; North Dakota, 10; Ohio, 89, Oklahoma, 71; Oregon, 4; Pennsylvania, 91;

Puerto Rico, 24; Rhode Island, 3; South Carolina, 58; South Dakota, 14; Tennessee, 89; Texas, 127; Utah, 15; Vermont, 13; West Virginia, 17; Wisconsin, 36; and Wyoming, 21. ■

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part*ner (part'ner) n. 1. a person associated with another or others in a common activity or interest, esp.: a. a member of a business partnership.

* Syns: PARTNER, ALLY, ASSOCIATE, COLLEAGUE, CONFEDERATE; one who cooperates with another in a venture, occupation, or challenge partner*ship (pärt'nēr-ship') n. 1. The state of being a partner.

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Comparison of Overseeded Grasses for Putting Greens

by A. E. DUDECK and L. B. McCARTY

OBJECTIVE

OOL-SEASON turfgrasses are commonly used for overseeding purposes in the South to provide a green, ground cover and a playing surface during the winter period when bermudagrass goes dormant. The purpose of this study was to evaluate the suitability of various bentgrass, Agrostis sp., species and/or cultivars for overseeding purposes.

MATERIALS and METHODS

Nineteen entries of cool-season grasses listed in Table 1 were overseeded on a Tifdwarf bermudagrass putting green at the IFAS Turfgrass Field Laboratory, Gainesville, FL on 12 Nov. 1987. The Tifdwarf green was sprigged on 9 Sept. 1987 and was 95% covered at the time of overseeding. The test area was topdressed 14 days before seeding with a fumigated soil identical to the Arredondo fine sand (loamy, silicious, hyperthmeic Grossarenic Paleudult) on 29 Oct. 1987 at the rate of 7.4 ft³/1000 square feet (approximately one-eighth inch of soil). After topdressing, the side was dragged and watered daily.

Seed was diluted with a handful of soil and applied by hand to each plot. Plots were 4 by 6 feet in size and replicated three times in a randomized block design. After seeding, the area was again top-dressed with 11ft³/1000 square feet of soil to cover the seed. Nemacur was also

applied at 3 pounds of active ingredient per acre for the control of mole crickets. Preventative fungicides and insecticides were applied as needed throughout the study to minimize disease and insect problems, respectively. Light, frequent irrigation was applied three times per day during the establishment period. Two weeks after seeding, supplemental irrigation was reduced to once a day to meet daily evapotranspiration loss. Fertilizer was applied by-weekly commencing on 23 Nov. 1987 as 17-1-10 at 0.5 pounds of N per 1000 square feet.

Field data were gathered on rate of establishment based on visual estimates of percent overseeded cover three to four days during the first two months and

Continued on p. 72

Table 1. Seeding rates of cultivars, mixtures and blends of cool-season turfgrasses overseeded on a newly planted Tifdwarf bermudagrass green at Gainesville, FL.

	Entrees	Seeding Rate (lbs/1000 sq. ft.)			
-	Laser Rough bluegrass	10			
	Saber Rough bluegrass	10			
	Laser (60%) and Streaker Redtop (40%)				
	Laser (60%) and Penncross Creeping bent (40%)	7 7			
	Marvelgreen Supreme Ryegrass Blend				
	(50% Palmer, 25% Prelude, 25% Yorktown II)	30			
	Marvelgreen and Laser (85:15)	25			
	Penncross and Streaker (50:50)				
	Streaker redtop	5			
	Penncross Creeping bentgrass	5 5 5 5 5 5 5 5 5 5 5 5			
	Penneagle Creeping bentgrass	5			
	Pennlinks Creeping bentgrass	5			
	VNS Creeping bentgrass	5			
	Seaside Creeping bentgrass	5			
	Pennway Creeping bentgrass blend	5			
	National Creeping bentgrass	5			
	Highland Colonial bentgrass	5			
	Exeter Colonial bentgrass	5			
	Kingstown Velvet bentgrass	5			
	Nutri Coated Penncross Creeping bentgrass	. 5			
	Tifdwarf check - not overseeded				



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Continued from p. 70

then weekly thereafter. Data on percent cover were first transformed using angular or square root transformations accordingly before statistical analysis. Final data were retransformed back and presented in tabular form as retransformed treatment means on a monthly basis. Rate of ground cover was calculated as the total of average daily ground cover estimates for the first 50 days after seeding. Turf quality estimates were taken twice a week throughout the season but were summarized in tabular form as average monthly estimates. A rating scale of 1 to 9 was used where 9 = best and 1 = poor turf quality. Color was visually rated periodically on a 1 to 5 scale where 5 = bluegreen and 1 = applegreen color. To measure growth rates, clipping weights were taken periodically

by harvesting a mower swath taken longitudinally from the center of each plot. Samples were dried for a minimum of 48 hours at 150°F, weighed, and presented in tabular form as growth rates in kilograms per hectare per day.

