

MARCH • 1950

Superintendents Hold Largest Annual Meet at Boston

By HERB GRAFFIS

The National Turf Conference and Show had its twenty-first birthday at Hotel Statler, Boston, Mass., Feb. 6 to 10. The green-keeping superintendents whose association fathers the event proudly saw the convention come of age with the biggest attendance and largest number of exhibitors in the history of the National Greenkeeping Superintendents' Assn. Attendance of superintendents, club officials, equipment and supply men and pros from the U. S., Canada and Hawaii during the five days neared 1000.

Raymond Gerber, Glen Oak CC, Glen Ellyn, Ill., was elected pres. of the NGSA; Wm. Johnson, Griffith Park, Los Angeles was elected vp, and Agar Brown was re-elected sec.-treas., at the concluding session of the convention. Wm. Glover, Leonard Strong and Phillip Cassidy were elected as directors to a board which includes Malcolm McLaren, Leonard Blomquist and Ward Cornwall.

The association set its next annual convention for Hotel Sherman, Chicago, Jan. 29-Feb. 2, 1951.

Greenkeepers' Club of New England was host to the convention, provided a complete program of education and entertainment. The entertainment, except for a "reunion" session and a dinner at a night club, was arranged to give wives of the conventioners tours of the Boston area. Crowded business programs didn't allow time for the greenkeepers to see the sights. Pres. Phillip I. Cassidy, Sec. N. J. Sperandio, and Wm. F. Mitchell, Homer C. Darling, Frank H. Wilson, Jr., Theodore Swanson, Howard D. Farrant and Harold Mosher of the New England organization, aided by their teammates, set a tough par for others who will be hosts to the NGSA affair.

The educational conference program planned by Ray Gerber and Homer Darling

was a comprehensive and practical treatment of major problems of golf course maintenance. Attendance at the fast-moving sessions seldom was fewer than 330. Layout of the equipment and supply exhibits was excellent and constituted a highly successful debut of Agar Brown, NGSA sec., as manager of the show. Along with course maintenance items, many of which were exhibited for the first time, the NGSA had as guest exhibits the educational showings of the Greenkeepers' Club of New England, the Mass. Golf Assn., the Mass. section of the New England Turf Assn. and the New England PGA.

In Management Era

Homer C. Darling presided over the first educational session which was opened by welcoming remarks of two distinguished golfers; Boston's Mayor John B. Hynes and E. C. Johnson, pres., Boston Chamber of Commerce. Both men paid tribute to greenkeepers Arthur Cody and Arthur Anderson of their respective home clubs.

Herb Graffis, GOLFDOM's editor, speaking on The Superintendents' Management Attitude, said that course maintenance had developed from farming, through green-keeping, into science and business and now is an operation in which an over-all management attitude is essential. He said that "management" is the explanation for much of the difference between course operation results. He remarked that the technicalities of course maintenance today were too many and too specialized to be understood by most chairmen, but that chairmen understood results, money and management, therefore the supt.-chmn. relations had to be on those terms. He advocated more extensive use of progress reports on work, such as executives get in their factories.

Graffis told of trying to determine what a competent superintendent is worth to a

club when he'd been asked by chairmen or other club officials about superintendents' salaries. He said he'd been unable to find any fairly common basis of payment although he'd worked on the bases of investment in plant, course income, entire club income, per rounds played, per active members, total annual course budget, course annual labor budget, character of club and course.

GOLFDOM's editor also commented that higher demands for course condition and the training now required of a competent superintendent were reflected in the difficulty of getting qualified candidates for greenkeeping jobs. He said that for every pro job that is open there are scores of applicants but that for a good job as superintendent there seldom would be more than a half dozen candidates. Good clubs are keeping their superintendents by making the job pay enough to meet inflation costs of living. He noted that unionized dishwashers at some clubs are being paid more than men who have to do exacting work on golf courses and said that unless club officials get together with superintendents in adjusting this situation troublesome developments may be expected.

