PATENTED



February, 1952

COMPARISON OF GOLF PARTICIPATION* EXCLUSIVE OF INSTRUCTION AT THE UNIVERSITY OF MINNESOTA IN 1951 WITH PREVIOUS YEARS FROM OPENING DATE TO JUNE 17, CLOSE OF SPRING QUARTER

Course	Year	Student	Staff	Staff and Student	Other**	Total Participation	Percent Student Participation
18 Hole	1947	***	***	8,222	1,833	10,055	No records
18 Hole	1948	***	***	8,344	2,357	10,701	No records
18 Hole	1949	***	***	9,061	2,952	12,013	No records
18 Hole	1950	***	***	6,999	3.310	10,309	No records
18 Hole	1951	11.731	1,588	13.319	1.856	15,175	77
9 Hole****	1951	1,398	130	1,528	212	1,740	81

*Participation figures include duplications. A participation was counted as actual play on the golf course. Obviously, complete rounds not always were played.

**Alumni, guests, students registered for less than six credits and Mayo fellows who do not pay the

incidental fee. ***Recreation fee did not apply until September, 1950 and separate student and staff participation records were not kept.

were not kept. ****Opened in April, 1951

Average Student and Staff Student and Staff	1947-1950 8,157 1951 13,319	18-hole course
Student and Staff	1951 1,528	9-hole course
Total Student and Staff	1951 14,847	Both courses

Increase student and Staff (Participation 1951 both courses less average for years 1947-50) 6690 or 82 percent

Supposition justifiably can be made that most of the above increase was in student participation and further, that the recreation fee has been a contributing factor in increasing play.

Participation. — With that background of information on the facilities, instructional program and golf fees at the University of Minnesota, you may be interested in the records shown above.

In an effort to determine why some students do not participate in golf, tennis and ice skating even though the total charge of one dollar per quarter is a small one, the questionnaire shown on the following page will be answered by students who will be selected by a stratified sampling of the entire student body.

Teaching Golf at Schools

There is need for much research in the teaching of golf. An example is how to develop the ability to judge special relationships required for an approach shot as distinguished from a tee shot on a long hole. Admitted that such research is necessary, we may make some applications of research in motor learning and psychological principles to the learning of golf skills which appear fairly reasonable.

Competition is a real and powerful incentive to learning and when used properly stirs one to improve himself and perform better. Group competition appears to be less effective as an incentive than individual competition.

Distributed short practice periods are better for learning than long practice periods. The optimum length of practice periods for persons of different ages and golf abilities is a subject for research. Young people need shorter practice periods than older ones. In planning a practice or instructional period, the factors of fatigue, monotony and amount of effort should be considered.

Motivation is essential to effective learning. Motivation differs for the beginner and the expert. Success in itself, or its anticipation, is a motivation for improvement. Thus, it is important that the learner should have a goal and note some progress toward its attainment. Praise should be used as an incentive. Constructive criticism in the form of positive rather than negative suggestions are desirable. Excessive criticism of the beginner may be a source of discouragement. Furthermore, he cannot use suggestions as well as the more experienced and better player.

There have been different approaches in the teaching of motor skills. In the part or traditional method, the elements of a skill are practiced and later put together in the form of the total skill. In the whole-part-whole method the total skill (golf swing for example) is practiced at first. It is important for the beginning golfer to sense ("feel") the whole golf swing as it is to be used. It may be advisable for him to play a hole or two. The golf swing is a sequence of motor actions accomplished as a complex unitary movement. In the whole-part-whole method the whole swing is emphasized and experienced by the pupil, errors in the swing and form are stressed and one or more details corrected, and the whole swing is practiced again. Thus, the learner practices the whole swing, elements of the swing and repeats the process. Emphasis is placed more upon the whole swing and its development through prac-

ticing it than practicing the elements of the total swing in isolation. Trial and error or self-instruction is used by many players. To be effective the golfer using this method should be aware of his errors and strive to correct them. The golf instructor is needed to discover mistakes and to give verbal instructions, demonstrations and constructive criticisms.

