

MARCH • 1952

## Technical Study of Turf Gets Top Billing at GCSA Meet

Technical problems of golf course maintenance received intense attention of the 750 golf course superintendents and the equipment and supply men who attended the Golf Course Superintendents Assn. of America's 23d national turf conference and equipment and material exhibit, held at Neil House, Columbus, O., Feb. 3-8.

Limited, but expert, consideration was given to the cost and personnel management of golf course maintenance despite the many and increasing headaches superintendents are having with mounting costs and shortage of competent labor. The accent had to be on the turf itself for the simple reason that golfers' demands for excellent turf all seasons and under all conditions has reached the point where there are far more problems than studious, practical course maintenance authorities and the research experts have been able to solve.

The Central Ohio GCSA, under leadership of Lawrence Huber, did very well as host to the convention. The 51 exhibitors had their displays adjoining the conference hall, and there was no scattering of attendance. Arrangements were made to make effective employment of convention time very convenient.

The Central Ohio group provided buses for a tour of Columbus golf courses on Monday before the indoor conference program. Weather didn't permit much walking around the courses. The hosts also put on a "get acquainted" session Monday evening and a merry banquet Wednesday evening. Wives of the Central Ohio superintendents conducted a busy and entertaining program for the 100 wives of the visiting superintendents and supply men.

To succeed William H. Johnson, supt., Griffith Park courses, Los Angeles, as president, the association elected Malcolm E. McLaren, supt., Oakwood CC, Cleveland, Ohio. Leonard Strong, supt., Saucon Valley CC, Bethlehem, Pa., was elected vp

and Agar M. Brown was re-elected sec-treas. Bill Beresford, Los Angeles CC and Norman C. Johnson, San Jose CC, Jacksonville, Fla., are new members on the board of directors. Willis H. Glover, Fairfax CC, Richmond, Va. was re-elected. Holdover members are: Frank Dinelli, John Abbott and John Price.

The question of an increase in annual dues to include \$1,000 life insurance policy is to be decided through a referendum of the entire membership, voting to be by mail ballot. The 1953 convention was set for Atlantic City, Feb. 8-12. Florida superintendents are bidding for the 1954 convention to be held in Miami or Palm Beach.

Equipment exhibits showed interesting developments in simplification and in ingenious use of materials and design to assure rugged performance during a period of shortages rather than any radical departures in construction. Substitutes for steel and iron pipe received considerable attention. The extent to which golf course maintenance has become a chemical operation was shown in many exhibits of fungicides, weed control chemicals, insecticides and equipment for applying these chemicals.

The opening session of the conference, Wednesday, was under the direction of Philip I. Cassidy, Weston (Mass.) GC supt. Pres. Johnson keynoted the conference in reminding the superintendents they had to have the answers to one of the most difficult and exacting of all agricultural operations.

Mayor James A. Rhodes of Columbus, an ex-caddy who has become conspicuously successful in municipal management and who founded and heads the National Caddy Assn., told of his observation that golf merited an important place in the American "pursuit of happiness" philosophy. Mayor Rhodes said that golf's influence on the kid caddies in itself adequately warranted the costs of the game.



Capacity attendance at morning and afternoon sessions of the two day educational conference attested to the fine

He emphasized the basic importance of the superintendent's work in providing the most pleasant, sturdiest-wearing playing conditions without forbidding costs. He also lauded the late Maynard G. (Scotty) Fessenden and other officials for their understanding of the general contributions of golf to the health and happiness of the American as well as their understanding of the complex situations with which the superintendents have to contend.

Rhodes established his strong political position on astute management of city finances. He plans to enlarge Columbus public golf facilities with an RFC loan which he maintains will be soundly handled with golf course income and which will make use of property now having very low tax valuation and esthetic value. Building of the proposed courses will increase adjacent property values to the extent that city and county increased taxes will be a substantial sum, created by the self-supporting and self-liquidating public golf. Rhodes believes that public course golfers, if organized, could present their case strongly enough to secure needed expansion of public golf facilities.

