

BRIEFS



CADIZ HONORED IN PA.

KING OF PRUSSIA, Pa. — Charles Hugar Cadiz has received the Pennsylvania Turfgrass Council's Distinguished Service Award. Cadiz retired May 27, 1994, after serving at Eagle Lodge Country Club in Lafayette Hill for 14 years. He also worked at Manada Golf Course in Grantville, Valley Green Golf Course in Edders and Kimberton Golf Club in Kimberton. Cadiz served as a director and president of the Central Penn Golf Course Superintendents Association, and as a board member of the Philadelphia Association of Golf Course Superintendents.

MICH. FOUNDATION GIVES \$140,000

LANSING, Mich. — Checks totaling \$140,000 in support of turfgrass research at Michigan State were presented at the annual awards luncheon at the 65th Annual Michigan Turfgrass Foundation Conference here in January. The MTF donated the research money as well as scholarships to a number of students.

ENVIROTRON TO BENEFIT

HOMOSASSA SPRINGS, Fla. — The third annual Envirotron Golf Classic on April 24 at World Woods Golf Resort here will raise funds for the Florida Turfgrass Association's research facility — the Envirotron. Hosted by Seven Rivers Chapter of the Florida Golf Course Superintendents Association, the tournament will benefit the 3,100-square-foot, state-of-the-art research field laboratory opened in 1993. It was designed to study and develop new technology on the relationship of turfgrass with biological, environmental and cultural factors.

INTERNATIONAL RESEARCH PUBLISHED

Presentations from seven International Turfgrass Society Research Conferences have been published in conference proceedings and a journal. These are worthwhile books that present research data from around the world.



More information is available from Dr. R.E. Schmidt, ITS Virginia Tech., Dept. of CSES, Blacksburg, Va. 24061.

FINLEN, VANDERPOOL HONORED

Heart of America Golf GCSA presented Immediate Past President Pat Finlen of Quivira Lake CC in Lenexa, Kan., its 1994 Superintendent of the Year award. The Mendenhall Award, given for going beyond the call of duty, was presented to Meril D. Vanderpool of Village Greens Golf Course in Ozawkie, Kan.



Superintendent Collier Miller, right, accepts the Maintenance Operation of the Year Award from TPC Director of Golf Course Maintenance Operations Cal Roth on behalf of TPC at Summerlin.

PGA Tour honors top TPC operations of '94

By MARK LESLIE

SAN FRANCISCO — The PGA Tour's annual Golf Course Maintenance Operation of the Year Award was won by a concerted effort by the entire staff, according to Collier Miller, superintendent at the winning Tournament Players Club (TPC) at Summerlin in Las Vegas.

"The award is not just for the superintendent, but the entire operation. It takes everybody — the administrative assistant, the staff, everybody," said Miller, whose course also won the award last year under then-superintendent Gary Myers, now at TPC of Scottsdale. Summerlin's staff fluctuates from 23 to 30, he said.

TPC Director of Golf Course Maintenance Operations Cal Roth, who oversees the 14 TPC courses, presented the Operation of the Year Award and others at a banquet here during the International Golf Course Conference

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Green industry eyes EPA stewards program

By MARK LESLIE

WASHINGTON, D.C. — The federal Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA) and U.S. Food and Drug Administration (FDA) are urging major organizations in the golf industry to join a new program to promote environmental stewardship in pesticide use.

Having already signed agreements with a score of "chartered partners" from the National Potato Council and American Corn Growers Association to 16 utility companies, government officials have set their sights on the green industry. The Professional Lawn Care Association of America (PLCAA) has agreed to sign on, and the EPA's Anne Leslie said the agency has approached the Golf Course Superintendents Association of America (GCSAA), U.S. Golf Association (USGA), American Society of Golf Course Architects, National Golf Foundation and National Golf Course Owners Association.