"The Outstanding Course"

Robert Bruce Harris, Chicago, golf course architect, opened a series of talks on What Makes the Golf Course Outstand-

ing by citing elements of ground selection and design for excellent maintenance. His address is printed in this issue of GOLFDOM. Malcolm McLaren, Oakwood Club, Cleveland, followed with remarks on details of maintenance that give a course a distinguished look. His address also appears in this issue.

Samuel S. Mitchell, Pongapoag GC, Canton, Mass., spoke on making a public course outstanding. Sam's father and three brothers are noted greenkeepers. He said that the most important feature of the public course is the greens and that the architect and builder determine to a large extent what the superintendent would be able to do with this area. Large greens to permit frequent moving of cups and spread traffic Mitchell said were essential on the public course. Also necessary is good drainage and good topsoil to allow a conservative program of fertilizing and watering.

Choice of the variety of grass on the greens usually is made before the greenkeeper gets on the job so he must do his best to see what maintenance keeps the greens in best condition for the traffic of the "thundering herd" which at state-owned Pongapoag gets heavier than 700 a day. Mitchell declared that more greens are lost by drying out than by any overwatering that an experienced greenkeeper might risk. He prefers greens a bit on the

SHINING SPOT IN SUNNY SOUTH



Greenville (Miss.) Country Club's new \$125,000 clubhouse is part of \$200,000 new construction operation which includes new 18 hole fully watered course, swimming pool, tennis courts and trap-shooting layout. Tom Lundy, Greenville's very able and beloved pro, together with Jack Daray, designed the new course. Big well supplies Buckner installation which includes pop-up sprinklers in tees and greens. Plant is on 157 acres.

hard side with good turf and added that heavy traffic on a popular public course compacts greens so much an aerification program becomes a "must."

As demand is for an "outstanding" public course to be up to the private club standard Sam said that a vigilant program of fertilization is required and that in his part of the country fairway watering is needed. Weed control now must be standard practice on a first class public course, he added. Rough is virtually eliminated to keep play moving fast on the public course and leaves, clippings, branches and debris must be removed constantly to show good housekeeping. A long range landscaping program must be followed on most public courses and attention should be given to parking places and clubhouse areas to keep them attractive.

Mitchell reminded "no outstanding course is cheaply maintained," and that goes for public as well as private courses.

W. O. Blaney of the Massachusetts Golf Assn. and chmn., Handicap committee, USGA, spoke on the players' view of the "outstanding" course. Blaney pioneered in developing the course rating plan started in Massachusetts, adopted by the USGA and now in extensive use in the U. S.

He said topography, architecture and the general condition of the course are the three factors on which a player rates a course. Condition of the greens, fairways and tees in that order, determines the player's judgment of course condition. Rough and trap condition should not be so highly considered because players are not supposed to be in these places, Blaney remarked, but conceded that the majority wants the rough and hazards manicured to the extent the element of penalty almost disappeared, and had given greenkeepers more and more expense.

Blaney said good players prefer fast greens and so would hackers if they became accustomed to them and learned the touch which is a vital element of putting. Fairways should have the ball sitting up firmly so the player can "get hold of it." The ordinary golfer probably prefers the fairways too long, too soft and too green, Blaney noted, but as long as the grass must be conditioned for the player rather than the player running second to the grass, the greenkeepers' genius will have to balance player and grass demands.

Tees should be cut short and be level, Blaney reminded. He mentioned that traffic on some tees had worn tracks that had been oppressed to the extent the tees were humpbacked. He also said that greenkeepers in placing tee markers and cups, mindful of turf and wind conditions, could preserve fairly uniform playing conditions and make course rating system stand up.

Ralph Engel of the Rutgers university staff told of New Jersey's program of turf maintenance schooling and research. This paper was accompanied by slides showing New Jersey turf experiment plot and Engel's comments on the work. The paper appears in this issue of GOLFDOM.

