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#### Records Are Vital

Alexander M. Accounting: Radko, Eastern dir. of the green section, said that the records begin with the daily time sheet. Records show that play is beginning earlier, meaning delays in accomplishing work. Radko reminded supts. that they are dealing with other people's money and with good records show the story of good management.

Radko cited the records kept by Supt. William Riley, Essex Fells (N.J.) CC and Elmer Michaels, Oak Hill CC, Rochester, N. Y., as actually telling the cost story by showing data on areas treated and on operations, instead of merely presenting figures that keep the club bookkeeper busy.

Research May Cut Costs

Applying Research: Dr. Marvin Ferguson, national research coordinator of the green section, told of the possibilities of applying research to reduce operations now required for maintaining courses in high standards of condition. He indicated that application of basic research might cut maintenance costs materially. Ferguson said one job of the green section staff is to keep up with basic research, apply it to golf turf and help the supt. apply it.

Public Relations: Allen M. Oakley, Quincy, Ill., green section committeeman and veteran newspaper editor and amateur golfer, said a general failing is that a member sometimes knows more about course maintenance on a layout 500 miles away than on his own course. Oakley remarked that it isn't unusual for one member to tell other members that a course many miles away is in fine condition while his own course looks bad. Often the difference, Oakley declared, is that the member may have seen the other course in June and compared it with his own course in late July or August when it was impossible to keep turf in decent condition.

Job Outlook: Bill Bengeyfield, William Crowley, James B. Moncrief and Allen M. Oakley went into detail in telling how the course staff might (and possibly does) look at the job and the value of the smart supt. in developing the elements that make a fellow really interested in his work.. Comprehension of the job, clarification of motivation, concentration of energy and other factors that account for successful education of the worker in and on the job were outlined with specific relation to course work.

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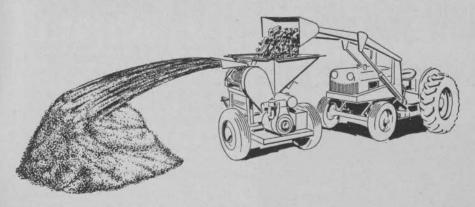


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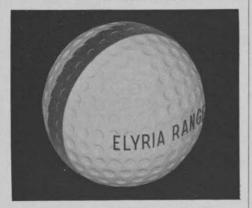
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## **GCSA Convention Notes**

About 55 fathers, sons, sons-in-law and GCSA officials were guests of Joe and Herb Graffis at a Golfdom luncheon held in the Carillon Hotel on Jan. 31 . . . It was the fifth annual luncheon at which the Graffis brothers served as hosts . . . More than 40 California delegates and their wives were guests of the B. Hayman Co., Los Angeles, at a breakfast also held on the 31st . . . Several Jacobsen Manufacturing Co. officials were in attendance at this affair which served as a kind of kickoff for the 1963 convention which will be held in the El Cortez Hotel, San Diego . . . The national GCSA, in collaboration with the host Florida group, held a luncheon for the press on Jan. 29 . . . Numerous other luncheons, cocktail parties and informal get-togethers were staged by exhibitors, GCSA sections, etc. . . . In fact they were so numerous it was impossible to get around to all of them.

Mrs. Gerald Turner, whose husband is supt. at Tropicana in Las Vegas, was serving as the advance promoter for the San Diego C of C . . . Although she's a Nevada resident by way of Indiana, California adopted her to handle the job . . . The BOAC flew in a two-foot square piece of turf from the Royal & Ancient at St. Andrews and it was on exhibition during the convention.

Approximately 1,000 persons attended the annual banquet on Feb. 2... Entertainment was provided by the Deauville Hotel's 'Bonjour Paris' cabaret troupe in the Casanova Room . . . At least three front row bald heads who were menaced by a slinky French chanteuse must have gone away feeling they were real Casanovas . . . But a fellow goes to Miami Beach to dream, doesn't he? . . . At the banquet, Orville Clapper, representing Toro dealers, and Jack DeBra, representing Jacobsen dealers, presented fat checks to GCSA officials for the research and education funds.

Wives of members weren't forgotten, as they never are . . . The ladies were kept busy taking in such things as teas, beach picnics, style shows, sightseeing tours, etc. . . . But the thing they talked about most was a seance they attended at the Carillon Hotel . . . No spirits were conjured but the gals came away impressed by what may go on beyond outer space.



Smooth as a pro's swing . . . as unvarying in power on the 18th hole as on the first. Kohler engines never need recharging, produce power instead of storing it. Created for trouble-free use and all-weather performance, Kohler engines are four-cycle, air-cooled, and made of cast iron. Modern, they employ efficient oversquare design—large

bore and short stroke. And they're economical too—running time costs less than other power sources—another reason why they mean more profit for the golf course operator. Just a few of the reasons why Kohler engines are on more engine-powered golf cars than any other make. They can be a club's best friend—and a duffer's too.