"Exciting things are happening," said Leslie, chemist and golf liaison in the new Biopesticides and Pollution Prevention Division. Among them a planned EPA reorganization, faster registration of biological pesticides (see story on page 1), and

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USGA Nature Links targets environmental group support

By PETER BLAIS

FAR HILLS, N.J. — The United States Golf Association Green Section has created a new program designed to promote golf courses as a friendly home for wildlife and attract support for golf from the environmental community.

The Nature Links program is an outgrowth of Clemson University's wildlife research on the Ocean Course at Kiawah Island, S.C., which was funded with 1991-93 USGA turfgrass research money, according to Green Section National Director Jim Snow.

Completed roughly a year ago, the USGA-funded project at Kiawah showed golf courses could enhance wildlife. It also pointed out the need for someone other than USGA agronomists to make decisions regarding who will receive the \$100,000 in annual wildlife research grants the

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Golf's traditions crossed The Pond to America

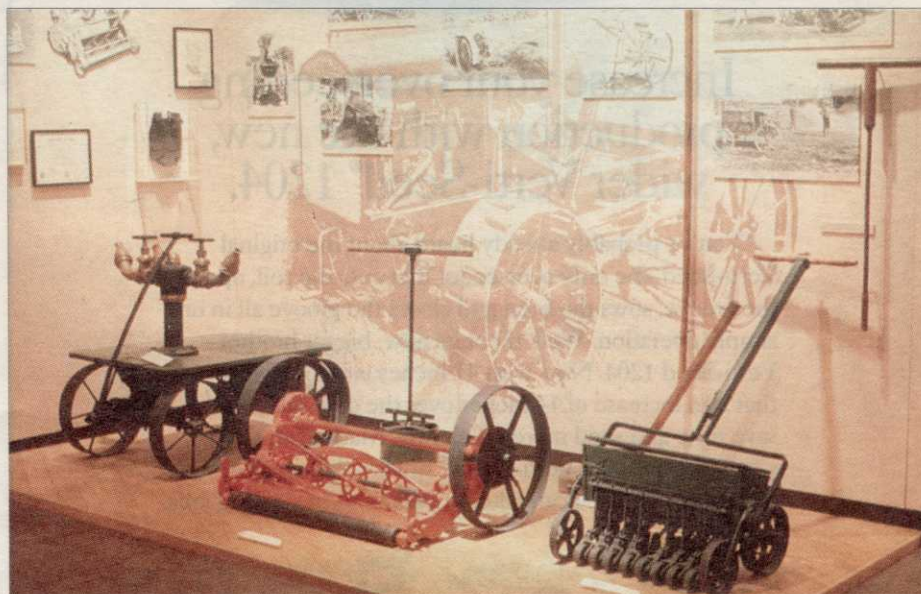
The period 1900-74 presents challenges, brings innovation

By JIM CONNOLLY

Many of the traditions of golf and golf course design were brought to the United States from England and Scotland at the turn of the century. Early Americans were familiar with golf but did not adopt it as a priority recreation. There are brief accounts of "attempted" golf in the early 1800s, but the first real golf course was not built until the 1890s.

PART 3 OF A SERIES

Charles Blair MacDonald, the son of a Scottish father and Canadian mother, designed the famous National Golf Links of America in 1911. Although he grew up in Chicago, he eventually returned to the University of St. Andrews in Scotland, where he learned the game of golf and golf design. He brought this talent to the United States and put it to work designing golf courses. He believed a first-class golf course should be constructed from good material, preferably a sandy loam



The U.S. Golf Association museum in Far Hills, N.J., displays maintenance equipment of old.

that drained well. He believed in somewhat large, undulating putting greens with "fine" turfgrass so the ball would run perfectly true. MacDonald coined the title Golf Architect and is considered by many to the "father of American golf course architecture." Some said he had an ego

the size of Lake Michigan; and a slice that would traverse three counties! Many say he is the mold for today's golf architect.

