

Wrap-up on GCSA Show

Nearly 700 superintendents attended the educational sessions at the recent conference, rated the best ever.

By HERB GRAFFIS

Shopping around for ideas and materials to use on and underneath golf courses brought nearly 1,000 golf course superintendents and officials to Kansas City for the 37th conference and equipment and supply exhibition of the Golf Course Superintendents' Association. The exhibits and talks were staged Feb. 13-18 at the municipal auditorium, about a par-20 distance from conference headquarters at Hotel Muehlbach but the hoofing was underground and no hardship.

Edward (Ted) Roberts, Jr., superintendent Fairmont CC, Chatham, N. J., son and grandson of golf course superintendents was elected pres., succeeding Robert Shields, Jr., of Woodmont CC, Rockville, Md. Shields and his administration have to their credit a highly successful year marked by extension and coordination of educational programs for

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Joe Graffis, Sr., with President Shields and Fred Grau at President's Reception.



Shields gives gavel to new prexy Roberts.



A view of the Exhibit Hall, upper left. Above, Dr. Britton speaks at the Sod Producers' Program. Golfdom's annual Father-and-Son Lunch, below left. This was largest of nine held—96 attended.



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potential superintendents, improvement of relations with employers and the superintendents' economic position by bettered press contacts, closer work with the USGA Green Section and state turf scientists and the switch of the GCSA headquarters to a Chicago suburb where the organization's machinery is centrally located for service to GCSA members.

The host of the conference, Heart of America GCSA, missed no chance to present a lively program for the superintendents' wives as well as thoroughly attending to the business arrangements. Enjoying the hospitality and the working facilities were a registered 2,142. The count included:

Members	679
Ladies	306
Exhibitors	484
Guests	583

Victor Oakley, management consultant began the business program with the observation that a successful enterprise depends on three elements: organize, deputize, supervise. He outlined the solutions of committee and staff management, saying that five usually was the ideal number for a committee. He stressed exchange of information and brought out that many executives with much more business experience than superintendents have failed because of inability or failure to communicate. Oakley, widely experienced in corporation management counsel, was on the program by arrangement with GOLFDOM.

Telling Golfers Supt's. Story

Dr. Elliot C. Roberts, prof. agronomy and horticulture, Iowa State University, went into helpful detail about informing golfers about the course. Club officials and members want results and what the plan is to produce the desired conditions or to correct undesirable conditions ought to be told to them so they'll be with the superintendent. Records and reports can tell the superintendent's story much better than they usually do, Roberts noted. He showed slides using the poster sheets printed by Program Aids Co., 550 Garden Ave., Mount Vernon, N. Y., on which features of golf course operation were typed and displayed on bulletin boards

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in lockerrooms. The messages cited such information as a hummingbird's nest near a tree, a change in fairway mowing length due to warm weather and a bridge unsafe for golf cars.

Norman E. Westfall, superintendent at Wakonda Club, Des Moines, Iowa, in getting maximum of work done with minimum waste of labor has the simple basic plan that begins operating at the end of each workday when he goes over the following day's work schedule with his assistant and briefs the men on what they're to do the next day. All machinery is checked and serviced at the end of each workday so that it's ready for use when work starts. The canny Westfall is a great educator. He insists that each job be done thoroughly and carefully and correctly, rather than necessarily swiftly.

He emphasized that the spraying assignment is the one that must be supervised closest and insists that a new product must not be used full scale on his course until it's been well tested on a

small spot to see if it will do the job you want it to do.

Westfall starts his larger improvement jobs on what he calls a "work day," a day when the members know the course will be open but playing conditions won't be ideal. He advised: "If you want a top golf course you must acquaint your men with the job even if it means getting out yourself and showing them just how it should be done."

Herman D. Siler, superintendent at Shady Acres CC, Springfield, Mo., conducting the Monday afternoon education session, presented Maurice C. Cameron as the type of assistant every superintendent wants. Cameron started with his uncle, Sherwood Moore of Winged Foot, and after four years with him spent four years with Edward J. Casey at Baltusrol, prior to becoming superintendent at Elmwood CC, White Plains, N. Y. Cameron said that as apprenticeship is the period for learning the student should be the first to admit mistakes and find a correction before "time, grass or something else is lost." He noted that knowledge required in operating a golf course is

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widely varied, listing car path construction and maintenance, tree maintenance, plumbing, petunia growing, caring for Shetland ponies, valve grinding, chemical application, construction methods and fence building as well as the growing and harvesting of a grass crop, as some of his jobs.

