

### Other comments.

**ASSISTANT SUPERINTENDENTS** have a tough job to fill. The person has to have the ability to take charge of the entire operation in the superintendent's absence. That is a lot of pressure and responsibility. People management is the most important part of the assistant's job. They need to know who can do the job and operate special equipment to produce the desired results. They also need to know the club's level of expectations for the course maintenance department.

- *Tad Altman*

**I'M VERY PROUD** of our assistants and I rely on their dedication to Mariner Sands.

- *Bill Lanthier*

**I HAVE BEEN MOST** successful in hiring assistants through word of mouth, friends in the industry or hir-

ing an individual who is already on staff. The latter of these three methods is my preference. The obvious knowledge about your operation that the applicant who was hired from within has is invaluable.

I have used the GCSAA job referral service without much success. I received approximately 75 applications in response to several different openings. Seventy-five percent of those applicants did not meet the specified job qualifications or their resumes were of very poor quality.

- *Greg Pheneger*

**ASSISTANTS ARE VERY** important and quality ones are becoming very hard to find. Superintendents must stress the importance of their jobs to them and allow them room for error so that they can grow and become much more valuable to the industry.

- *Greg Pheneger*

### Acknowledgments

- Tad Altman**, GCS. Alan Ragland, AGCS Stonebridge CC
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- Bill Lanthier**, CGCS. Steve Johnson & Harry Hanson, AGCS, Mariner Sands CC
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- Bill Plante**, GCS. Donald Whyner, AGCS, Orange Park CC
- Kevin Rotti**, GCS. Lear Despeaux, AGCS, Eastwood GC
- Jim Walker**, GCS. Tom Parker, AGCS, Palmetto GC
- Terry Wood**, GCS. Kyle Nygaard, AGCS Royal Wood G & CC



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Locked cabinet with limited access.....



.....contains the department's small hand tools.....



....which are checked out using a numbered employee ID tag. Photos by Scott Mac Ewen

*Super Tips*

# Small Tools Management System

BY SCOTT MAC EWEN, GCS  
TPC of Tampa Bay

**A**s the superintendent of the Tournament Players Club of Tampa Bay I have implemented a system of small-tool management designed to improve the problem of lost or broken small tools.

I am sure that there have been times when each of us has encountered situations where the tool we reach for is missing.

After scratching your head or turning the place upside down you end up running to the local department store to purchase the needed item.

You can help eliminate this problem by setting up a system of having the staff "check out" the small tools they need.

Checking out the tools helps keep track of where that tool is, who had it last and puts responsibility on the individual to feel he or she is the tempo-

rary owner of the tool and held accountable for its return to the proper place.

This can easily be accomplished by setting up an inventory for screwdrivers (various types and sizes), hammers, saws, measuring tapes, pliers, wrenches, bolt cutters, utility knives, machetes, pruners, loppers, extension cords, staple guns or any other tools you wish to incorporate into the system.

You should arrange the tools in a cabinet that can be locked. Each tool has its own assigned place in the cabinet by use of a nail, screw or hook. The description of the tool is labeled and affixed in that location.

Example: "25" tape measure" with a piece of self-adhesive label tape next to the nail. Then at each of these spots a small screw hook is installed.

*This system is working well and over the long run I expect to show a cost saving in replacement of tools needed every day.*

Each employee of the club has an assigned number, the superintendent, general manager, golf course maintenance staff members all the way down the line to the cart staff. Anyone who might need a tool has an ID number.

On the inside of the cabinet we have posted everyone's assigned number and installed a small rack of metal tags with the numbers stamped into them. When staff checks out a tool they hang a tag with their assigned number on the small screw hook. When they return the tool they return the tag.

The cabinet remains locked at all times with only key personnel having access to the cabinet. This ensures accuracy of the check-out process. This system is working well and over the long run I expect to show a cost saving in replacement of tools needed every day.

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# Deeply rooted in Florida

## University of Florida one of first sites for USGA turf research

BY JAMES M. LATHAM  
*USGA Agronomist & Regional Director, retired*

**D**id you know that the very first research grant on warm-season turfgrasses sponsored by the USGA Green Section was to the University of Florida? Yep — some 74 years ago. That was only two years after the establishment of the Green Section as a source of information aimed at solving problems on golf courses in the United States.

