

Arlington Putting Grass Plots

Appraised by Nation's Pro Stars

By KENNETH WELTON

Among the pro luminaries who participated in the Green Section test of putting green grasses was Billy Burke, shown here as he was making the tests.



IN OCTOBER, 1932, an opportunity to hold a novel putting test probably the first of its kind, was afforded the USGA Green Section. In the usual putting test players putt against one another on the same putting green, or greens, as the case may be, and the test is obviously one of the skill of the players. In the Green Section test the players did not putt against one another nor against par; they putted against ten different species or varieties of grass. Awards were made by the players to the grasses. After each player finished testing the grasses in his own manner he rated the various grasses in the order of his preference.

Players judged the grasses almost entirely by the results they got with their putters. The players were not greenkeepers or green-chairmen, therefore were not concerned with the kind of grass composing the turf. Some players admitted they did not know one grass from another, but by judging purely from the putting qualities of the various grasses, each player showed a decided preference for at least one of the grasses tested.

The putting greens tested were approximately 24 ft. square and were identical in

shape, grade, and soil. Each green was carefully built several years ago and brought to similar grades by persistent attention. During construction a surveyor's level was used to get the correct grades, and from time to time the greens have been checked with the level so that by using care in topdressing, any hollows which existed could be filled and the grades corrected, with the result that when the greens settled, the grades were mechanically correct. Each green has three grades; the upper 8 feet has a 6 per cent grade, the middle 8 feet changes to a 3 per cent, and the lower 8 feet extends to the next plot on a 1 per cent grade.

Appraise Grass Variety Only.

The similarity of grades on each plot removed a factor which might have unconsciously influenced the players in their choices of grasses. Furthermore these plots had all received cultural care calculated to bring them as nearly as possible to perfection in the matter of growth, putting qualities being considered. All plots were cut alike with a mower having the height of cut set at 3/16 of an inch. Therefore as far as was possible everything had

been done previous to the test so that all factors contributing to the behavior of the ball could be ignored, except the variety of grass. Grasses on the plots were in two series as follows: five greens planted with seed of colonial bent, German mixed bent, Seaside creeping bent, red fescue, and Annual bluegrass, *Poa annua*, (in this case the green was originally planted with *Poa annua* sod); and five greens planted with stolons (the vegetative method) of Metropolitan creeping bent, Washington creeping bent, a pure strain of velvet bent, Virginia creeping bent and Columbia creeping bent.

The players taking part in the test included ten professionals who came to Washington to compete in "The National Capitol Open." Among them were three American Open champions and a runner-up, Billy Burke, Tom Boyd, Wiffy Cox, Abe Espinosa, Johnny Farrell, John Flattery, John Golden, Tom Kerrigan, Willie Macfarlane, and Horton Smith.

The pros were taken individually or in small groups to the USGA experiment garden at Arlington, where miniature putting greens are maintained as show-plots the year around. Most players brought their own putters and balls. The various plots were numbered and staked off, but no information was given as to the variety of grass on each green. Cards with spaces to indicate the various plots were handed the players so that their choices could be indicated by simply marking the rating given as 1-2-3, etc. in the space corresponding to the green on the garden. It was explained to each player that the idea was to rate the various pieces of turf as to their putting qualities, having in mind such things as trueness, speed, resistance, nap, grain and any other factors which might influence putting.

The plots, with two exceptions which will be referred to later, were in excellent condition and some of the pros expressed the opinion that any one of them was better than most tournament putting turf.

Rating By Putters.

The results of the rating were as follows:

1. Velvet bent.
2. Metropolitan creeping bent.
3. Washington creeping bent.
4. Colonial bent.
5. { German mixed bent.
- } Seaside creeping bent.
6. { Columbia creeping bent.
- } Virginia creeping bent.

The *Poa annua* and fescue plots were in poor condition and the turf was not representative of what these grasses are capable of producing. They were therefore not included in the tests. Velvet bent was un-animously placed first.

