

The Cultivated Highbush Blueberry, a Relatively New Fruit

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As the title of this article suggests, the cultivated highbush blueberry (*Vaccinium corymbosum*) is a new fruit, specially when considered in terms of apples, grapes, strawberries and other fruits. It is true that blueberries have been harvested from the wild for many years but it wasn't until 1906, when Fredrick V. Coville, Principal Botanist, Bureau of Plant Industry, U. S. Department of Agriculture, began experimenting with this fruit, that thoughts of cultivated blueberries began to crystalize.

By the end of 1910, Dr. Coville published the first bulletin on blueberries. It was entitled, "Experi-

ments in Blueberry Culture." Before writing it, the eminent botanist had established the fact that blueberries thrive in acid soil; had grown fruits from seed to seed; propagated selected plants by grafting, budding, division, layering, twig cuttings, and root cuttings; had devised and applied methods of pollination; and had selected wild plants with superior qualities for breeding experiments.

The first attempt at improvement through breeding was made in 1909 and 1910 when the variety Brooks, a selection from the wild, was self-pollinated. This attempt was unsuccessful and it was not until 1911,



Fig. 1. Coville blueberry, a 1949 introduction of U.S.D.A. and the New Jersey Station.

when Brooks and Russell were cross-pollinated, that a seedling progeny was obtained.

Fortunately, about this time, Miss Elizabeth White of Whitesbog, New Jersey, read Dr. Coville's bulletin and offered to cooperate with him in a breeding project. This offer was accepted and the two persons who were to mold the future of the blueberry industry for many years met in New Jersey in March, 1911.

One of the first things that had to be done was to find the most promising wild seedlings to be used for parents in the breeding work. In the summer of 1911, Miss White, working through two agents, Jack Sooy and Alfred Stevenson, offered a dollar each to pickers who could tag bushes having fruits of a speci-

fied size and take her to them. In addition to the one dollar, the pickers were paid for the time involved in finding the bushes again, usually amounting to half a day's pay. At first the size requirement was set at one-half inch, but a little later was raised to five-eighths of an inch. Two bushes were found which produced berries three-quarters of an inch in diameter, although both were later discarded because of other faults. One variety, later named Sooy, was discovered in 1911. In 1912, other varieties were brought in, including one found near Chatsworth by Rube Leek. This was later named Rubel and became the leading commercial variety. All in all, an even hundred wild seedlings were brought in by Miss White



Fig. 2. F. V. Coville and Miss Elizabeth White are seen examining a blueberry selection at Whitesbog, New Jersey.

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through the cooperation of various pickers. Besides Rubel, the following were named and planted commercially—Adams, Dunfee, Grover, Harding and Sam.

Probably the first successful commercial planting of blueberries was made in the spring of 1912 on the Whitesbog property. A portion of this original field is still standing near Miss White's residence.

For a number of years, practically all of the seedlings from the crosses made by Dr. Coville were planted at Whitesbog. At one time there were over fifty acres of such seedlings in the field. As a result, most of the present named varieties have been developed from plants which were grown on the White property.

Beginning in 1928, Miss White started a breeding project of her own and has since raised hundreds of thousands of plants from controlled crosses. As yet, no varieties have been named from her extensive project, but, in the writer's opinion, she has a few selections which are superior to many of the present named varieties. Miss White still resides at Whitesbog and, although no longer actively engaged in blueberry breeding, has a wealth of knowledge which she enjoys shar-

ing with interested persons.

Since Dr. Coville's untimely death in 1937, Dr. George M. Darrow, Principal Horticulturist, Bureau of Plant Industry, Soils and Agricultural Engineering, U. S. Department of Agriculture, has greatly aided in the development of this fruit. Cooperating with Dr. Darrow have been men from various experiment stations, with the New Jersey Station being most active.

From all these rather concentrated efforts—and it has only been forty-five years since the industry was in the "idea" stage—twenty-eight varieties have been introduced. Many of the older selections have fallen by the wayside, due to continued improvement, but Rubel, one of Miss White's selections from the wild, is still grown extensively. The last two varieties to be named are Berkeley and Coville. They are superior to the older varieties in many qualities, but in themselves are not perfect. Therefore, improvement through breeding is still being actively carried on and within the next few years, additional varieties will doubtless be introduced.—The Garden Journal of the New York Botanical Garden.

(to be continued)