There were other architects who brought a design flavor from overseas,

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## History of the green — Part III

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including Dr. Alister Makenzie, Donald Ross, Willie Park Jr., Herbert Strong and Australian Walter Travis to name a few.

Some key developments in history had an obvious impact on the way golf courses were maintained.

- 1902 - the invention of gasoline-powered lawn mowers.
- 1916 - architect Donald Ross

*Jim Connolly is senior technical agronomist for JacklinGolf in Post Falls, Idaho. He is available to speak on the history of the golf green.*

builds modified-soil greens.

- 1918 - use of heavy equipment, such as bulldozers and steam shovels is introduced.
- 1920 - production of putting green mowers that could be accurately adjusted to one-eighth of an inch cutting height.
- Circa 1920 - the development of underground irrigation systems.
- 1921 - formation of the United States Golf Association Green Section. The Green Section was solely dedicated to turf research and methods of devel-

oping healthy turf and good playing conditions.

- 1926 - formation of the Golf Course Superintendents Association of America.
- 1945 - the end of World War II and the benefit new pesticides and chemicals developed during the war years. 2, 4-D, mercury, cadmium, and chloropicrin (tear gas) were all available to control turfgrass disease and insects.
- 1960 - wide popularity of riding triplex greens mowers that allowed "poor" golf courses to mow greens on a regular basis. USGA-sponsored research

leading to exact specifications for putting green construction.

Not all of America's golf courses benefited equally during this period of advanced technology and information. Courses still varied tremendously, depending upon budget, construction technique, location, etc. For example: In 1898, the Montreal Golf Club had "fine and closely cut putting greens." The same description is given of the Quebec Golf Club. The local golf professional was given credit for his maintenance skills. However, other courses didn't have grass on the greens!

Pinehurst No. 2 had sand greens until the 1920s.

It is interesting to note that while players of today extol the virtues of ultra-fast putting greens, putting greens of the past could also be mowed low to achieve similar speeds. A newspaper clipping from the 1935 U.S. Open at Oakmont said:

"Putting the greens at Oakmont is like putting down a flight of stairs and trying to stop the ball on the third step down."

Mowers of that day could be adjusted to 1/8 of an inch and the greens "shaved" down to the dirt. A variety of turfgrass rollers was also available, ranging from weights of several tons to 3 pound wooden rollers. The maintenance instructions of the day cautioned against extended use of rollers because they pressed and compacted the soil and limited turfgrass growth. Cutting heights below 5/16 inch were also frowned upon because the turf suffered from a myriad of diseases and stress-related problems. With the help of pesticides, irrigation and special maintenance practices, greens were mowed at lower heights. Today, championship putting greens are mowed at 7/64 inch. The health of the grass is maintained at great expense.

