

Bent Grass Seed Production In Rhode Island

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The production of bent grass seed in New England dates back to early Colonial times. This grass was first discovered on the North American continent in the small State of Rhode Island, and for many years was known as Burden grass. It was early recognized as a valuable pasture grass in New England. Definite mention of the grass is on record as early as 1747.

Much of the seed in the early years probably came from Prudence and Jamestown islands, from the Island of Rhode Island, and from southern Connecticut. It was here that seed in considerable quantities was chiefly found when the large increased demands for bent seed developed some 25 or 30 years ago due to the growing demand for it for fine turf production on golf courses, municipal parks, playgrounds, and fine lawns. The seed gathered at that time was chiefly from native stands where bent had become established and had persisted long after other grasses that may have been seeded into it had disappeared. At the present time, however, the seed from this region comes chiefly from fields



Outline map of Rhode Island showing the principal areas (shaded) in which bent grass is being grown for seed



Commercial producers of bent seed in Rhode Island have received much assistance from the United States Department of Agriculture. Prof. F. H. Hillman (center), of the seed laboratory of the department, is demonstrating to a group of producers, in a field of velvet bent, some of the finer points needing consideration

specially planted with bent seed and carefully taken care of for seed production. Due to competition from foreign countries, chiefly Germany and New Zealand, the seed production did not flourish or keep up with the demand, for it was impossible for the southern New England farmer to produce this fine turf grass seed under conditions which required him to compete with protected industry for his labor supply and at the same time to compete in price with the foreign seed produced with cheaper labor. When the supply from Germany was cut off during the World War the home industry was rejuvenated and in-

creased amounts were produced. The increasing production of bent seed continued for several years after the war. However, as seed from Germany again began to be imported in larger quantities, and as New Zealand also began exporting large amounts to the United States, the Rhode Island growers began to find it more difficult to meet this competition and consequently less seed was produced. The highest production was in about 1923 and 1924, when probably as much as 125,000 pounds of colonial¹ (Rhode Island) bent seed was produced in the State of Rhode Island. The amount grown has gradually fallen off, until in 1929 not more than approximately one-third of this amount was produced.



Part of the breeding nursery at the Rhode Island Agricultural Experiment Station in which improved strains of bent grasses are under development

As the production of the native-grown colonial (Rhode Island) bent was becoming less remunerative to the farmers, the areas devoted to velvet bent and creeping bent were increased, since these seeds were not being imported into the United States unmixed with other varieties of bent. The production of different varieties of bent seed during the 1930 season is estimated at around 10,000 pounds of velvet bent, 5,000 pounds of creeping bent, and 50,000 pounds of colonial (Rhode Island) bent. Also large areas are devoted to the production of creeping and velvet bent stolons. The shaded areas in the accompanying outline map of the State of Rhode Island indicate the regions where the bent seed is chiefly produced at the present time. With the new tariff on bent seeds in effect, more interest is being shown in the seed-producing industry of the state. If this tariff succeeds in enabling the growers to receive a price for their product that will enable them to grow the bent seed at a fair profit, no doubt the amount produced in the state will increase rapidly in the next few years.

¹The author prefers "Rhode Island bent" as the designation of the grass in question. In accordance with the editorial policy of the Bulletin, however, it is considered desirable to conform to the usage recently adopted by the United States Department of Agriculture.—EDITORS.

Producers of bent seed in Rhode Island have found that the growing of seed of any particular species of bent grass calls for considerable skill in order to obtain a first-class product. It is necessary to start with a field where there is likely to be as small a percentage of volunteer grasses as possible. During the growing season fields must be carefully gone over to rogue out stray plants that can be detected by the eye. The threshing and cleaning of the extremely fine



Velvet bent being grown for seed production. Near West Kingston, R. I.



Plots of bent grasses at the Rhode Island Agricultural Experiment Station in which improved strains of bent grasses are under development

bent seed require specially designed threshing and cleaning apparatus. The crop is allowed to ripen fully in the fields, and at the proper time it is mowed, raked, and handled much as is ordinary hay until threshed. In the process of threshing, the bent grass hay is run through the thresher and the seed is stripped off and separated from the straw. The seed then is taken to the cleaning apparatus, where it is run over extremely fine sieves while the chaff is taken out with the aid of a carefully regulated air blast which requires operators of intelligence and skill.

In an earlier issue of the Bulletin (December, 1928) the experi-

mental work in the production of bent grass seed which was being started at that time at the Rhode Island experiment station was described. These experiments have been carried forward as planned and several new features added. The tests of the different strains and varieties have given some interesting results. The first crop of seed, which was harvested in 1929, was rather small, as was to be



Experimental plots of bent grass being grown for seed production at the Rhode Island Agricultural Experiment Station

expected. In 1930 a second crop was harvested and some very fine yields were obtained. At the present writing the cleaning of the 1930 seed crop has not been completed and therefore the yields can not be reported. Yields up to well over 100 pounds of seed to the acre were obtained in several cases. The Kernwood strain was the best yielder among the velvet bents, while the Washington strain was one of the leading varieties among the creeping bents. In the fertilizer test on colonial (Rhode Island) bent grown for seed, it was found that variations in the amounts of phosphorus and potash applied had little influence on the quantity of seed produced. The amount of nitrogen, however, greatly influenced the quantity.

Seated on the clubhouse veranda on a summer night who has not been led to wonder at the strange unison maintained by a swarm of fireflies in flashing their lights? It would almost seem as if they had gotten together and arranged beforehand to flash all at a given signal, and then to renew their flashes all after a uniform interval of time had expired. It is hard to believe they can produce this effect voluntarily. An observer in Massachusetts has suggested that the simultaneous flashing in a swarm of fireflies may be controlled by the same conditions that control the action of a photoelectric cell; that is to say, the light from the flash of one firefly immediately and of its own accord causes nearby fireflies involuntarily to flash in unison.