THE HIGHBUSH BLUEBERRY

This spring many a gardener in the eastern and northeastern United States will contemplate planting a few economically important woody plants. In a recent issue of “Arnoldia” various nut trees were discussed and in Volume 2, No. 2, March 13, 1942, nursery sources for 146 varieties of nut trees were given. In this issue, attention is called to the blueberries, especially the horticultural varieties of the highbush blueberry, Vaccinium corymbosum. The highbush blueberry is found in swamps or moist areas, and also grows at high elevations. It may grow from ten to fifteen feet tall and does not stand drought very well. In certain areas of the eastern part of the United States an increasing amount of interest is being shown in the comparatively “new” horticultural varieties of this species, as is evidenced by large commercial plantings. These same varieties are also becoming more popular among home owners who have a limited amount of land available.

Blueberries are native over a wide area in the eastern and northeastern United States, as well as in northern Wisconsin, Michigan and Minnesota. Several species are valued for their fruits, and these are gathered over large areas where the plants are native. In 1941 the value of the crop picked in only three states where blueberries are grown (New Jersey, North Carolina and Michigan) amounted to $700,000. It has been chiefly with V. corymbosum that the greatest amount of selection and hybridization has been done, and through hybridization the sizes of the individual berries have actually been tripled so that now varieties of the highbush blueberry can be obtained with fruits nearly an inch in diameter. It is these large fruited varieties which are proving so popular today. By planting the right variety at the start and by intelligent pruning and culture, several varieties of V. corymbosum can be depended upon to produce unusually large and delicious fruits.

The pioneer in blueberry investigations was the late Dr. F. C. Coville of the U. S. Department of Agriculture who, as early as 1906, began his experiments
in selection and hybridization. Miss Elizabeth White of Whitesbog, New Jersey, cooperated with him closely for a number of years and assisted him in many problems. She was also responsible for selecting a number of promising plants from the wild, and grew thousands of seedlings for close study. Dr. Coville has reported growing 68,000 seedling blueberries to bearing age from which to make his selections. Of this large number only fifteen were considered sufficiently worth while to name and introduce into the trade. In these tests over 300 seedlings bearing fruits over \( \frac{3}{4}'' \) in diameter were discarded merely because they did not meet the rigid standards of flavor set by Dr. Coville. Of the eighteen varieties offered by eastern growers in 1942, it is interesting to note that Dr. Coville was responsible for either selecting or originating fourteen of them. Some varieties like the Wareham, Scammell and Rancocas originated as far back as 1913, while others like the Dixi originated in 1930 and even as late as 1937 there was only one plant of this variety, but it is now offered by at least two nurseries. It takes a number of years to grow a blueberry bush from seed to sufficient size so that its productiveness can be adequately tested, this being one of the reasons why blueberry culture is only beginning to come into its own. With eighteen varieties of the highbush blueberry now available, potential growers should have an adequate list from which to select.

Size of the individual fruit is not all-important when judging the qualifications of a new blueberry. Time of maturity, color, keeping qualities, taste, hardiness, and even the shape of the bush are all qualities to be carefully considered when making selections for the home garden. The U. S. Department of Agriculture Leaflet No. 201 lists twelve of the outstanding varieties in the order of importance in which they measure up to each one of these essential characteristics, and this table is reproduced herewith:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Season (early to late)</th>
<th>Size of berry (large to small)</th>
<th>Dessert quality (good to poorer)</th>
<th>Color (light to dark blue)</th>
<th>Shipping quality (good to poorer)</th>
<th>Cold resistance (hardy to tenderer)</th>
<th>Bush shape (tend to spreading)</th>
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<tbody>
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<td>1</td>
<td>Weymouth</td>
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<td>Jersey</td>
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1 The Dixi and Weymouth are too new for their shipping quality and cold resistance to be estimated accurately.
2 Pioneer in Michigan ripens with or later than Stanley.
3 Scammell ripens later than Stanley in New Jersey.
Many fruit trees and bush fruits can be expected to bear well, providing they are planted in a "good garden soil." This is not necessarily so with the highbush blueberry. If the "good garden soil" is on the alkaline side, the blueberry bushes will soon sicken and die for these plants are adapted to acid soils only. The average gardener should be cautioned against going into blueberry culture without thoroughly investigating all the growth requirements necessary to insure strong healthy plants. Some soils are ideally suited for blueberries, other soils are not, and a knowledge of such requirements at the start will save disappointments later.

Blueberry culture has been thoroughly discussed in various publications of the different state experiment stations especially in those states where blueberries grow in abundance. At the end of this bulletin is a list of the more recent and complete experiment station bulletins. These are available to the home owners within the state concerned, and are usually available free or for a small charge to individuals outside the state. One or more of these bulletins should be obtained by every person contemplating growing blueberry bushes, for all the essentials of planting, pruning, fertilizing, pest control and other factors are carefully and clearly discussed.

**Northern growers selling horticultural varieties of Vaccinium corymbosum**

1. Atwater Nurseries; 368 South Street, Agawam, Massachusetts.
2. Theodore H. Budd; Pemberton, New Jersey.
4. Houston Orchards; Hanover, Massachusetts.
6. Mrs. Mabelle H. Kelley; East Wareham, Massachusetts.
7. George A. Morse; Williamson, New York.
8. J. H. Putnam; Franklin County Nursery, 189 Silver Street, Greenfield, Massachusetts.
9. Rayner Brothers; Salisbury, Maryland.
10. H. B. Scammell; Toms River, New Jersey.
11. J. R. Spelman Company; South Haven, Michigan.
13. H. L. Willis; 654 Forest Avenue, East Lansing, Michigan.
Plants of horticultural varieties of Vaccinium corymbosum offered by growers in 1942

Adams—5, 11
Atlantic—2, 12, 13
Burlington—12
Cabot—1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Concord—1, 2, 4, 5, 7, 8, 10, 11, 12, 13
Dixi—12, 13
Grover—8
Harding—5, 11
Jersey—1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
June—2, 5, 9, 11, 12
Pemberton—2, 12, 13
Pioneer—1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Rancocas—1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13
Rubel—1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Scammell—2, 8, 9, 10
Stanley—2, 6, 8, 9, 11, 12
Wareham—4, 6, 13
Weymouth—2, 10, 12

Good References for Information on Blueberry Culture

(Each state experiment station usually supplies its bulletin free to residents within that state and makes a small charge for its bulletins to residents in other states. The U.S.D.A. bulletins are supplied for a very small charge.)

5. Darrow, George M. Blueberries. U. S. Dept. Agr. Leaf. 201. October, 1940. Washington, D.C. ($0.05)

For a short history of Dr. Coville’s interesting experiments in blueberry hybridization and a discussion of how certain varieties originated see Coville, F. C. Improving the Wild Blueberry. Yearbook, U. S. Dept. Agriculture, 1937. 559-574.

DONALD WYMAN