

# A Brief History of the Turf Equipment Program at Lake City Community College

By John R. Piersol

The Associate in Science degree Golf Course Operations and Landscape Technology programs started on the campus of Lake City Community College in 1967. By the early 1970s, there was concern among leaders in the golf industry about the increasing sophistication of golf course equipment and the lack of specifically trained golf course mechanics.

Dr. Gene Nutter, the first director of the Golf Course Operations and Landscape Technology programs, worked with industry to establish an Industry Advisory Committee for what was then called Golf Course Mechanics Technology. The first curriculum was developed with direct input from industry.

Dr. Nutter's description of the program to the curriculum committee on the LCCC campus accompanies this story.

This background information from Dr. Nutter written in 1973 is very interesting as the need for trained equipment managers has increased tremendously, but the supply, even after about 35 years has not increased. Also, interesting are the 1973 statistics, and equipment costs, and salaries.

The Golf Course Mechanics Technology program started in fall 1973. Steve Bolton, a local small-engine shop owner, was the first instructor. In 1975, a retired Navy chief petty officer, Ed Combest, joined the faculty as the instructor, and the program began to make a major move toward shop management and preventive maintenance which Ed had learned well from his Navy career in aviation and ground support equipment mechanics. Ed was also a master at training young people, another skill he developed in the Navy as an instructor and leader.

From 1975 until 1988, the program

was in an old wood-framed building on campus. It was not much to look at, but Ed had it as neat, clean, and organized as one could get the small space.

There clearly was a need for a larger, more modern facility. With industry and legislative help, state money was budgeted for the first facility in the state developed specifically for golf course mechanics and — most believed — the nation. The program moved into the new 15,000 square foot building in 1988.

In the mid- to late 1970s, the one-year program in golf course mechanics became a mandatory part of the Golf Course Operations program making in a three-year curriculum. This increased the total number of students in golf course mechanics to 35-40, requiring more sections of classes and more instructors. The faculty team increased to three full-time instructors: Combest, Jim Lones, and BJ Cannon, all retired military.

The golf industry has always been heavily involved in the program going back to 1973 with the advisory committee, and Combest immediately solicited its support in 1975. It was important for the students to see and work on specific golf turf equipment. Ed worked with the distributors and manufactures to expand the equipment loan program so that students could be introduced to more equipment from the major manufacturers. The equipment loans have continued so that today the program receives annual loans of turf equipment, grinders, lifts, and more valued at easily \$300,000.

Going back to the late 1970s and 1980s, there was a push to recruit more golf course mechanics. The student numbers in the program were good because all golf students had to take the mechanics module, but the program was only graduating five to ten technicians. Interestingly, this problem still exists today, even though numerous recruiting efforts have been tried over the past 25-



*John Piersol, director of the Golf/Landscape/Forestry programs at Lake City Community College.*

plus years.

Today the mechanics program is called Turf Equipment Management. The students can go one year and get an Applied Technology Diploma in Turf Equipment Technology and go to work or go to school for a second year of general education and business courses and receive an Associate in Science degree in Turf Equipment Management. Most students do the one-year program and go to work, and some work towards the AS degree while they are working.

Recruiting students for turf equipment is still a major problem even though the job market is excellent. It is common for LCCC to receive 40 to 50 job offers for five to ten students. Lack of career awareness is the problem.

There is a need for golf course superintendents to get involved in local high schools and bring principals, counselors, teachers, and students to a modern, organized golf course maintenance facility loaded with over a million dollars worth of equipment. This would be a tremendous community service, and it would introduce students to a career in turf equipment about which they know nothing. We hope that organizations like the International Golf Course Equipment Managers Association, working in conjunction with local, state, and national superintendents' associations, will develop career awareness programs for high school students. Introducing young people to this career is critical to the future of the golf industry.

# Need for Golf Course Mechanics Technology Program Identified in 1971, Met in 1973

*(Original Program Announcement of 1973)*

Golf Course Mechanics Technology is a new one-year credit-hour program to be offered in Golf and Landscape Operations Department, scheduled to begin fall 1973. It will be a unique program in the turf industry in the United States.

The need for this specialized program has been projected by the State Department of Education Advisory Committee for the Turf Industry since 1971 in their State Manpower Profile Study. They suggest it be located at this college because of the logical tie-in with the existing program in Golf Course Operations, now a proven program known nationally.

Based on the above endorsement, the recommendations of an Advisory Committee for Golf Course Mechanics and further personal contacts with the golf course industry in Florida, the Southeast and the nation, need for this specialized curriculum more that justifies its earliest possible commencement.

