

## The Turf Grass Seeds to Buy and How to Buy Them

C. V. PIPER AND R. A. OAKLEY

If there is one subject more than another pertaining to the making and maintenance of a golf course upon which there is the need for a clear-cut understanding, it is the one pertaining to fine grass seeds. From the first steps in the making of a course to the end of its existence, seed is an important factor to its success as well as a considerable item of expense in its construction and upkeep. There may be important features in the making and maintenance of a golf turf that can not be greatly improved and in connection with which the following of the most efficient practices would result in only a relatively small saving. But in the matter of seed, golf clubs have an opportunity to avoid large worse-than-useless expenditures of money and at the same time reduce to the very minimum the delay in obtaining first-class results. The opportunity for economy in funds should appeal to a large majority of our golf clubs and for economy in time should surely appeal to all.

It is a matter of only secondary concern why there is so much misinformation current on the subject of turf grass seeds. This condition exists and is the basis of most failures or half successes in the development of greens. Incidentally the inheritance of European ideas and notions together with the fact that commercial concerns have for the most part constituted the chief source of information is largely responsible for the present state of knowledge on the part of a great many of those charged with golf turf work.

It is purpose of this article to reduce the subject of fine turf grass seeds as it applies to northern courses to its simplest terms, confining the statements to facts that have been conclusively proved to the satisfaction of our best golf experts who are well known for their practical experience and who have no interests to serve other than those seeking the betterment of golf turf. Knowledge concerning fine turf grasses is by no means complete, but there are at hand enough facts to disclose clearly the wasteful and discouraging practices that are too generally followed today. It is upon these facts that the gospel of good greens is founded and any club which does not accept this gospel will find itself wondering why its greens are not among the best, even though it spends money freely.

### THE BEST TURF GRASSES

There is nothing mysterious or uncertain regarding the kinds of turf grasses for our Northern golf courses. The fine bents and red fescues are pre-eminently the ones for putting greens and no substitutes should be accepted where it is possible to get either. For the fairways Kentucky bluegrass and redtop are highly satisfactory. It is not intended to discuss the exact range of adaptation of any of the grasses other than to say that the fine bents can be grown successfully farther southward than can the red fescue and are generally to be preferred to the fescues for putting greens except possibly on sandy soils north of the latitude of Philadelphia.

### *The Seed Supply*

Good seed of the fine bents and red fescues has been more or less difficult to obtain since 1915, but supplies are now becoming more plentiful. Commercially speaking there are seeds of three kinds of fine bents now on the market, namely: (1) creeping bent or German mixed bent as it is now preferably called; (2) Rhode Island bent; and (3) Colonial bent, the last two being practically identical as to species and variety. The first, as the name implies, comes from Germany, the second is produced in the New England States and the third is imported from New Zealand. Good commercial seed of these bents gives highly satisfactory results on putting greens. The consensus of opinion is that German mixed bent is somewhat preferable to the other two but there is little choice between them.

There are two commercial red fescues: German or European and Chewings. Seed of both is fairly plentiful on our market, the former being imported from Germany and the latter from New Zealand. These strains of red fescue are very similar indeed, but tests indicate the German strain to have a somewhat wider range of soil and climatic adaptation than the strain from New Zealand. Seeds of Kentucky bluegrass and redtop are both of domestic origin and abundantly plentiful.

### *The Buying of Commercial Mixed Seeds not Recommended*

The foregoing in brief are the simple facts with regard to the grasses and grass seeds for Northern golf courses and they are the facts that need to be recognized by green committees who, if they would function intelligently, cannot be ignorant of them. But the truth is a large number of golf clubs are prone to buy putting and fair green mixtures, especially those that are extensively advertised by dealers who have made it a conspicuous part of their business to establish themselves with the golfing fraternity. In rare cases mixtures of the red fescues and the fine bents may be advantageous. In a great majority of cases, however, these grasses should be used separately. Mixtures of Kentucky bluegrass and redtop are recommended for the fairway *but under no circumstances should mixtures, for either putting or fair greens, be purchased.* This should be put down as a cardinal principle. Where it is desirable to use mixtures the constituent parts should be bought separately and the mixing done in well-known rational proportions to suit the conditions at hand.

It is a significant fact that the dealers who have purchased the most advertising space to convince the golfing public that they are the best and most reliable sources of supply of fine turf grass seeds are not the one from whom it has been possible to obtain the really fine turf grass seeds so badly needed. Instead they have advocated and delivered to their patrons their own special mixtures for putting greens where only the very best grasses should be used. And of what are these mixtures composed? The chief constituents of the putting green mixtures that were on the market during the past year were redtop and Kentucky bluegrass. The remainder of these mixtures was made up of the red fescues, rye grasses, crested dog's tail, timothy and white clover. In a large number analyzed there was no fine bent seed found and with the exception of one there was only a very little seed of the red fescues. In the light of our definite knowledge of fine turf grasses, is there anything to recommend such mixtures for our putting greens? The answer is emphatically no.