A sum of \$25 a month was provided to the Gainesville Experiment Station, entrusted to Vice Director and Animal Industrialist John M. Scott. C. V. Piper and R. O. Oakley, who were the Green Section research team then, apparently made the contact through their USDA work with forage plants. Incidentally, a Mr. L. C. Menager of the Florida Country Club in Ortega, served on the first Green Section Committee.

The initial work involved testing sod-forming grasses for their potential use on golf courses. A couple of years later the turf work was taken over by USDA Forage

Crop Agent C. R. Enloe, who sent duplicates of the Gainesville grasses to the Everglades Station (at no extra charge). Just growing the grasses in a pasture-like setting was not enough for Piper and Oakley, so they bought and sent a brand new, \$75.00 Pennsylvania putting green mower to Enloe, to determine how the grasses withstood daily mowing at putting green height — 3/8 inch.

Mr. Enloe didn't have the time to do this grunt work, but he found a graduate student who wanted to do research on grass root development. Thus came the first post-graduate student project supported by the Green Section, with an annual grant of \$750, later raised to \$900. The money was for labor and was not like the formal scholarship or fellowship grants we see today.

Mr. Addison Shuler Laird did an excellent job of measuring and photographing the root systems of the grasses under mowed and pasture conditions, with different fertility regimes in different soils and wrote his thesis entitled "A Study of the Root Systems of Some Important Sod-Forming Grasses" in 1927.

The USGA or the Green Section weren't exactly household words then, as noted in the Preface to the thesis: "So great has been the desire for accurate information concerning golf grasses in Florida that the American Golf Club Association has financed part of this investigation."

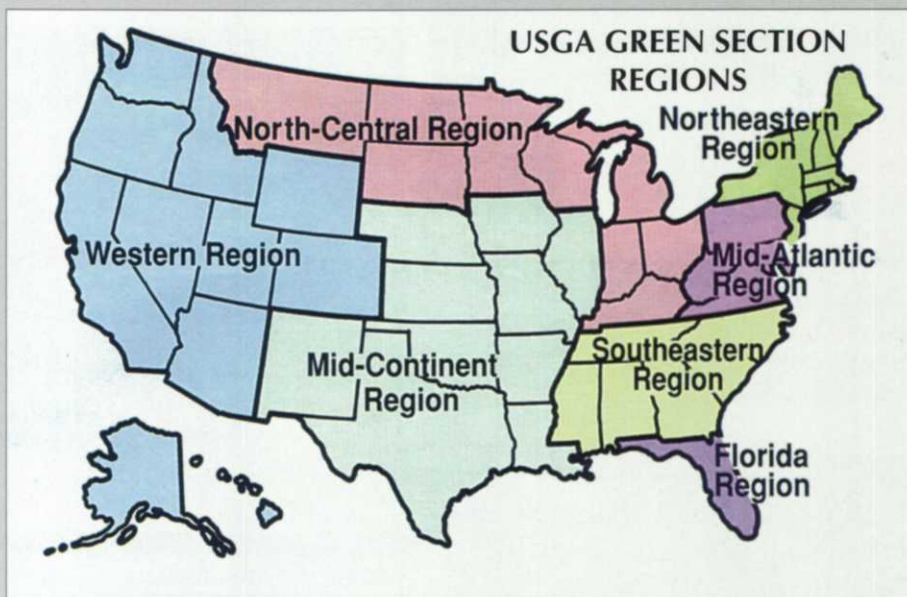
The thesis provided the basic material used in the production of Bulletin 209, published by the University of Florida Agricultural Experiment Station, entitled *Lawns in Florida* by C. R. Enloe and A. S. Laird, in 1930. Both publications are in the University Library.

In 1930, times were hard and the USGA could not continue the high-level grants, but could go for \$300. That could not support the present level of work, so the two organization mutually agreed to halt it. The connection was reestablished after World War II at the Everglades Experiment Station under the direction of Roy Bair.