As a further check on establishment rates in the field, a germination test was conducted in a controlled environment incubator to accurately assess total germinantion and germination rate between grasses. Seed were germinated for four weeks on a 1% agar medium in plastic petri dishes. Dishes were sealed with a plastic film to minimize water loss over a time. Approximately 100 seed were sown per dish. Four replicates in a randomized complete block were seeded. Dishes were placed in a incubator set at 15°C in

darkness and 30°C during the 8-hour light period. Light intensity was 10 W m⁻². Germinated seedlings which had roots and shoots as seen at 2X magnification were counted and removed every 3 to 4 days. Germination rate was calculated and present in tabular form as the sum of average daily percent germination.

RESULTS and DISCUSSION

Although grasses differed in total germination, the range in total germination varied from a low of only 91.6% to a high of 99.7% (Table 2). Thus, germination of all entries was excellent under controlled environmental conditions in the incubator. Rate of germination differed markedly between grasses (Table 2). Grasses having the fastest germination rates were Marvelgreen Perennial

Continued on p. 74

Table 2. Germination rate and total germination of selected cool-season grasses after 28 days with 8 hour photoperiods at 28°C with a light intensity of 10 W m⁻² and 16 hour dark periods at 15°C.

		Germination			
Cultivar	Species†	Total	Rate§		
The Laborator		%			
Seaside	СВ	99.7 a*	23.9 a		
Coated Penncross	CB	99.1 ab	23.9 a		
Kingstown	VB	98.5 a-d	23.6 ab		
Marvelgreen Supreme	PR	98.6 a-c	23.5 a-c		
National	СВ	98.7 a-c	22.3 b-d		
Streaker	RT	98.7 a-c	22.2 с-е		
VNS	CB	91.6 j	21.3 d-f		
Highland	Col B	96.9 c-f	21.2 d-f		
Penncross/Streaker	CB/RT	96.1 e-h	21.2 d-f		
Exeter	Col B	97.1 b-f	21.1 d-f		
Marvelgreen/Laser	PR/RB	97.3 b-f	20.9 ef		
Penneagle	CB	95.3 f-h	20.6 fg		
Penncross	CB	95.6 e-h	20.3 fg		
Pennway	CB	6.3 d-h	20.1 fg		
Penncross-2nd gen.	CB	92.1 ij	19.3 gh		
Pennlinks	СВ	96.6 c-g	18.4 h		
Saber	RB	97.6 a-e	16.2 i		
Laser/Streaker	RB/RT	2.0 ij	15.5 ij		
Laser/Penncross	B/CB	4.2 hi	14.7 jk		
Laser	В	94.6 gh	13.9 k		

[†] CB = Creeping bentgrass, Col B = Colonial bentgrass, PR = Perennial ryegrass, RB = Rough bluegrass, RT = Redtop, VB = Velvet bentgrass.

[§] Germination rate = sum of the average daily germination percentage.

^{*} Means within columns with the same letter are not significant different (p = 0.05) using the Waller-Duncan K-ratio t test.

