sprinklers to water mounds around bunkers, as installed by Ed Casey at Baltusrol; Joe Moisa's way of mowing Merion bluegrass tees at Tam o'Shanter GC, Brookville, N. Y., between the markers as Merion will stand cutting under 3/4 inch occasionally but frequent cutting this short would weaken the turf; and Dennis Synder's car paths at Sciot. Synder dug out paths, put in four inches of gravel, then one inch of course sand and topped it off with tanbark. The same job is done around ball washers and fountains.

Alex noted spraying schedules, fertilizer rates, damage of insects and cute little notions for TV tournament pictures of courses as among other subjects deserving attention.

Joel B. Williams, Shorecliff CC, San Clemente, Calif., went into check points that the man who'd have to maintain a course would like to discuss with the architect. Williams mentioned size and contour, irrigation and surface and interior drainage of greens; the location, design and construction of aprons and the bunkering around the greens so scallops, drainage, erosion and handwork don't run up costs. The tees, fairways and rough come in for similar detailed check-ups. Williams is for the trend toward the old notion of multiple tees as long as they involve no special maintenance.

He stressed the need of more thorough and foresighted soil preparation with accent on fertilization greater than courses usually get in construction.

Valuable points in construction were given by Russell Roberts, Gaithersburg, Md., who talked on automatic irrigation and forecasted radio control of irrigation, soil moisture measuring devices at critical points on the course, more use of plastic pipe and "spectacular developments" in batteries powering the valves.

William Nuessle, Lake Marcos CC, San Marcos, Calif., gave a program of selecting variety of turf stolons for the conditions, and preparing greens, fairways and tees seedbed and planting that may be considered standard procedure.
Dr. James R. Watson, Toro's Director of Agronomy, cleared up confusion in peat classifications and helped superintendents decide what quality of peat they need for their various problems of soil improvement. His address and others on the program will be made available in full by the GCSA. Watson was followed by Dr. James Love, University of Wisconsin, who spoke on "Salinity of Water and Its Effect on Ph-Fertilizer Release," a matter that has bothered many superintendents.

The Thursday morning session on turfgrass sod was exceptionally useful, inasmuch as sod demands of courses are increasing for new and repair work and courses. When there is the space, time, money and supervision available, superintendents want to see what's what in raising sod, a job in which such practical

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GCSAA SEMINARS
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experts as Eugene D. Johanningsmeier of Hiram F. Godwin and Son, Ben Warren of Warren’s Turf Nursery, Tobias Grether, California Turf Nurseries; Wade Stith, Lynde and Roswey Nurseries, Wiley Miner of Princeton Turf Farms, and J. E. Owsley of Owsley Turf Nurseries have been highly successful. Dr. Elwood E. Deal of the University of Maryland and Dr. Henry Indyk of Rutgers University are other authorities who contributed to the schooling on sod.

These experts went into every practical phase of sod production, rating, planting and maintenance.

Experts Hold Finishing School

Major-General Frederick J. Clarke, U. S. Army Deputy Chief of Engineers in giving the superintendents a broad picture of the increasing water demands and possible sources, mentioned 18 regional studies of water resources are being made and that golf course water is among factors considered.

In a “wrap-up” of the conference with Dave Mastroleo, Fox Hills GC, Culver City, Calif., presiding, David Moote, Rosedale GC and past president of GCSA told that the golf club superintendent is being compelled to diversify in his executive and operating capacities due to the diversity of conditions under which golf clubs must operate.

Ted Rupel, Cherry Hills CC, Englewood, Colo., in speaking on ten points of the water problem, brought out that there is a long history of dry cycles and wet cycles and on this basis there should be above average rainfall for the next four or five years. There will be ample water for the future if water is properly used, Rupel declared.

Dr. Ralph E. Engel of Rutgers, in asserting that crabgrass is here to stay, eased the pain by adding that it no longer is the threat it was 20 years ago. In discussing crabgrass controls, Dr. Engel accented the

continued on page 126
Sharp new Shape of the Sixties. Extra safety is one advantage. Less chance of ball rebounding. With turf-spacer it sits finger-width high off the ground. Easy to lift even from sitting position. Spun, heavy-gauge steel, 5" diameter. Glistening bright Red, Blue, White, Yellow.

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importance of timing in applying the preemergence treatment. He stated that wrong rates of application and uneven application are major causes of control failure. He observed that most of the crabgrass control chemicals are more effective when applied dry.

John C. Schread, Connecticut Agricultural Experiment Station, told of insects building resistance to DDT and chlordane, hence recently developed chemicals are better for controlling chinch bugs, and lead arsenate spray is to be used instead of DDT to control frit fly. Clover weevil control may depend on times of treatment, Schread said. He also warned that the European Chafer, a white grub, is spreading and superintendents should consult their state experiment station or county agents if the Chafer is reaching the area.

