

Seeds For Golf Courses

An expert's analysis of grass seeds which produce fine golf course turf. Origin and characteristics of the several varieties most generally sold by seed merchants

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Agrostis Vulgaris —(Rhode Island Bent)

BOTANISTS do not agree as to the Latin name of that species which we commonly call Rhode Island Bent Grass; hence we have had some misunderstanding and confusion, not only as to the plant, but also as to the seed. It has been only through the combined work of Professors Hitchcock and Hillman that we now identify with certainty the plant as well as the seed.

This species is known by many different common names. To us in America it is Rhode Island Bent. To the people in New Zealand it is Brown-top or Colonial Bent, to those on Prince Edward Island, Canada, it is Fog, and to many Europeans it is Fiorin. Agriculturally, as well as commercially it ranks second to Redtop. Like the other species of *Agrostis* it thrives best on acid soil.

The principal seed producing areas are: South

seed is a mixture of several different species, yet it must be discussed here because at least 75% of the pure seed in all these mixtures is *Agrostis vulgaris*. The other Bents found in seed from South Germany are, Velvet Bent, Creeping Bent, and Carpet Bent. These species will be discussed in a later article.

The common commercial grade of South German Mixed Bent tests about 70% pure. The balance (30%) is usually harmless chaff. It has only been in late years that any attempt has been made to recondition it before leaving Germany. So now we have two other grades, one testing approximately 80% and the other (best grade) testing approximately 90%.

It is very easy to establish the origin of seed from this area, not only because it contains seeds of other bents, but because of the weed seed content. The origin of other bents is also determined in this way.

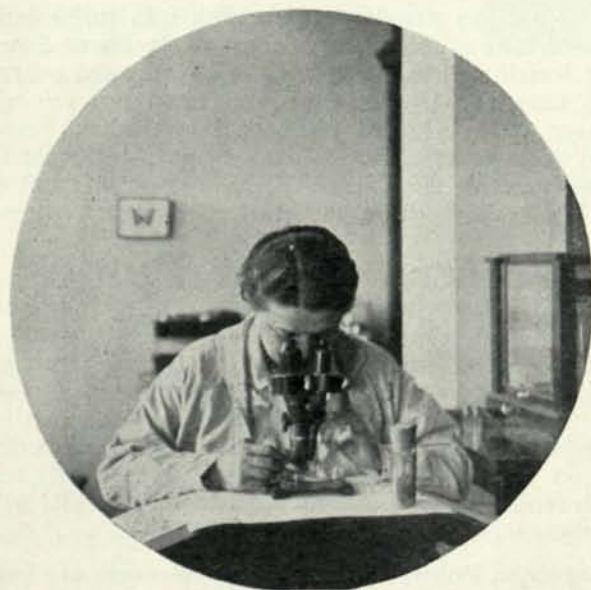
Bent of this origin is generally preferred to that of other origins, at least in the Eastern section of the United States, because it has a slightly finer leaf and is supposed to be more resistant to brownpatch. This seed is not quite as attractive in appearance as that from other sources.

New Zealand Supplies Bent Seed

THE next important source of supply is New Zealand. Most of the seed from this area is better cleaned than that from South Germany, and therefore, has a better appearance. There are lots that run as high as 98% pure seed, occasionally, however, it runs with a very heavy weed seed content. During the last year we have had some seed from this source that ran as high as five per cent mouse ear chickweed. Such seed even though 85% to 90% pure should not be used by any golf course. In a case of this kind buying on a technical purity and germination does not protect the club. It is better to have 70% pure with a weed content of less than 1% than to have 90% pure with a weed content of 5%.

There are no import restrictions or requirements for bent grasses, thus any kind of seed is permitted entry here. It is hoped that some day soon Congress will amend the Federal Seed Act so as to include the bents as well as the fescue and other fancy grasses.

The writer is told by many New Zealand exporters, that seed from the North Island is not adaptable to our conditions, and is a much coarser plant than that produced from seed from the South Island.



The Author in Her Laboratory

Germany, New Zealand, Prince Edward Island, Canada, Rhode Island (only a very small area), Oregon and Washington.