Equipment maintenance received expert advice from Purdy Carson, field and sales engineer of Worthington Mower Co., and Charles Gardner, engine specialist of the Briggs and Stratton Corp. These ad-

resses appear in full in *GOLFDOM*, as do the papers of Ted Booterbaugh, supt. of the Grand Hotel's Lakewood course at Point Clear, Ala., who spoke on "A Northern Superintendent's Results in the South," and of B. P. Robinson, the Georgia Coastal Plain Experiment station, who talked on "The Future of Turf in Southeast."

#### Poa Annuua Gets "The Works"

Wednesday afternoon's session, presided over by Willis H. Glover, supt., Fairfax (Va.) CC, was devoted to the best organized, most complete discussion of poa annua, ever presented. Whether poa annua was to be regarded as a desirable golf course grass, and if so how could it be retained during the playing season, or if poa annua was not desirable how could it be eliminated, received the full treatment from a team of superintendents headed by O. J. Noer and a research and extension team led by Fred V. Grau.

The supt. team included Dave Bell of St. Clair (Pittsburgh dist.); Frank Dunlap, Country Club of Cleveland; Lawrence Huber, Ohio State University courses; Orville Young of Moraine CC, Dayton; Arthur R. Twombly, James Baird State Park, Pleasant Valley, N. Y.; L. E. "Red" Lambert, Oakwood CC, Dodson, Mo., and Paul Weiss, Lehigh, Allentown, Pa.



program scheduled by pres. Wm. Johnson and his able helpmates for the more than 750 attending the annual meeting

The research and extension team had Wm. H. Daniel, Purdue; H. B. Musser, Penn State; Alexander M. Radko, Green Section; Jesse A. DeFrance, University of Rhode Island; Ralph Engel, Rutgers university; and E. P. Robinson, Georgia Coastal Plain Experiment Station.

Summaries of cases presented by various experts appear in this issue of GOLF-DOM.

Despite the testimony of authorities no conclusive decision could be reached, thus showing the answer to the poa annua problem isn't as easy as some club officials think when they want to fire a superintendent who can't whip poa annua.

#### Watering A Clue?

Bell said poa annua began to be a problem with watered fairways at St. Clair and took over from bluegrass and fescue. After poa annua took over about 70% of his fairways Bell began killing it with heavy treatment of sodium arsenite which also killed the rest of the grass. Then he spiked and seeded with 100 lbs. Colonial bent per acre, hooking the seeder behind the spiker so the spike holes couldn't be closed.

Except in one case when a heavy rain fell quickly after the sodium arsenite application and nullified the treatment, Bell was mowing the new fairways in three

weeks. He has continued that program on three fairways a year.

Paul Weiss also used sodium arsenite and reported results so far look as good as his sodium arsenite crabgrass elimination treatment, but he wanted to wait two or three years before he regarded sodium arsenite as the right answer in poa annua elimination. He remarked that the treatment was not one to be applied by novices.

Lawrence Huber gave interesting testimony on poa annua being kept through the summer in areas where cold (about 50 degrees) water was applied.

Frank Dunlap reported that soil testing followed by adequate fertilization in order to give permanent desirable grasses the best chance to compete with poa annua was basic procedure in the Country Club of Cleveland campaign. He is closely watching results of light spray application of sodium arsenite to see if that will do the work or be defeated by dormant poa annua seed in the soil, and how the weather and time of application will affect the treatment.

Orville Young reported closer mowing, increased fertilization, sodium arsenite spray, bent seeding and just enough water to keep the bent alive as promising items in his efforts to control poa and encour-

*(Continued on page 84)*

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heavy application of fertilizer. Aerify and topdress three times per year. Change tee plates and towels and service ball washers three times per week. Treat for weeds when necessary. Repair divots weekly.