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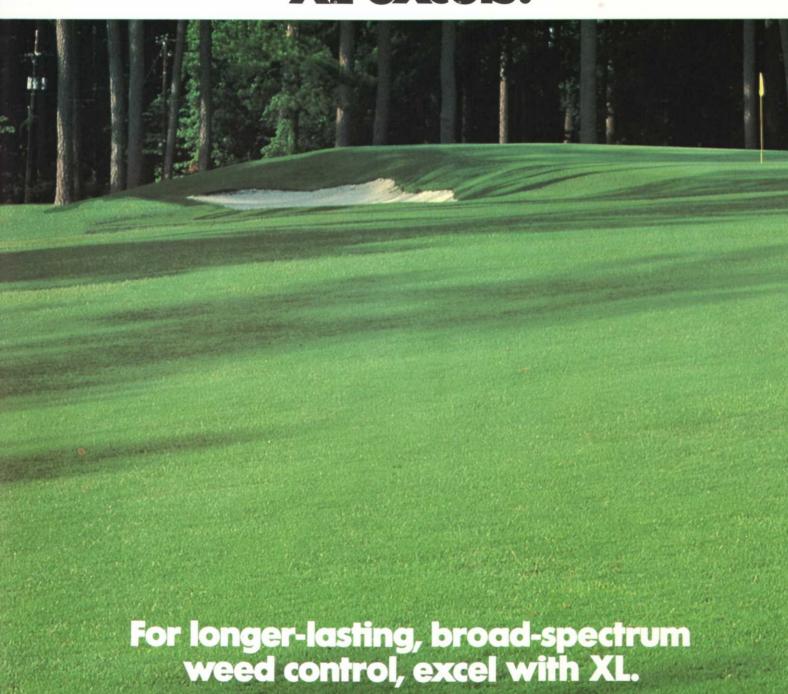
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ryegrass blend, Kingstown Velvet bentgrass, Seaside Creeping bentgrass, and the fertilizer coated Penncross Creeping bentgrass. Perennial ryegrass is commonly used for overseeding purposes because of its fast germination rate. It was very interesting to find that Streaker Redtop; National, Seaside, and coated Penncross Creeping bentgrasses; and Kingstown Velvet bentgrass had germination rates equal to the blend of Perennial ryegrasses. Laser and Saber Rough bluegrasses and mixtures of Laser with Streaker Redtop or Penncross Creeping bentgrass had the poorest germination rates of all grasses tested.

Grasses differed markedly in rate of ground cover and ground cover estimates throughout the growing season (Table 3). Marvelgreen Perennial ryegrass blend along with its mixture with Laser Rough bluegrass had the best rate of ground cover establishment in the field averaging 43%. Second best were

Laser and Saber Rough bluegrasses and coated Penncross Creeping bentgrass which averaged 37%. Although both Rough bluegrass cultivars had poor germination rates (Table 2), they apparently have good establishments rates as they averaged 68% ground cover in November (Table 3). This was second best to the Perennial ryegrass blend and its mixture with Laser Redtop were inferior in establishment rates in the field compared to the Perennial ryegrass blend and its mixture with Laser Rough bluegrass. Kingstown Velvet bentgrass was grouped with Highland Colonial bentgrass and Creeping bentgrass cultivars of Penncross, Penneagle, Pennlinks, Pennway, and VNS. This group had the lowest establishment rate of 21%. Coated Penncross was superior to untreated Penncross Creeping bentgrass not only under controlled conditions in the incubator (Table 2), but also in rate of ground cover and overseeded cover in November and December (Table 3).

Grasses differed in growth rates on 29 Jan. 1988 (Table 3). Additional data must be gathered and analyzed, however, throughout the remainder of the growing season to support a valid discussion on this parameter.

Overseed grasses differed in average monthly turf quality throughout the season as well as in average seasonal quality to date (Table 4). Laser and Saber Rough bluegrasses, Marvelgreen Perennial ryegrass blend, and the latter's mixture with Laser Rough bluegrass had the highest seasonal turf quality rating of 8.5. Colors differed primarily between species whereas differences between cultivars within species were very small or nonexistent (Table 4).

As this study is still underway, no conclusions should be drawn at this time.

Continued on p. 76

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Table 3. Ground cover estimates, rate of ground cover, and growth rate of cool-season grasses overseeded 12 Nov. 1987 on Tifdwarf bermudagrass at Gainesville, FL.