Water Supply Factors

C. E. (Scotty) Stewart, Chicago, consulting irrigation engineer, in telling of a modern course irrigation system, stressed making sure of an adequate supply of water. He advised consulting local authorities about regulations governing stream water use and dam construction. He counseled against making a reservoir too deep. A pond of large area in which water wouldn't be lowered much during pumping and banks wouldn't slip in, is better. Stewart said evaporation and seepage losses would be offset by rains and drainage. He advised consulting with well driller and getting a test hole as initial work in planning irrigation systems dependent on well supply. He also discussed pump types.

Stewart said agronomists and irrigation engineers would have to get together on water requirements as dictated by local conditions. He said the safe way to design irrigation systems was with the idea of not getting any rain. Common sense rather than a watering "program" should direct use of any system. The system should care for watering about a third of the course per night.

He cited the increase of friction according to increased velocity of flow as a very important factor in designing the course watering system and detailed merits of pipes of various materials and different types of joints. Stewart also outlined trenching methods. He said in the northern part of the U.S. with 100-125 days of course irrigation use per year there was no need to put pipes under the frost line but to make sure they drained by gravity. He also gave figures on expansion and contraction of pipe lengths according to temperatures. He gave details of pipe testing procedure. He recommended water as preferable to air for testing but said that if air was used to put in a pint of banana oil so leaks would be noticed readily.

What Goes On in Turf

Geoffrey Cornish, Univ. of Massachusetts, presided over the first afternoon session. First speaker was Dr. Dale Sieling, Univ. of Mass., on The Role of Phosphorus in Turf Production. His paper, which was accompanied by charts, appears in this issue. Also in this issue is the talk by S. D. Gray, American Potash Institute, on The Use of Potash in Turf Development. Gray mentioned several papers on plant tissue

(Continued on page 90)

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paper folded lengthwise. Place the test spots on one half of the paper and when they are used for testing the untreated half is used as a filter to absorb the leaf color as the sap is squeezed through it onto the test spot area.

Of one thing we are certain, the delicate balance between the roots and above ground part of golf grasses calls for the utmost care in fertilization. Precautions must be taken to prevent injury from applied chemicals whatever they may be. To overfeed the grass is as bad as under-feeding it. The real problem is to keep them in a high state of vigor through existing means for periodic checking of the nutrient status of the clippings and to supply whatever nutrient or nutrients the chemical tests indicate. If, for example, a negative test for potash is found, less than 1000 ppm, an application of 1 to 2 pounds of 60 per cent muriate of potash per 1000 square feet should be made as an initial treatment to bring the potash level into proper balance. The total amount of potash required for a green, depending upon its size, should be mixed in about 125 gallons of water, sprayed onto the green under pressure and washed in immediately.

Like animals, turf grasses must be fed if they are to live. They must be fed properly if they are going to be healthy, and certainly they must be healthy if they are to measure up to our expectations. In the light of our present knowledge of the value of chemical tests in determining the nutrient status of crop plants, their more general use in studying the nutrient requirements of turf grasses seems certain. They are the surest means of insuring balanced feeding, our major objective.

SUPERINTENDENTS HOLD

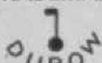
(Continued from page 39)

testing which are available to greenkeepers and which undoubtedly will be widely read.

Prof. Lawrence S. Dickinson, Univ. of Massachusetts, an originator of greenkeeper short courses and pioneer in establishing an educational program that has been a main factor in modern golf development, spoke on Practical Training for Turf Maintenance. Twenty-one years ago at the greenkeepers' convention in Buffalo "Dick" spoke on Education for Greenkeepers which then was considered to be a very delicate subject as the greenkeeper who didn't "know it all" was suspected of making an admission he wasn't qualified to handle his job. More than any other one man Dickinson has been responsible for inspiring and nursing into nation-wide vigor and value an educational program that has transformed the nation's golf courses and made



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it possible for the greenkeeper to receive, in informed quarters, recognition for highly commendable professional advancement.