## **OBJECTIVE OF NEW PROGRAM**

The objective of this program is to train golf course mechanics whose duties combine mechanics technology, shop management and in some cases supervisory responsibilities. In the golf course table of organization the mechanic is directly responsible to the golf course superintendent (who is trained in our Golf Course Operations program).

## **PROGRAM JUSTIFICATION**

In Florida alone it has been estimated by leaders in the golf course equipment industry that sales and service of golf course equipment exceed \$10 million annually. This is increasing rapidly with the expanding number of golf courses (increased from 125 in 1953 to over 500 in 1973).

As the volume of golf course equipment increases, so does its complexity and sophistication. Not only does the volume of equipment sales increase due to the expanding number of golf courses, but also due to the increasing expenditure per course. The high costs and shortage of labor has forced increased mechanization and today the equipment inventory on a modern 18-hole golf course facility may vary between \$75,000 and \$100,000. Many of the golf courses in Florida and the Southeast are multi-course complexes in which the value of the equipment would be much higher.

In order to maintain this increasing volume and complexity of equipment requires a mechanically oriented specialist who is familiar with golf course

operations and the specialized type of equipment used thereon. Thus, he must be trained differently from the typical automotive mechanic. To my knowledge there is no such training program anywhere in the United States. Therefore, in exploratory discussions, both the golf course superintendents and the equipment industry (manufacturers, distributors, and service specialists) have enthusiastically encouraged the development of this new program in Golf Course Mechanics Technology as an adjunct to our school of Golf Course Operations.

In addition to golf courses, graduates of the proposed curriculum will be in demand by the commercial elements of the industry (dealer and distributor sales and service) and will be better trained than any other available manpower for other facilities in the environmental industry who use much of the same types of equipment including landscape construction and maintenance firms, parks, sod farms, etc.

A further need for this training program is increased by the impact of OSHA (the Federal Occupation Safety and Health Act) regulations which are demanding modernization of all shop facilities in the golf course and landscape industries. In many cases this calls for a better trained mechanic than currently employed and currently available.

It is estimated by industry leaders that once the program is established, the market for this highly specialized technician will easily absorb 25-30 graduates per year. They further estimate that starting and benefit salary ranges for successful graduates will be between \$7,500 and \$8,500 per year with an increased earnings potential of \$10,000 to \$12,000.

## **ADVISORY COMMITTEE**

Anticipating the development of this new program, an industry task force was selected in 1972 by the State Advisory Committee to explore the job requirements for modern golf course mechanic and shop operations. From this a list of job skills was developed as the starting point for curriculum development. A preliminary curriculum was presented to the State Advisory Committee and after review was endorsed in principal with recommendations that the new program be developed through proper channels at Lake City Community College.

In March, President (Herbert) Phillips appointed an official Advisory Committee for the proposed program in Golf Course Mechanics Technology, comprised of the original task force plus additional leaders in the golf course equipment industry throughout the Southeast. The first meeting of this committee was held March 23, 1973.

## USGA UPDATE FLORIDA REGION

# Irrigation Restrictions Should Be Firm But Fair

By Todd Lowe

For the past month I have been contacted by a number of Southwest Florida superintendents anxious about irrigation water allotments for the upcoming winter season. I was not overly concerned at first since these golf courses were supposedly being restricted by only 30 percent of their normal allotment. Healthy bermudagrass can withstand such reductions and just turns off-color (brown) during drought stress.

However, closer evaluation of actual water allotments for the upcoming months revealed that irrigation restrictions are much more harsh.

The superintendent at a non-overseeded 27-hole facility (160 acres) I recently visited remarked that their monthly allotments for January,

February, and March will be 5.2 million gallons, 6.2 million gallons, and 13.4 million gallons, respectively. Average water use on this golf course during the past five years has been 15.1 million gallons in January, 16.6 million gallons in February, and 23.7 million gallons in March. This change equates to a reduction of more than 60 percent for these months! Harsh restrictions will not only cause brown playing conditions, but will significantly impact long-term golf course health, and, most likely, cause some turf loss during the annual dry season.

This is especially disappointing considering golf courses utilize only 2 percent of the water supply in Florida, while home lawns utilize up to 15 percent. It is frustrating when we drive through our neighborhoods and see lush green yards that are over-irrigated, while golf courses suffer.

Many Florida golf courses provide an added environmental benefit by utilizing treated wastewater for irrigation; but not all golf courses have access to treated or recycled water. As a result, golf courses with recycled water will receive more water during the upcoming months and will remain greener. Unfortunately, it is difficult to explain this fact when golfers begin to play other courses and start to compare playing conditions.