This continued until 1950, when Mr. Bair resigned to go into private consultation work. Turf research was then moved back to Gainesville where, in 1952, Dr. Gene Nutter became the guru of grasses for



John Foy has been director of the Florida Region since it was separated from the Southeast Region at the beginning of the decade.



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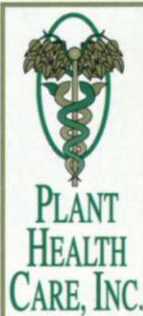
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*Ken Burnette,  
Golf Course Superintendent  
Royal Pines Golf and Country Club,  
Beaufort, SC*



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the state and brought the program up to a leadership position in the country.

The Florida experience is not unlike many of today's state or regional turfgrass research and extension programs. Many were initiated by seed money from the Green Section and the salaries of the turf specialists were picked up by the university administrations, through the prodding of local golf associations and golf course superintendent's organizations.

Turf-oriented research today, however,

is receiving less and less governmental support, so the Green Section is again playing a major role in its fiscal support, along with that of the local, regional and national superintendents organizations and a few privately funded research foundations.

Back in the days before the Green Section was established, Piper and Oakley were besieged by requests for information on the establishment and care of golf course turf. They had some small research projects

under way, but needed a vehicle to disseminate what little scientific information they had. The organization of the Green Section of the United States Golf Association did that, in 1921.

Working from Washington, D. C., with plots in Arlington, Va., (where the Pentagon now stands), they published *The Bulletin of the USGA Green Section*, a periodical containing articles on their research and those written by other learned men, on golf course maintenance.

Remember that the chairmen of green committees made most of the decisions on golf course maintenance at that time and greenkeepers (there were no superintendents then) just did the work. Chairmen attended the few turf conferences and went home to tell the greenkeepers what to do.

With the golfboom of the 1920's, came demands by southerners to do something for the courses below the bentgrass/bluegrass zone. The Tufts family of Pinehurst fame had been experimenting with grasses for several years to get some kind — any kind — of turf cover on their fairways (they were happy with sand greens).

But until the Green Section came along, there had been no organized effort to look into producing sod-forming grasses that were suitable for use on southern golf courses.

Another USDA scientist, plant pathologist Dr. John Monteith, came to the Green Section in 1928, to continue his work on plant diseases. His research introduced the use of inorganic mercury and other compounds for disease control and prevention.

It was during his administration that many of the named vegetative bentgrasses were selected. Those selections gave rise to many commercial turf nurseries and the impetus for commercial turf supplyhouses to develop high quality products for golf course use.

The Depression years had a stifling effect on existing golf courses and new course development. The fallout was felt in research and extension conducted by the Green

Section, since the only source of funds was memberships fees and admissions to the US Open and Amateur Champion-

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ships. All of the travel costs were borne by member clubs requesting personal visits or the golf organizations and universities sponsoring conferences or short courses. The shortage of funds was made worse during WW II by the shortage of scientists to conduct the work.

Fortunately for the turf industry, the Green Section hired a plant physiologist to administer the project and continue the research and extension work—Dr. Fannie Fern Davis. Her interest in plant hormones resulted in the discovery that a compound identified as 2,4-D could selectively remove broadleaf plants from grass populations. Her dislike of administrative duties led to her resignation in 1945.

She was replaced by Dr. Fred V. Grau, who preached strongly for the support of university training and post-graduate degrees for people interested in the turfgrass field. His efforts bore fruit with the establishment of a position at Penn State University that resulted in James R. Watson becoming the first recipient of a Ph.D. in

the turfgrass field. Many others have followed a similar route.

After W.W.II, the picture changed and golf associations felt the need for a kind of extension service not available in most states — one directly related to golf course conditions. Research carried on by the Green Section, then located in Beltsville, Md. was inadequate to answer questions from other climatic zones.

Several states had developed their own, more locally-relevant research projects with funding by the Green Section. The upshot was the creation of the regionalized Green Section Visiting Service, which took the pertinent information from regional and national research to individual clubs and help fit it into their maintenance programs.

The agronomists in each region visited member clubs and courses on a regular basis to evaluate conditions and help solve existing problems and prevent others from developing. In 1954, Mr. B. P. Robinson became the first of these agronomists to serve Florida—and six other southeastern

states. He was followed by several others, until the golf industry in Florida became so large that it became a one-state region with John Foy as its Director.