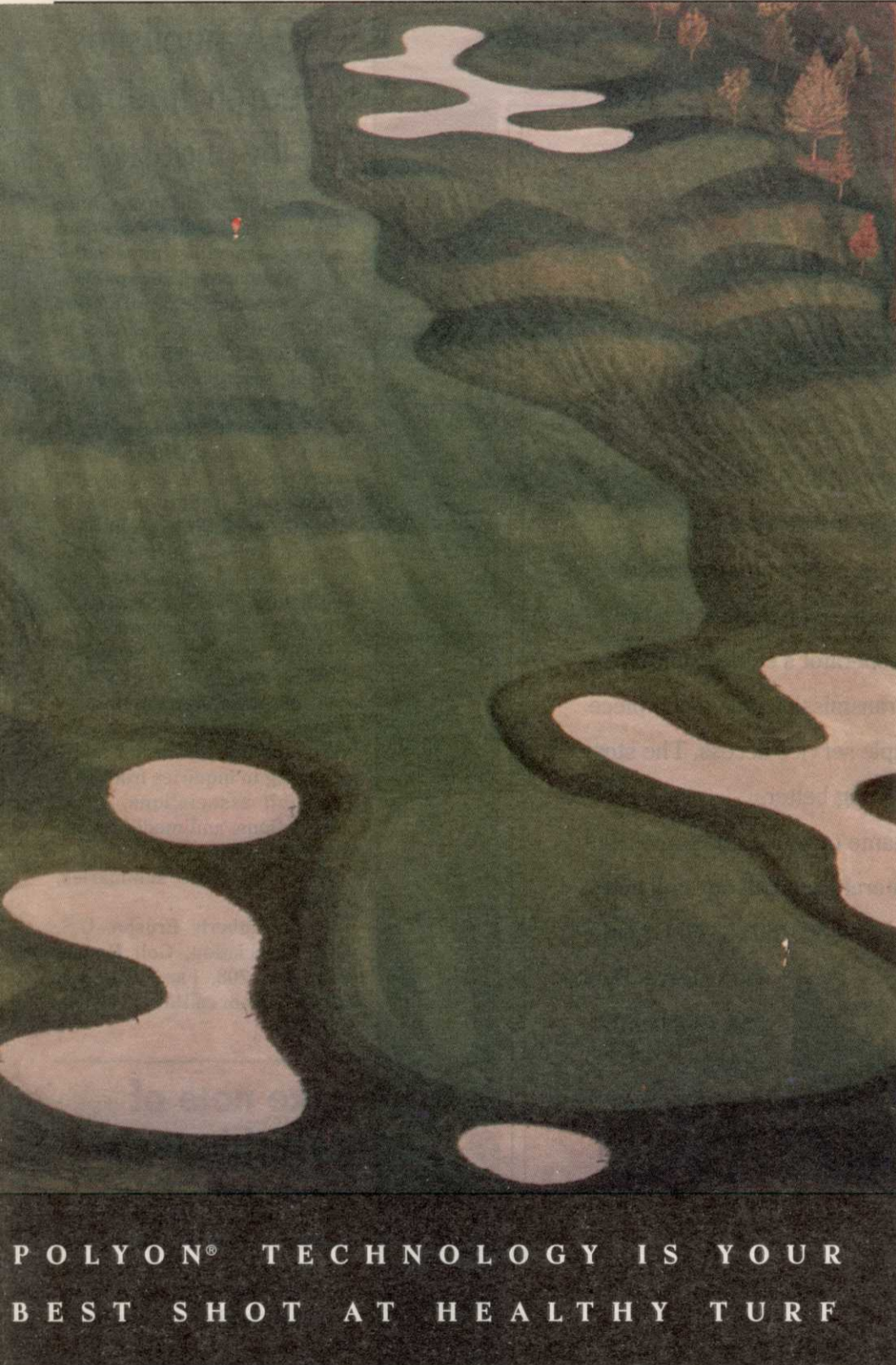
Techniques for good turfgrass management were largely left up to experimenting individuals and architects. C.B. MacDonald, Donald Ross, Walter Travis and others wrote about methods of greenkeeping. Some had good ideas while others were highly suspect.

"Do not put fertilizers of any kind on a green except, perhaps, some bone dust, and then only once every three or four years," said Walter Travis in 1906.

Famous individuals associated with the game of golf fill the historical accounts. Their personalities and comments reflect the quintessence of the game at that time. The players of the first era viewed the sport as exercise and exhilaration. It was strictly personal satisfaction and a form of recreation at a time when most of the peoples' attention was on survival. It was a welcome pastime, although viewed by many as frivolous. It was known as the game of kings and queens and seemed to offer leisure to those who could afford the time.