### *The Purchasing and Testing of Seed*

The best putting and fair green grasses for the Northern part of the United States have been discussed briefly, likewise the seed supply. A composite description is here given of the putting green mixtures on the market and extensively advertised in such a way to convince the uninformed green committees, but there is yet one other and very important purpose of this article, namely, to offer suggestions to prospective purchasers as to the safe and intelligent course to follow in buying grass seeds. This applies to Southern clubs as well as Northern clubs. In fact to clubs generally, throughout the country. It is a function of the Service Bureau to assist the clubs supporting it with advice and suggestions regarding seed. When a club is in doubt as to the kinds of seed it should buy, it should write the Service Bureau. This is a point upon which positive advice can be given. The Service Bureau will give the information promptly and will suggest sources from which seed may be obtained. Knowing the kinds of seed to buy and the sources from which they can be purchased, the next step for the green committees to take is to write to the dealers for samples and prices. Then, and this is exceedingly important, they should send the samples to the Service Bureau for examination to determine trueness to name and purity and germination. Critical identity is of vital necessity in the case of the seed of the fine bents, since redtop has been and still is extensively substituted for them and only the most expert analyst can distinguish fine bent seeds from redtop. Only a small quantity of seed of the fine bents was imported last year, yet the quantity of seed offered under their names was enormous.

Purity and germination tests are likewise very useful. The percentage of weed seeds and inert matter should be known by the purchaser and especially in the case of the red fescues the germination is very important. All seeds should be tested for viability, particularly the fescues. The viability of seed of both the European and Chewings strain of red fescue is exceedingly precarious. Even practically fresh seed may have a very low vitality. But the testing should not end with the samples. The bulk seed upon arrival at the club and before it is paid for should be tested in a similar manner so that positive knowledge of the kind of seed, its viability and purity, may be had before it is sown. To save time clubs are advised to make germination tests themselves. They can make these tests sufficiently well for all practical purposes, by sowing the seed in boxes containing shredded peat moss, pulverized cocoanut fibre, good soil or even sand. The boxes should be kept moist and in a warm place. More reliable tests can be made counting out 100 or 200 seeds, putting these between clean, fresh blotters and keeping them moist and warm. By this method the number of seeds that germinate will represent the percentage of germination of the samples or bulk lot. Blue grass seeds require approximately twenty days for a complete test; the fescues from ten to fifteen days; the bents, redtop and white clover six days.

### *The Specific Points to Consider*

The following are the points, then, that a green committee, if it would serve its club intelligently, must bear in mind:

1. *The fine bents and the red fescues are the only grasses that should be used on putting greens in the northern states.*
2. *Seeds should be sown seperately and not in mixtures, except possibly in special cases.*

3. *Kentucky bluegrass and redtop are generally the most satisfactory grasses for the fairway.*

4. *Under no conditions should mixtures for either putting greens or fair greens be purchased, since they are for the most part entirely unsuited for the purpose intended and the purchasing of them is not an economical practice.*

5. *No seed should be bought without first having it tested for trueness of variety or kind and for purity and germination.*

If the green committees will only act upon the suggestions herewith offered much of the useless waste now involved in the making and maintaining of golf courses will be obviated. Assistance in the selection and testing of seed will be gladly given by the Service Bureau.

---

## Winter Work on the Golf Course

DR. WALTER S. HARBAN

Winter work on a golf course may be divided into two distinct kinds: first, the work on the course during open-weather conditions; second, work in the barns when impossible for the men to work on the outside. In each instance there is a large variety of work which can and should be done: in the one case, development and improvement of the course; in the other, proper preparation for the operations to follow later in the year. To present more clearly, as well as to demonstrate the actual workings of this system, it has been thought wise to make clear the plan that has for years been pursued at the Columbia Country Club, where the Open Championship is to be held in July. Recognizing the importance of a trained, efficient, skillful green-force, led to the permanent employment of a half dozen or more of the most desirable as well as useful employees. To give these men adequate employment to justify their retention during the winter months, has developed a plan of work more than commensurate with the outlay, and therefore economical in the end.

The summer activities, such as cutting greens and fairways, watering, worming, etc., usually end by the first of November, as it is better to let the grass become a trifle longer in order to withstand winter use. Winter trampling and kneading is believed to be beneficial rather than detrimental where there is a strong, well-matted turf. The Columbia course, therefore, is never closed to play except upon rare occasions, and then only when very soft, usually following the spring thaw. The months of October and November and part of December is the best time to build greens and to transfer sod. It is at this season that most of the greens have been built and remodeled, from one to three each year. Those built in the spring, especially as late as May or June, have not done so well, perhaps due to insufficient rootage before the summer season. At any time during the winter months when the ground is open, bunkers and tees can be more easily built, and even sodded, than at other seasons, and with far less interruption and inconvenience to play. The clearing of land both for use and for beautification, making drains and ditches, etc., are among the operations we have been able to take care of during the winter months. Again, at convenient times in the fall, the soils for the composts are placed