Leadership of the Green Section since Dr. Grau's departure has been vested in men who had served as regional agronomists — Dr. Marvin Ferguson, Mr. Bill Bengueyfield, and Mr. Jim Snow. Each of them has made significant contributions to golf: Ferguson by initiating the putting green construction studies, Bengueyfield by inaugurating the massive maintenance and grass development projects and Snow by broadening the program to include environmental proactivism on individual courses. There have been too many fine field agronomists to name in this article, but all have had a lasting, positive impact on golf course quality in the areas they served or serve today.

Through the years since 1921, the Green Section has grown to be the primary source of science-based golf turf information. From the \$300 spent in 1923



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on research outside of the DC home base, its budget for research and support of environmental improvement grew to over \$1.3 million in 1997, requiring the full-time attention of Dr. Mike Kenna.

There are now seven regional offices across the country, staffed by 16 "visiting agronomists." The interest in building or rebuilding greens or entire golf courses created the need for a Construction Education Program, directed by Mr. Jim Moore, from which the latest information on the art and science of golf course construction can be obtained.

*The Green Section Record* is the current periodical publication of the Green Section, which closely adheres to the principles established by *The Bulletin of the USGA Green Section*, in the 1920's: interesting, factual, articles by knowledgeable authors — and no advertising.

Simply gathering and disseminating turfgrass-related information is not the end of the line. There was a need to develop a central preservation facility to accumulate and catalog the thousands of books, research papers, magazines and popular articles dating from the days of yore to the present and into the future.

Dr. James B. Beard saw the need and, working with Dr. Richard Chapin, Director of Libraries at Michigan State University, found a home for the collection of the books and periodicals accumulated by O. J. Noer during his agronomic career with the Milorganite Division of the Milwaukee Sewerage Commission.

The Noer Memorial Collection proved to be the seed for the development of the Turfgrass Information File at MSU, through special grants by the Green Sec-

***From the \$300 spent in 1923 on research outside of the DC home base, its budget for research and support of environmental improvement grew to over \$1.3 million in 1997, requiring the full-time attention of Dr. Mike Kenna.***

tion. TGIF is the most complete library of turfgrass publications in the world and is accessible by any mode of communication. Mr. Peter Cookingham has done a masterful job of organizing and maintaining the files. It was he who located the Florida publications mentioned in this article.

The surge of environmentalism in the 1980s brought the golf industry under an unkind light that stirred the USGA to begin a multi-million dollar research program on golf course maintenance procedures and materials.

USGA President Grant Spaeth said that if golf was guilty of contaminating the environment, it would have to clean up its act. But if not, golf needed hard, unbiased, scientific facts to disprove the accusations.

That program is still under way through the Green Section Environmental and Research Committee, which is charged with providing funds to further an understanding of the influence of course maintenance operations on environmental conditions and to produce new grasses and procedures that require less intensive use of fertilizers, pesticides and potable water.

To help golf organizations set up formal programs of environmental stewardship, the Green Section has wholeheartedly supported the educational efforts of the Audubon Society of New York State, now Audubon International. Its Cooperative Sanctuary Programs have helped superintendents develop positive, written procedures to preserve and protect the environmental treasures on individual courses and their surroundings.

Throughout its long existence, the USGA Green Section has worked for the good of the order, by supporting good science in turfgrass research and then getting the word out. It has been a strong supporter of golf course superintendents — their continuing education and their organizations. All of this has been done with one goal in mind — to provide America's golfers with the best possible playing conditions at a reasonable cost for the greatest number of days, every year.

*Editor's Note: Jim Latham served the USGA Green Section as Southeastern Agronomist from 1957 to 1960, and as Director of the Great Lakes Region from 1984 to 1994.*



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Superintendent John Johnson of South Seas Plantation, Captiva Island, FL.

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## Florida Plants of the Year

Landscaping on golf courses ranges from very formal annual beds and sheared hedges to the natural look of aquatic plants and clumps of native grasses. The Florida Nurserymen and Growers Association has begun a program that will identify superior plant material that performs well but is often underutilized. If you are looking for proven plant material to provide color and diversity on your course you may want to give these 1998 Florida Plants of the Year a closer look.