**FAIRWAYS:** Cut three times per week at  $\frac{3}{4}$  in. Fertilize three times per year with 500 lbs. Milorganite per acre. Aerify four times per year. Spray for weeds two times per year; spring and fall.

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We seed our winter greens September 15th with five lbs. ryegrass per 1,000 sq. ft. after double spiking. No topdressing. Two weeks later we double aerify, seed with 15 lbs. of ryegrass per 1,000 sq. ft. and top-dress at medium rate. We do not use temporary greens during this seeding operation, and do not change height of cut on greens. We do not rake Bermuda before seeding. Fairways and tees are seeded with about 150 lbs. rye per acre.

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- 1—Full time fairway mower man.
- 1—Full time tee cutting and maintenance man.

The remainder of men cut greens, trim around greens, traps, trees, etc., police grounds, fertilize, aerify, topdress, spray greens, etc.

We pay our men 75 to 80 cents per hour.

Our budget runs about \$5000 a month the year around, but there's considerable construction work included in this figure. We've also had quite a job in getting the course in excellent condition as there has been much chemical elimination of undesirable grasses and weeds we've had to do.

The management of the course insists on having the best possible golf turf for players and if you've talked to anyone who has played our course I'm confident that you have learned that the maintenance policy and practices at Lakewood have been good sound business.

## TECHNICAL STUDY OF TURF

(Continued from page 37)

age bent so it will be there in the hot, dry summer when poa annua goes out. "Red" Lambert told of experiments in trying to keep fertilizer near the surface so the shallow-rooted poa annua might survive the summer. Art Twombly shared in the opinion that in many places where drastic measures for poa annua elimination couldn't be taken the practical thing to do is to seek a way to keep it.

The research team began its testimony

with Grau reminding that poa annua kept surviving because of conditions favorable to it. Burt Musser gave supts. and chairmen an impressive idea of what attempts had been made to solve the poa annua problem and how the available data has been collected and coordinated, in presenting a list of 93 articles on the subject. They are divided into four categories: characteristics of poa annua; turf quality of poa annua and methods of holding it; methods of controlling it; and study of the losses of poa annua which may include losses by diseases that haven't been recognized.

Musser commented that there has been very little experimental work done by the scientists to back up practical experience.

Ralph Engel outlined the job of getting something that might do to poa annua what 2,4-D does to broad-leaved weeds without injury to plants to be retained. Maybe something will come from work at Rhode Island and at Purdue in discovering a selective treatment for poa annua, Engel said. He spoke of destroying the seed while it is resting in the soil and mentioned numerous factors of plant nature, weather, soil, time of control application and soil nutrients that figure in the poa annua problem.

Engel and Jesse De France both pointed out that any grass that can survive as poa annua does is remarkable and warrants study to see if it may be maintained as useful golf turf.

Before much that has satisfactory scientific basis can be done in answering the poa annua problem De France said at least three years of closely coordinated work by scientists and superintendents is necessary. He remarked that golf course research is not possible without the daily supervision that is practically beyond hope.

De France named chemicals that are being considered for preventing poa annua seed production and destroying the life cycle of the plant. He said that the behavior of poa annua is unpredictable under some conditions.

Alex Radko referred to the possibility of developing a program of using poa annua as a companion grass to a warm season grass.

Robinson and Daniel reported on research to crowd out poa annua by nitrogen and other treatments. Daniel believed that the answer might be found in soil conditions or in learning why poa annua won't come back after wilting as bluegrass does. Daniel also told of observing curious features of poa annua; some with "stolons" 6 in. long and not a leaf; and some apparently dead seed heads that hadn't shown signs of life for 27 months springing out with live shoots. He is hopeful that an Indianapolis Golf

Assn. and Indiana supts. fellowship at Midwest Turf Foundation will come up with considerable advance toward the poa annua answer.