What They Liked About Velvet.

The velvet bent was considered to be the most upright in habit of growth. The blades of this grass were the finest of those rated and it was the thickest piece of turf on the garden if one considers the number of plants or grass blades to a given area. Perhaps the degree of any one of these factors or a combination of all led the pros to make the following observations regarding this grass in explaining their marked preference for it. They found the turf offered enough resistance that they could stroke the ball firmly. The resistance also made the ball stop dead when the force of the forward impulse became low; they considered this an important point as on some grasses the ball will continue to roll for a time by its own momentum after the force of the blow is expended, thus making it difficult to stop the ball close to the hole. They found the ball held the line perfectly on this grass and had little inclination to "drift" or vary from the line of the putt even when the ball slowed down. They found this characteristic particularly noticeable when making allowances for grade, as when putting along or at right angles to a slope. With such putts this characteristic was most helpful since as the ball slowed down it did not wander off the line, or fade to any extent. They found no grain to the grass and were not forced to make allowances for differences in the speed, as is necessary when putting with or against the grain on some grasses. Several pros commented favorably on the number of factors to consider in putting being reduced to a minimum, since it was only necessary to judge the force of impact needed and the allowance in the line of the putt to be made for grade. The color of the velvet might have had some effect on the selections, as, at the time of the test, it was a remarkably vivid shade of green, which led several to remark on its beauty.

Didn't "Track" Easily.

Another factor which the pros were quite fussy about was the extent of the impressions left in the grass by the feet of previous players. All of the grasses showed impressions more during the test

than they ordinarily would, since heavy rain the day preceding the test made the soil underlying the turf more moist than usual. It was thought that the velvet bent recovered or became upright quickly enough even under the moist conditions, but the point the pros made was that even where the velvet bent had not completely recovered its upright nature, the foot impressions seemed to effect the ball very slightly. They thought this was not the case with some of the other grasses.

The points brought out in discussing the velvet bent were the same as considered in rating the other grasses, and although it is not possible to say how much of a consideration any one factor was in rating the remaining grasses it is worthy to note that the Metropolitan and Washington creeping bents which were second and third choices, respectively, formed turf which was probably as dense in growth as the velvet bent but not as fine in texture nor as upright in habit of growth.

The fourth choice, colonial bent, and the German mixed bent, which was tied for fifth place, were probably more upright in growth than the second and third choices but did not form as dense a turf. The German mixed bent was composed of as much as 70 per cent of colonial bent. The seaside creeping bent, which tied for fifth choice, was slightly less upright and hardly as dense as the third and fourth choices, also its color was not as vivid. Virginia and Columbia creeping bents were given last place. The Virginia bent was considered coarser and more grainy than those selected. The Columbia bent, although finer in texture than all except the velvet bent had a decided grain and provided a rather thin turf; also it did not have a healthy appearance. In October, when these tests were made, most northern grasses have recovered from the more or less harmful effects of the summer and will be found fast growing and healthy. Two grasses not included among the eight grasses found in the ratings still showed effects of summer injury. The *Poa annua* plot was not pure and had a great deal of various species and strains of bent mixed in it. The plot of fescue was rough and irregular and largely contaminated with a variety of grasses. The red fescue with which it was planted had died during the summer.

Most of the arguments regarding the respective merits of different grasses for putting turf can only be decided when the

grasses are tested under similar conditions. Therefore this test by some of the best putters of the country throws a great deal of light upon the often-debated subject of what grass makes the best putting green turf. This information should be valuable to those contemplating the construction of golf courses or to established clubs which may be considering the advisability of changing the turf on their greens. Some established clubs will find that the grass on their greens will not compare in putting qualities with others under equally ideal conditions. Whereas other clubs will be led to search for other reasons for the poor putting qualities of their greens, if the grass on their greens happens to be of the leading choices for putting turf.

Season Is Important.