The program's selection committee includes horticulturists, nurserymen, educators, architects and other professional members of the horticulture industry from central, north and south Florida.

### Ground covers

#### PEACOCK GINGER

Kaempferias are a group of low herbaceous perennials usually less than one foot tall. Most have large 4- to 10-inch round or oval shaped leaves. The basic leaf color ranges from green to purple. However, most are striped or spotted with various combinations of purple, silver, white or iridescent markings that give the group their common name Peacock Ginger. Flowers are solitary, usually four-petaled and produced daily throughout the growing season. Flower color ranges from pure white to pink to purple.

Kaempferias are trouble-free, shade-loving ground covers that form thick clumps that out-complete weeds for available space. They are excellent companion plants for hostas in north Florida and competent replacements



for them in south and central Florida. Kaempferias, which are native to Southeast Asia, are naturally winter dormant, so they are hardy into Zone 8 and adaptable to all of Florida.

Commonly found varieties include: *K. rotunda* 'Asian Crocus', *K. roscoeana*, *K. masonii*, *K. pulchra* and *K. gilbertii*. New varieties include: *K.* 'Brush Strokes', *K.* 'Satin Checks', *K.* 'Shazam' and *K. pulchra* 'Silver Spot.'

**Common Name:** Peacock Ginger

**Botanical Name:** *Kaempferia* spp.

**Hardiness:** Zone 8

**Mature Height:** 12"

**Classification:** Herbaceous perennial

**Use:** Ground cover

**Characteristics:** Leaves range in color from green to purple and are spotted or striped and oval

#### AUTUMN FERN

Ferns are becoming more widely used ground covers in large drifts. *Cyrtomium falcatum* (Holly Fern) has been planted for years, but *Dryopteris erythrosora* (Autumn Fern) is quickly becoming as popular. This clumping fern has upright foliage reaching about 24" in height and spread. Also called Japanese Shield Fern, its young foliage is an eye-catching red that matures to a glossy dark green.

"Autumn Fern has fewer insect problems and seems more cold

tolerant than Holly Fern, and this makes it a more desirable selection," says P.J. Klinger of Lake Brantley Plant Corp., Longwood, Florida.



Autumn Fern is hardy to Zone 8 and evergreens without frost. The best growth is achieved in an organic, well-drained soil in light shade to shade. Though

the water requirements are moderate, Autumn Fern will signal a water stress with wilting and a change in foliage color.

**Common Name:** Autumn Fern

**Botanical Name:** *Dryopteris erythrosora*

**Hardiness:** Zone 8

**Mature Height x Spread:** 24" x 24"

**Classification:** Herbaceous perennial

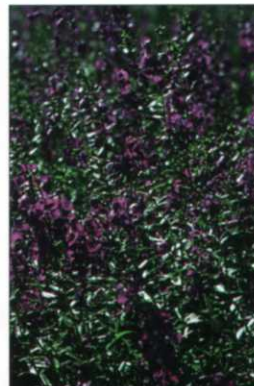
**Landscape Use:** Masses in shade

**Characteristics:** Clumping fern growing to 24"; new growth is coppery red, maturing to deep green

### Masses and Borders

#### HILO PRINCESS ANGELONIA

*Angelonia* is a great new plant for Florida. A bushy perennial from



Mexico and the Caribbean, it grows well in our climate. 'Hilo Princess' reaches a mature height up to 24 inches and the stems support groupings of

deep violet-blue flowers that are present throughout the warm months. When planted in a moist, rich, well drained area, *Angelonia* will thrive in a wide range of light levels. It makes quite an impact as a mass planting or in combination with other flowers in decorative containers. Although some say to treat 'Hilo Princess' as an annual in colder areas, it tends to come back reliably as far north as Gainesville.

**Common Name:** Hilo Princess  
Angelonia

**Botanical Name:** *Angelonia angustifolia* 'Hilo Princess'

**Hardiness:** Zone 8

**Mature Height x Spread:** 24" x 24"