Cameron reflected that the college man goes to the superintendent for practical training then when the superintendent rounds out the young man's education the youngster graduates to a superintendent job of his own and his teacher has to start his school all over. It's tough on the superintendent, Cameron admitted but the foremost men in the profession are willing to continue the procedure.

First 40 Years the Hardest?

Paul Weiss, Sr., superintendent Lehigh CC, Allentown, Pa., related highlights of the first 40 years of the GCSA and illustrated his chronicle with slides. The fluent elder Weiss, one of the organization's 30 presidents is a pioneer from the time when the present GCSA had the first of its four names, the National Association of Greenkeepers of America. The organizing meeting was at Sylvania CC, in suburban Toledo, Ohio, in Sept. 1926. English-born John Morley, who became greenkeeper of the Youngstown (Ohio) CC in 1915 after serving clubs as manager, was the Greenkeepers' first president. John MacGregor of the Chicago Golf Club succeeded him. W. J. Sansom of Canada followed MacGregor, then came Fred Burkhardt of Westwood CC, Cleveland. Burkhardt was the one who started the equipment and materials exhibitions which became the vital factor in financing the association. He had the assistance of Frank Ermer, greenkeeper at Hawthorn Valley CC, Cleveland. The 1936 show had 39 exhibitors.

Of the 77 charter members of the association 38 are living. Morley died in 1946, age 79.

The first convention of the organization was held in 1927. GOLFDOM had been started and vigorously boosted the greenkeepers group, boldly forecasting that eventually clubs would pay greenkeepers' expenses to their conventions as

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a highly productive investment of club money. Weiss cited GOLFDOM articles on cost accounting, complete hoseless watering systems, chemical weed control, organizing and training labor and numerous GOLFDOM articles by O. J. Noer as significant advances of the course management profession. Weiss also told of the beginning of the association's organ, Greenkeepers' Reporter, with the cheerful and spirited Gertrude Farley as editor and, as publisher and angel, a Cleveland green chairman named Powers.

Tells Course Builder's Problems

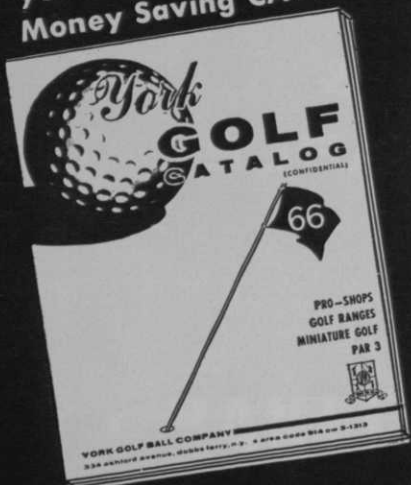
Robert V. Mitchell, superintendent at Sunset CC, St. Louis, Mo., brought on Charles E. Maddox, Jr. to start the Tuesday program. Maddox is associated with his father in golf course construction. Young Chuck's talk related the responsibilities of architect, builder, maintenance manager and course owners and set forth the factors of planning, weather, interest charges, and unforeseen extra-cost items that mean millions of dollars wasted or saved each year in course construction. He presented the ABCs that even some men experienced in golf work may forget with the result of costly headaches. Maddox outlined salient features of site selection and the advantages and disadvantages of the full blueprint plan of course design and the partially blueprinted plan which allows flexibility on the site.

Maddox emphasized: "The golf course builder, to meet the seasonal limits, must have more than adequate reserves of proper machinery, skilled golf course construction manpower, and good supervision. The builder must be prepared to spend extraordinary effort to counteract adverse weather conditions, unusual and difficult working conditions requiring unique construction methods. At all times stringent quality control is the order of the day. One of the most important tasks of the architect and builder is proper scheduling and assignment of capacities to meet a correct finishing date."