The problem is not as simple however as it at first might seem. Some grasses might be at their best during a putting test such as the one here described but a month previous to the test or a month later might be out of the question because of some cultural weakness. For example, if this test were held at a time when the *Poa annua* was in the fine condition it is capable of attaining the pros might have reversed their decisions. And if the test were held in a district where fescue thrives the fescue turf would probably have been in good condition and the pros might have preferred it to the velvet bent. Therefore the test plainly did not prove anything insofar as the putting qualities of *Poa annua* and fescue were concerned. It is hoped that an opportunity will occur to test these grasses again when the *Poa annua* is in good condition. As for the fescue, it is not likely that a representative piece of fescue putting turf can be grown in Washington. If either *Poa annua* or fescue are judged as better grasses to putt on than velvet then more work should be done with them to discover if possible methods of maintaining them in good condition over a long period and of growing them successfully over a wider range.

Some Shortcomings.

The velvet bent was planted by the vegetative method with No. 14276 velvet bent, a strain developed at Arlington. It was comparatively slow to form turf when planted and has always been slow to heal after injuries from disease or from mechanical causes such as moving the cup. In 1931 it became badly damaged and discolored due

to a weakening of the turf, and disease, during the extremely humid summer of that year. However it remained in excellent condition throughout the summer of 1932.

Virginia bent, although a creeping bent like Metropolitan and Washington, is very difficult to maintain in a healthy condition throughout the summer as it is extremely susceptible to leaf spot, a disease which discolors and thins it during warm weather. The problem is made more difficult with Virginia since no specific control has been found for leaf spot on this grass. Columbia bent, also a creeping bent, is very susceptible to most diseases, and at Arlington is usually the first grass in the spring and the last in the fall to show disease symptoms.

Few clubs would wish to have grasses on their putting greens which, although providing the best of putting turf when in good condition, only approach perfection for a few months of the year. The logical choice would be to have a grass upon the greens which rates high both in putting qualities and in climatic adaptability, so that the average of perfection of the turf would be high over all the playing months. The Green Section has for some years sent out samples of various putting green grasses for trial on golf courses widely distributed throughout the United States..

Gardens Aim to Rate Grasses.

The greatest opportunity for testing the adaptability of the various putting green grasses in various parts of the country has come with the establishment of a score of Green Section demonstration gardens on golf courses in various widely separated golfing centers. In the Green Section *Bulletin* of December, 1931, a three-year summary of the results on these gardens was published. The various putting green grasses were grown side-by-side under similar conditions. Reports were received each month from those in charge of the gardens and the various grasses were rated as to their perfection from the standpoint of health and vigor. The ratings of the various grasses in various parts of the country for these years were averaged with the following results: (1) Metropolitan creeping bent, (2) seaside creeping bent, (3) Washington creeping bent, (4) German mixed bent, (5) colonial bent, (6) velvet bent, (7) Columbia creeping bent, (8) annual bluegrass (*Poa annua*), (9) Chewings' fescue, (10) Virginia bent, and (11) red fescue.

Some interesting facts are shown when the results of the cultural and of the putting tests are compared.

Compare Tests.

Relative standing of putting green grasses as reported from demonstration turf gardens during three consecutive seasons.

1. Metropolitan creeping bent.
2. Seaside creeping bent.
3. Washington creeping bent.
4. German mixed bent.
5. Colonial bent.
6. Velvet bent.
7. Columbia creeping bent.
8. Annual bluegrass (*Poa annua*).
9. Chewings' fescue.
10. Virginia creeping bent.
11. Red fescue.

Rating of various grasses by professionals for putting qualities only.

1. Velvet bent.
2. Metropolitan creeping bent.
3. Washington creeping bent.
4. Colonial bent.
5. { Seaside creeping bent.
} German mixed bent.
6. { Columbia creeping bent.
} Virginia creeping bent.

Not included in test:

- Annual bluegrass (*Poa annua*).
- Red fescue.

Maintenance Is the Answer.