The problem with the Modified Blaney-Criddle water-reduction model currently used is that it uses an equation that is less regionally sensitive in regards to water requirements of bermudagrass on golf courses. This model tends to under-allocate water in the dry winter and spring and over-allocate water in the rainy season.

The water management districts have worked with golf courses in the past and I am hopeful that they will utilize updated prediction models developed by university professors to better predict actual water requirements. Otherwise, superintendents will have barely enough water to maintain putting greens, teeing grounds, and landing areas on fairways without supplemental rainfall.

In a regional update from April 2007 ([www.usga.org/turf/regional\\_updates/regional\\_reports/florida/04-23-2007.html](http://www.usga.org/turf/regional_updates/regional_reports/florida/04-23-2007.html)), John Foy mentioned several important cultural practices for dealing with drought conditions. These are excellent guidelines to implement at this time. If restrictions worsen, your course may need to plan for additional projects. Such projects will cause a major strain on capital improvement budgets, so stay tuned and we will keep you posted as we learn more about this important situation.

**Editor's Note:** For those who are interested, here is the full citation for the Modified Blaney-Criddle Method: **Blaney, H. F. and W. D. Criddle. 1950. Determining water requirements in irrigated areas from climatological data. U.S.D.A. Soil Conservation Service Tech. Pub. 96**



Golf course irrigation is professionally managed and only consumes around 3 percent of the fresh water used annually in Florida. Photo by Joel Jackson.

## GCSAA's Environmental Study Goes to Phase Four

GCSAA has announced that beginning in January 2008 it will conduct a national survey of golf courses focusing on pesticide use.

The survey is part of a multi-year, first-of-its-kind project being undertaken by GCSAA that will evaluate the environmental performance of golf courses. To date, GCSAA member and non-member superintendents have participated in three phases of the survey focusing on the physical profile of a golf facility; water use and conservation; and nutrient (fertilizer) use. The last phase of the survey to be issued in 2009 will examine maintenance practices on golf courses. The entire data set will establish a baseline for comparison when the surveys are replicated in the future.

The pesticide survey will be

conducted through March 15. As in the past, those superintendents with an e-mail address registered with GCSAA will receive an invitation to participate online. The others will be contacted via regular mail with a hard-copy survey or instructions on how to complete it online. Input will be sought on product use and integrated plant management programs. Funding for the first four phases have come from The Environmental Institute for Golf, thanks in part to a grant from The Toro Foundation.

"We are appreciative of the participation we have received in the first three phases," GCSAA Director of Research Clark Throssell, Ph.D., said. "This survey will be slightly more entailed, so I encourage superintendents to organize their 2007 records before they begin the process. This is an extremely important project, one which will benefit GCSAA, its members and the game. I cannot stress

how important it is for superintendents to participate."

The online survey has been constructed in a manner so that members can complete it in stages rather than in one setting. Participants will need to remember a password they have created in order to return to the survey. GCSAA members completing the survey will receive .25 service points and all participants will be registered in drawings for various prizes. A VISA gift card of \$250 will be awarded to one individual in each of the seven agronomic regions. A grand prize of a flat panel, LCD, HD television will be awarded as well.

The Golf Course Environmental Profile project is designed to collect information that will allow superintendents and other facility personnel to become better managers, help them operate more efficiently and lead to GCSAA developing more valuable programs and services. Such



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**2008 PLANTS OF THE YEAR**

**Aloysia virgata**

**Common Name:** Almond Bush

**Zones:** North, Central & South



**Mature Height and Spread:** Generally 6 x 8-ft. mounding shrub

**Classification:** Small Tree or Large Shrub

**Landscape Use:** Specimen and butterfly attractor

**Characteristics:** This fragrant, vigorous, drought-tolerant, upright-growing tree/shrub form South America produces finger-like spiked clusters of small, white almond-scented flowers on slightly weeping branches. With an extended bloom period this shrub can be pruned up to form a tree. For a full plant with denser growth, prune between bloom cycles. In North Florida this plant may die down and quickly regrows as a tall shrub.

**Propagation:** By cuttings from stem or semi-hardwood

information will include details about playing surfaces, natural resources, environmental stewardship efforts and maintenance practices on the golf course. Results from each phase will first appear in a peer-reviewed scientific journal, then in *Golf Course Management*, the association's monthly publication, then will be widely distributed.

**Two Florida Turf Students Get GCSAA Scholarships**

The Golf Course Superintendents Association of America (GCSAA) has awarded scholarship money to 16 college students as part of the GCSAA Scholars Program administered by GCSAA's philanthropic organization, The Environmental Institute for Golf. Jonathan Chase Webb (University of Florida) and Nathaniel Watkin (Lake City Community College) each were awarded stipends ranging from \$1,250 to \$2,500.

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