		1987		1988			Rate	
Cultivar	Species†	Nov.	Dec.	Jan.	Feb.	Mar.	Cover§	Growth
					%			kg ha-1 d-
Marvelgreen/Laser	PR/RB	86 a*	98 a	99 a	99 a	99 a	43 a	18.2 a-d
Marvelgreen Supreme	PR	87 a	97 a	98 a	98 a	98 a	43 a	15.3 c-f
Sabre	RB	69 b	96 a	98 a	99 a	99 a	38 b	22.5 a
Laser	RB	67 b	96 a	99 a	99 a	99 a	38 b	21.8 ab
Coated Penncross	СВ	62 b	87 b	73 b-d	87 b	90 b	34 b	13.6 d-g
Laser/Streaker	RB/RT	41 c	88 b	93 a	95 a	99 a	30 c	16.7 b-e
Streaker	RT	43 c	84 bc	55 f	78 cd	80 de	29 c	11.9 e-h
Laser/Penncross	RB/CB	39 cd	88 b	92 a	95 a	98 a	29 c	16.2 c-f
Seaside	CB	36 cd	81 b-e	68 с-е	87 b	88 bc	28 cd	18.8 a-c
National	СВ	33 c-f	82 b-d	64 d-f	83 bc	90 b	27 с-е	14.0 cg
Exeter	Col B	34 d-e	78 c-f	44 g	69 e	79 de	26 c-f	12.5 e-h
Penncross/Streaker	CB/RT	29 d-g	77 c-g	67 de	87 b	83 cd	24 d-g	11.4 f-h
VNS	CB	24 e-h	77 c-g	68 de	87 b	87 bc	23 e-h	13.6 d-g
Penncross	CB	22 gh	77 c-g	80 b	85 b	90 b	23 e-h	15.0 c-f
Penneagle	СВ	25 e-h	73 e-h	74 b-d	86 b	90 b	22 f-h	15.1 c-f
Pennway	СВ	20 gh	74 d-h	77 bc	88 b	90 b	21 gh	13.0 e-h
Kingstown	VB	23 f-h	68 gh	58 ef	73 de	83 cd	21 gh	8.1 hi
Pennlinks	CB	19 h	72 f-h	70 cd	87 b	92 b	21 gh	13.6 d-g
Highland	Col B	17 h	66 h	39 g	70 e	74 e	19 h	9.4 gh

[†] CB = Creeping bentgrass, Col B = Colonial bentgrass, PR = Perennial ryegrass, RB = Rough bluegrass, RT = Redtop, VB = Velvet bentgrass.

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[§] Cover rate = sum of average daily percent cover for the first 50 days after seeding.

^{*} Means within columns with the same letter are not significant different (p = 0.05) using the Waller-Duncan k-ration t test.

Table 4. Turf quality and color estimates on cool-season grasses overseeded 12 Nov. 1987 on Tifdwarf bermudagrass at Gainesville, FL.

	Species†	Quality					Color		
Cultivar		Dec.	Jan.	Feb.	Mar.	Mean	Nov.	Feb.	Mar.
Hard Bridge						- Ratings§			
Laser	RB	8.8 a*	8.9 a	8.4 a	8.8 ab	8.7 a	2.0 e	1.0 e	1.7 f
Sabre	RB	8.9 a	8.8 a	8.4 a	8.5 a-c	8.6 ab	2.0 e	1.0 e	1.0 f
Marvelgreen/Laser	PR/RB	8.7 ab	8.6 ab	8.2 a	9.0 a	8.6 ab	1.0 f	1.7 de	2.7 e
Marvelgreen/Supreme		8.0 b	8.1 b	8.1 ab	8.8 ab	8.2 a-c	1.0 f	2.0 d	3.2 de
Laser/Penncross	RB/CB	7.9 b	8.3 ab	8.0 ab	8.3 bc	8.1 bc	3.7 cd	2.0 d	3.0 e
Laser/Streaker	RB/RT	8.0 b	8.1 b	7.7 bc	8.7 ab	8.0 c	3.7 cd	2.0 d	2.5 e
Penncross	CB	6.8 c	6.7 c	7.2 cd	7.3 d	6.9 d	4.7 ab	5.0 a	5.0 a
Pennway	CB	6.3 cd	6.4 cd	6.9 de	7.0 de	6.6 de	4.7 ab	5.0 a	5.0 a
Coated Penncross	CB	6.2 с-е	6.0 de	6.8 d-f	8.0 c	6.6 de	4.0 b-d	5.0 a	5.0 a
Pennlinks	CB	5.9 d-f	5.7 ef	7.2 cd	7.0 de	6.4 ef	4.7 ab	5.0 a	4.8 a
Penneagle	СВ	5.7 d-g	5.8 ef	6.8 d-f	7.3 d	6.3 ef	4.7 ab	5.0 a	5.0 a
National	CB	6.1 c-e	5.6 ef	6.5 e-g	7.0 de	6.1 ef	4.3 a-c	4.3 ab	4.0 bc
Seaside	CB	5.5 e-g	5.4 fg	7.0 de	6.7 e	6.1 ef	4.3 a-c	4.0 bc	4.0 bc
VNS	CB	5.7 d-g	5.5 ef	6.6 ef	6.5 ef	6.0 f	5.0 a	4.7 ab	4.8 a
Penncross/Streaker	CB/RT	5.6 d-g	5.5 ef	6:3 f-h	6.7 e	5.9fg	5.0 a	5.0 a	4.8 a
Streaker	RT	5.2 fg	4.9 gh	6.0 gh	6.0 fg	5.4 gh	3.3 d	5.0 a	4.5 ab
Kingstown	VB	5.0 g	4.7 h	5.8 h	5.7 gh	5.2 h	4.0 b-d	3.3 c	3.7 cd
Highland	Col B	3.7 h	3.5 i	5.1 i	5.3 hi	4.2 i	4.7 ab	5.0 a	4.5 ab
Exeter	Col B	3.7 h	3.7 i	4.9 i	5.0 i	4.2 i	4.3 a-c	5.0 a	4.3 a-c
Tifdwarf check		1.0 i	1.0 j	1.4 j	2.8 j	1.4 j	-	-	-