During the second era, golf became a more organized sport, giving a chance for friendly competition and camaraderie. In these first two eras, little attention was given toward the condition of the turf. The players fully realized they must adapt to the weather conditions and be satisfied with whatever their fate. Thus the axiom, "Play the ball where it lies." During the years of Old Tom Morris, there was a beginning of small expectations in regard to the condition of the turf. After all, mowers, top dressing sand, and labor were all avail-

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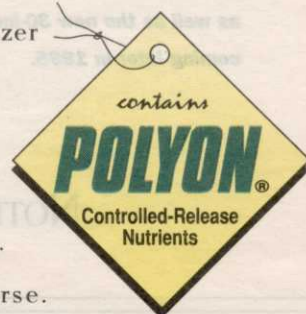


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## Nae gaulf on Sundae

Continued from previous page

able for conditioning of the links. Golfers placed their demands upon Old Tom, but he maintained his commanding position by proclaiming "nae gaulf on Sundae!"

This was perhaps the first and last time a greenkeeper had such power.

The idea of accepting conditions dealt by fate was as much part of the game as the golf ball and golf club.

Putters were manufactured with varying degrees of loft for putting on greens of multifor- mity.

Golfers were noted for their ability to overcome such conditions. Walter Travis was able to "putt a ball in from 40 feet over peanut brittle." In 1900, James Braid wrote, "Good putting can be learned from hard toil."

The major philosophies of this period were summed up in two quotes from two great golfers.

"You must adjust to the conditions."-Walter Hagen, 1930

"Golf is a religion and it exposes in a man things which ordinarily he is at considerable pains to conceal," said W.J. Travis, circa 1910.

Many golfers had a great insight about changes over the years and knew precisely where to give credit. In 1930, Horton Smith said: "Of course, putting is much better than it used to be. Greens are much truer than they used to be. Golfers can thank greenkeepers for that part of the improvement."

It is certain there was some grumbling about turfgrass condition, and golfers, both amateur and professional, were no doubt disgruntled about playing on crudely or ill-maintained golf courses. During the 1950s and 60s, golf was played by every class of American.

The golfing boom continued on the heels of Arnold Palmer, Jack Nicklaus and the miracle of televised golf. Thousands of people who had never played golf-and probably never would have-watched television and became enamored and eventually attempted the sport. An entire generation of golfers flooded the courses with little knowledge or awareness of golf's great past.

Looking back at the changes that occurred from 1900 to 1974, we can see changes influenced by developments in technology and the growing numbers of people playing golf. The growth supplied more money for development, research, and better golf course construction technique. Better grasses and methods of construction led to a dramatic increase in turfgrass uniformity and playability.

The definition of a "good" putting surface would be one that was maintained at approximately

3/16 to 1/4 inch, mowed on a regular basis, and was firm, but not too hard.

A note on grain, since it seems to be so misunderstood today. Grain in a putting green is a result of two things: The natural tendency of some grasses is to grow in a prostrate pattern, and the height at which the grass is mowed.

Higher cut bentgrass greens will have a tendency to "lay over," forming a grain that affects the role of the golf ball. Bermudagrass grows aggressively in a lateral habit. Left alone, Bermudagrass can

achieve a high degree of graininess.

Bermudagrass runners must be regularly vertically cut to keep grain to a minimum. Putting greens of this era were naturally grainy and golfers had to adapt to this condition. In 1941, Patty Berg said, "You must make allowances for grain."

Byron Nelson walked all of the greens before a major tournament so he could evaluate the direction of the grain. He would then attempt to hit his shots to that side of the hole which would give him the "with-the-grain" advantage.

It was much easier to putt a golf ball with the grain than against it. Great putters of the day were characterized by their ability to read greens.

Bobby Locke, the great South African golfer, had a superior ability to read the grain in putting greens.

Golfers of this era were ready to accept any playing condition and, in fact, regarded this as an innate part of the game.

**Next month:  
1974-present**

### PHILLY SUPERS CITE HARPER

The Philadelphia Association of Golf Course Superintendents has presented the prestigious Eberhard Steiniger Award to Dr. Jack Harper III, a professor of agronomy and extension turfgrass specialist at Penn State University before his retirement in 1988. An expert in a broad spectrum of turf disciplines, he received the Distinguished Service Award from the Golf Course Superintendents Association of America in 1978.

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