Robert F. Moote, superintendent, Oakdale G&CC, Downsview, Ont., Can., followed Maddox with a practical outline

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of construction methods for alteration work or enlarging existing courses. He stressed thorough planning to minimize interference with play, to make utmost use of trained course labor available and to correctly schedule use of outside labor required. Equipment availability and prompt delivery of material for use also were essentials Moote mentioned. Accurate maps for work and records and accurate cost records were other requirements cited.

Slit Trenches for Drainage

Ted Woehrle, superintendent Beverly CC, Chicago, described drainage troubles that had existed since 1908 when the course was built on the clay soil common in the Chicago area. The club built a \$65,000 storm sewer system with 70 catch basins in 1948. In the next 15 years lateral tile lines were added. The system worked well until 1964 when heavy rains and hot weather resulted in thatch that continued wet. Pythium did the rest.

Woehrle recalled that in 1960 Roy Nelson, superintendent at Ravisloe CC, some miles south of Beverly, installed slit trenches or "French drains" to speed drainage in very wet areas. Woehrle checked with Nelson, then got the answer. Woehrle dug narrow trenches about two to three inches wide through the wettest areas and connected the slit trenches to drain lines when possible. Trenches were backfilled with pea gravel to the surface. Some settling occurred and gravel was added to fill to the top. In two to three weeks grass covered the slit trenches. Gravel must not be covered with sod or the purpose of the trench is defeated. Gravel must come all the way to the top. Good results were obtained by simply running the slit trenches into the rough. Neither Nelson nor Woehrle used calcined clay on top of the gravel, as some superintendents do.

A colored sound film, "This Garden England" that ran about a half hour was enthusiastically praised by superintendents as the most beautiful landscape film they'd ever seen. It was presented by the International Minerals and Chemical Corp. representatives Walter J. Marston and William D. Haven. The film is

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a project of IMC's chairman, noted mining engineer, Louis Ware. Prints won't be generally available for some time although the film will be shown to a few major garden organizations and their guests.

Tree Care Is Studied

Michael J. O'Grady, superintendent, CC of New Bedford, Mass., presided over the conference on tree care which has taken on prime importance since Dutch elm disease killed so many trees on golf courses. Unwise clearing of the rough during construction destroyed invaluable trees. The aesthetic value of golf course trees must be accented.

Dr. Dale Norris, Jr., University of Wisconsin, held forth hope for checking of tree disease. He told how oak wilt can be halted by a thorough program of rootgraft breakage between adjacent oaks and injection of a soil sterilizing chemical such as Vapam to prevent fungus spread. Dutch elm disease spread by

rootgraft spread and elm bark beetles may be stopped in the foreseeable future if a "tree doctor profession becomes a reality," Norris forecast. He urged periodical and informed inspection of trees to prevent tree diseases. You've got to study the available books on tree diseases, consult your local extension specialists in horticulture and apply what you've learned on a continuing basis, Norris told superintendents.

Dr. Leon C. Snyder, head of the University of Minnesota department of horticulture also supplied considerable useful information relating to the increasingly important tree item in the maintenance budget. Snyder said in selecting trees you must consider hardiness, longevity, mature size, adaptability to the site, freedom from insects and diseases and variations of a species. He cited the resistance to diseases and insects of certain trees. He said "pruning, so necessary to good tree care, is a lost art." He advocated removing a few branches at a time over several years rather than to

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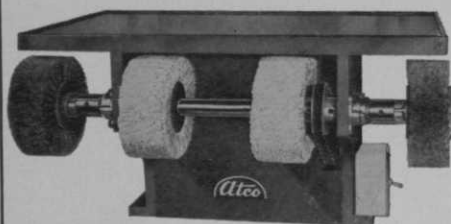
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remove an excessive amount of wood at one time. Fertilizing, Snyder commented, frequently is neglected. He said a complete fertilizer, such as a 10-8-6 for evergreens and a 10-10-10 for deciduous trees, is best and advised using from two to four pounds of the fertilizer for each inch in diameter breast-height of the tree. He recommended the punch bar method of application in late fall or early spring.