- CB = Creeping bentgrass, Col B = Colonial bentgrass, PR = Perennial ryegrass, RB = Rough bluegrass, RT = Redtop, VB = Velvet bentgrass.
- Quality rated 1 to 9 where 9 = best. Color rated 1 to 5 where 5 = bluegreen and 1 = apple green
- Means within columns with the same letter are not significant different (p = 0.05) using the Waller-Duncan k-ration t test.



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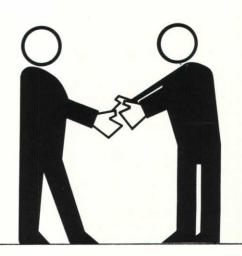
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(How to Find Good Employees)

SEEK AND YE SHALL FIND



By Cheryl Jones, A.G.C.S.W. (Asst. Golf Course Supt.'s Wife) Frenchman's Creek Golf Course North Palm Beach, FL

Finding a good employee - ah, the elusive gem every golf course superintendent searches for and always hopes to find. The prompt, efficient, courteous, hardworking, sober, intelligent employee is the stuff which superintendent's dreams are made of. Those model employees ARE out there, and finding them is the first and often the most difficult step. The following are a few suggestions of where one might search.

1) NEWSPAPER ADVERTISEMENTS

Probably the most widely used method of attracting new employees. The benefits include having a specific target area so those seeing it live . . . say, within a half-hour's drive from work. Utilize the major newspaper classifieds, but don't forget about those smaller publications which go out to every residence free of charge. Many folks don't have time to read a weekday major paper so don't subscribe, or do so only on weekends. If your budget won't comfortably cover ALL papers in your area, cover as many of the freebie papers as you can and target a weekend day - preferably Sunday - to advertise in the major newspaper. Be specific in your wording. If you only hire people with prior experience, say so. Don't waste your time fielding calls from those without an inkling of what the job entails. The outfit my husband works for requires employees to have transportation. This hopefully insures they will show up every day. Of course, if an applicant with extensive experience and sterling references, who happened to ride the bus, applied, he/she would definitely be considered.

2) GOLF COURSE CURRICULUM SCHOOLS

Here you find a host of people who are already interested in the industry, and are, in most cases, required to complete an On The Job Training Program as part of their education. Generally these people can be used only during the summer months when school

is out, but here, too, there are exceptions. The course where my husband did his second-year on the job training was within commuting distance. Tim scheduled his third year classes so his Fridays were open and he could continue to work one full day and weekends on the course. He was a good bet for the superintendent, too; at the top of his class academically, and with two babies at home to feed, it was safe to assume he'd be there on time every day for his full eight hours.

3) WORD OF MOUTH

Keep the pipeline open to other superintendents. A good worker may choose to switch courses for a variety of reasons, from family obligations to personal reasons. Say John Doe's wife gets a job 60 miles away and he's leaving you. You hate to lose him, but she's making twice the money he is and you obviously can't stand in his way. A superintendent in his new area is an aquaintance of yours. Offer to send your employee with a shining recommendation. What goes around comes around. Your crew may also know of other golf course people looking for employment.

