

Beautifying the Golf Course with Herbaceous Perennials

Nearly every golf course has an area set aside for a flower garden. In most cases the work of planting and caring for the flowers is handled by the regular greenkeeping force. Many of our readers will therefore be glad to obtain for their files a copy of *Farmers' Bulletin* 1381, "Herbaceous Perennials," written by F. L. Mulford, Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C., copies of which may be obtained by requesting them from the author or from the Office of Information of the Department. Though written primarily for the home and amateur gardener, the bulletin applies also directly to the small plantings about club houses or elsewhere on the property of golf clubs. In the bulletin, perennials are defined as plants which grow for three or more seasons, and herbaceous perennials as those with soft stems which do not form hard, woody tops and, in temperate regions, die to the ground each year, being distinguished in this respect from shrubs, which form more or less permanent, woody growth.

In discussing the uses of herbaceous perennials, Mr. Mulford says: "Herbaceous perennials may be used very much like annuals, to add the color of flowers to permanent shrubbery plantations, and they may also be used in garden making, either alone or with other classes of plants. Because of the time it takes to grow them or the expense of purchase they are not suited for producing temporary effects in the way that annuals are sometimes used. Shrubs are so readily established in their appropriate places that no advantage is gained by substituting herbaceous perennials for them. Neither annuals nor herbaceous perennials give the idea of stability and permanence that is produced by woody plants, as in winter most perennials are no more effective than annuals. In garden making, perennials have the advantage of relative permanence, as when once planted most of them do not need to be reset for three years or more, and when transplanted a majority of them can be divided, thereby increasing the plantations if desired. Many of them produce their flowers in the spring before the annuals have gotten above the ground, and many more produce a wealth of bloom in late summer or fall. There are few, however, that bloom in midsummer, so that where abundance of bloom is wanted at that season it is frequently necessary to use annuals with the perennials.

"To be satisfactory, herbaceous perennials must be able to withstand adverse conditions, either winter or summer, in the place where they are grown. Naturally those plants native to a region, or native to a region with similar climatic conditions, are most likely to succeed. Fortunately there are many desirable plants in all sections of the country that can be cultivated and give excellent results, as, for example, various species of violets, phlox, trilliums, rudbeckias, sedums, yuccas, columbines, asters, and goldenrods. These native plants form fully as important a part in the list of hardy perennials as the introduced plants, although probably none of them is so widely cultivated as some of the introduced ones, such as peonies and irises. One reason for the great popularity of these plants is the large number of attractive varieties that have been produced as a result of centuries of cultivation, selection, and breeding. There is every reason to expect as great a development in some of our native plants as

in these. Already the phlox and the graceful, attractive aster have many cultivated forms which are an improvement on the wild ones, and the betterment of other plants has begun.

"By the introduction of perennials anywhere in the United States it is possible to add touches of desirable color to the permanent tree and shrub plantings. Likewise, an attractive flower garden or a border may be made up of these plants obtained from the wild. Roots of the plants may be collected, many of them may be grown from seed, or they may be purchased from nurserymen who specialize in them. Some of the rarer kinds must be purchased from collectors.

"In using hardy perennials for adornment of the home grounds, they should be planted in irregular clumps at appropriate openings in the shrubbery groups, but not in bands or ribbons either along the shrubbery, the foundation of the house, or the borders of the lawn. In flower gardens they may be appropriately planted in straight or curved lines if that is in harmony with the garden design.

"Herbaceous perennials are adapted to a wide range of conditions. A few are found wild, with their roots growing in water-soaked soil. Others are found on rocky cliffs or on hillsides. Others again are found on rich bottom lands, while still others thrive on poor, gravelly, or sandy soils. These natural habitats suggest some of the places in which the plants may be appropriately cultivated. Fortunately, however, many of the plants succeed under a wide range of conditions other than those suggested by the natural conditions under which they are found growing. For example, the rosemallow, usually found in wet places, succeeds in good garden soil of average moisture content. On the other hand, columbines usually grow on rocky hillsides but can be grown almost anywhere except in marshy places."

Attention is called in the bulletin to the nature of herbaceous perennials, which makes them, with their showy flowers, admirably suited to beautify the landscape in any kind of setting. Through their great diversity they may be chosen for successful planting in any section of the country no matter what type the soil, climate, or cultural requirements may be. Suggestions are given for the arrangement of these plants to make them appear to best advantage in both formal and informal plantings and as borders, mixed plantings among shrubbery, naturalized plantings, rock or wall gardens, and other special types of landscaping. Directions also are given for the proper preparation of soil and treatment of surroundings where best results are to be obtained. The different species of a wide range of herbaceous perennials are described, also the conditions best suited to each, and a list of the most satisfactory varieties for special use is given. On a map of the United States the parts of the country having different growing conditions are marked out and numbered. Each section is briefly described as to climatic conditions and a summary is presented showing the plants for which it is best suited.

The bulletin is generously illustrated from photographs of individual specimens of plants as well as group plantings considered to be the best.

A very conveniently arranged index of the common names of herbaceous perennials is included at the end of the bulletin, with page reference to the description of each. The approximate flowering season of each plant is shown in a separate table, also its height, the regions in which it may be grown, whether it requires irrigation or

protection over winter, and whether it is a native to the region. The author emphasizes that selections of perennials "must be made of those adapted to each section of the country and the type of garden or other planting in mind, as well as to the season when flowers are most desired."

Bent Seed Production in Rhode Island

Statements by members of the Bureau of Plant Industry, as well as statements appearing in issues of the Bulletin of the United States Golf Association Green Section, have been made, directly or indirectly indicating that seed of the bent grasses, particularly seed of *Agrostis capillaris* or colonial bent (Rhode Island bent) had formerly been produced in considerable quantities in Rhode Island but that at the present time the seed production was a declining industry in that State as regards both quantity and quality. A recent personal review of this matter at the request of the officials of the State Department of Agriculture of Rhode Island and the State Experiment Station shows a very active and increasing interest in the production of bent seed.

The Rhode Island Agricultural Experiment Station about two years ago inaugurated a comprehensive series of tests of different species and strains of bent grasses for the study of methods of both seed production and harvesting, as well as of more technical physiological and genetic problems relating to improvement in this industry. It is contemplated that these experiments will be carried forward for a number of years. From the commercial standpoint the production of various varieties of bent grasses for seed has been developed over a considerable acreage, and apparently extension of this acreage is in prospect. The most interesting phase of this survey is the recognition that fields composed very largely of velvet bent have been successfully grown for seed and harvested.

I am glad to correct any unintentional disparagement of the bent seed industry in Rhode Island, which at the present time impresses me as a rapidly developing one, honestly and progressively handled.

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Trapping seems to be the most effective way of disposing of moles, although it is slow and requires patience. Poisons and poisonous gases are almost useless against moles. This is due to their highly developed sense of smell and also to the difficulty of introducing poison into food they are willing to eat.

The greenkeeper's library is not complete without several nurserymen's catalogues. Perennials especially find an acceptable place on the golf course. New and improved varieties are regularly appearing on the market. A well-selected assortment of herbaceous and shrubby perennials will furnish beauty from early spring to late fall. As a rule they require little attention, and if properly placed never appear overgrown or unsightly.