Dickinson told of the continued need and expansion of turf maintenance education in view of the great increase of demand for superb turf. He said that the selection of students for the "higher learning" in turf maintenance should be carefully made to preserve the present high standard of personnel in the profession. The scope and technicalities of the curriculum Dickinson outlined in a manner that made plain the greenkeeper had to know enough answers to scientific and business problems to need an extensive practical education.

O. J. Noer, Milwaukee Sewerage Commission, gave Tips on Maintenance, illustrated by selections from his vast library of Kodochrome slides. Noer showed soil samples with layering that told him who happened to be greenkeeper at each time a layer was formed. He pointed out that sand layers caused trouble $\frac{1}{2}$ inch below the surface in July and August and that heavily matted turf preventing free movement of air and water was another source of serious trouble.

He showed examples of compaction and mower turning damage on greens, of scald, iron deficiency and sclerosis, detailing treatment for the latter. He also showed trouble resulting from tree roots growing much farther than supposed. He showed slides of goose grass tees in St. Louis and slides showing how U3 Bermuda tees were obtained in six to eight weeks in St. Louis. Noer said you'd better not have shade if you want good Bermuda growth and showed slides illustrating adverse effect of too much shade. He also gave material on handling Bermuda encroachment in bent greens.

Of interest to many was Noer's showing of bent fairway slopes facing south having localized dry spots due to excessive mat of grass. The nomadic expert advocated plenty of use of the aerifier in September to break up turf matting. He said that among last year's lessons one that stood out was that soil physically and chemically in good shape has turf standing drought quite well.

Studies Water Use

Prof. H. B. Musser, Penn State College, illustrated his talk on Use and Misuse of Water with charts. He said plenty still had to be learned about the function of water, effect on germination, nutrition, on soil organisms and on use of fertilizer. The deficiencies and excesses of water are an important part of the "know how" of course maintenance, said Musser. How much water to put on is influenced by capacity of the soil to store for plant use. The Pennsylvania Agricultural Experiment Station is studying the relationship of over-

watering and compaction. Musser opined there was much waste in overwatering of bluegrass.

Fred V. Grau, L. S. Dickinson, Jesse De France, O. J. Noer and H. B. Musser conducted a Question Box. Among answers were: Excess phosphorus has tendency to cause sclerosis provided reaction of soil is above Ph 6; control of fairy ring by perforating with $\frac{1}{4}$ inch rod about 4 inches to bottom of mycelium mass, with rod holes 3 to 4 inches apart, and pouring in Bordeaux mixture; combination of chemical and organic nitrogen fertilizers most effective in New England; cutting pearlwort out of bent greens about only sure way of elimination now; excessive clover an indication of fertilization not being in proper balance; apply treatment for snowmold at half rate in late winter after snow disappears. One problem nobody could answer was how to route bag carts to avoid excessive wear around greens.

Bermuda-Rye Switching

Phillip Cassidy conducted the Thursday morning session. Henson Maples, supt. of the three courses at Pinehurst, N.C., gave the very practical talk on Turf on Courses for Winter Play which GOLFDOM carries in full. Clyde Bryant, Dow Chemical Co., talking on New Chemical Herbicides for Weeds and Grasses, told that temperature is more of a factor than early indicated in 2, 4-D use. Somewhat higher dose of 2, 4-D has been found advisable for early treatment. Bent injury most likely during hot weather. Bent greens 2, 4-D treatment most risky; longer bent fairways stand 2, 4-D fairly safely. Salt formulations of 2, 4-D involve less hazard. On white clover 2, 4-D is relatively ineffective and 2, 45-D is recommended for white clover kill when the plant is rapidly growing. There is no one-shot deal with 2, 4-D Bryant said. Treat a season, skip a season, then treat again, he suggested.