Some of the pros were surprised to find that they had preferred creeping bent to the so-called seeded greens in good condition, as represented by the Colonial and German mixed bent plots. Many players have objected to creeping bent because they have judged all creeping bent from their experience with one or more of the poorer strains, or it may be that although planted to a good strain the greens they were familiar with had not received the proper care. It is well known that even the Metropolitan and Washington bent will provide poor putting surfaces if allowed to develop a grain or too much nap. That it is not necessary to allow these strains to develop these objectionable characteristics was well demonstrated by the high ratings given them in the putting test. Probably the facts brought out in the tables concerning these good varieties of creeping bents, namely, that they have great climatic adaptability, that they receive high ratings throughout the various seasons of the year, and that when kept in good condition provide highly rated putting surfaces, indicate the reason that they are being so wide-

ly used throughout the country. The United States and Canadian Open and the United States Amateur tournaments of 1933 will be on courses with creeping bent greens.

The putting test does not itself determine for all clubs, which is the best putting green grass.

Unless the greens on a course are made up of some inferior species or strain of grass in cultural qualities, a change to a grass which rated higher in the putting test might not be a wise move as there is the climate adaptability of the grass and other cultural factors to consider. Also it is quite evident that the care of the putting green has much to do with its putting qualities and the same grass might provide either excellent or very inferior turf under different management.

The Green Section has information, from demonstration garden reports, regarding the suitability of the various grasses from a cultural standpoint from a great number of widely separated golfing districts and is thus in a position to assist golf clubs to decide regarding the type of grass most likely to provide a satisfactory putting surface in different parts of the country.

DUAL JOB CRITICIZED

Fee-Course Greenkeeper Cites Necessity of Constant, Experienced Care

By EVERETT R. HOOVER
Dublin Road Golf Course

IT IS AN accepted fact that any position is filled better by its holder having a practical knowledge of his duties than it is by one who did not get his knowledge from practical experience. Constant study of the subject admittedly is necessary for both men.

Maintenance of an 18-hole golf course is equal to the operation of a 240-acre farm. Would anyone wish to trust such management and operations to an inexperienced man? A pro's job demands that his time be taken up with the duties of the game and for him to be an efficient greenkeeper is out of the question because he cannot be associated with greenkeeping duties close enough.

I am inclined to believe that some pros have the idea they can perform the duties of a greenkeeper by the use of a golf club and a run around the course twice a day. However, you will find in nearly all places where this is being done, there is a man on the course who probably cannot be classified as a greenkeeper because he is working along with the rest of the employees but at the same time this man knows the job so well that the pro is considered a great greenkeeper.

A greenkeeper, to be an asset to his club, must know and be ready to go into any proposition that comes up pertaining to the course. When we hire our help by the hour and, at the end of the season, let them off to make a living the best they can, we can expect those fellows to do only what they are told to do. So there must be a man to take the lead, from early morning until late in the evening. If the work is supervised by a pro, he must have a man of this kind. This man is the vital factor in course maintenance and is valuable even if his pay check does not signify it. So much for mud-slinging, if you wish to call it that.

Now I think we are all aware that there is need of a pro, a greenkeeper and a manager.

On a public course, being operated for profit, bills should be paid every thirty days. No detail of this business can be run in a haphazard way. There must be especially close co-operation between the management and greenkeeper. Expenses must be curtailed at certain seasons; so it is up to the manager to keep a close inspection of his books, keeping the greenkeeper informed as to what the income will or will not permit. If the manager is a playing manager, he should get the complaints of players about different things that can be remedied on the grounds and pass them to the greenkeeper. The greenkeeper can then remedy the conditions at his earliest convenience. It saves a lot of grief for the greenkeeper to get complaints from one person instead of many.

Now I am sure when an organization is functioning nicely and everyone gives credit where credit belongs, we need not be antagonistic toward one another about our jobs. The greenkeeper does his best with what he has and the pro-manager does all he can in a business way to please the members and players. Only then have we a chance to show a profit.