Slow motion pictures and slide films are of outstanding value in teaching motor skills. They are excellent for placing emphasis on the "why" as well as the 'how" which is a point to remember in

good teaching. Such teaching aids are interesting and good motivators.

Learning and success in a motor skill are affected by attitudes and emotions. The learner should note results and be aware of his successes and failures. It is wise to have the golf pupil aim at a level at which he is very likely to succeed than too high in order to avoid too frequent disappointments through failures and to provide some motivation through anticipated success.

We learn a golf skill by performing it. Therefore, time in a golf lesson should be afforded to practice the skill in preference to too much verbal instruction or demonstration on the part of the instructor. Much practice is necessary to allow the golf skills to be organized and the practice should be done preferably in the environment and under the conditions in which the skills are to be used.

THE RECREATION FEE PLAN

Purpose of questionnaire: To determine the factors which influence participation under the recreation fee plan. DO NOT SIGN YOUR NAME. I. Your class: Check (X) Fr._____ Soph.____ Jr.___ Sr.____

 Write the college in which you are registered 3. Your sex: Male____ Female_ 4. Your university residence: Check (X) one Minneapolis campus _____ St. Paul campus _____ Commuter 5. Have you known (before now) that payment of the incidental fee by students carrying six credits per quarter entitled them to use the ice skating, golf and tennis facilities without additional charge? Yes____ No_ 6. Do you know the location of the following University of Minnesota facilities? (a) The indoor skating arena?
(b) The eighteen-hole golf course?
(c) The nine-hole golf course? Yes____ No____ Yes No _ No Yes

- space or spaces. Ice Skating Golf Tennis
- (a) High school physical education (b) College physical education other than U of M c) U of M physical education (d) Other than above 8. Answer the following question only if you have been in residence at the U of M for one or more years. Since you registered at the U of M Ice Skating | Golf Tennis (a) Has your participation increased in b) Has your participation decreased in (c) Is your participation about the same as previously in 9. If you have not participated in ice skating, golf or tennis at the U of M for recreation, check (X) in the appropriate space (or spaces) to indicate your reason or reasons. Ice Skating Golf Tennis
 - (a) I do not have the time (b) I do not have the skill (c) My friends do not enjoy these activities (d) I do not own equipment and cannot afford to rent it (e) I prefer to participate away from the University during the University year (f) A physical handicap prevents my participation (g) Transportation is a problem (h) Please state other reason

Mid-Atlantic Turf Conference Shows Advance

Mid-Atlantic Assn. of Golf Course Supts. held its annual turf conference Jan. 8 and 9 at Baltimore, Md. Dr. Ernest N. Cory of the University of Maryland was director of the conference. The theme of the meeting was "The physical make-up of soils."

O. J. Noer of the Milwaukee Sewerage Commission was the first speaker. Following his introductory remarks he, assisted by Dr. Edward Strickling, Charles Wilson and Al Radko, conducted a laboratory demonstration on soils.

A panel consisting of the following men displayed plugs taken from greens at their respective clubs: Bob Scott, of the Baltimore CC; Bill Glover of Fairfax CC, Fairfax, Va.; Charles Schalestock of Farmington CC, Charlottesville, Va.; Jim Thomas of Army-Navy CC, Arlington, Va.; James Roach of the Country Club of Virginia, Richmond, Va. and Bob Shields of Sligo Park GC, Silver Spring, Md.

Each gave a history of the greens from which the plugs were taken; also a comprehensive report on the materials used for topdressing mixes. The purpose of this phase of the program was to explore the possibilities of establishing standards

The Madagascar Peak . . . in topdressing. Although no conclusions were reached the lively discussions indicated keen interest in the subject.

The first day of the conference was concluded by a dinner, after which Col. W. K. Bonnell, Washington, D. C. entertained approximately 88 turf men with kodachrome projected slides of beautiful scenes in Japan.

The second day of the conference opened with a panel discussion on "Factors that are important in design and construction of greens". Adm. John Phillips of the Army-Navy CC, was chairman of this session. Admiral Phillips is the type of green chairman every golf course superintendent wants. He introduced Bill Glover and Bob Scott, who covered all known facets of this important subject.