He illustrated with slides his remarks on MC2, a new product of methyl bromide with tear gas as a warning agent. The MC2 applied within an air-tight enclosure gave excellent control of quackgrass, Johnson grass, Bermuda grass and most common weeds. Details of this part of Bryant's talk are given in this issue of GOLFDOM.

Rating Bents in Play

Wm. Glover, supt. Fairfax (Va.) CC, spoke on The Behavior of Named Strains of Bent Under Actual Play. His interesting report appears in this issue of GOLFDOM.

W. G. Strathern, sales counselor, gave an amusing talk on sales policies of the greenkeeper. In advising them to become salesmen he emphasized, "don't argue—persuade" and urged that they learn to ask

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questions in a way that makes it easy for the other fellow to say "yes."

A panel discussion on crab grass control brought together Dr. J. A. De France, Prof. H. B. Musser and Dr. Ralph E. Engel. De France reported on this work in which Rhode Island State college and experiment station had pioneered. Musser spoke of Penn State's recent work with sodium arsenite, PMAS and potassium cyanate, and said a lot of work would have to be done in learning how to handle the materials most effectively. Engel told of many tests during past two years of phenol mercuries, C-Lect and PMAS. He said there was only one failure which was of treatment started late, but that the injury to turf, which would be more objectionable on a golf course than on a lawn, continued to be a serious factor. He advised checking on maintenance practices, particularly fertilizing and topdressing freedom from crab grass, in any program of crab grass control.

De France said crab grass sometimes is confused with other grasses. For chemical control application should start about the time crab grass starts germinating and continue during the germinating period. Treatments should be 10 days apart. Any time of day is O.K. for application and rain won't affect the treatment. Bents are more quickly damaged by chemical treatment for crab grass than fescues and bluegrass but at fairway lengths there's not much difference. The PMAS and 2, 4-D mixture De France didn't recommend on greens except in cool weather and at light rates. He showed slides of tests at the Kingston, R.I. station.

Turf Makes Championships

The concluding session was presided over by Everett Pyle of the Hartford (Conn.) Park dept. Jack Gormley, Wolfert's Roost CC, who was slated to preside, was hit by illness and kept confined by doctor's orders.

Richard Tufts, pres., Pinehurst, Inc., new chmn., USGA Green Section, and former chmn., USGA Championship committee, spoke on What Good Turf Means to a Championship.

Tufts said the most important man to contact in preparing for championship play is the course superintendent. Locating cups and adjusting maintenance operations to test championship qualifications requires expert services of the superintendent. Tufts mentioned that he had seen things go wrong in championship course condition for which the superintendent was in no way responsible. True putting surfaces are taken for granted on a championship course. Greens should hold a well-played shot and reject a poorly played one.

Tufts said that it often was necessary to bring rough close to the green and intro-

duce an element of luck in shotmaking but if the greens are rather soft and hold mis-played shots the luck element is balanced. Long hitters have been throwing the game out of adjustment and provisions must be made in rough and other phases of course preparation so USGA championships don't get on the basis of "strong back and weak mind" play, Tufts pointed out.

As chairman of the USGA Green Section committee Tufts said he knew of no finer group of men to work with than the greenkeepers. He remarked that Fred Grau's decentralization program was increasing direct service to USGA member clubs. The USGA has been handicapped in Green Section and other work by being in the red in 1947 and '48 but recovering with Open and Amateur championship income in 1949.