Dr. Ray Keen, professor of ornamental horticulture, Kansas State University, commenting on the turf-tree relationship gave about the same useful talk he presented at the USGA Green Section meeting in 1965. He showed how the size and shape of various trees fitted in the golf course picture as landscape, as golf scenery, as windbreaks, and as maintenance factors.

Water Problems Considered

Clifford A. Wagoner, superintendent, Del Rio CC, Modesto, Calif., in conducting the symposium of watering led off with Prof. John H. Madison, Jr., Department of landscape horticulture, University of Southern California, Davis, who explained how the electrical polarity of water accounts for its performance in dissolving fertilizer so minerals can be transported to and through a plant. Then he outlined the participation of water in the chemistry of the plant. He referred to the rates and methods of water application and use by grass and in his primer on watering declared that while we are getting into an era of automation in irrigation we haven't solved the problem of applying water to greens at low enough rates and high enough efficiency.

Sherwood Moore, superintendent, Winged Foot GC, Mamaroneck, N. Y. told about golf courses' problems with water rationing during last summer's drought in the New York metropolitan area and advised that clubs where water shortage may occur have a collective plan ready for use in such emergency.

Ed Shoemaker of Rainy Sprinkler Sales outlined the development of golf course watering systems, showing how one stage led into the next and pointing to the time when weather, irrigation and

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grass growth will be automated in coordination.

Elmer Reynolds of Rain-O-Mat Sprinklers, talking about friction loss, showed how to calculate flow loss so pump delivery and sprinkler delivery can be correctly coordinated. Reynolds said there were 70,900 ways to sprinkle the typical residence lawn so it isn't surprising that a sprinkling job as big as a golf course may have design flaws in it. Hence the superintendent had better get himself basic training qualifying him to check up on irrigation system design.

Dan Lynch, assistant park director, City of Houston, Tex., said that six plans were required for an automatic watering system; the site plan, water line plan with sprinkler locations, hot wire plan, ground wire plan, control board plan and a pumping plan if pumps are necessary. He related details of installing a system according to the plans. He said that 99 per cent of the pitfalls in installing an automatic watering system can be avoided and one per cent corrected.

Herman Johnson, superintendent, Quail Creek G&CC, Oklahoma City, Okla., took the superintendent's viewpoint in telling about converting to an automatic watering system. This very satisfactory job done by Johnson was described by him at the Milwaukee Sewerage Commission's watering symposium last year. He advised that no expense be spared in getting thorough and expert plans. He made his listeners aware that "whatever's put in wrong you will have to repair or live with it expensively."

Grass Is the Payoff

With Donald D. Parcel, superintendent, Twin Hills G&CC, Oklahoma City, Okla., as director, the sixth educational session got onto grass with Dr. Paul E. Rieke, department of soil science, Michigan State University telling of the plant, watering, soil and temperature factors involved in turfgrass wilt.

Dr. Jesse L. Fults, department of botany and plant pathology, Colorado State University took another swing at dat ol' debbil crabgrass. He remarked that despite all that's been done and written about crabgrass the past ten

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years the problem still is "very real." Between 1961 and 1965, a partial survey showed that 44 researchers, mostly in the midwestern and northeastern states, published 32 different papers on crabgrass. He stressed that crabgrass herbicides are management tools to be intelligently used and are not ends in themselves.

Fults said the summer droughts (1962 to 1965) had a great effect in the spread and increasing severity of crabgrass. At Colorado State during 1955, 1956 and 1957 results on 120 plots indicated that direct seeded Seaside and Astoria bents (as lawn, not green) turf and annual bluegrass were highly resistant to invasion by crabgrass. Merion blue and common Kentucky are less resistant.

R. E. Schmidt, department of agronomy, Virginia Polytechnic Institute, Blacksburg, after describing how light and temperature influence warm and cool season grasses by affecting photosynthesis, growth regulatory processes and food reserves, pointed out that the best management program for bent develops a high carbohydrate reserve during the fall and conserves this during spring and summer. Bentgrass top growth should be controlled and never excessively stimulated. Stimulating bermudagrass top growth during hot weather will not deplete food reserves if night temperatures are not excessive. Vertical mowing and aerification of bent should be done prior to the summer stress and of bermuda during the summer when photosynthesis is manufacturing energy greater than it is being utilized.