A. M. Hedge of the USDA showed a motion-picture and commented on "Soil Erosion". Everyone in attendance was greatly impressed by the dramatic presentation through micro-photographic filming of the devastating power of rain drops when falling on barren soil. It certainly served to remind us of the important part grass plays in preventing soil erosion.

Dr. Fred Grau of the USGA gave a review of the outstanding results achieved at Beltsville during 1951. He stressed an

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optimistic outlook on the possibilities of Zoysia grasses.

Al Radko gave a comprehensive summary of crabgrass control, using table slides. — CHARLES SCHALESTOCK

Bob Scott, during the design and construction session at the Mid-Atlantic meeting showed how to make clay models of greens for planning purposes. Those models help when the shot-making and maintenance factors are being coordinated before building.

Scott remarked that people seldom realize how much turf and turf management has advanced from 35 years ago. "Then," said Bob, "there was more grass around a golf course than on it." Bill Glover made a practical observation at the Mid-Atlantic meeting: "The scientist discovers; the superintendent proves."

Among the many high spots at that meeting was Fred Grau's review of turf work at Beltsville. Fred showed big blocks of Meyer Zoysia (X-52) overseeded with Merion bluegrass (B-27) brought from the Plant Experiment station, and explained them.

Those exhibits gave the experts at Baltimore basis for the belief that we're entering a period of great change and improvement in golf grasses.

- TOM MASCARO







PGA DUNEDIN TOURNAMENT COMMITTEE

Pros who planned the tournament schedule that is making this the liveliest season in the history of the PGA's National course at Dunedin, Fla., assembled for a planning session at the side of the clubhouse. (L. to R.) Joe Curtin, John Watson, Al Huske, Ray McAuliffe, Marty Cromb and Harry Schwab. Events have included many pro-pro, pro-am and mixed events in addition to the crowded schedule of the PGA and Senior Open period. From Dec. 1, 1951 to Jan. 16, 1952 there have been 318 PGA members play the course. There are about 150 PGA members spending two months or more in the Dunedin neighborhood during the winter. Every Thursday is ladies' day on the course and there's a lot of golf played by pros' wives and their girl friends.

Ernest Newnham, Al Watrous Win Seniors' Events

Ernest Newnham, veteran pro at Portland (Me.) CC finished with a one-under 71 which, added to his opening 75, won him the 1952 PGA Seniors title at the Dunedin, Fla., PGA National course. Ernie nosed out the 1951 champion, Al Watrous, by a stroke.

The Newnham victory was particularly impressive as the 55-year-old Maine pro has damaged hands and had to build his grips to suit his physical handicap. The left-hand part of the grip is small and the right hand section is built up. He isn't long; a 225 yd. drive is a gigantic swat for him, but he is straight and the way he uses long woods and irons is poetic. He gets long and short approaches close enough to the pin to ease putting strain.

Following Watrous, there was a four way tie of Charley McKenna, Lou Chiapetta, Harry Schwab and Phil Turnesa at 148. Some fine, but spotty golf, was shot by the rest of the field of 80 seniors, many of whom are so busy on the lesson tee and with other club duties their summer play is mainly during playing lessons and on Mondays when they can play in sectional PGA events.

Watrous, the young Oakland Hills grandfather, was not to be denied in the first Senior Open which drew a field of 160. His three sub-par rounds of 67-71-70 -208 had him leading the three who tied for second by 10 strokes. In second place were Johnny Watson, Bill Goldbeck and the amateur Tom (Meat-cutter) Robbins, winner of the 1951 U. S. Seniors' title.

Watson got 75-71-72; Goldbeck got 73-72-73 and Robbins 71-73-74.

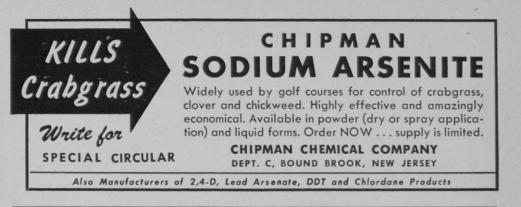
The first Seniors' Open showed that the event has much promise of becoming a very pleasant, interesting annual fixture. It has some work to go through before it gets as completely and smoothly organized as the various amateur senior tournaments which usually are models of close, expert attention to details of management, but the rough spots will be ironed out from the lessons of the initial event.