4) HIGH SCHOOLS

From golf teams to guidance counselors, high schools offer a wealth of raw material to shape to your own specifications. Kids on the golf teams may want to work weekends during the school year to finance their expensive hobby . . . summer vacations give you three whole months to really let them get their feet wet and separate the men from the boys.

Guidance counselors deal with hundreds of graduating seniors each year. Granted, many kids go on to college. Use this to your advantage - drop off some brochures from the golf course curriculum colleges and let the kids know that this career is available to them. Hundreds of area kids won't opt for college,

but prefer to go right to work. Remember, these young people are used to getting up early for school and getting off at 3:30 in the afternoon. Perfect! Look to the athletes - young men and women who are in top physical condition from football, baseball, basketball, tennis, track, cross-country - sports that require dedicated sustained exertion, preferably in the great outdoors. (In Florida, this translates to "in the heat and humidity".) For those of you near rural areas. most farm kids drive a tractor before they can walk and spend their free time harvesting everything from hay to tomatoes. Give 'em the acid test - check their hands for callouses. (just kidding!) A decade ago, I myself sat in my high school guidance counselor's office, wondering what in the world I was going to DO with my life. Work in the golf course industry was never even whispered as a possibility, even though there were two courses in the area. In those glorious days of 6 B.C. (before children) I was as strong as the bull in the barn and used to getting up at 5 a.m. for chores. This former farm gal would have loved to watch the sun rise while working on a beautiful golf course. But it was never mentioned, therefore never pursued. There is such a wealth of healthy young people out there - let's not overlook

5) JOB SERVICE OF FLORIDA

John Doe's brother, Jack, is among the 900-plus people that moved to Florida yesterday. He has ex-

perience in the industry and a wife and three kids in a hotel room. Finding an apartment is his first priority, and while he's out looking, he passes the Job Service of Florida office. It's on his "things to do' list. He swings in, fills out his papers, is given your course's name and address, and by 4 p.m. you have a new employee. Jack didn't have time to search the classifieds and go off looking for golf courses in a strange area, and has to replenish those savings he just spent on that apartment. Because you registered your opening with the state and not some lesserknown agency, you just got yourself a good employee. How clever of you, Mr. Superintendent! You describe what you want, and the employment counselors sift thru all possible employees looking for that experienced person for you. You just saved yourself a lot of time and hassles. Of course, there are no guarantees - but there never are. are there? Don't arbitrarily close a door because Joe Blow at Course "B" didn't have good luck with a referral. One added bonus: some radio and television stations run Job Service openings as part of their Public Service announcements, and are heard and seen by many potential employees.

6) EMPLOYMENT AGENCIES

Another possibility. We don't want to malign these places - some are quite good at what they do. It's the fly-by-night operations that get all the bad press. At some agencies, the prospective employer pays a fee



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to register his job. At other agencies, the applicant pays a fee when he is hired at a job secured for him by the agency. The fees are often quite hefty. But one could get lucky. Just depends on how much you want to spend to find a good employee. Those hundreds of dollars would go a long way in newspaper advertising.

7) TURF MAGAZINE CLASSIFIED ADS

A long shot, I admit. But suppose the guy who works up on a golf course on the Great Lakes decides a warmer climate is a must - and chooses to secure employment before he makes the big move. He places a job-wanted ad in a turf magazine classified section. For the cost of a phone call you might get lucky. As obvious as it may sound, keep your eyes open.

8) RETIREMENT COMMUNITIES

I'm not suggesting that you put elderly people on those torturous greens-mowers. I'm talking about the newly-retired man who is driving his poor wife absolutely nuts shadowing her every move, nothing constructive to occupy his time. We had the pleasure to meet one older gentleman in 1984 in the St. Petersburg area. Bud was positively delightful; a retiree, a gentleman in every way, with the muscles and stamina of three twenty-year olds. "Doing Nothing" after his retirement didn't sit well with him, and being an avid golfer, he started working on a golf course. Didn't really need the money - but the golfing privileges were valuable to this gentleman. I envied his seemingly limitless energy! Golf course laboring is definitely not for all members of the senior set, but when I think of Bud outshining so many other laborers I knew, I must recommend looking to the new retirees for employees. This is probably more overlooked than any other segment of our population - folks who have soooo much to contribute. My hat's off to Bud for opening my own ignorant eyes to the wealth available in the senior set. Please, please, PLEASE don't dismiss this ever expanding field of potential workers.

