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TAMING BLUEBERRIES

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A rare privilege has been mine to bring to birth and assist in guiding the first steps of a horticultural industry, which in 25 short years developed to such a degree of maturity as to bring to a small section of New Jersey a revenue of nearly a quarter of a million dollars annually—and this during the deep depression years. Cultivated Highbush Blueberries, those great blue beauties with the frosty bloomy surface, are moving to market in quantities this week and should keep coming all this month and into the early weeks of August if the skies are favorable with timely showers.

Blueberry culture began at Whitesbog, New Jersey, in 1911 as a result of an offer made by my father, Joseph J. White, and myself, to cooperate with the United States Department of Agriculture in experiments in blueberry culture. This offer was made after reading the remarkably fine report of Dr. Frederick Colville, chief botanist of the department, on four years of scientific research he had made into the growth requirements of the Highbush Blueberry plant.

Five years later, in 1916, the first cultivated blueberries, about 600 quarts were shipped from the fields at Whitesbog. Last summer, in 1936, over 600,000 quarts of these berries developed at Whitesbog, were moved by the Blueberry Cooperative Association.

During those first five years a search was made for the very best wild blueberry bushes that could be found. That was my special work.

- Tracing the History of the Modern Blueberry -

Whitesbog is in the Pine Barrens of New Jersey about 13 miles west of the Naval Air Station at Lakehurst. In this region the native cranberries and blueberries were picked by Indians long before Columbus arrived, and later by the white settlers. Whitesbog was one of the places where *Vaccinium Macrocarpon*, the cultivated cranberry, was first brought under domestication, about the middle of the 19th century. After that, people living in the Pines picked cultivated cranberries during September and October after they had finished picking and marketing wild Highbush Blueberries of "Swamp Huckleberries", as they called them. Botanically, this handsome shrub is *Vaccinium Corymbosum*.

My father and I were thus well acquainted with many of these excellent woodsmen. By personal contact they were interested in the search for the very best wild bushes. We supplied them with little aluminum plates in which a hole five-eighths of an inch in diameter served to measure the smallest acceptable berries. They were also given broadmouthed two-ounce jars in which to place the berries and a solution of formalin with which to cover them so that when delivered for inspection several days later they would still present a fresh appearance. An attractive wage was offered for the time spent in guiding me to the bushes, in addition to a fee for delivering the sample berries and marking the bushes.

From 1911 to 1916 an even 100 superior wild bushes were thus located. After being dug, the top of each bush was cut into five inch lengths. These cuttings were planted in propagating beds. From each bush we thus obtained from 25 to 300 or more little plants. In other words, each wild bush was the start of a separate variety and we grew from 25 to 300 plants of each of the 100 varieties. These different varieties were planted in separate rows in a testing field, grown to large size, and carefully watched through a number of years in order to learn their individuality—their varied characteristics good and bad.

- How Early Varieties Obtained Their Names -

Nearly every one of the original bushes was given the name of its discoverer. The people were enthusiastic over the possibility that their bush might be the very best of all and their name become prominent in the future blueberry industry. Thus, we had from the wild the "Adams" variety, the "Harding", the "Grover", and the "Dunfee" varieties. The fine bush found by Sam Lemmon could not well be called the Lemmon variety, so we named it "Sam".

What has proved to be the very best bush of all was found by a man known as Rube Leek. Leek savors of onions and Rube did not seem an appropriate name for so aristocratic a bush. A happy solution was "Rubel", Rube, plus the first letter of Leek. "Rubel" is the only variety resulting from a multitude of divisions of an original wild bush, the fruit of which is now shipped extensively. Many thousands of plants of "Rubel" are in profitable cultivation.

Size of berry was the obvious quality on which to base the first selection of wild blueberry bushes, but we early learned that many other qualities are of equal or greater importance. Good flavor and aroma we must have. Equally important is fine texture. The very large berries of some varieties were found to have tough skins and weak, watery pulp. Others were mealy in texture, or would crack open when it rained. Some tore badly when picked. So it came about that many varieties which at first seemed promising had to be discarded - thousands upon thousands of bearing bushes dug up and burned.

- Further Research Carried On In Washington -

Not only the original wild varieties were tested at Whitesbog. Some plants of the most promising of each of these were given to Dr. Colville, and in greenhouses of the department of Agriculture in Washington, he cross-pollinated them and grew thousands of little plants from the resulting seeds. These cross-pollinated seedling plants, when about a year old, were sent to Whitesbog under contract and grown on to fruiting age under my care.

Seedlings combine the good and bad qualities of their parents in every imaginable way. A very few, a small fraction of one percent, show such combination of good qualities as to make it worth while to multiply them by cuttings and test 100 or more plants of the new variety over a period of years. No matter how large and fine flavored the berries may be, if the bushes of a variety have not the kind of vigor which will enable them to come uninjured through a considerable degree of frost, excessive heat or other extremes of weather, the variety is of no commercial value.

For the past 10 years we have been breeding blueberries at Whitesbog, independently of the department of Agriculture, and have produced over 200,000 seedlings, a few of which promise great things for the future.

- The Highbush Blueberry Is Well Adapted To Use As An Ornamental -

These blueberry bushes, so carefully selected and bred, are valuable not only for the production of fruit on a commercial scale, but are also supremely useful in home gardens, large or small. Every season brings special and unusual beauty. In spring, the dainty foliage and great clusters of snowy white flower bells, suggesting those of the Lily-of-the-valley, unfold at the same time. Many varieties have crimson tipped flower buds. Summer beauty

reaches its peak when the clusters of fruit are ripening "just like grapes", as nearly every visitor says. The laden bushes are glamorous with fruit showing lovely cool tones of frosted green, pink and blue against the deep green foliage.

Autumn brings to none of our trees or bushes more brilliant reds than to blueberries, and when hard freezing takes away the fullest blaze of the foliage the color does not fade to ashen gray, for the bark of the twigs is bright all winter. Seen from upper windows during December, January, February and well into March, blueberry fields are marvels of beauty, acres of soft deep crimson against a background of dark green pines and tawny oaks still holding persistently their brown leaves. A blueberry hedge near my office window is a joy all winter long. Its red twigs catch and hold myriads of raindrops, pearly under cloudy skies. Again, the red branches gleam warmly through sleety armor, or uphold feathery fluffs of snow.

- Provide A Suitable "Home" For The Plant In Your Garden -

To capture a bit of this blueberry beauty for your own garden, to know the joy of gathering your own luscious berries, you must provide the bushes with an acid, well aerated soil, amply supplied with old decaying vegetable matter. They cannot grow in compact clay or in any soil so water-logged that air does not penetrate freely. Neither are they able to withstand much drought. They need conditions similar to those which produce vigor and beauty in their cousins, the rhododendrons and azaleas. A mulch of leaves, hay, peat moss or almost any vegetable matter allowed to rot in place and renewed on top from time to time suits them well.

But the birds think God made blueberries especially for them, and unless you plant enough to satisfy them first, or unless you screen the bushes, you will never see a berry that is really blue, for one of our feathered friends will appropriate to his own use each one as soon as it turns pink. It is no great trick to put a screen over a few bushes during the period of ripening, even when they grow six or seven feet high. The wire screen will also exclude Japanese beetles.

I assure you from personal experience that blueberries have qualities capable of bringing great joy into life - both from the point of view of their cultivation and their consumption.