### Problem Differs

Lively discussion followed the testimony. It was brought out that the poa annua problem differs in different parts of the country, and that watering practice may have quite a little to do with the spread of poa annua. Possibility of IPC as poa annua control was favorably mentioned. Some reported they had seeded before last sodium arsenite treatment has been applied and while germination might have been delayed a bit it wasn't inhibited and on the over-all picture of work, time was saved.

One comment was that as long as members demand a lot of watering there'll be poa annua.

The session concluded with a movie on Krillium for soil conditioning, with Dr. Wm. P. Martin of the Ohio State University and Ohio Experiment Station commenting as the film showing the Monsanto Chemical Co. "synthetic substitute for natural humus" was presented.

Leonard Strong, supt., Saucon Valley CC, Bethlehem, Pa., presided over the Thursday morning session with Dr. Virgil Overholt, Ext. Agri. Engineer, Ohio State University, leading off with a prepared paper on the subject of "Soil Structure and Drainage," which will appear in a forthcoming issue of *Golfdom*.

### Soil Testing Valuable Tool

An interesting discussion on "Tests for Showing Plant Food Deficiency," was presented by O. J. Noer and Dr. Wm. H. Daniel, Agronomy Dept., Purdue University. Noer pointed out soil testing is a valuable tool—one which the superintendent should use and not let the soil test him. Reliable tests show the plant foods in the soil as well as the necessary requirements for lime. He cautioned tests were no better than the samples taken. A study made of soil samples taken at different depths resulted in adopting a standard practice of taking samples of two inch depth for satisfactory testing.

Dr. Daniels made the observation the greatest proof of the value of soil testing are the various laboratories set up in almost every state under uniform procedure.

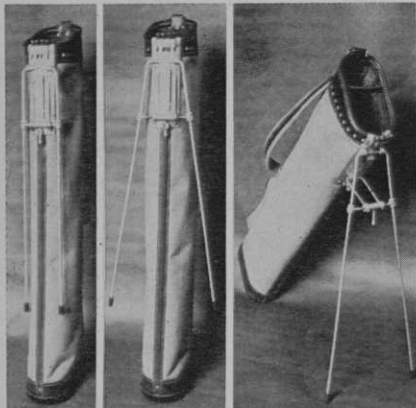
After showing results of a study made of 14 soil plugs and a practical demonstration of tissue testing he announced small plant tissue testing kits for practical use in meeting individual course conditions will be available soon and refills for those already having kits will be available also.

Bill Beresford outlined the "Fairway

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Maintenance Program at Los Angeles CC," carried on over a period of 10 years which includes a battle to overcome an infestation of Dallas grass brought in with fertilizer used at the beginning of the program. Diesel fuel was found to be the only thing effective in control of the grass and a program which started with the use of 1500 gals. per week is now down to 800 gals per season. He reported he had effectively overcome the problem of crab grass with the use of sodium arsenite with no trouble in the greens and a turf second to none in the L. A. district.

Prepared papers on the "Control of Chickweed and Clover in Fairways," by Prof. H. B. Musser, Penn State and "National Coordinated Crabgrass Results," by Alex M. Radko, USGA Green Section, completed the morning session. These papers will appear in an early issue of Golfdom.

Final session of the educational conference, Thursday afternoon, had John Price, Supt., Southern Hills CC, Tulsa, Okla., as presiding officer. The first paper presented was that of Taylor Boyd, Supt., Camargo Club, Cincinnati, Ohio, on the subject of "Records and Labor Management." Complete text is found on page 50 of this issue.

The important topic of "Superintendent's Relations," was ably outlined by Frank P. Dunlap, Country Club of Cleve-

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land. He impressed on his fellow superintendents the need for recognizing importance of good public relations and using time proven methods to improve the individual and collective standing of those in the course maintenance profession. Although duties of superintendent include a more varied assortment of skills than any other group he cannot afford to neglect the product he has to sell — himself.