You all have had extensive experience in hiring new employees, running the gamut of success from abject failures to sterling winners. What I propose is to give more attention to the paranthesis of the working class... the young and the old. The younger people for their limitless energy, quick brains, and eagerness to MAKE IT in this world, and the older folks who aren't willing to be put out to pasture - who have so much to give with their experience, quiet determination, and mature dedication to the job at hand.

Ladies and gentlemen, I wish you the best of luck in your search for those good employees. They're out there! If you have an unusual way of finding a diamond-in-the-rough, or a unique success story you'd like to share with other superintendents, drop a line to THE FLORIDA GREEN. I leave the training and retaining to you experts, and only hope some of my suggestions lead to your finding that special employee you've been looking for.



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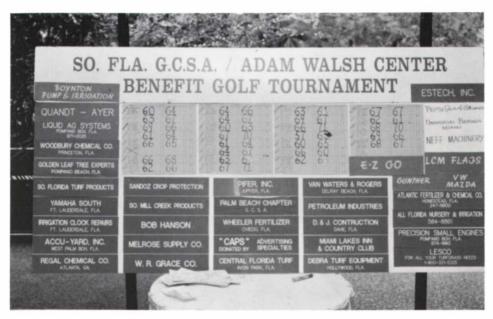
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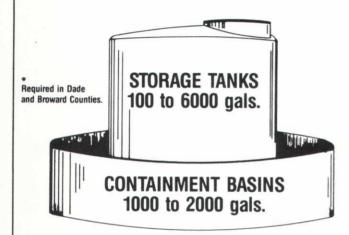
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FTGA Announces The 1988 Prayer Breakfast

by IRENE JONES

The Annual FTGA Prayer Breakfast Receives A New Name

The Bill Wagner Memorial Prayer Breakfast is to be held at 7 AM on Monday, October 10th at the Hyatt Regency Hotel in Tampa, FL.

Rev. Roger G. Watts, pastor of St. Marks United Methodist Church, St. Petersburg, FL, will share his thoughts on how laymen can accomplish much in the building up of the church. Roger is convinced that laymen must discover, develop and direct their efforts if the church is to grow and function properly.

Roger spent 11 years in the grocery business (wholesales and retail) before answering the call to the ministry.

Special music will be a part of the breakfast. Everyone is invited to attend and help make this first Bill Wagner Memorial Prayer Breakfast one to be remembered.

Dan and I have been attending this annual event for a number of years. The fellowship and the genuine warmth at this breakfast makes it a special event of the conference that we look forward to every year.

Hopefully we will see you there!

Mr. Harold Campbell, Jupiter, FL, is the Chairman of this event. If you have any questions or want any more information, call Harold at (407) 746-1096.



The One-Man Topdressing Operation

by JOHN H. FOY

Agronomist, Southeastern Region, USGA Green Section

HERE IS NO WAY of getting around the fact that proper golf course maintenance consumes a lot of man-hours. In addition to the routine operations such as mowing, irrigation, pesticide applications, and fertilization, additional required maintenance practices such as aerification, topdressing, and verticutting must be performed periodically. Innovations in equipment continue to improve the efficiency of these operations, but it has been my experience that superintendents are always eager to further streamline and improve operating efficiency. My best turf tip of 1987 is a simple

means of reducing the labor requirement of routine topdressing operations.

This turf tip was observed at the Banyan Golf Club, in West Palm Beach, Florida, where Dan Jones is the golf course superintendent. Besides providing the membership with one of the consistently best maintained golf courses in the area, Dan is the editor of the award-winning Florida Green magazine, and donates hours of his time to community service projects. Obviously, good organization and efficient use of his time are necessary. These traits can be observed throughout the maintenance programs at Banyan. An excellent

example of this is the one-man topdressing operation.