Holman M. Griffin, Agronomist, Eastern Region, Green Section, in reviewing irrigation system developments, stated that the planning of the system must be based on knowledge of soils, turf requirements, prevailing winds, natural precipitation, local ordinances, length of the watering season, permissible hours of operation each day and source of supply. From that information the rest of the story can be determined.

Richard C. Blake, Mt. Pleasant CC, Boylston, Mass., advised superintendents to take a fresh look at themselves and their profession, and to look at others to see if the others realize a good superintendent's qualifications and his value to his employers and his community. He stated that the superintendents' profession and responsibilities have progressed so substantially that the job and its problems and prospects require that the superintendent prepare and identify himself as a leader among other leaders of business and social service in his community.
ceived the award as his dad's stand-in... The choice of Dick Tufts as one who has served golf in the Jones spirit was perfect... Over the years no other one man has done more for the game than Dick... He has defended the traditional character of golf against the cheapening of the gold rush.

Some excellent golf was played by veteran club pros in the Teacher's championship class of the PGA Seniors... Scores under par 72 of the PGA East course were numerous... There was sharpshooting in the Age Groups too... Winners in the age classes were Don Murphy, Sam Byrd, Joe Turnesa, Bobby Cruickshank, George Ferrier, Charles Mayo and George Livingstone.

Paul Erath was elected president, PGA Seniors and with him were elected Johnny Gauc as first vice-president, John Vasco as second vice-president and Denny

continued on next page
ANNOUNCES

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GRAFFIS SWING

continued from preceding page

McGonagle as secretary-treasurer . . . At the Seniors' annual dinner, Ronald Teacher, donor of the championship trophy and financial sponsor of the PGA national and international championships was the guest of honor . . . Harry Moffitt as MC kept the party going smoothly, swiftly and merrily.

PGA Seniors' Women's Auxiliary elected Mrs. Tony Janis president . . . Mrs. Ed Lockey was elected first vice-president; Mrs. Angelo Mainero, second vice-president and Mrs. Johnny Gaucas, secretary-treasurer . . . The Women's Auxiliary championship was won by Mrs. Sam Byrd with 82 on the PGA West course.

Virgil E. Morey, 59, pro at Riverside CC, Lanett, Ala., suffered a fatal heart attack in front of the clubhouse during the PGA Merchandise Show . . . He had been professional at clubs in Indiana before moving south . . . He is survived by his widow, Ruth and their daughter.

Green Section annual award to Elmer J. Michael, many years superintendent at Oak Hill CC, Rochester, N. Y. was the second time the award went to a recently retired superintendent . . . The late Joe Valentine, along with Merion was the first supt. to get the USGA honor . . . Michael's father preceded him in golf course work . . . Elmer now is keeping his hand in as a consultant . . . Green Sec-
tion conference featuring modernizing of courses was a helpful program at the Biltmore hotel, N. Y., Jan. 27, preceding the USGA annual meeting and will echoed in regional meetings.

Glenn E. McGihon promoted to head pro post at Los Angeles CC. He was pro at Norton Air Force Base course in San Bernardino and at Hacienda CC prior to joining the LACC staff. Roger W. Van Dyke now pro at Flint (Mich.) G&CC. He switched from Hickory Hills GC, Oak Lawn, Ill. Buick Motor Div. contributes $10,000 to Evans Scholars Foundation for Tony Lema memorial scholarships. Tony was the only two-time winner of the Buick Open.

Pooley Trammell, operator of the Roe-buck and Charlie Boswell public courses of the Birmingham (Ala.) Park Board released the recently reopened North Birmingham nine-hole course. Dick Harvey is pro at North Birmingham.

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GRAFFIS SWING

Forest Hills GC, Bishopville, O., in its first year... Mr. and Mrs. Jerry Knoderer are owners and operators... Harry Flora designed the course and is pro... One way to start a job was exhibited by Bobby Brooks, now this year as pro at Baytown, Tex... While inspecting the course he borrowed a club from a player and aced the third hole with the first shot he'd hit on his new job.

Neil Plopper from Orlando (Fla. Air Force Base course to pro job at Rio Pinar GC, Orlando, succeeding Ernest Edwards who went to Starmount Forest CC, Greensboro, N. C.... Doug Sanders has an interest in the Shamrock CC, a resort and residential development to be built near Tulsa, Okla... It is to have two 18s and a lighted par-3... Bob Rosburg is journeyman pro for Savannah (Ga.) Inn & CC which expects to open this summer its 18 designed by Willard Byrd of Atlanta...