



The scorecard gets attention at the 18th green, Cypress Point CC, Pebble Beach, Calif., after turf experts Fred Grau, Dir., USGA Green Section, Frederick A. Layton, Cypress Point supt., and Charles K. Hallowell, Phila. Agri. Extension representative have made a leisurely tour of inspection

## Expert Reports Close-up on Continent's Turf Problems

By CHARLES K. HALLOWELL

**Editor's Note:** Charles K. Hallowell, granted a leave of absence from his Agricultural Extension work in Philadelphia the first six months in 1950 tells about his visits to golf courses across the southern states, into Mexico, up the West Coast, into Canada and back across the northern states. A previous article relates some of his observations about turf in Southern California.

In a single trip covering a great amount of territory, it is impossible to do more than just "sample" the golf courses in the various areas. My leave of absence during the first six months of 1950 provided three months of unscheduled traveling. There was an opportunity to see turf in many sections of the United States and to talk with many men who are growing turf. The route covered Southern United States to Southern California with a side trip to Mexico City. From California we drove through Oregon and Washington and into British Columbia and Alberta provinces in Canada. We then returned to the United States

at Glacier Park and from there proceeded east to Pennsylvania.

Turf men are enthusiastic and, in traveling, it was gratifying to see how much progress has been made and how much eagerness there is for further progress in solving the universal turf problems. More later of the general conclusions drawn from the visits, but first, a brief summary of the individual courses where observations were made.

The first stop was the Greenbrier golf course at White Sulphur Springs in West Virginia. An extensive program to renovate the golf course was begun several years ago, after the armed forces were through with the course. Walter Cosby was brought in as superintendent of the golf course. The turf here is on its way back. Fairways were being aerified in January. An increase in nitrogen will put the fairways in the "big leagues," and Walter will fulfill his promise to have it a top course by 1951.

On to the Chattanooga (Tenn.) Country Club, where Jimmy Thomas has the job of building up the golf course. Thomas had moved from the Farmington (Va.) CC, within the last two years. During the first year he was at Chattanooga,

there were 65 inches of rain. While at Farmington, Thomas had used the Aerifier and was familiar with the effects to be obtained through aerifying. So in May, 1949, greens at Chattanooga were aerified with the result that shots to the green held, and less water was required by the turf. Thomas was looking forward to starting a fairway improvement program.

#### **Help for Bermuda in Poor Soil**

At the Grand Hotel, Point Clear, Alabama, Ted Booterbaugh, who came from the Milwaukee CC last November, manages the golf course and the grounds. There is a big job to be done in keeping the course in top condition. An apparent weakness is the lack of good soil in the greens. Possibly the Aerifier will help the Bermuda to go deeper in spite of the poor soil in the greens. In addition to the golf course maintenance, there is a large acreage to be developed, primarily by planting materials native to the area. Ted, who effectively planted the trees at the Milwaukee CC, seems well qualified to handle this big improvement program.

Point Clear is one of the most beautiful spots in the country, where Mobile Bay goes into the Gulf. The hotel is adjacent to the pier which is the center for all the water sports. The golf course is a rolling, wooded area northeast of the hotel. Turf is bermuda with ryegrass overseeded in all greens and fairways. In January it is a picture that "gets" one who is from a section of the country where plant life is dormant at that season.

In New Orleans, turf of better caliber could be produced with an all around improvement program. Possibilities seem good if soil is improved and plant food increased.

#### **Contribute to Better Turf**

In Houston, Texas, bermuda temperatures prevail. At River Oaks Country Club, J. L. Jennings maintains fairways where the ball has a lie for any club the golfer has in his bag. Soil in some greens showed compaction. Heavy rainfall at some seasons no doubt intensifies the condition. Here it is golf twelve months of the year and turf problems the entire time; problems are more acute when the temperature reaches the high 90's. There was evidence of the contribution Goldthwaite's Texas Toro Company is giving to better turf in this area. They are keeping up with new developments and rendering a service that is more than merely supplying materials and machinery.

Entering Mexico at Brownsville and proceeding 250 miles towards Mexico City, we found a delightful course with a plain club house at Valles, Mexico. Turf was good here, and an improvement program was on to make better greens with

more character and more interesting to approach. A few traps were included in the revamping program.

Mexicans like to play golf and have the entire year to do so at the courses in Mexico City. Only in the rainy season is there a slowdown in play, and even then the rains come at such regular times each day that many can get in their round of golf. The high altitude prevents heat and humidity, both of which bother turf and golfers.

#### **Mexico Appreciates Help**

There is not only enthusiasm for playing golf in Mexico but also great interest in securing facts about turf problems. These people appreciate information which helps them to improve their maintenance operations.