Turf Research Reviewed

Fred V. Grau, Director, USGA Green Section, reviewed turf research saying that the advanced knowledge of turf that benefitted 20,000 athletic fields, 30,000 home lawns and innumerable parks and cemeteries, in addition to golf courses, was due to the greenkeepers. Since Rhode Island State College pioneered in turf research almost 50 years ago many colleges have gone into this field, usually because of greenkeepers arousing interest and cam-

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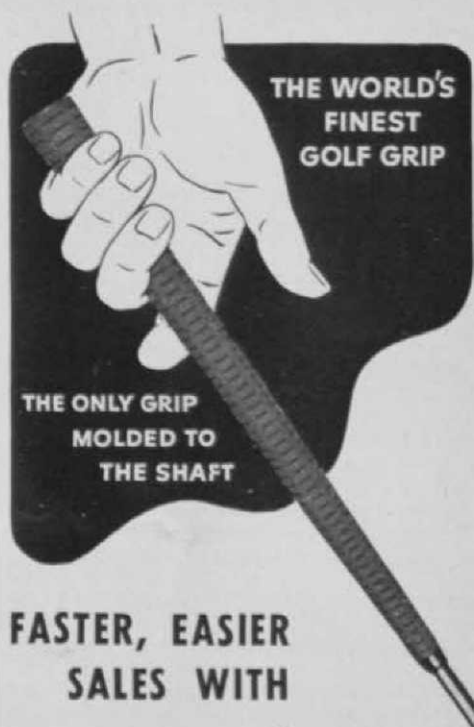
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Grau said there are eight major points in the Green Section program: (1) Save more rainfall. (2) Use less irrigation water within reasonable limits. (3) Cultivate and aerate soil. (4) Develop "fool-proof" grass. (5) Greater economy of maintenance without sacrifice of quality. (6) Encourage more to participate actively in turf research; more use of superintendents' work as members of the research team. (7) Close coordination of agricultural scientists and agricultural interests. (8) Train more young men as expert greenkeepers, technical men and research men.

Grau showed slides of work at Beltsville and told of new grasses nearing commercial seed production stage.

Theodore Glowa spoke on Turf Maintenance at U.S. Military Academy, West Point, N.Y., outlining the job done on the school's 500 acres of turf, including a 9-hole golf course. With 2700 cadets active in drill and outdoor athletics nine months a year the grounds superintendent's work has to be planned in the administrative and professional phases, and in considerable detail in the maintenance and preventive

phases. Drill and sports fields get hard wear at West Point. Glowa is trying U3 Bermuda to see if it will take the beating any better than bluegrass, chewings and alta fescue and Colonial bent, at present used.

He said use of a turf vacuum cleaner for leaves, debris, etc., had been instrumental in cleaning up crab grass seed. He applies fertilizer and 2, 4-D at the same time. Due to heavy use of the fields from March to Thanksgiving Glowa said his renovating work had to be done in winter and he'd had excellent results from seeding much earlier than is customary.

Dennis Lavender, pro-gkpr. at West Point, outlined the Academy's golf course maintenance and emphasized heavy fertilization for getting the new course in good condition quickly. His paper will appear in an early issue of GOLFDOM.

Dr. H. W. Thurston, Pennsylvania State College, presented a Progress Report of Cooperative Fungicide Tests which will be printed in an early issue of GOLFDOM as will William Mitchell's talk on Remodeling and Renovating Greens.

Marshall E. Farnham, Philadelphia CC, spoke on Aerification of Greens and Fairways. Farnham gave an excellent round-up of corrective and standard maintenance work of this sort and rated aerification as

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now being about in the class of routine practice in first class course maintenance. Soil and weather conditions seldom being ideal for a crop that must be maintained as sturdily and as finely as greens and fairway grass the help of aeration is due to be figured in budgets annually from now on.

John C. Schread, Connecticut Agricultural Experiment Station, spoke on The Tropical Earthworm and Its Control. Dr. Schread's paper on this pest which has been a great nuisance on eastern and north-eastern courses will be printed in GOLF-DOM.

U. OF FLORIDA ACCENTS GOLF

(Continued from page 47)

the South by winning every meet in an eleven match schedule last spring.

This year, the Gator golfers are hard at work preparing for another tough season that will find the Saurian swingers meeting such teams as Tennessee, Georgia, Georgia Tech, Stetson University, Florida Southern College, Vanderbilt and Jacksonville Naval Air Station.

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