Watrous and Harold Ryder, Nantucket, Mass., won the pro-am which was a warmup for the Senior Open, with a best ball of 62. Al had a 68 and Ryder, 71. Pro Al Fehr of Eau Claire, Wis., and amateur F. K. Vaughan, Hamilton, O., finished second among the 44 teams with 65.

Every Turf Conference Pays My Club By EVERITT A. SHIELDS Supt., Druid Hills Golf Club, Atlanta, Ga.

Every time I possibly can attend a national or regional turf conference I go. From experience I have learned that I rarely come home without several new ideas, any one of which more than pays for the expense of my attendance.

The national conferences thus far haven't been of the greatest specific and practical benefit to southern greenkeepers and superintendents because of the neces-



sity of treating problems common to the largest number of courses, yet I have learned from papers presented at the national meetings and from informal business discussions with other superintendents — from the south and elsewhere more than enough to justify my attendance as a matter of thrifty use of my course budget.

Meetings with fellow greenkeepers if attended open mindedly should be beneficial to everyone. It should be mandatory that all greenkeepers attend their regional conferences within reasonable distances and the experiment stations' personnel should make every effort to make the conference as interesting and practical as possible.

I have never attended a turf conference that has not been beneficial to me and through me to my club.

It was at a regional conference in 1949 I heard for the first time authoritatively about chlordane. It was brought out in a talk by Dr. Stoddard from the Belle Glade Experiment Station in Florida, whose talk dealt with the use of chlordane for the eradication of mole crickets. The material had proved satisfactory on three of the four types of mole crickets known at that time.

While I did not have mole crickets on my course but did have an angle worm problem I conceived the idea from his talk that chlordane might possibly be the answer to my problem.

With the information in Dr. Stoddard's talk I began running experiments dealing with the eradication of angle worms. The tests on fairways did not prove satisfactory. However, tests run on an old abandoned green, which I use for test purposes, showed favorable results after three one pound applications of 40% wettable. After my fifth one pound application I was well enough satisfied to try chlordane on my playing greens.

The results have been very satisfactory and my worm problem practically nil during my 1950 season. I realize that a one or two year test can not be construed as conclusive evidence but progress obtained warrants further observations.

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February, 1952



My experiments lead me to believe that early spring and early fall treatments are best and that your capillary water is perhaps your principal controlling factor.

At this time I do not know what the residuum reaction of chlordane will be on the soil. One of my chief objections to lead arsenate, nicotine sulfate and mowrah meal was the residuary elements they left in the soil that had to be dealt with. Experience has taught me that lead arsenate, heretofore my chief worm killer, had to be applied to our bermuda grass during its growing season as the 8 lbs. per 1000 sq. ft. dosage we use would kill or maim our winter rye grass. However, I have noticed no discoloration or kill at the above specified rates with chlordane applied with fungicide treatments directly on rye grass after germination.

Get More Traffic Into The Shop; Pro Problem

Pro businessmen are giving more attention to the relationship between number of rounds played and shop sales, lesson and bag cart rental income. That study has meant closer work between pros and committees in preparing club events programs that will attract more play.

A number of suggestions for events are in the booklet "Golf Events," which may be secured free by pros and club committee chairmen, upon request to National Golf Foundation, 407 S. Dearborn, Chicago 6, Ill. Requests for the book have been more frequent from club officials than from pros, which may be a tip-off that pros are overlooking a profitable opportunity.

Another angle of the direct connection between amount of traffic and retailer's profit was set forth by Lionel Moses of Parade Magazine advertising dept. in a talk to wholesale food distributors at Madison, Wis.

Moses said:

"The passerby who DOESN'T pass by, but turns and walks in, becomes store traffic, the most valuable thing the retailer buys. He pays for it with his rent, his pay-roll, his own advertising, with every cut-price special he features in order to bring people into his store."