At Chapultepec Golf Course a large number of Americans and British play. The course is located above Mexico City where the altitude is approximately 10,000 feet. The creeping bent greens were a revelation—and a delight, after having seen only bermuda throughout the Southern United States. Their greens which were started from stolons could equal any in the United States, if mowed close and brushed occasionally. Here they had found that by applying organic nitrogen fertilizer every two or three months, an even turf could be produced throughout the year.

Al Espinosa manages the Churubusco Country Club, which has a large membership of the folks of the city. Both golf and social occasions take place here. The course is located south of the city in, comparatively speaking, lower ground. It is an area where a large acreage of vegetables is grown. Frosts had been severe enough in December and January to take all the green out of the bermuda fairways, but not heavy enough to lower their rating as far as good golf was concerned. By watering and fertilizing good color is held on the greens throughout the winter. The greens at Churubusco were a good turf of bermuda and bent, but a large bent grass nursery has been established and the bent will soon replace the mixed turf now on the greens.

A new golf course was under construction a few miles south of Churubusco. The architect is Lawrence Hughes, the builder and joint owner of the Mission Valley Country Club at San Diego, California. The water lines were being installed in late January at the time of our visit, and there was approximately one-half acre of Washington bent growing in rows free of weeds about ready for stolonizing the new greens.

A regular 18-hole course, with an 18-hole pitch and putt course in the middle,

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was the plan. All was to be completed and ready for play by 1951. Olin Dutra has been engaged as professional. Dutra now has an enclosed driving range in the city. The entrance to his range is striking, being planted with an abundance of colorful flowers.

After returning from Mexico to Texas, the stops included courses at San Antonio, Dallas and Fort Worth.

At San Antonio Country Club, John Scalzo is in charge of the course. He had his training under Loeffler at Oakmont, Pittsburgh, but gave up golf course work when he moved to Texas. When the golf folks in San Antonio learned of his qualifications in greenkeeping it was not long before he was back into the turf game. The Country Club course would catch the eye of any golfer, both because of its layout and the excellent condition of the turf.

The trip to Dallas and Fort Worth was especially to see the transition areas where turf on greens has been changed from bermuda to bent in recent years. At Lakewood Country Club, Dallas, R. L. Bowman is using tar paper twelve inches wide, buried around the greens to keep the bermuda from getting into the bent. The greens were of good color in February, while the bermuda fairways were off color due to the freezing weather. The putting surface was good, but it was evident that it takes real management to keep the bent turf good when the temperatures reach those Texas high's.

At River Crest CC, Fort Worth, an ice storm in late January had hurt a number of the trees on the course. The course itself was in top playing condition. Greens are interestingly constructed and the close mowing followed there gave a true putting surface.

### Unity of Purpose in Texas

Here again Goldthwaite's Texas Toro was in evidence. Frank Goldthwaite and his associates are anxious to find out every turf maintenance practice that is being used by other sections. They want the facts to pass on to the turf men they are serving in this area. One was impressed by the unity of purpose in that section—that if better turf for the golfers was possible, it would be given to them.

Moving on West from Fort Worth we visited Odessa. Here Shorty Hornbuckle has greens mowed at 3/16 of an inch and a perfect putting surface. There was not much color in the turf; the impression being that the Texas wind blew it out. Hornbuckle was looking for a new G-L Aerifier and was sure when he used it.

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his turf problems in the summer would be reduced.

It was at Tuscon (Arizona) Country Club that there were nine new greens of Seaside bent — this was a departure from common practice. Architect Billy Bell of Pasadena, California, had convinced the folks at Tuscon they could have bent instead of bermuda, and for the second season this promise was coming through. They were indeed proud of their accomplishments.

At Phoenix, Arizona, the Country Club was staging an invitation tournament following Washington's Birthday. They were looking for better strains of bermuda grass and, no doubt, by now are using U-3 and some of the Tifton bermudagrass. Preston E. Childers, Superintendent of the Municipal golf course in Phoenix showed us good bermuda greens on very level topography. He reported nine new holes would be built, all with Seaside bent greens.

#### Growing Merion Bluegrass Seed

June found us again visiting golf courses and special turf areas as we traveled north and west after leaving Southern California. A side stop was made at Klamath Falls, Oregon, to see Merion bluegrass seed being grown by Ed Geary. The plants forming seedheads were as different from Kentucky bluegrass as the turfs are different. There are problems in growing turf, but the seed producer has his problems, too. This phase of the business takes good management, and one at the head who has keen judgment. Mr. and Mrs. Geary meet the requirements, and it was a good day for the turf people when they decided to grow Merion bluegrass seed.

Alta fescue is a "sure" turf grass on the West Coast. It is deep-rooted, able to absorb rough usage and adapts itself to variable soil and moisture conditions. For athletic fields and golf course roughs it appears to be a natural. The turf on the athletic fields in the West will be better as more Alta fescue is used. It was worth the stop at Corvallis to hear Harry Scoth and H. H. Rampton, the representatives of the United States Department of Agriculture at Oregon State College, sing the praises of Alta fescue.