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March, 1962

## GCSA Education Program

(Continued from page 70)

Sprinkler Sales, Gainesville, Fla.; Ralph E. Engel, professor in turf management, Rutgers University; H. M. Clark, Buckner Mfg. Co., Fresno, Calif.; David S. Moote, supt., Rosedale GC, Toronto; William O. Ballentine, supt. Orlando (Fla.) CC; Gene C. Reid, Randolph Muny, Tucson, Ariz.; Edward J. Casey, supt., Baltusrol, Springfield, N. J.; Robert E. Grant, supt., Runaway Brook CC, Bolton, Mass.; and Roy W. Nelson, supt., Ravisloe CC, Homewood, Ill.

#### Be Sure of Water Sources

Discussing the development of water supplies, Elmo Dowling of Rainy Sprinkler Sales pointed out that installation of a course irrigation system never should be atempted until after a thorough study is made of potential water sources, Normally, he said, there are enough of these in about 60 or 70 per cent of the country, but the critical consideration is whether they can be tapped when the need for water is greatest. Dowling suggested that perhaps the overall design of new courses

should be based as much on irrigation factors as terrain and other features.

#### Two Sides to It

Ralph E. Engel, who has made extensive studies of irrigation systems and the effects of water on turf, at Rutgers University, stressed this point: "Too many of us think only of water as a life-giving element or agency; it must be remembered that it also can be injurious to turf. Many of the harmful effects result, Engel explained, from poorly designed supply systems in which the problems of slope, wind, soil variation, grass species, drain age, etc. aren't studied sufficiently before the irrigation complex is installed. Enlarging on this, the Rutgers agronomist said that probably too many architects, supts. and others who work with turf don't give enough thought to the moisture needs of various grass species. "It isn't enough that their intrinsic needs be considered," he explained, "Requirements that stem from soil and climatic environment also have to be weighed."

H. M. Clark of the Buckner Manufacturing Co. and Dave Moote, Toronto

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Here is a compact, easily operated 11 Station Automatic Controller that will soon repay its reasonable cost in water savings and reduced turf maintenance. Features include: Variable 1 to 60 minutes timing on each station - 14 day programing • Water and tamper proof extruded aluminum case for wall or pedestal mounting • Freeze proof.





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supt, teamed up in discussing pipe materials and installation techniques in their contribution to the symposium on irrigation. Clark went into the technicalities of pipe sizes and types, saving that performance of the watering system depends to a very great extent in the supt's knowing something about these factors. The quickest and safest way to learn about them, he added, is for the greenmaster to consult the distributor's or manufacturer's engineer before attempting any installations.

#### Describes Installation

The whole secret of installation of a system, Dave Moote observed, is to plan a layout in which the water flow is unimpeded. "Modern, efficient pumps take care of most of our problems in this respect," Moote said, "but that doesn't mean that we should place complete and utter dependance in them and forego intelligent planning. What should always be remembered is that gravity still is a pumping system's best friend." The Toronto greenmaster used slides in demonstrating how trenching and backfilling equipment is used in making pipe installations, and

added some tips on the use of mechanical pounders and vibrators. He concluded his remarks by saying that if the design and materials are right there is no reason why any supt. should hesitate in going ahead with the installation of an irrigation system at his course.

#### Automatic and Semi-Automatic

Bill Ballentine of the CC of Orlando and Gene Reid, supt. at Randolph muny in Tucson, contrasted the semi-automatic and automatic systems in their panel discussion of these installations. Ballentine pointed out that the semi-automatic generally works out well after adjustments are made for varying needs of different greens. Studies of soil and turf requirements are highly important in this respect, he said, so that the duration of applications can be accurately determined. Gene Reid said that there isn't much doubt that courses in Arizona have received a tremendous boost from automatic installations and golf in that state possibly would be curtailed without them. An almost 50 per cent savings in watering costs have been made at Randolph, Reid said, since the automatic system was put in. There





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is no estimating, he added, the savings in grief for the supt. who uses the pre-set installation. "All he has to do," Gene remared, "is set the controller in the evening and then go home without worrying about whether the grass is going to be properly watered that night."

#### Where Hand Watering Applies

A panel composed of Ed Casey, Bob Grant and Roy Nelson discussed the methods of applying water to greens. Casey said that since structures and contours of greens vary so greatly there is not a truly standard method for applying water to them. The automatic, timed system may work fine where the majority of putting surfaces are involved, he explained, but there are always exceptions where application through such a system may result in mal-distribution of water. These involve not only contour considerations but soil, absorption and percolation factors. In such cases, he advised, the only thing to do is to resort to hand watering.

Discussing the perimeter sprinkler system, Bob Grant stated that the major aim in the watering of greens should not be merely in applying correct amounts to the flat, putting surface but to surrounding banks and slopes. All are integral parts of the putting structure.

The ideal perimeter layout, Grant said, should consist of a pipe installation ringing the outer edge of the green with quick-coupling valves placed at proper intervals. Using adjustable plug-in sprinklers and different size nozzles, it is possible to cover the entire green area with a predetermined and uniform amount of water. Uniformity, Grant emphasized, should be the goal with every sprinkling system. When overlapping occurrs, trouble usually is encountered or becomes aggravated.

#### Center-Green Installation

The final speaker on the education program, Roy Nelson, also warned against overlapping in applying water. It happens too often, he said, in the cupping area, especially where there are several sprinkler placements. Probably the only way to avoid this is through the use of a center green system, but care must be made in its installation so that adequate and uniform gallonage and pressure are made available for coverage of the entire area.

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