Alex Radko, eastern director of the USGA Green Section, one of the top practical experts, declared that mulching of critical areas (greens, tees and slopes subject to erosion) is highly advisable but not too often done. He gave five reasons for mulch being beneficial to soil germination. He described eight mulches: salt hay, straw, bales of hay with seed in shock for mulch seeding, thinned asphalt preparations, burlap, jute, cheesecloth and tobacco netting, hydro-mulching (slurry) with a fibrous material that holds water, and polyethylene tarps.

Finale Accents Avoiding Trouble

Sheldon R. Betterly, superintendent, Chantilly National G&CC, Centreville, Va., got them up for the seventh inning of the educational program, Friday morning, starting with the talk on turf problems caused by minerals in irrigation waters. Arch Smith, president, Green-A-Matic Corp. division of Smith Equipment & Supply Co., said that all federal and state water surveys forecast that "all irrigated soils will in time have a soluble salts problem. Smith's slides illustrated the golf course problem of inability to introduce chemical amendments deeply into the soil as the farmer can. He noted that bicarbonates destroy soil oxygen, precipitated carbonates of calcium and magnesium clog fine soil pores and sodium cements the soil. With oxygen restricted, the bacteria decrease and thatch is formed. Dissolved mineral salts in the soil reduce the amount of moisture the grass plants can absorb, hence cause wilt. Smith made a good case for undesirable minerals being the root of a great deal of turf trouble and told (with slides) of treating irrigation water to eliminate unwanted minerals.

Dr. William Klomparsens of the Upjohn Co. presented a brief refresher course on fungus and its prevention and control by fungicides. He emphasized that the superintendent must carefully consider identification, planning, execution and evaluation in fungus treatment.

Roger A. Larson, superintendent, Spyglass Hill GC, Pebble Beach, Calif., reported on his findings of effects of minor element deficiencies in soils and turf-grasses as determined in his research on a O. J. Noer Foundation grant. He listed deficiency symptoms of boron, copper, iron, manganese, molybdenum and zinc and warned that there is a narrow range between deficiency and toxicity with the minor elements.

Dr. John C. Harper, Pennsylvania State University, outlined a planned program of fertilization, weighing the factors of grass species, soil conditions, usage and management, climatic conditions, soil testing and materials in the fertilizers. The basic program must be altered in accord with the season, he reminded.

Keith Nisbet, superintendent, West-

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view GC, Vandoff, Ont., spoke on the economy aspect ever present in the superintendent's planning and told of his money-saving on a tree care program, on foresight in scheduling use of equipment and use of growth inhibitors on the rough. He said he tries more to save on the small regular jobs than on the once-in-a-while jobs.

Fred Grau, veteran of countless turf conferences and valued advisor to hundreds of superintendents, wrapped up the conference with a summation in

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Edward (Ted) Roberts, superintendent, Fairmount CC, Chatham, N. J., was elected president of the Golf Course Superintendents Association at its 37th annual conference, held at Kansas City, Feb. 13-18. Roberts attended Pennsylvania State University agronomy school. He succeeded his father at North Hills CC, in suburban Philadelphia, in 1951. In 1954 he became superintendent, DuPont CC Louviers course and in 1961 moved to Fairmount. Walter R. Boyesen, Sequoah CC, Oakland, Calif., was elected vice pres.

Newly elected directors: John J. Spodnik, Westfield CC, LeRoy, Ohio; Norman W. Kramer, Point o' Woods CC, Benton Harbor, Mich.; Richard C. Blake, Mt. Pleasant CC, Boylston, Mass.

Hold-over directors: James W. Brandt, Danville (Ill.) CC; B. Tom Leonard, River Oaks CC, Houston, Tex.; Richard A. McLaughlin, Radrick Farms GC, University of Michigan, Ann Arbor.

which he put across the main idea that all the technicalities that had been heard during the conference had to be converted into terms of people as golf is a game for people, not a game for grass.

Turf Care Handbook

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