Golf courses in the Seattle district all have good turf. The greens are mostly Astoria bent. One wondered if they would not have better turf if a creeping bent strain such as Toronto or Congressional was used. The even temperatures and not too much sunshine indicate their problems are not too severe. Algae on the greens perhaps is the one problem that causes the most concern. Here leaders in the turf program were the top men of

the Bentley-Milorganite Company.

Banff Springs, Alberta, Canada, has the perfect setting for a golf course and for nearly 25 years there has been a golf course in conjunction with the Banff Springs Hotel. With fairways and greens at the foot of the Rockies, adjacent to the Bow River, they must work to keep the turf free of snowmold. A program that would provide for more air and less water in the soil prior to the heavy freezing might reduce the snowmold. On May 1st work was started to get the turf in good condition by the Fourth of July, and there was evidence the work had been tedious and painstaking. Most all the golf is played in July and August. By October 1st every effort is made to prepare the turf for the severe winter weather. Selection of turf adapted to the conditions and a method of improving the soil is what Casper McCullough, Manager of Banff Springs, is seeking. Driving east through Montana, North Dakota, Minnesota and Wisconsin much bluegrass turf was in evidence. At Great Falls, Montana, and nearby towns there was bluegrass that would get the championship award in any contest for good turf.

#### Turf in Milwaukee Good

The turf in Milwaukee was as expected — all good. Fairways are bent where irrigation has been provided and bluegrass where rainfall supplies the moisture. Either one of these grasses please the golfers. The water and additional fertilizer on the bent fairways does produce a superior turf that pays off for that extra expense. We were impressed with the excellent turf in parks and on lawns in Milwaukee.

On to Chicago where we had a glimpse at a few courses in the Evanston section and a good look at Old Elm where Elmer Bertucci has the turf that pleases those members with a critical eye.

Next stop was Cleveland and a visit to Oakwood Country Club where Mal McLaren is in charge. The improvement he had made and is making is remarkable. His leadership is a great contribution to the turf folks in Cleveland. At nearby Shaker Heights Country Club, Colin Smith showed us plots of Toronto, U-3 bermuda and Merion bluegrass — all apparently adaptable to this area. The championship Canterbury Course was in excellent condition under Jack Way's capable handling. In Cleveland, Colonial bent predominates in all turf. Fairways and lawns are good due to this type of bentgrass. Those Cleveland superintendents really tear into their problems — maybe it is the air from the lake, but there is a determination to have the best. One cannot imagine any course ever having any poor turf in the Cleveland area, and if

some turf problem should arise it surely will be met and solved.

In visiting golf courses in so many different areas, one naturally expects to find a considerable variety of soil and climatic conditions. But actually, the problems which confront the superintendent are basically similar. In regard to soil, good drainage, proper fertilization, increased organic matter content and reduction of compaction, all these are fundamental to growing good turf in any locality.

The selection of adapted grasses likewise is an essential, regardless of whether turf is being produced in the north, south, east or west. Naturally, the most suitable grasses differ in different localities, but the problem of finding the "right" grass is universal. As we learn to handle the different grasses, we discover that they are more cosmopolitan than we believed previously. We find bent growing in the south, and bermuda gaining a place in the north. As new strains are developed and greater knowledge of managing them is acquired, turf men everywhere will have a greater choice when selecting the grasses best adapted for their particular areas.

Another important problem is the human one—better turf for better golf is an objective that requires the cooperation of all those concerned with achieving it. Club officials, green committees, superintendents and professionals, all

have a common objective. As has already been cited, distributors of materials and golf course equipment can contribute a fine service by providing facts as well as the tools for course maintenance.

Turf research has a national viewpoint as the work in the different Agricultural Experiment Stations is being coordinated by the Green Section of the United States Golf Association. All the research work proceeds best by the guidance of turf advisory committees.

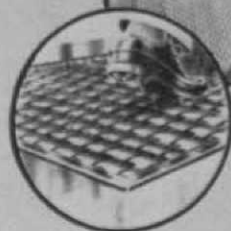
### Central Plains Turf Meet At Kansas State, Oct. 25-27

Kansas State College and the Central Plains Turf foundation will conduct a three-day conference dealing with turf problems, at Manhattan, Kansas, October 25-27.

Prof. William F. Pickett of the college and Chester Mendenhall, Mission Hills CC, Kansas City, Mo., are in charge of the meeting.

First-day speakers include Dean R. I. Throckmorton, K-State; J. G. Firsching, park department, Wichita; Sam Shannon, cemetery superintendent, Manhattan; L. R. Quinlan, K-State; Ross McCausland, seedsman, Wichita; L. E. Lambert, golf courses, Dodson, Mo.; Chester Billings, Nebraska Univ.; Franklin Rose, Kansas

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