#### Salesmanship Needed

Dunlap stressed good salesmanship as prime asset of the superintendent and pointed out steps to take in meeting this need, some of which included: interest in club activities, taking active part in community functions, personal interest in members, letter writing, reporting ideas learned at conventions and short courses, making suggestions and proposals, and above all, pride in personal appearance — look the part of a successful superintendent.

A panel discussion on the subject of "Short Cutting vs. Long Cutting" made an interesting finale to a fine educational program. The team of Fred Grau, Ralph Engel and Robert Henderson, supt., CC of Buffalo, N. Y. presented arguments in support of short cutting while Wm. H. Daniel, Dr. J. A. DeFrance and Clarence Wolfrom, supt., Maple Lane GC, Warren, Mich., took the affirmative for long cutting.

Grau, in introducing the subject stated all courses are not expected to meet the same high standards the USGA sets for its championships. For purposes of the discussion  $\frac{3}{4}$  in. was arbitrary figure used to differentiate between long and short cut. Colored slides were used to illustrate advantages of short cut and turf at Southern Hills CC, Tulsa, Okla., and Saucun Valley CC, among others, were cited as outstanding examples showing advantages of desired playing turf where no complaints were voiced.

#### Short Cutting Favored

Bob Henderson starting with bluegrass cut at one inch changed to Colonial bent in fairways cut a 7/16 in. to satisfy demands of professionals in his area and members of his club. A canvass of professionals around Buffalo brought out reasons why short cutting was favored. They include: better control of shot, keeps ball up, no need to take divots, speeds play, better stance and affords more different kinds of shots.

Engel in reviewing studies made on Kentucky bluegrass, fescues and bent grass for the New Jersey area gave reasons why bent grass won by large majority over other two grasses. Some of those reasons: bent comes in naturally in fairways, likes water with limitations, basic requirement of maintenance is close cutting, closer mowing lowers maintenance cost, sponginess and matting de-

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velop if not cut close depriving golfers of desired fairways.

Summing up Grau pointed out firmness and denseness of turf is not only desired but essential to good golf shots and close cutting if not eliminating clover makes it less objectionable.

Daniel in his opening remarks on long cutting acknowledged more superintendents were cutting close than high but consideration must be given to height of cut suitable to species of grass grown, that perhaps long cut may be needed on muni or fee courses for low maintenance costs and to avoid necessary expense of changing to grass suitable for short cut.

Wolfrom reiterated points made by Daniel emphasizing poorer clubs do better with turf maintenance at higher cuts, that studies by Mich. State College proved benefits obtained from high cutting and test plots at Selfridge Field proved turf easier to maintain at higher cut.

Listing eight points in favor of long cutting prepared with cooperation of two good turf men DeFrance prefaced his remarks by stating experience advocates close cutting in the New England area.

#### SHAWNEE TO HOST LEFT-HANDERS

The 13th Annual Tournament of the National Assoc. of Left-Handed Golfers will be played at the Shawnee-on-Delaware golf course, Aug. 4-7, announces Robert Romberger, their executive secy.

## Keep Poa Annuua Cool To Hold It

By LAWRENCE HUBER  
Supt., Ohio State University Courses

(GCSA Paper)

We all know poa annua is a cool weather grass. On the two courses I have been with, in the early part of my observations, we were fortunate in having deep well water that had a temperature of 55 degrees. Our pump capacity was just about enough to hold the pressure required to water all of our greens and fairways but to hold the pressure it was necessary to keep it running so that this cold water was being used instantly on the grass. I suppose the temperature would go up some through the pipe lines but not too much, since we watered at night.

I noticed that by using this cold water at these two courses that poa annua was not too much of a problem even in hot summer weather. Naturally we would lose some of it, due to sudden thunderstorms causing water to stand in puddles and then the hot sun coming out, and scalding it. But it usually comes back at the beginning of cooler weather.

On the Ohio State University's courses the drainage was installed, I would say, perfectly, but with the trees getting larger each year and having quite a few

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