The wholesale price during the last ten years has fluctuated greatly. During this period it has sold as high as \$1.00 per pound, and as low as 35 cents per pound. At the present time it is selling at almost its low point.

South German Mixed Bent

The principal source of supply is South Germany, and seed from this section is now sold under its correct common name of South German Mixed Bent. While this

Agrostis vulgaris is not indigenous to New Zealand. It is supposed to have been introduced from Nova Scotia.

Prince Edward Island Bent

WE come now to what in the opinion of some is the most interesting area in America. Prince Edward Island, Canada. It has only been in the last few years that seed was gathered here. *Agrostis vulgaris* is native to the Island. It is graded, cleaned and merchandised by a cooperative association known as the Prince Edward Island Seed Growers Association. The Association takes great care in accepting only seed from fields free of Redtop. It is reconditioned with care and so far as it is possible to ascertain, seed coming into this country from that source has always been of exceptionally high purity and low weed seed content.

Rhode Island Not a Factor

JUDGING from its common name—Rhode Island Bent—one would suppose that Rhode Island was one of the principal producing territories. It is quite



Agrostis Alba
(Redtop)



Agrostis Vulgaris
(Rhode Island Bent)

These drawings made by and published through the courtesy of Professor F. H. Hillman, Associate Botanist, U. S. Department of Agriculture

the other way. Less seed is produced in Rhode Island than elsewhere. There are one or two growers there who still gather seed but the amount is so negligible that it plays no part in the commercial field.

Oregon is Largest Producer in U. S.

OREGON is at present the chief seed producing area in the United States. This state also produces large quantities of Seaside Bent, and a variety of *Ag-*

rostis vulgaris known as *Agrostis vulgaris*, Var. *stolonifera*. Seed produced in this State and the neighboring State of Washington is exceptionally beautiful in appearance. It is entirely different than South German seed and more closely resembles Redtop in color and size. Some of this seed is brought around via the Canal to the Eastern Seaboard, but, as the demand for it on the West coast is good, and as the price is much higher than that of South German seed the majority of the seed crop stays in the West. It is not looked upon as being as hardy as South German seed and many say that the blade is coarser and the color not so desirable.

Most of the Oregon seed is produced around Coos Bay and Clatsop County, and the Washington seed in the Puget Sound district.

How Bent and Red Top Differ

THE plant of *Agrostis vulgaris*, (Rhode Island Bent), can be distinguished from Redtop as the Culms are lower and more slender, panicle smaller, not contracted after flowering, ligule short and truncate. The seeds of *Agrostis vulgaris* can be distinguished from those of Redtop and other bents by skillful analysts, but the different characteristics are so delicate that no attempt will be made here to recite them in detail. The seed is generally smaller and duller than Redtop. The accompanying drawings illustrate this difference in size.

The principal use of Rhode Island Bent is for putting greens. Clubs that can afford it use it unmixed for their greens. Where a less expensive green is necessary, Rhode Island Bent should be mixed with Redtop, in the proportions of two pounds of Redtop to three pounds of Bent for every thousand square feet. During the last two years, the price of Rhode Island Bent (especially South German Mixed Bent) has been so reasonable that a great many clubs have been using up to twenty-five per cent in their fairway mixtures.

The next article will be devoted to Velvet and Seaside Bent.

Wives of National Greenkeepers

THE secretary, Mrs. Willie Smith, wishes the members of the organization to know that Mrs. Varn Hagen, president, is now busily at work on their by-laws, and that each member will receive a copy within a very short time. In order to make this new organization a huge success, a drive must be made in each and every district for new members.

The Detroit district is very active we learn. Meetings are being held regularly at the different homes of the members and plans are constantly being made whereby their organization will become as strong as the National Association of Greenkeepers of America.

Any wives of greenkeepers belonging to the National association who, as yet, are not members will get all particulars by writing either the president or secretary. The secretary strongly urges members to keep in touch with one another, enabling them to know just what is going on at all times.

A very large membership is hoped for by convention time next year. Perhaps their membership will be close to that of the National, if every wife becomes a member. The men had better get busy on a new membership campaign or their record will soon be eclipsed.