From the Parade advertising salesman's talk it was obvious that retailers other than pros can use a lot more planning and effort to bring passing traffic into stores where the merchandise is for sale.



Golfdom

NEW BOOKS

STYLE ANALYSIS. By Louis T. Stanley, Editor in Chief, English Golf Union. Published by Naldrett Press, Ltd., 29 George St., London, WI, Price 15/.

This is mainly a picture book with differences in style pointed out by Stanley for the reader's closer observation and study. Excellent pictures taken by Stanley cover the drive address, approaching top of backswing, top of backswing, getting into the hitting area, impact and finish of the drive; long, medium and short irons, wedge and chip shots, hip action, weight transference, rough shots, putting and grips.

There are 22 American and British amateurs whose styles are shown. Dick Chapman, Frank Stranahan, Charley Coe, Willie Turnesa, Bill Campbell, Jim Mc-Hale, Bobby Knowles, Sam Urzetta and Harold Paddock are Americans shown. Of the British amateurs Ronnie White looks very good. His form is sound reason for his success in Ryder Cup competition. Especially interesting as decided variations from the orthodox are pictures of the curious loop of Britisher Jimmy Bruen and some of the Stranahan pictures.

LINKS LOGIC. By Paul Hahn. Published by Ray Valind, 5556 Beaumont ave., La Jolla, Calif. Price \$1.

This 36 page book by the young pro who has made a phenomenal success in his trick shot exhibition tours is a sound primer. Hahn wrote it to supply the major answers to thousands who question him about their own games after watching his exhibitions and clinics.

It's a clear, simple presentation and explanation of the grip, stance, address, swing and putting basic points. It will put a great many golfers on the right track.

THE GOLFERS' YEAR. Edited by Tom Scott and Webster Evans. Published by Nicholas Kaye, Trebeck st., London W.1.

This is the second annual volume of an interesting, well-balanced collection of entertaining and informative articles and instruction material. Pro and amateur golf, men's and women's, are covered and there's considerable American material, especially in the instruction pieces. Tom Scott, editor of Golf Illustrated, and his team-mate Webster Evans, selected 23 major pieces by British and American golf authorities that make pleasant reading for any golfer.

One of the quotes, from a piece by Ivor Brown, a grand writer and reporter, describes J. H. Taylor with the perfect line to apply to a gentleman sportsman: "He

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P. O. BOX 167

was always your companion as well as your partner on a round."

ARE GOLFERS HUMAN? By Robinson Murray. Published by Prentice-Hall, Inc., 70 5th av., New York 11, \$2.50.

Murray has done a book that scores much better than par in laughs making the rounds of almost every type of golfer you know, and the situations on the course and in the clubhouse that make you laugh at yourself as well as the others. The illustrations by the four Roths also are funny. "Are Golfers Human" is one of the few golf books published during the past century that doesn't do a thing to improve your game, but has the high merit of reconciling you to the way you play.

1952 TURF CONFERENCES

- Feb. 3-8-23rd Annual Turf Conference and Show of Golf Course Superintendents Association of America, Neil House, Columbus, Ohio.
- Feb. 18-21 Turf Conference. The Pennsylvania State College, State College, Pa.
- Feb. 26-28-5th Cornell Turf Conference, Cornell University, Ithaca. N. Y.
- Mar. 3-6-Turf Conference. Midwest Regional Turf Foundation and Purdue University, West Lafayette, Ind.
- Mar.5-7-Minnesota Turf Conference and Short Course.
- Mar. 10-12-18th Annual Superintendents and Turf Assn. Short Course, Iowa State College, Ames.
- Mar. 11-Lawn and Turf Conference, Campbell Hall, Ohio State University, Columbus.
- Mar. 13-14-Univ. of Massachusetts Annual Turf Conference, Amherst.
- Mar. 13-14-21st Annual Turf Conference, Michigan State College, East Lansing.
- April 23-24-Southeastern Turf Conference, USDA Experiment Station, Tifton, Ga.
- June 9-Central Plains Turf Foundation Annual Field Day, Boys Town, Nebraska.

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