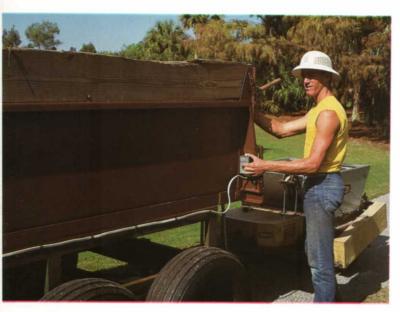
Typically, when topdressing is underway, two or even three men are involved, and, unfortunately, valuable man-hours are lost while the crew has to wait for various phases of the operation to be completed. At Banyan, only one man is required for topdressing, thus more efficient use of valuable man-hours is realized.

When Jones arrived at Banyan several years ago, he discovered an old three-cubic-yard trailer sitting among a number of other pieces of scrap equipment.

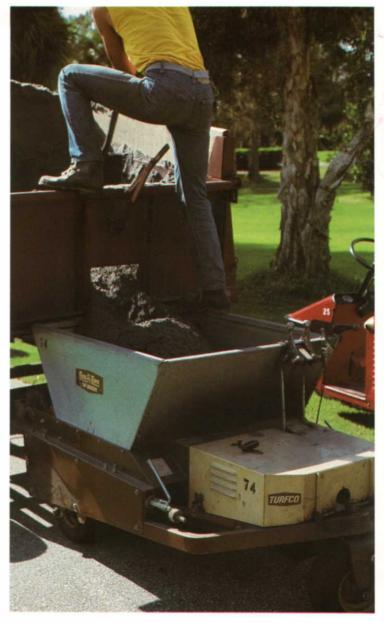
The setup: tractor, trailer, and topdresser at Banyan Golf Club, Florida.







(Top) Outfitted with a hydraulic lift.
(Above) Hydraulic lift control at rear of trailer.



A one-man "fill-up."

After restoring the trailer and making a few modifications, he developed the one-man topdressing operation. The basic modifications consisted of installing a hydraulic lift to the front of the trailer and an electrical control setup at the back to monitor filling the topdresser, and a three-way tailgate. The three-way tailgate improves the versatility of the trailer so that it can be used for other hauling operations. A couple of 12-volt batteries are mounted on the trailer to power the electrical control system of the hydraulic lift, but it should

be noted that the batteries are also connected into the charging system of the tractor that is used for towing the trailer in order to maintain a constant charge.

The really innovative part of this operation is the ability to tow the top-dressing machine to where it is to be used. The mechanic at Banyan fabricated a very simple hitch setup from a piece of steel pipe. The hitch connects to the back frame of the trailer and the front frame of the topdressing unit. Cotter

pins secure the hitch, but at the same time afford a quick and simple disconnect.

Examination of this setup reveals that it is simple, yet extremely functional. Once the trailer is filled with topdressing material, one operator can conduct a topdressing operation. Jones reports that when a light application of topdressing is being made to the greens, one trailer load is enough for nine greens. Over a year's time, this very efficient operation saves a significant amount of man-hours.

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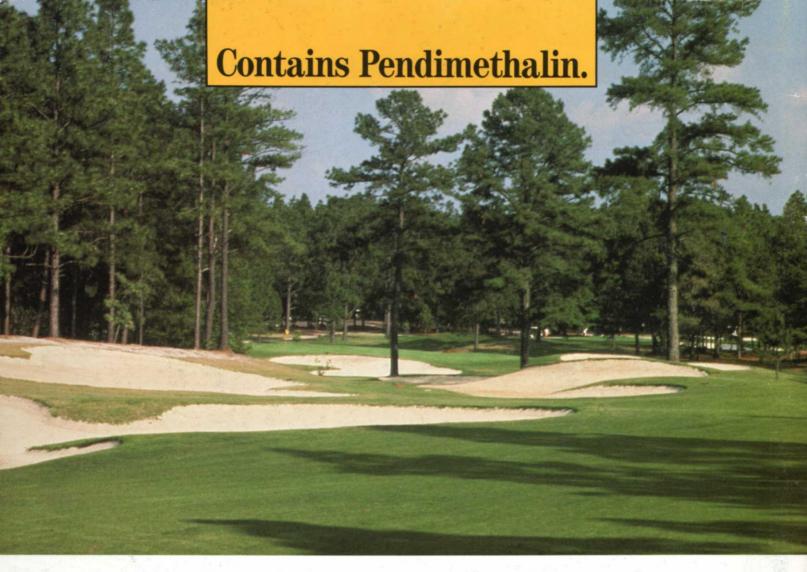
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